



EXPERT REPORT

XXXXX V XXXXX

Property surveyed XXXXX
London, XXXXX

This report is for the sole use of the tribunal, XXXXX and XXXXX for whom the survey was undertaken and can only be relied upon for 180 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 XXXXX ,

This is the single joint expert report for XXXXX.

We have been instructed to report on;

1. The cause of any ingress of water to the Claimant's bedroom.
2. The quality of the work undertaken on the walkway.
3. Works\solution required to eradicate the problem at the Claimant's property.

OVERALL OPINION

I conclude that during the period of survey there was no evidence of ingress of water despite rain and standing water on the walkway.

A detailed explanation follows. Observations and opinions must not be taken in isolation.

INDEPENDENCE AND METHODOLOGY

Our only income is through damp survey fees. We were paid an equal amount by both parties before the survey commence. We are not contractors motivated by the prospect of additional work. Our motivation is integrity and practical, durable solutions.

SURVEYOR'S DECLARATION

I confirm that I inspected XXXXX and the walkway immediately above it on 2 May 2018 and returned to the flat on and on 11 May.

I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which as not. Those that are within my own knowledge I conform to be true. The opinion I have expressed represent my true and complete professional opinion on the matters to which they refer

I confirm I am aware of the content and obligations for experts under Part 35.

Simon Hichens

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Report 14 May 2018



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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 warranty 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.

THE PROPERTY

The flat is the ground floor and first floor maisonette of a former local authority terraced property, with a walkway across part of the front bedroom. The front door to the building faces North East. All references to location are taken as if standing on the road looking at the front door.

OBSERVATIONS

Conditions during the survey

Occupancy

Weather

The previous 24 hours

Internal temperature

Internal Relative Humidity

Mould point (MouldPoint.co.uk)

On 2 May 2018

Occupied, furnished

Humid, standing water on walkway

Damp

16.6°C

60.3%RH

11.3°C

On 11 May 2018

Occupied, furnished

Dry

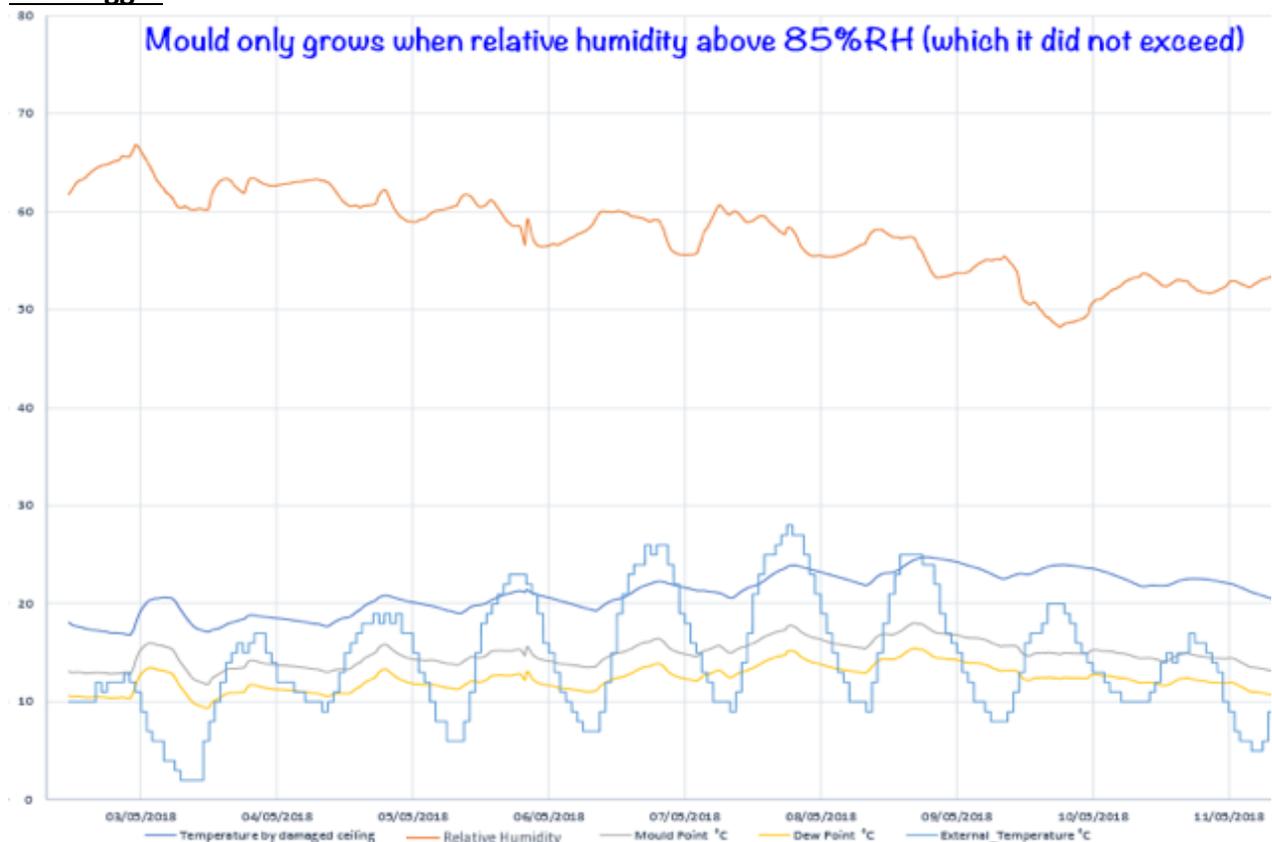
Damp

15.1°C

52.8%RH

7.9°C

Data logger



From 2 to 11 May, SensorPush (data logger) recorded humidity and temperature changes ~5cm from the mould on the ceiling of the bedroom cupboard. Metrological data used for the external temperature was added. The red line (top) is the relative humidity measured as a percentage of air capacity. Mould only grows above 85%RH which was not exceeded.

There was standing water on the walkway during the survey on 2 May. It rained for a few hours after the survey on 2 May and then again on 10 May.

From the graph we can see;

- The humidity was too low during the period from 2 to 11 May 2018 for mould to grow.
- Likewise the humidity was too low for condensation to start.

Damp meter measurements

A Protimeter Surveymaster II (damp meter) was used to detect potential damp in “conductance” mode. Conductance measures the passage of electrolytes (mainly salts) in water, between two pins. These meters were designed for wood, so measurements are stated as %WME (Wood Moisture Equivalence). For masonry, a measurement below 20%WME is considered dry.

The bedroom ceiling was sample tested in 5 separate places through the mould on both 2 and 11 May. The highest meter reading was 13.1%WME. We conclude that the ceiling was dry during the survey, despite the standing water immediately above it.

ILLUSTRATIONS

1 The walkway



The external walkway is immediately above the flat – see middle of left hand image. There was standing water on 2 May (see right-hand image). If there was ingress of water from the walkway, then the ceiling in the flat would have been moist, which it was not. And humidity would have been high, close to 100%RH. The ceiling was dry, humidity was moderate.

2 The bedroom ceiling immediately below the walkway



Above left, is the bedroom ceiling. Above right is of the walk-in cupboard ceiling, on 2 May.

3 Damp meter measurements on 2 May and 11 May 2018



The bedroom ceiling was sample tested in 5 separate places on 2 May (example; left image measured 10.5%WME). And on 11 may (example; right image measured 8.9%WME). Both measurements are below 20%WME and therefore the ceiling was determined to be dry.

4 Fungicidal paint on 2 May and 11 May 2018



Part of the ceiling was covered with fungicidal paint. Water ingress carries dirt resulting in isolated stains below each entry point. The left image was taken on 2 May, the right on 11 May. There were no isolated stains, the we can therefore conclude there is no water ingress.

5 Thermal insulation measurements on 2 May 2018



Surface temperature readings were take of the ceiling below the walkway (left 17.7°C) and on the same bedroom ceiling away from the walkway (right 21.2°C), on 2 May.

6 Ventilation



Above is a screenshot of the “street view” from Google Inc ©2014 and is dated August 2014. Flat 2 is in the centre with a green border. It is noticeable that all the surrounding flats have at least one open window (highlighted in yellow). Flat 2 has no open windows. The double-glazed windows to flat 2 have trickle vents. These are not providing sufficient ventilation.



The extractor fan in the central bathroom was not working. According to Mr O’Neill this was as a result of a flood a year or so ago. It was also noted that there was mould growing on the wall on the first-floor rear bedroom, despite there being no walk way immediately above it.

7 Other matters – work undertaken on the walkway



Material painted onto the walkway is cracking. This cracking is not causing ingress of water.

INTERPRETTING DATA

Illustration 3 - 4 demonstrates conclusively that there was no ingress during the period 2 to 11 May 2018. The Protimeter measured below 20%WME and there were no isolated brown stains, typical of water ingress, after one week despite rain and standing water.

Illustration 5 - 6 shows the reasons for the excess humidity; poor thermal insulation of the walkway and insufficient ventilation. Properties with flat roofs are often poorly insulated.

Relative Humidity is expressed as a percentage of the air's capacity to hold water vapour. The warmer the air, the more water vapour it can hold. Conversely the colder the air, the less water vapour can be held. The relative humidity of a given amount of water vapour will increase as the room temperature decreases.

At a certain temperature the relative humidity becomes 100%RH and water will condense. This is known as the dew point.

Mould grows when the relative humidity drops below 85%RH – the mould point. The colder the surface temperature, the higher the relative humidity at the surface. The poor insulation of the walkway results in mould starting under the walkway as this is colder and therefore have a higher relative humidity.

The minimum recorded temperature between 2 and 11 May was 15.3°C. The average Mould Point during the period was calculated to be 14.8°C, the average dew point was 12.3°C. There was no evidence of water condensing during the survey, nor was there evidence of the humidity being sufficiently high for mould to grow. It is likely that the temperature of the ceiling below the walkway drops below both the mould point and dew point in winter.

CONCLUSIONS

1. The cause of any ingress of water to the Claimant's bedroom.

There was no ingress of water during the survey despite rain and standing water. It follows that there is no cause of ingress. It is our opinion that the walkway does not leak.

2. The quality of the work undertaken on the walkway.

The material painted onto the walkway is cracking suggesting sub-optimal work. It is our opinion that the work was probably unnecessary since the walkway does not leak, despite the crack.

3. Works\solution required to eradicate the problem at the Claimant's property.

There was no water ingress, but there was mould. The cause of the mould, and any previously experienced dampness is excess humidity and poor insulation. The solution is to;

- a. Maintain adequate ventilation, by opening the bedroom window at all times, as was the case during the survey.
- b. Fix or replace the extractor fan in the bathroom, ideally with a humidistat fan (humidity activated set at 50%RH) or light switch activated fan with a delay of at least 20 minutes.
- c. Install an extractor fan in the kitchen.
- d. Keep a minimum temperature above the mould point, typically 10°C. Ideally with a modern thermostat such as a Hive or Nest, which allows multiple temperature settings.
- e. Install thermal insulating plasterboard to the ceiling of the front bedroom.
- f. Become humidity aware by use of a humidity meter – we left a humidity meter on site. Use our free mould point calculator at MouldPoint.co.uk
- g. Do not dry clothes indoors. Either dry clothes outside or install a drying machine, ideally an externally vented dryer or washer dryer.
- h. Use coarse grain sandpaper to take off 1 – 2mm of mould and salt damaged surfaces. Use a 1:10 parts dilute first coat and fungicidal top coat.

LIMITATIONS

Damp Surveys Ltd reports are designed to provide 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.

SURVEY OBJECTIVES

Our damp and timber surveys are designed to:

- 💧 identify the areas of unwanted dampness within the property,
- 💧 identify the types of unwanted dampness,
- 💧 identify the causes of unwanted dampness,
- 💧 identify the effects of damp such as rotten timber, mould and infestation,
- 💧 recommend remedial action where damp has been identified,
- 💧 recommend long-term plans to address risk of future dampness,

SURVEY METHODOLOGY

In assessing whether dampness and timber defects are present in a property we consider many factors including:

- 💧 weather conditions during and preceding the survey,
- 💧 inside and outside temperature and humidity and the orientation of each wall,
- 💧 design and age of the property, elevation, signs of flooding and standing water,
- 💧 cold spots and flow of cold or humid air in and around the property,
- 💧 roofing and guttering (this is NOT a roofing report),
- 💧 signs of drain leakage (this is NOT a plumbing survey, nor a pressure check),
- 💧 coverings and coatings of internal and external walls,
- 💧 existence of damp proofing, cavity wall insulation or timber treatments,
- 💧 height of the surrounding garden, and sufficiency of ventilation,
- 💧 moisture meter using a *Protimeter* "Survey Master",

The survey is non-invasive save for a few pin sized holes, left by a measuring device. We do not lift floor coverings without written consent. We do not look in lofts unless expressly asked to do so.

HEALTH AND SAFETY CONSIDERATIONS

There are currently no health and safety issues resulting from defects.

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.