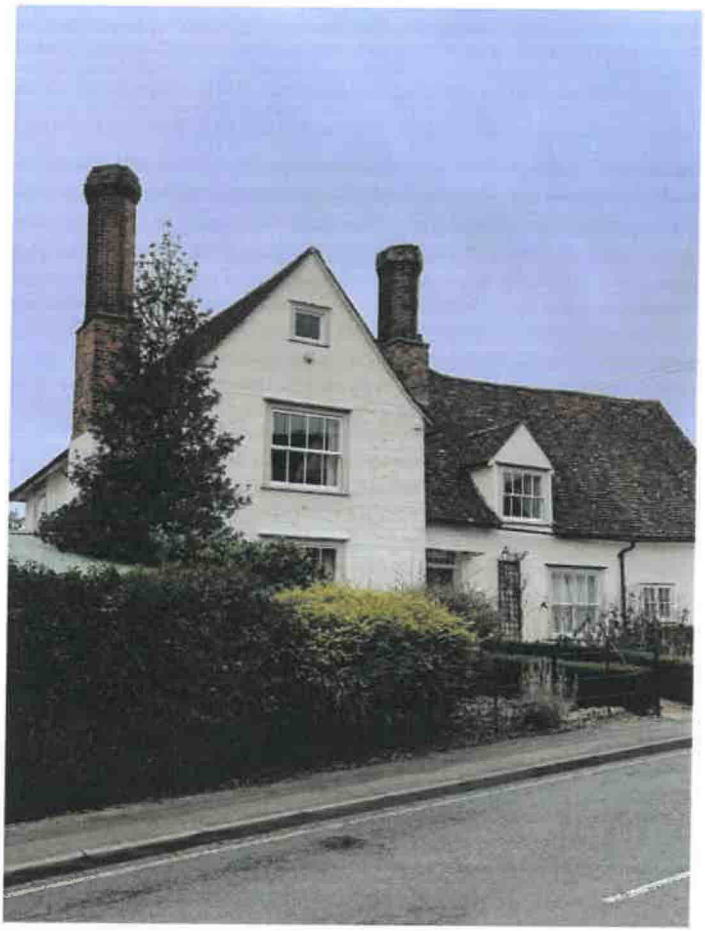
PM SURVEYOR
DAMP, TIMBER AND WATERPROOFING SPECIALIST
46A Gladstone Street, Bedford, MK41 7RR
[redacted]
www. pmsurveyor.com

Damp and Timber Investigation Report



Stow Farmhouse
High Street
Great Samford
CB10 2RG
4/2/24

Internal Observations:

Image 17 Sole plate timber.

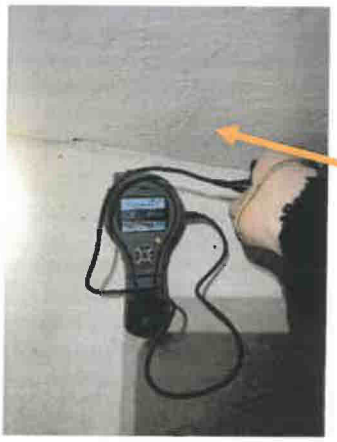


Image 18 Wall.

Image 19 Skirting board.

However, some high moisture readings were found in some walls and timbers: See attached floor plan. (Not to scale)

- **Protimeter Moisture Content: 100% – Dampness detected.**

3

- **Protimeter WME – 100% Dampness detected.**

3

- **Protimeter WME – 31.7% Dampness detected.**
- ***Exposed brickwork in the fireplaces as they are aesthetically pleasing, add character and there are no timbers or wall plaster involved can be left as they are, and this reading ignored.***

Internal Observations:

Image 20 Wall.

- **Protimeter Moisture Content: 25.6% – Dampness detected.**

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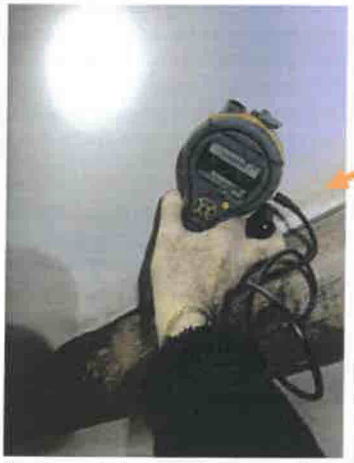

Image 21 Annex front wall living room ceiling.

- **Protimeter WME – 33.3% Dampness detected.**
- ***Instruct a roofing contractor to check the roof/guttering for leaks.***

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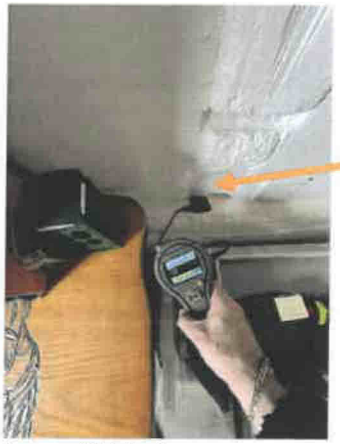
Image 22 Skirting board.

- **Protimeter Moisture Content: 25.6% – Dampness detected.**

3

Internal Observations:		
 Image 23 Timber post	• Protimeter Moisture Content: 25.7% – Dampness detected.	3

Internal Observations:

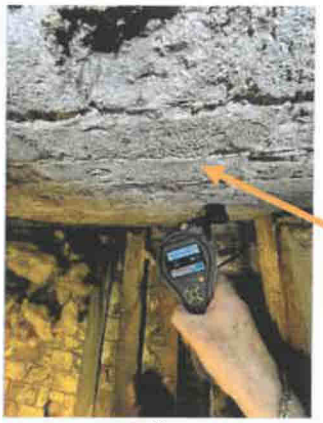


Image 24. Cellar wall.

Cellar:

Walls and floors of the cellar show high moisture content, as would be expected; these cellars were not built to be dry and rising dampness/laterally penetrating moisture should be considered normal.

- **Protimeter WME – 86.1%** Dampness detected.

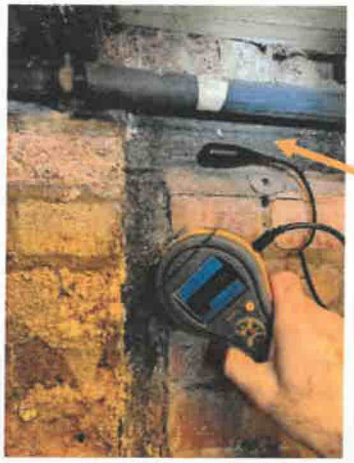


Image 25. Cellar wall right hand side.

Some timbers that are in contact with damp masonry show high moisture content:

- **Moisture Content: 39.4% –** Dampness detected.
- ***Inject timbers, embedded into damp masonry, with a timber paste/gel preservative and coat visible sides with a deep penetrating paste preservative.***
- ***This will give a good degree of protection to these damp timbers and will protect against beetle and fungal decay for many more years.***

3

Image 26. Cellar stair tread.

The timber treads on the cellar steps show high moisture content:

- **Moisture Content: 76.1% –** Dampness detected.
- ***Ideally remove the timber treads, treat the masonry behind and below, where the tread sits to a liquid damp proof membrane, or a physical one and re-place the treads. Apply a coat of deep penetrating preservative paste to the back of the tread and the underside, this will protect this timber as it dries down.***

3

Recommendations:

Listed Buildings:

Once a building is listed consent is normally required for: any works or repair work that could alter the historic character of the building, consent would then be required for alteration or the complete re-placement of the building fabric. Regular maintenance and "like for like" in situ repairs do not need listed building consent.
Drilling and injection of historic walls would not normally be allowed, (*however with modern damp proofing materials the mortar courses are drilled and injected therefore historic brickwork is not affected*), nor would the removal of any original lime plaster. The installation of extract fans/passive vents would likely require consent.
Damp proof membranes are acceptable and are used in many grades 1 & grade 2 listed buildings.
Advice should always be sought from the conservation officer at your local council office.

Outbuildings: unless heated and ventilated will always remain damp for most of the year, this should be viewed as normal.

I have no financial connection with any of the product manufacturers whose products I may recommend. These recommendations are based solely on their considered merit.

Moisture control and ventilation could be improved as listed above and should be improved in the roof and the cellar.

Ensure sub floor airbricks and apertures are clean, this is best achieved by removing them, sweeping the apertures, cleaning the grilles and re-placing, preferably with new plastic Stadium high flow airbricks Ensure air-brick apertures are completely venting underneath the suspended timber flooring. Air bricks should be at least 75 mm above outside ground levels.

The walls as shown on the attached floor plan show signs of a rising dampness moisture profile. Timber as listed on the plan should be drilled and injected with boron and the surfaces coated with boron.

I have listed below different solutions and shown these on the attached floor plan.

Possible solution:
Installation of a mesh membrane.
Treat timber frame with Boron.

Salt Damp.

Installation of a mesh membrane:

The walls as listed above show signs of a rising dampness moisture profile.

As this is a listed building, I have listed below some general information on a dry lining system which can be applied from floor to ceiling which will negate the removal of plaster.

General information.

INSTALLATION OF SLIMLINE MESH MEMBRANE DRY LINING SYSTEM TO WALLS:

Many manufactures produce and sell this type of product and many damp proofing companies install this system.

Mesh membranes are used in both new build and retro fit basements where space is at a premium and or the choice of finish can be render, plaster, or dot and dab plaster board. It is also used to remediate damp walls above ground and offer insulated finishes on cold external walls above ground.

FIXINGS: Mesh membranes should be fixed to the walls using Plaster Plugs. An 8mm drill bit is needed and drill to a depth greater than the length of the plug. In below ground environments plug fixings should be sealed around the collar using preformed waterproof seals or Rope subject to how wet the substrate is.

Above ground and on non-soil retaining walls Plug fixings do not necessarily need to be sealed. Fix in a square at 350mm centres, and then fix a plug in the centre of four fixings so it looks like a 5 on a dice. All fixings will then be a maximum of 250mm from each other. It is essential fixings are no farther apart than this specification to avoid rippling of the membrane and subsequent cracking of the applied finish.

FINISHES: mesh membrane products can be finished by rendering, plastering, or applying dot and dab adhesive grout and plaster board.
Mesh membrane can be finished in accordance with normal plastering techniques (BS 5492:1990) using proprietary lightweight plasters e.g., Tilcon, Whitewall, Thistle, Carlite Bonding or a 1:1:6 cement: lime: sand render.

This type of membrane can be fixed over existing plaster that is in fair condition as long as there is no wallpaper involved; you do of course lose a small amount of wall space. All fixings and fittings should go back on after the membrane is fitted.

Membrane should be applied up to at least one metre from floor level and to half a metre above the last sign of rising dampness. If the membrane is not going to be fitted to full height, then existing plaster will need to be removed to allow for the membrane and the renewed plaster to match the existing. It is far less intrusive to fit the membrane from floor to ceiling in most cases. On salt affected chimney breasts it is necessary to install from floor to ceiling.

In most cases it is far easier with less mess and disruption to fit the membrane from floor to ceiling.

It is important that no timber is left behind the membrane, even the smallest amount can lead to fungal decay, although the membrane can be butted up to surface timbers that have been protected.

Always follow individual manufacturers' recommendations.
Please see enclosed literature.

Treat timber frame timbers with Boron.

Ideally, all timbers resting on or against damp masonry would have a damp proof membrane inserted to prevent this. However, this is not usually possible therefore drill and inject large timbers, where embedded into or resting against damp masonry, with a timber paste preservative and coat visible sides with the same deep penetrating paste preservative. These timbers will remain damp, as they always have been, however this will give a good degree of protection to these damp timbers and will protect against beetle and fungal decay for many more years.

Salt Damp:

On walls affected by salt damp A suitable fix would be to install a cdm membrane onto the affected walls and plaster or apply plaster board.

Conclusions:

Rising moisture is affecting some walls in the property, shown on the attached floor plan.

Instruct a roofing contractor to check roof and re-place any missing or broken roof tiles.

ProBor 20 Boron Gel - Boron Woodworm & Dry Rot Treatment
Supplied in 5 Litre Kegs.
(Estimated cost £69.60 inc Vat).

ProBor 50 Boron Injection Paste - Deep Penetrating Woodworm & Dry Rot Treatment. 400 ml cartridge.
[redacted]

Mori Cellar ventilation fan:
[redacted]

Treat timber frame with Boron/treat salt damp area/Fit mesh membrane.
[redacted]

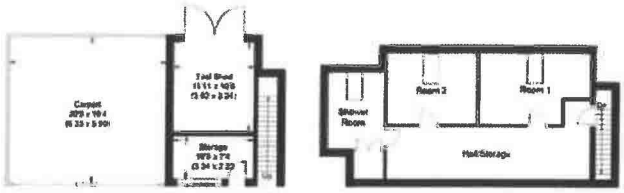
This type of remedial work can be carried out by a local jobbing builder, which will certainly be cheaper than a damp proofing company. However, listed below is some information should you wish to instruct a Property Care approved damp proofing contractor.

This type of work can be carried out by a local jobbing builder.

These estimates are for guidance only, quotations should be sought as there is likely to be large variations in the amounts quoted. Vat should be added.

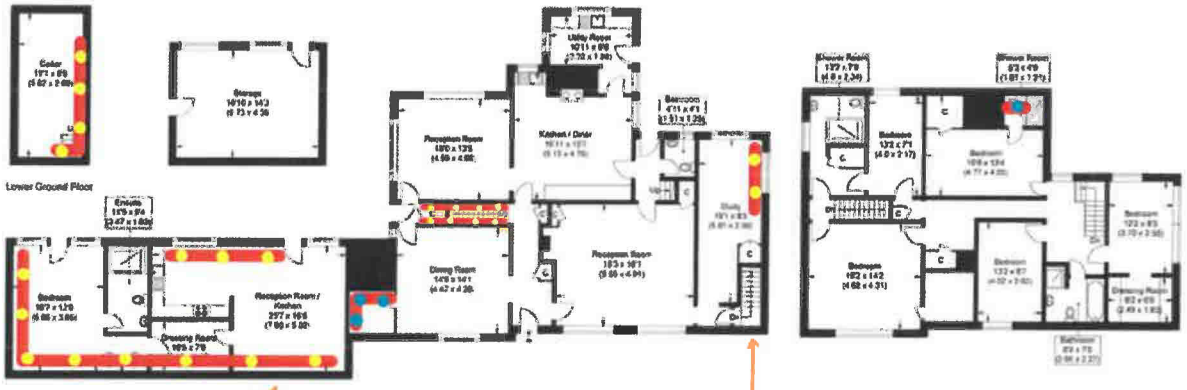
If you go to the website: www.property-care.org put your post code into the section marked at the top **Find A Property Care Specialist,** you will be presented with a list of Property Care Association Contractors who should be willing to undertake some or all of the damproofing/timber recommendations contained in this report.

Approximate Gross Internal Area
357.39 sq m / 3846.91 sq ft
(Excludes Cellar,Carport,Cart Lodge)
Cellar Area 15.13 sq m / 162.85 sq ft
Carport Area 37.35 sq m / 402.03 sq ft
Cart Lodge Area 73.40 sq m / 790.07 sq ft
Total Area 483.27 sq m / 5201.86 sq ft



Cart Lodge Ground Floor

Cart Lodge First Floor



Lower Ground Floor

Ground Floor

Fit Mori Fan

First Floor

Illustration for identification purposes only, measurements are approximate, not to scale.

Check for roof leak

Dampness detected

Treat timbers with Boron

Fit mesh membrane

Stow Farmhouse
CB10 2RG

homevent

CE

Installation & Maintenance Manual

MORI WMF

Weatherproof Multi-Functional Subfloor Ventilation Fan

Please read this manual carefully before using the product and keep it in a safe place for reference.

This product was constructed up to standard and in compliance with regulations relating to electrical equipment and must be installed by technically qualified personnel in accordance with all regulatory requirements. The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the instructions contained in this booklet.

PRECAUTIONS FOR INSTALLATION, USE & MAINTENANCE

- The device should not be used for applications other than those specified in this manual.
- After removing the product from its packaging, verify its condition. In case of doubt, contact a qualified technician. Do not leave packaging within the reach of small children or people with disabilities.
- Do not touch the appliance with wet or damp hands/feet.
- Children should be supervised to ensure they do not play with the device.
- WARNING: Never operate the fan without the weatherproof front cover/grille.
- WARNING: Never allow the weatherproof front cover/grille to become blocked.
- WARNING: Never position the fan unit in a location where any part of it could become submerged in water.
- Do not use the product in the presence of inflammable vapours, such as alcohol, insecticides, gasoline, etc.
- If any abnormalities in operation are detected, disconnect the device from the mains supply and contact a qualified technician immediately. Use original spare parts only for repairs.
- The electrical system to which the device is connected must comply with regulations.
- Before connecting the product to the power supply or the power outlet, ensure that:
- - the data plate (voltage and frequency) correspond to those of the electrical mains
- - the electrical power supply/socket is adequate for maximum device power.
- If not, contact a qualified technician.
- The device should not be used as an activator for water heaters, stoves, etc., nor should it discharge into hot air/fume vent ducts deriving from any type of combustion unit.
- Operating temperature: -20°C up to +50°C.
- The device is designed to supply or extract clean air only, i.e. without grease, soot, chemical or corrosive agents, or flammable or explosive mixtures.
- Do not immerse the device or its parts in water or other liquids.
- Only turn off the power supply to the unit whenever a malfunction is detected or in the case of inspection, cleaning or maintenance. Prolonged and/or repeated power interruption to the unit (any period more than 72 hours) can create a health and safety hazard, damage components and will invalidate any warranty.
- For installation an omnipolar switch should be incorporated in the fixed wiring, in accordance with the wiring regulations, to provide a full disconnection under overvoltage category III conditions (contact opening distance equal to or greater than 3mm).
- The fan should be RCD (Residual Circuit Device) protected.
- Ensure adequate air return/discharge into/from the area the fan is ventilating in compliance with existing regulations in order to ensure proper device operation.
- If the environment in which the product is installed also houses a fuel-operating device (water heater, methane stove etc., that is not a "sealed chamber" type), it is essential to ensure adequate air intake, to ensure good combustion and proper equipment operation.