

SPECIFIC DEFECTS REPORT

Relating to mould within the front first floor bedroom

Surrey



Mr X

Prepared by:

INDEPENDENT CHARTERED SURVEYORS

Marketing by:

www.1stAssociated.co.uk

0800 298 5424

CONTENTS

INTRODUCTION AND INSTRUCTION

SYNOPSIS

CONSTRUCTION SUMMARY

EXECUTIVE SUMMARY

INSPECTION

SURVEY FINDINGS

SUMMARY UPON REFLECTION

APPENDICES

LIMITATIONS

INTRODUCTION AND INSTRUCTION

We have been instructed by Mr xxxx to prepare a report on mould within the front bedroom of xxxx Surrey.

We have carried out a visual inspection of the property on xxxx

The weather was mild and an overcast winter's day at the time of the inspection.

The work has been carried out as per our standard Terms and Conditions of Contract which have been emailed to you as part of the confirmation of our instructions. If you would like further clarification please do not hesitate to contact us.

SYNOPSIS

Mr xxxx and family have been living in the property for a year and a half and in that time they have experienced mould problems to the front bedroom which after cleaning have reappeared and they and their landlord wish to know how to resolve this problem.

CONSTRUCTION SUMMARY

External

Chimneys:	Two brick chimneys
Main Roof:	Pitched and clad with manmade slates and has three sky lights
Gutters and Downpipes:	Predominately cast iron with some plastic
Soil and Vent Pipe:	Cast iron
Walls:	Painted render to the front and Flemish bond brickwork to the side and rear (assumed)
External Joinery:	Doubled glazed plastic windows to the front without trickle vents and timber painted sash encasement windows to the rear.
Foundations:	Not inspected and known

Internal

Ceilings:	Mixture of lath and plaster and plasterboard (assumed)
Walls	Solid and studwork (assumed)
Floors: Ground Floor:	Predominately suspended timber (assumed) – you need to check that the air vents are clear
First Floor:	Embedded timber floor (assumed)

We have used the term 'assumed' as we have not opened up the structure.

There is a wall mounted Worcester Greenacres boiler

External Photographs



Front elevation



Rear elevation

Internal Photographs

Ground Floor



Front lounge



Study



Kitchen

First Floor



Front bedroom



Rear right hand bedroom



Top floor bedroom

Independent Chartered Surveyors

Marketing by: _____

www.1stAssociated.co.uk

0800 298 5424

EXECUTIVE SUMMARY

Executive summaries are always “dangerous” as they try and encapsulate relatively complex problems in a few precise and succinct words. Having said that here is our executive summary and recommendations:

As with most mould conditions this is a combination of issues and we would divide this into four main areas; one moisture, two occupier’s lifestyle, three breathability of property and four property construction:-

1. Moisture Generation

Both the kitchen and bathroom are typically high humidity generating areas that require good ventilation which they do not presently have. You need to reduce the moisture and humidity from around the building generated from the kitchen and bathroom areas. We would specifically recommend:

Kitchen

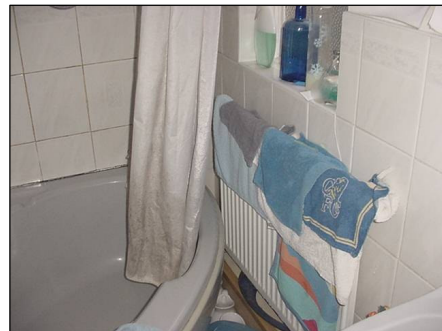
ACTION REQUIRED: We noted that there was no mechanical 150mm extract fan with humidity thermostat control from the kitchen which we recommend is added.



Ground Floor Kitchen

Bathroom

ACTION REQUIRED: The bathroom is relatively small and is likely to have high usage with the number, age and sex of occupants. We would recommend a larger extract fan 150mm fitted with a thermostatic control.



First Floor Bathroom

The reason for carrying out this work, the moisture generated within these rooms is travelling throughout the property and depositing moisture on to the walls with this in turn becoming mould.



Mould adjacent to cupboard first floor bedroom



Mould and damp reading next to window front bedroom



Mould on blind in front first floor bedroom

2. Occupiers lifestyle

Ideally we need to interview all members of the household to get an understanding of how the property is used establishing washing routines, cooking routines and children routines! At the time of the inspection the man of the household was there only. However did note the following:-

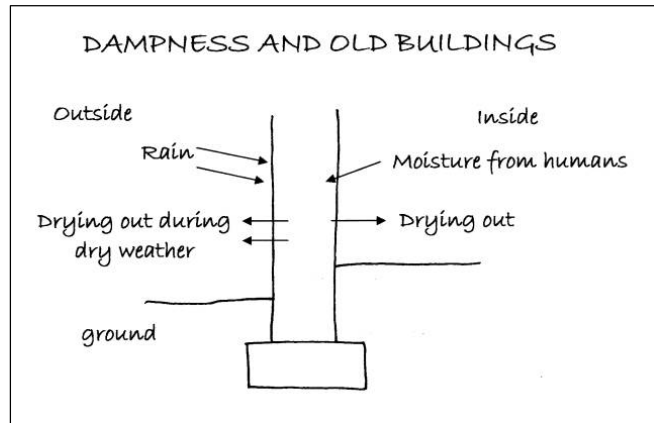
There did not appear to be a drier with an external vent and we also recall that some clothes were drying on radiators, drying of clothes can add further to problems.

Humans generate a lot of water via water vapour given the young age of one of the children and the teenagers together with two adults in the house we suspect a lot of moisture is being generated particularly if the bathroom has a relatively high usage level it is a small area. It may well be worth considering the addition of wash hand basins in some of the rooms or even a shower room for example on the top floor if a dormer is added (subject to Local Authority Approval).

Other household management type matters such as ensuring the bathroom door and the kitchen door are closed when bathing or cooking is being carried out as this would also aid reducing condensation which can cause such mould.

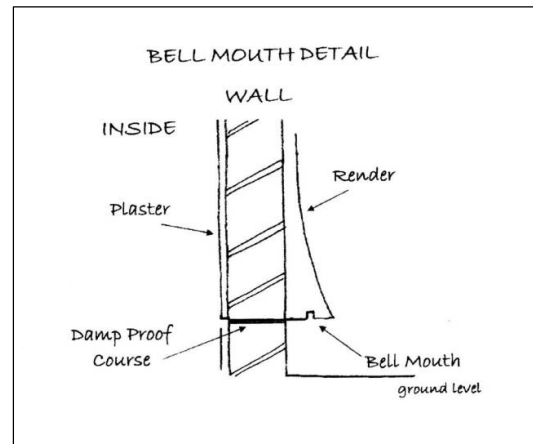
3. Breathability of property

In this older style of property there is a need for it to be breathable very much like the material Gortex which allows water vapour in and out as in the sketch example adjacent. The various alterations to this property have unfortunately reduced the breathability of the property.



Render

To the front of the property it has been rendered in a modern cement hard waterproof render therefore stopping the wall breathing (we also note that it is poorly detailed, no drips above the window and no bell mouth to the base as well as having hairline cracking all of which would benefit from attention, initially we would carry out sealing of the hairline cracks and redecoration).



ACTION REQUIRED: Initially we would carry out filling of the hairline cracks and redecoration but ultimately we would recommend drips are added above the windows and bell mouth detailing to the base of the property.



Original lime based render to nearby properties



Hairline cracking around window to entrance area

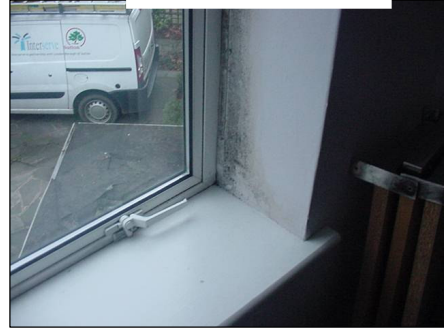


Drip to window

Windows

We note to the front of the property that an older style double glazed plastic window has been used without trickle vent.

ACTION REQUIRED: Adding windows with trickle vents would help considerably to the front first floor bedroom and the ground floor lounge.



Double glazed window first floor bedroom

Trickle Vents Defined

Small vents to the windows to allow air movement inside the property to stop a build up of fumes or humidity.

High readings to the right hand side wall

We noted particularly high readings to the right hand side wall which are in line with a leaking gutter, we noticed generally around the property that it has cast iron gutters and these are rusting and we could also see that paint is flaking on fascias/soffit boards indicating that they are leaking (we also noted cracking to some of the downpipes).



Cracking to cast iron downpipe

ACTION REQUIRED: Clear the gutters and downpipes to ensure that they are watertight and transferring water away other than discharging it down the building, you may well need to add new guttering and downpipes.

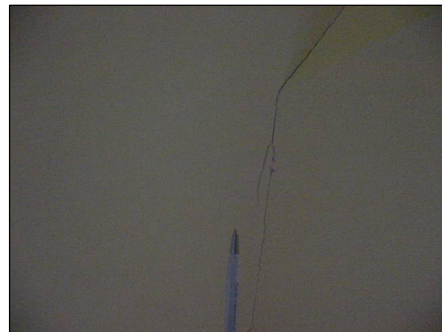
Venting to the roof

We noted only low level vents to the roof (although there maybe some at high level as builders get particularly good at hiding these although we cannot see them). Modern Building Regulations require further ventilation and better insulation and we tend to find there is heat loss during the winter months and heat gain during the summer months in loft conversions of this era which again can attract moisture.



Low level vent only visible to the loft conversion

ACTION REQUIRED: We would recommend additional vents are added to the roof.



Hairline cracking within top floor bedroom

Roof Lights

We also noted that condensation was occurring to the roof light on the top floor.

ACTION REQUIRED: We recommend regular airing of the property.



Condensation to top floor loft conversion bedroom window

Venting of chimneys

Independent Chartered Surveyors

Marketing by:

www.1stAssociated.co.uk

0800 298 5424



Years ago when we had open fires in properties there was natural air ventilation. When chimneys are blocked they do need to have vents.

ACTION REQUIRED: All chimneys should be vented.

Chimney vent partially blocked
in front bedroom

Kitchen radiator not under window

We noted that the kitchen radiator is not under the window, this means there is a lack of general air circulation in the area as normally they are situated under a window whereby when warm air rises and hits the cooler air of the window it circulates around the room. Whilst kitchens are often not heated at all we think this could exasperate the problems.

4. Property construction

We would also advise that with this age of property sometimes it is hard to meet modern heating requirements as we like much higher temperatures and many people try to live in T shirts most of the year. Remember originally this type of property would have coal fires in each room no other form of heating as well as having a bath in a bath tub and drafty timber sliding sash windows, the latest mod con would have been drainage.



Older properties are often repaired with older materials which do not have the breathability that we have mentioned earlier such as cement based renders, cement based repointing to the brickwork and plastic based paint which does not allow breathing and the property to work in the manner it was originally meant.

Cement pointing to brickwork

Also you have what is known as cold bridging, this is where different elements of the property are not as thermal efficient as others and coldness passes through them often causing condensation. This is why it is so important to consider carefully how the property is utilised and to ensure that moisture generating areas such as the bathroom and kitchen have the moisture extracted as quickly as possible and it is not allowed to pass around the rest of the house i.e. the doors are kept shut.

Cold Bridging Defined

Cold bridging is where materials of different thermal conductivity allow heat to flow through them at different rates resulting in condensation.

Background heating in any colder rooms such as bedrooms increase the warmth of the walls and stops condensation and mould occurring.

Programme of Work

ACTION REQUIRED: We would recommend a Programme of Work to first reduce the moisture within the moisture generating rooms of the property i.e. the bathroom and the kitchen and secondly ensuring that all drying of washing is carried out outside and/or via a drier vented to outside air, thirdly windows are added with trickle vents.

1. Bathroom and kitchen – large extracts of 150mm with thermostatically controlled valves are added.
2. All washing and drying is carried out outside or via a drier vented to outside air.
3. All cooking carried out and bathroom used with the doors shut.
4. Double glazed windows to the front of the property are replaced with trickle vents.

This should reduce the mould however it is occupier's lifestyle that is probably the major factor in reducing the mould.

Time Line – A brief history of the structure

This has been based upon a discussion with Mr Xxxx

DATE	DESCRIPTION
1890s onwards	Property built
Typical of those built in the 1980s and 1990s	Manmade roof
Typical of post 1970s construction	Double Glazed windows
Typical of post 1970s construction	Render
Summer 2009	Mr Xxxx moved in

INSPECTION

Our inspection has been specifically related to the mould within the first floor front bedroom issues detailed below.:

Visual Inspection

Our inspection has taken the format of a visual inspection:

1. External of the property of the
 - i. front
 - ii. rear
 - iii. side

We have had the benefit of a x16 zoom lens on a digital camera

2. Internal of the property

We have viewed:

Ground Floor

- i. front lounge
- ii. side kitchen
- iii. rear study
- iv. hallway

First Floor

- v. front bedroom
- vi. rear left hand bedroom
- vii. rear right hand bedroom
- viii. side bathroom

Top Floor

- ix. room within the roof

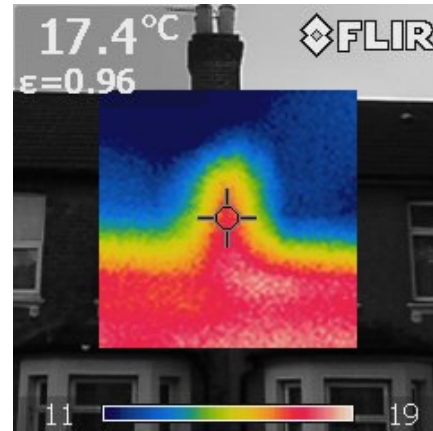
3. Surrounding areas

We had a walk along the road.

4. Owner occupier – we had a discussion with them

5. We have not had the benefit of talking to the neighbours.

6. We have utilised a Gann resistance meter for measuring dampness.
7. A thermal imaging camera, produced by Flir, to obtain the best readings we can given the fact there was no pre-preparation of the structure. Ideally you need at least a ten degree differential between the inside and the outside of a property.
8. We have used a data monitor which records the temperature, humidity and dew point/condensation point at the time of our inspection. This has been carried out in the ground kitchen and the front first floor bedroom and the bathroom.



References

1stAssociated.co.uk – see articles on condensation and damp

SURVEY FINDINGS

Visual Inspection

1. From our visual external inspection we noted there is a mixture of construction materials with different ages and different styles including a cement based render to the front of the property which has not been detailed correctly with no drips over the windows or a bell mouth details to the base.

i. roofs

ii. walls

The property is a mass wall construction and therefore needs to breathe and effectively it has been restricted by the cement render and the plastic windows without trickle vents. Also in addition to this the hairline cracking to the render is allowing dampness to sit in the walls.:

iii. windows and doors

We also note modernish double glazed windows without trickle vents to the front of the property although there are sliding sash casement timber single glazed windows to the rear of the property.

2. From our visual internal inspection we have taken damp meter readings and also data monitoring during part of the survey noted

i. ceilings – hairline cracking was noted in the top floor room, we believe this relates to new insulation with thermal gain in the summer and thermal loss in the winter.

ii. walls – mixture of predominately modern plaster, we believe a skim coat over the original gypsum plaster which will lead to cracking.

iii. floors – there is a suspended timber floor to the ground floor and a joist and floorboards to the first floor.

Note; we have not moved furniture or fixtures and fittings.

Note; the full areas inspected are identified within the inspection part of the report and this should show anything in this section

3. Resistance Damp Meter Readings

Room	Readings Obtained	Typical Readings
Front lounge bay areas	56, 63, 45	30 – 60 for solid wall construction
Kitchen	45	
Rear study	43	
Front bedroom	87, 33, 32	
Chimney	21	
Bathroom	41 and 36	
Rear left hand bedroom	34	
Rear right hand bedroom	32	
Room in the roof	34 adjacent to left hand skylight, 56 to base of skylight and 12 to the rear of the skylight adjacent to the roof light	10 – 30 for plasterboard

This means that the majority of the readings were in line with what we would expect however there are some high reading areas to the right hand side of the property which we have identified in our Executive Summary as we believe these may relate to leaking guttering. In addition here the high reading in the roof indicates there may be a roof leak, we cannot be certain without opening up the structure.



Damp readings with a Gann meter



4. Thermal Imaging

We thermal imaged the front of the property including the bay windows to the first floor where the problems have been identified. Our readings were in line with what we would expect, in fact the double glazed windows to the front have much better thermal rating that we would have expected as did the room in the roof where we did not expect to find too much insulation. Ironically it is this quality of insulation in the windows that is adding to the condensation/mould in the bedroom areas.

5. Data monitoring

Unfortunately as the house had not been occupied by the family that day and the previous day data monitoring did not give a true representation of how the property is being used therefore we have not included it in this instance.

SUMMARY UPON REFLECTION

The Summary Upon Reflection is a second summary so to speak, which is carried out when we are doing the second or third draft a few days after the initial survey when we have had time to reflect upon our thoughts on the property. We would add the following in this instance:

There are a combination of improvements in production of moisture in the moisture generating areas and occupier's lifestyle we feel would improve considerably conditions in the property.

If you would like any further advice on any of the issues discussed or indeed any that have not been discussed! Please do not hesitate to contact us on 0800 298 5424.

LIMITATIONS

Specific Defects Report

1. Conditions of Engagement

Please note: references to the masculine include, where appropriate, the feminine.

Subject to express agreement to the contrary (which in this particular case has been none) and any agreed amendments/additions (of which in this particular case there have been none), the terms on which the Surveyor will undertake the Specific Defects Report are set out below.

Based upon a visual inspection as defined below the Surveyor will advise the Client by means of a written report as to his opinion of the visible condition and state of repair of the specific problem or problems only. In this instance it is the front first floor bedroom.

2. The Inspection

a) Accessibility and Voids

The Surveyor will base this report on a visual inspection and accordingly its scope is limited. It does not include an inspection of those areas, which are covered, unexposed or inaccessible. Our visual inspection will relate to the specific defects shown to us only.

b) Floors

We have not opened up the floor structure. We have only carried out a visual inspection and any conclusions will be based upon our best assumptions. We can open up the floor if so required at an extra fee.

c) Roofs

The Surveyor will not inspect the roofs in this instance.

d) Boundaries, Grounds and Outbuildings

The inspection will not include boundaries, grounds and outbuildings unless specifically stated (none stated).

e) Services

No services inspected.

f) Areas not inspected

The Surveyor will have only inspected those areas identified within the report. His report will be based upon possible or probable defects based upon what he has seen together with his knowledge of that type of structure. If you feel that any further areas need inspection then please advise us immediately.

g) Specific Defects Report

As this is a report upon a Specific Defect we do not offer any comment or guidance upon reactive maintenance and/or planned or routine maintenance items.

h) Whilst we have used reasonable skill and care in preparing this report, it should be appreciated that the Chartered Surveyors cannot offer any guarantee that the property will be free from future defects or that existing defects will not suffer from further deterioration;

3. Deleterious and Hazardous materials

a) Unless otherwise expressly stated in the Report, the Surveyor will assume that no deleterious or hazardous materials or techniques have been used in the construction of the property. However the Surveyor will advise in the report if in his view there is a likelihood that high alumina cement (HAC) concrete has been used in the construction and that in such cases specific enquiries should be made or tests carried out by a specialist.

4. Contamination

The Surveyor will not comment upon the existence of contamination as this can only be established by appropriate specialists. Where, from his local knowledge or the inspection he considers that contamination might be a problem he should advise as to the importance of obtaining a report from an appropriate specialist.

5. Consents, Approvals and Searches

a) The Surveyor will assume that the property is not subject to any unusual or especially onerous restrictions or covenants which apply to the structure or affect the reasonable enjoyment of the property.

b) The Surveyor will assume that all bye-laws, Building Regulations and other consents required have been obtained. In the case of new buildings and alterations and extensions, which require statutory consents or approval the Surveyor will not verify whether, such consents have been obtained. Any enquiries should be made by the Client or his legal advisers.

Drawings and specifications will not be inspected by the Surveyor. It is the Clients responsibility to forward any drawings and specifications that he has or knows the whereabouts of to us to include information in our report. If these are not forthcoming we will make our best assumptions based upon the information available.

- c) The Surveyor will assume that the property is unaffected by any matters which would be revealed by a Local Search and replies to the usual enquiries or by a Statutory Notice and that neither the property nor its condition its use or intended use is or will be unlawful.

6. Fees and Expenses

The Client will pay the Surveyor the agreed fee for the Report and any expressly agreed disbursements in addition.

7. Restrictions on Disclosures

- a) This report is for the sole use of the Client in connection with the property and is limited to the current brief. No responsibility is accepted by the Chartered Surveyors if used outside these terms.
- b) Should any disputes arise they will be dealt with and settled under English law;
- c) This report does not fall under the Third Parties Rights Act.

8. Safe Working Practices

The Surveyor will follow the guidance given in Surveying Safely issued by the Royal Institution of Chartered Surveyors (RICS).