

Drying out after a flood,
case studies and guidance

What to do after flood – drying out the building

To prevent unnecessary damage dry the building slowly, first by natural ventilation, and then, where required, with extract fans, background heating and/or, high capacity dehumidifiers.

Keep opened doors and windows secure against intruders, perhaps using temporary perforated boarding or metal grilles.

Selected floorboards might need lifting carefully to prevent buckling, and door and window linings dismantled to hasten the drying of awkward spaces.



What to do after flood – drying out the building

Drying may take several months and should be continued until:

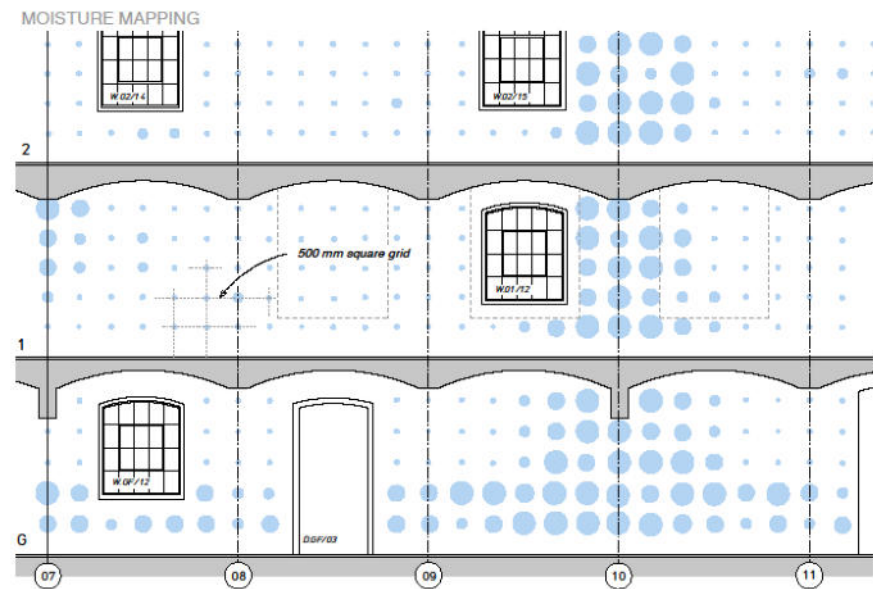
- moisture levels are at or lower than before flooding;
- remaining moisture will not support active timber decay;
- building materials can finish returning to equilibrium by themselves without further damage.

Lime plaster tends to dry out on walls intact, whereas gypsum plaster and plasterboard are more vulnerable to water damage. Salt deposits ('efflorescence') may appear during drying and can be brushed or vacuumed off.



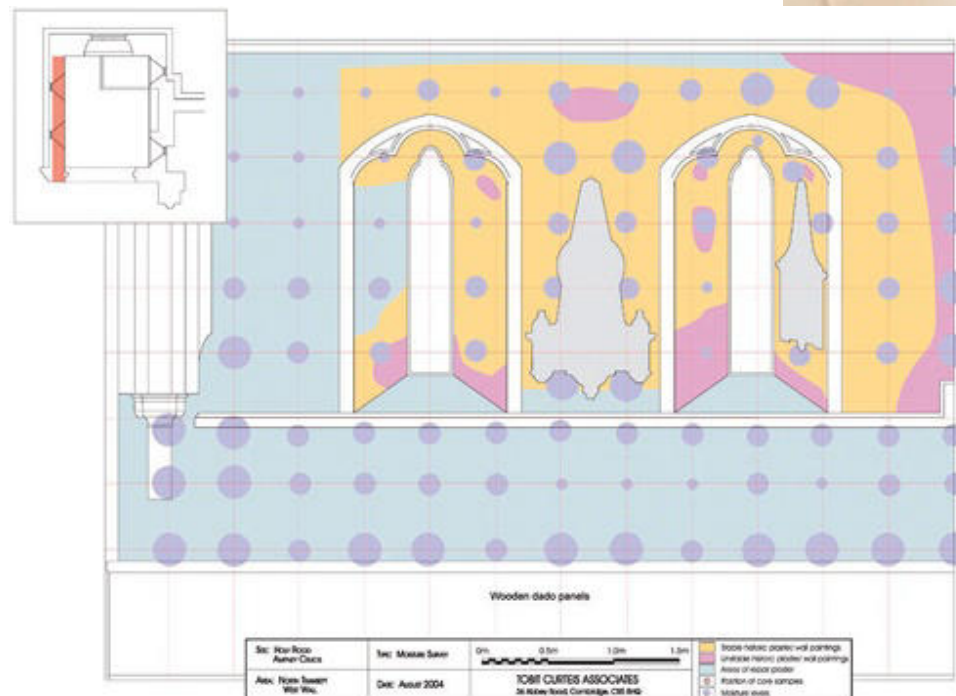
Dampness measurement

Brian Ridout gathering baseline moisture data...



Dampness measurement

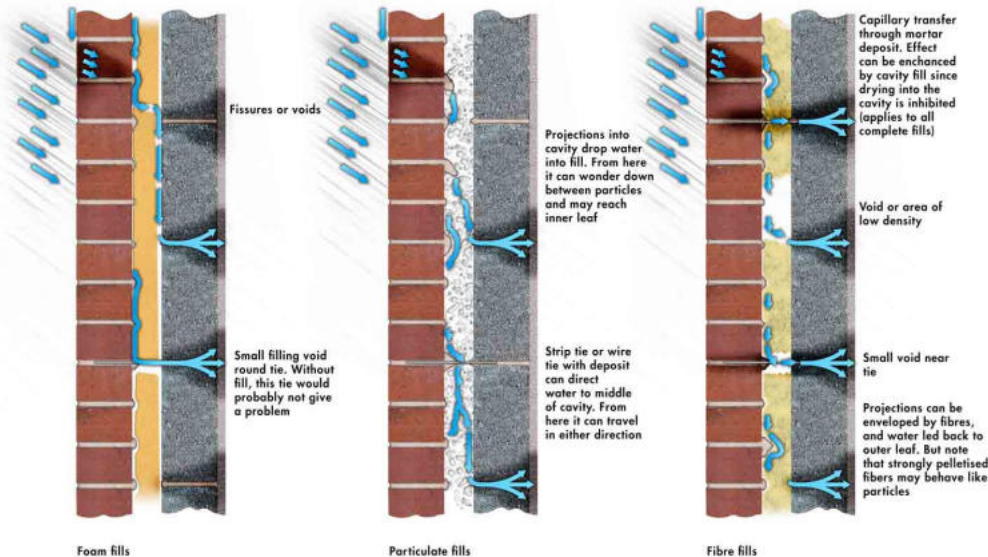
Dampness can be measured in a range of ways by specialists. It should be noted in particular that electrical dampness meters should not be used on masonry or plasterwork, as the presence of soluble salts will give extremely misleading readings.



Dampness measurement

Borescope/CCTV investigations

These are visual techniques for examining small voids within structures, as well as flues and drains, generally without opening up. They are very useful and cost-effective ways of assessing whether damage has occurred in hidden areas of a construction and whether upgrading is likely to be possible or worthwhile.



Main Street, Staveley





Managing the event

- Have a plan – reduce stress levels!
- Activate any resistance measures
- Furniture, electrical goods etc.
- Worth highlighting with insurers



Castle Street Centre, Kendal



Castle Street, Kendal



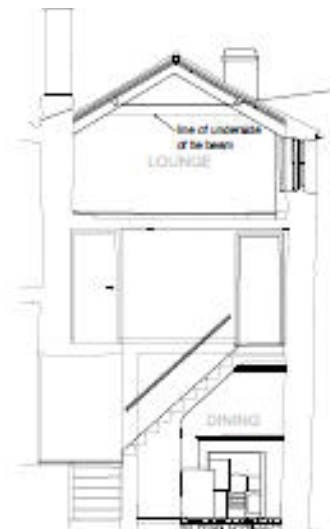


33A Chapel St,
Appleby-in-
Westmorland

Improved energy
efficiency and
extreme weather and
flood resilience.







CROSS SECTION B-B



LONGITUDINAL SECTION A-A



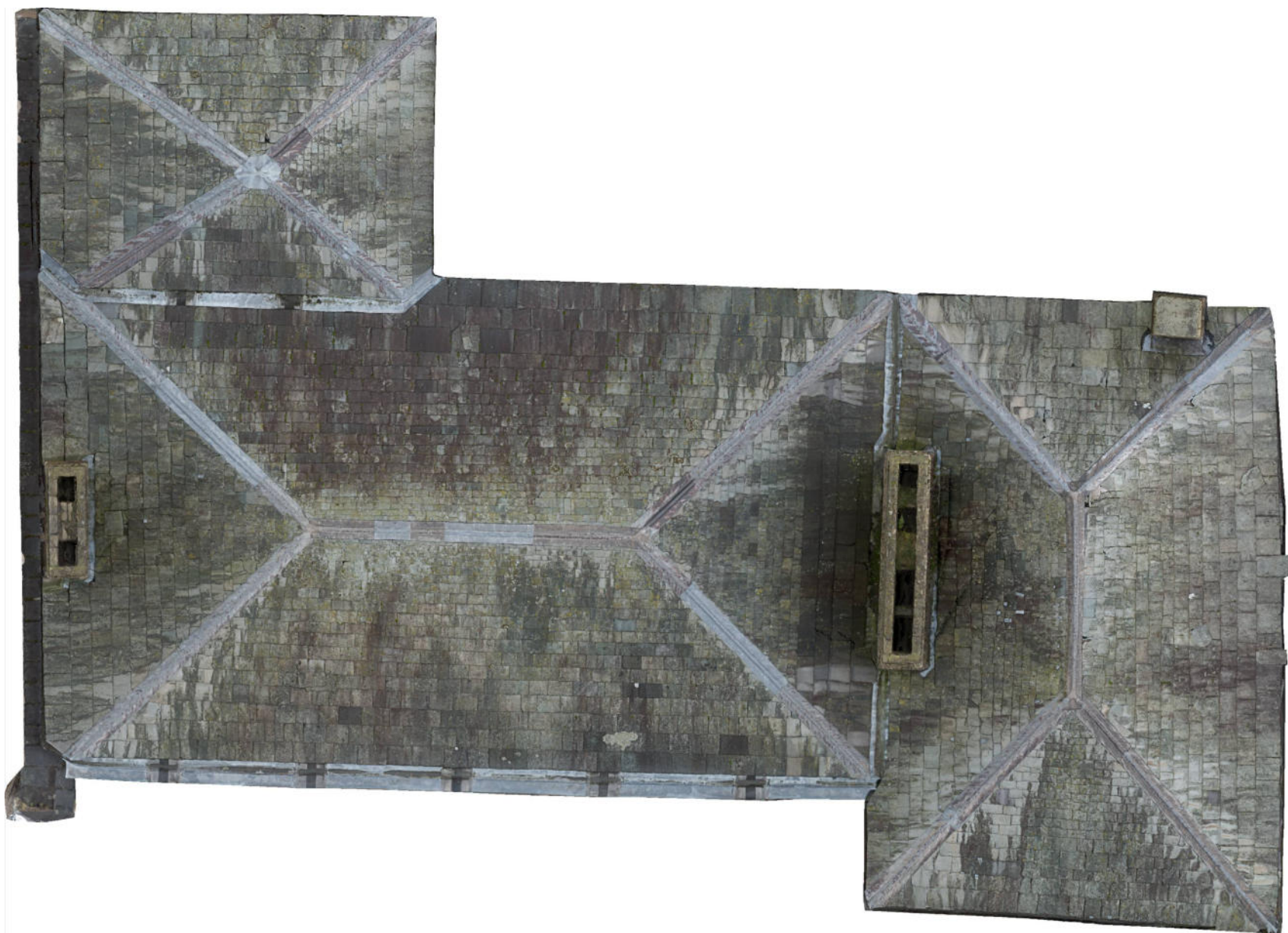
GROUND FLOOR



FIRST FLOOR



SECOND FLOOR





Soild ground floor – limecrete
U-value 0.23W/m2K





First floor

16.6mm Diathonite Thermactive with
5mm Evolution Argacem Ultrafine skim

Second floor

50mm Eden Lime Insulation built up in
two layers with a 6mm skim coat

U-value of 1.18 W/m²K

Roof

20mm Pavatex Isorooft woodfibre 50mm
Pavaflex between rafters and lined out
with 60mm Pavatherm-combi and lime
skim finish.



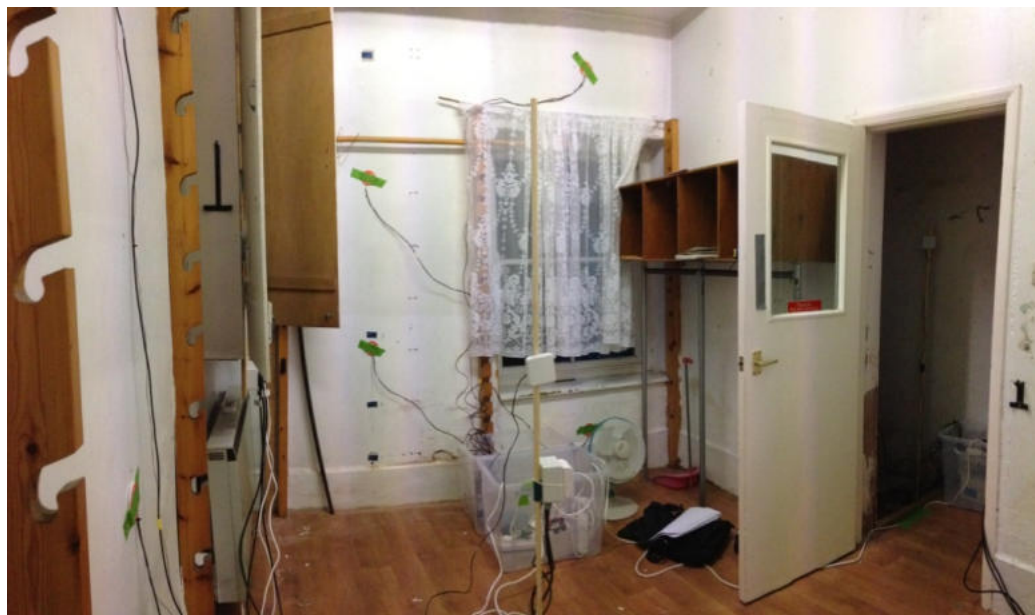


Figure 6

Plan: Dowel Locations in Masonry Walls

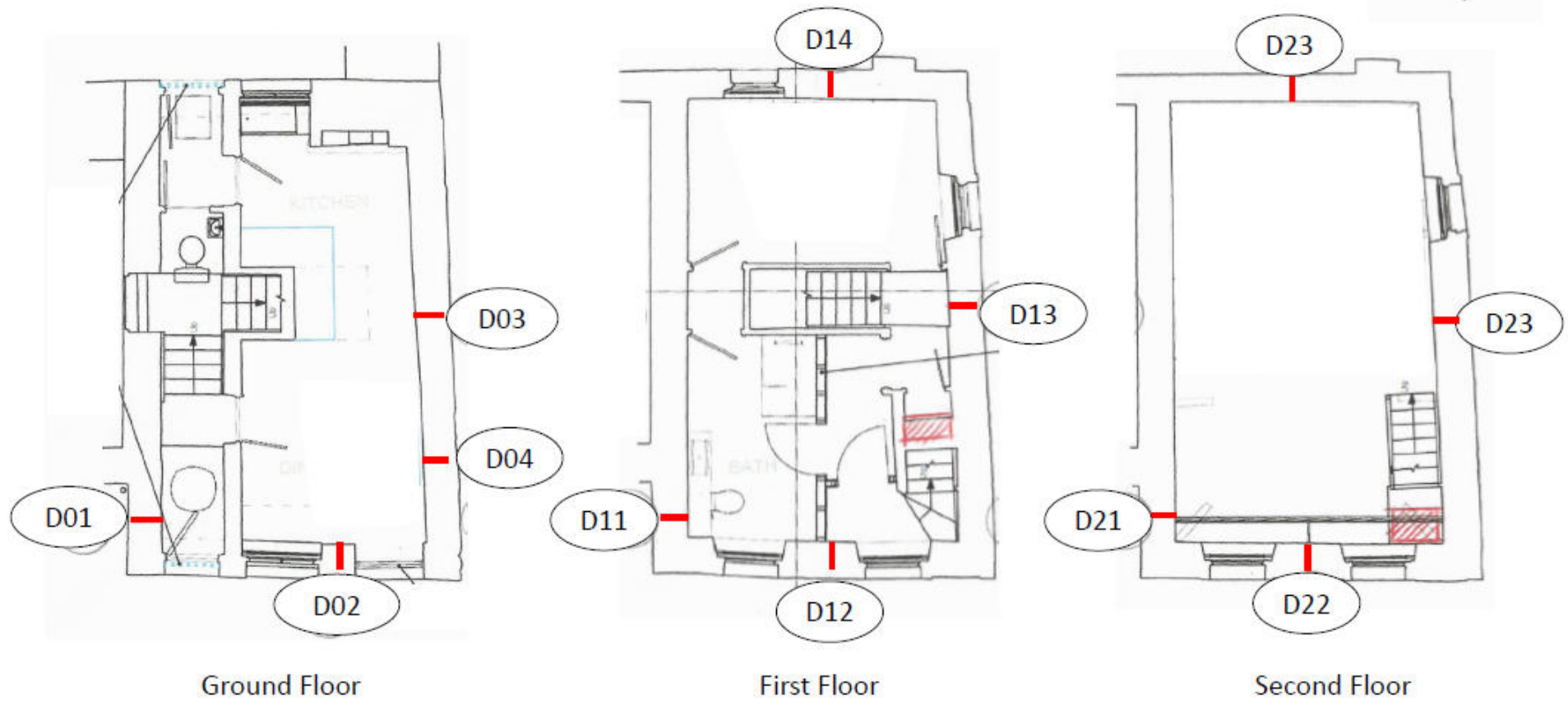
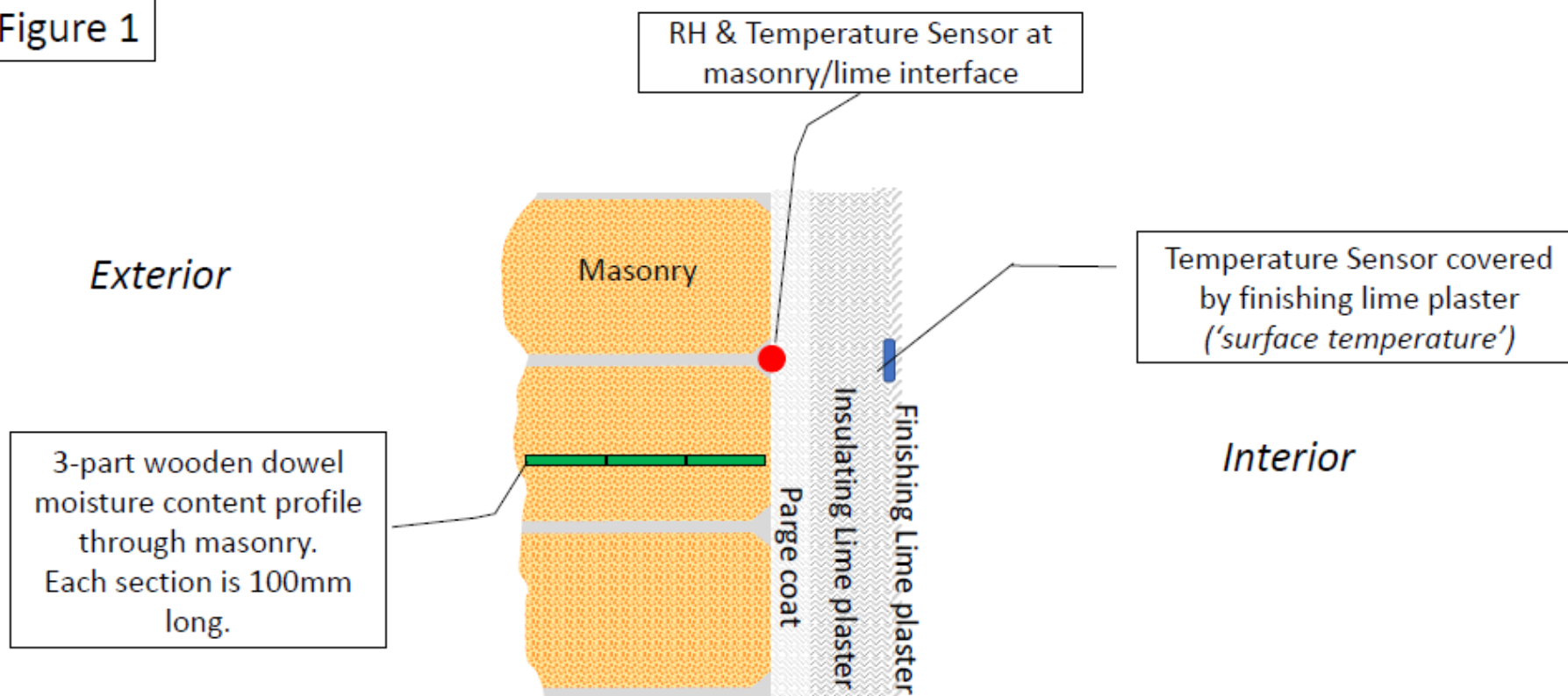
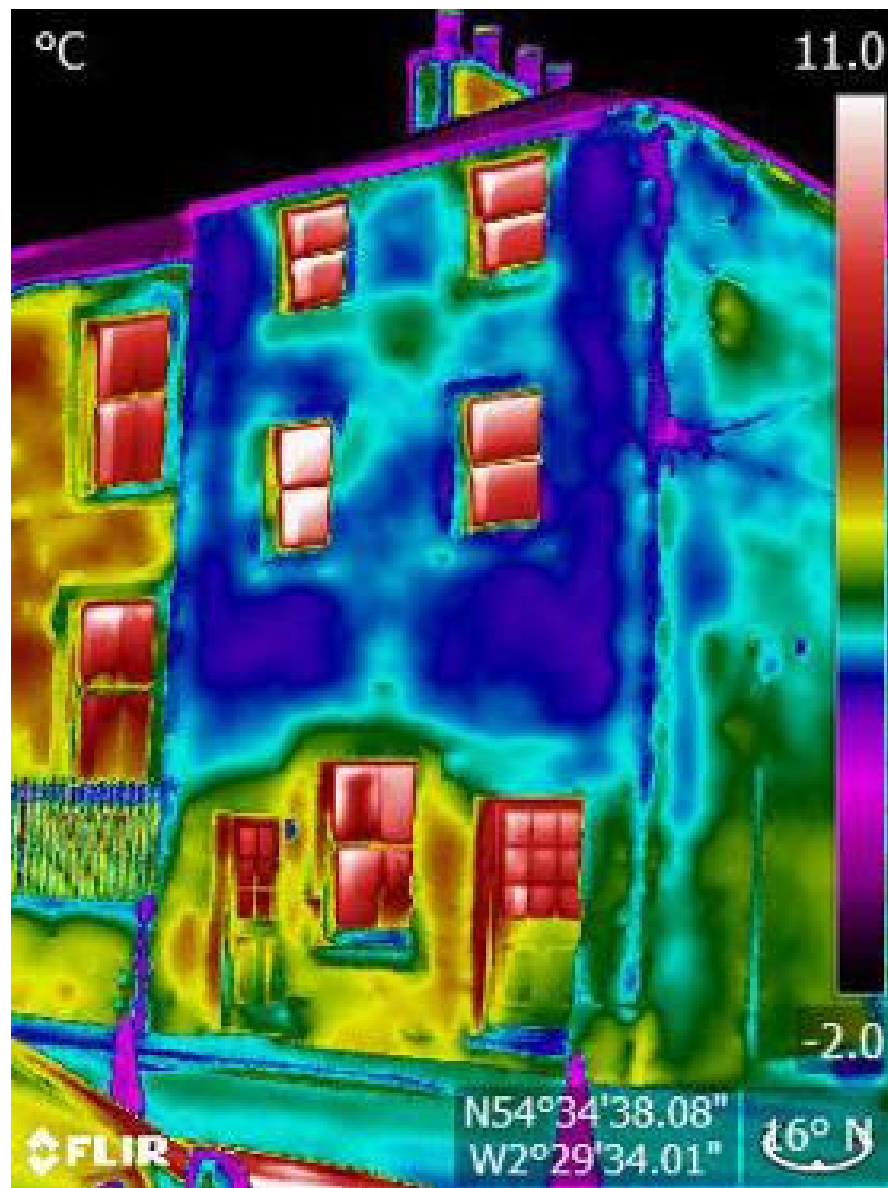
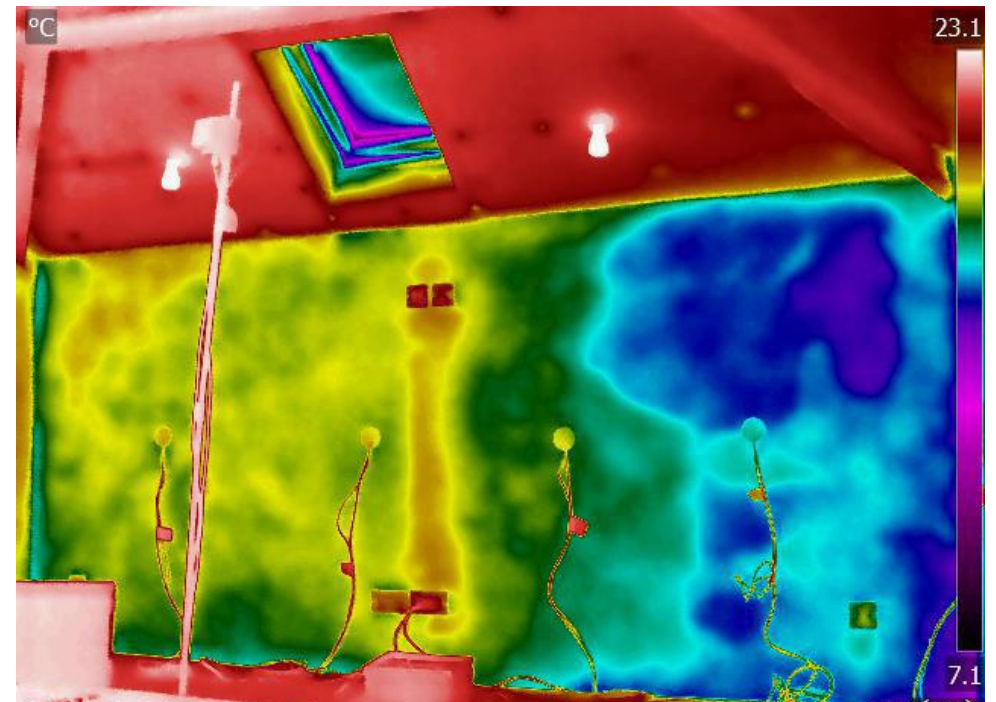
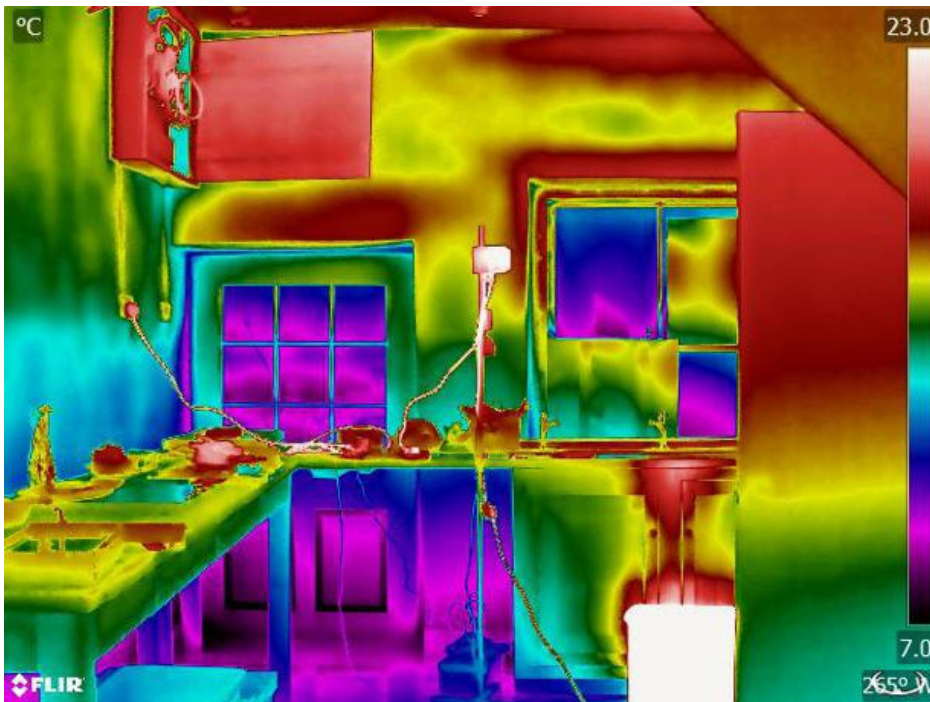


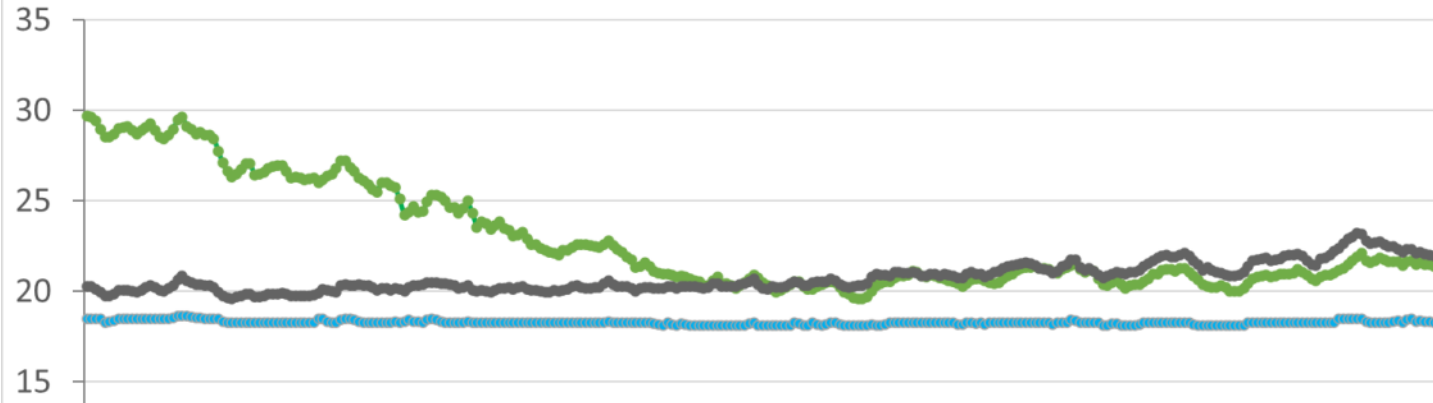
Figure 1



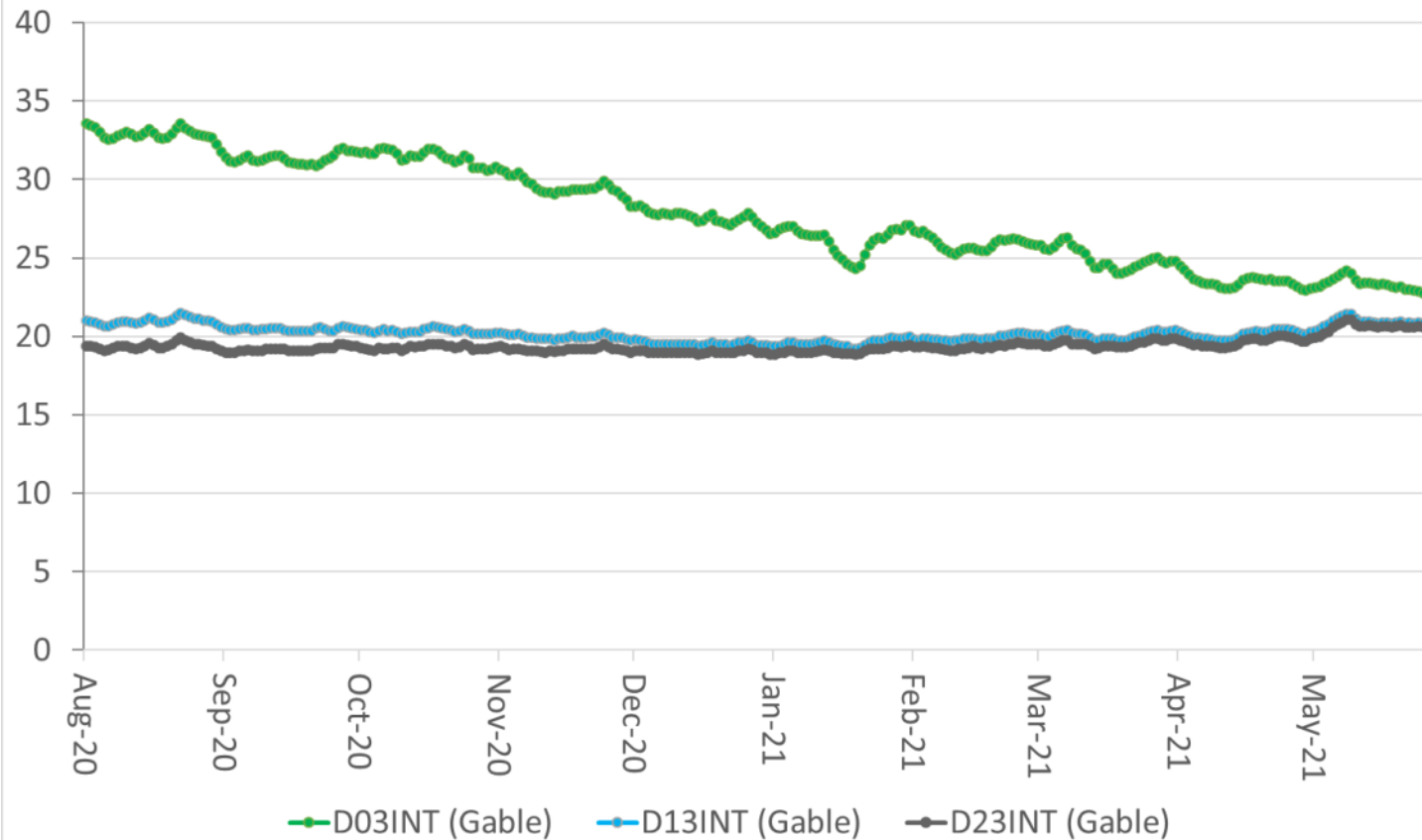


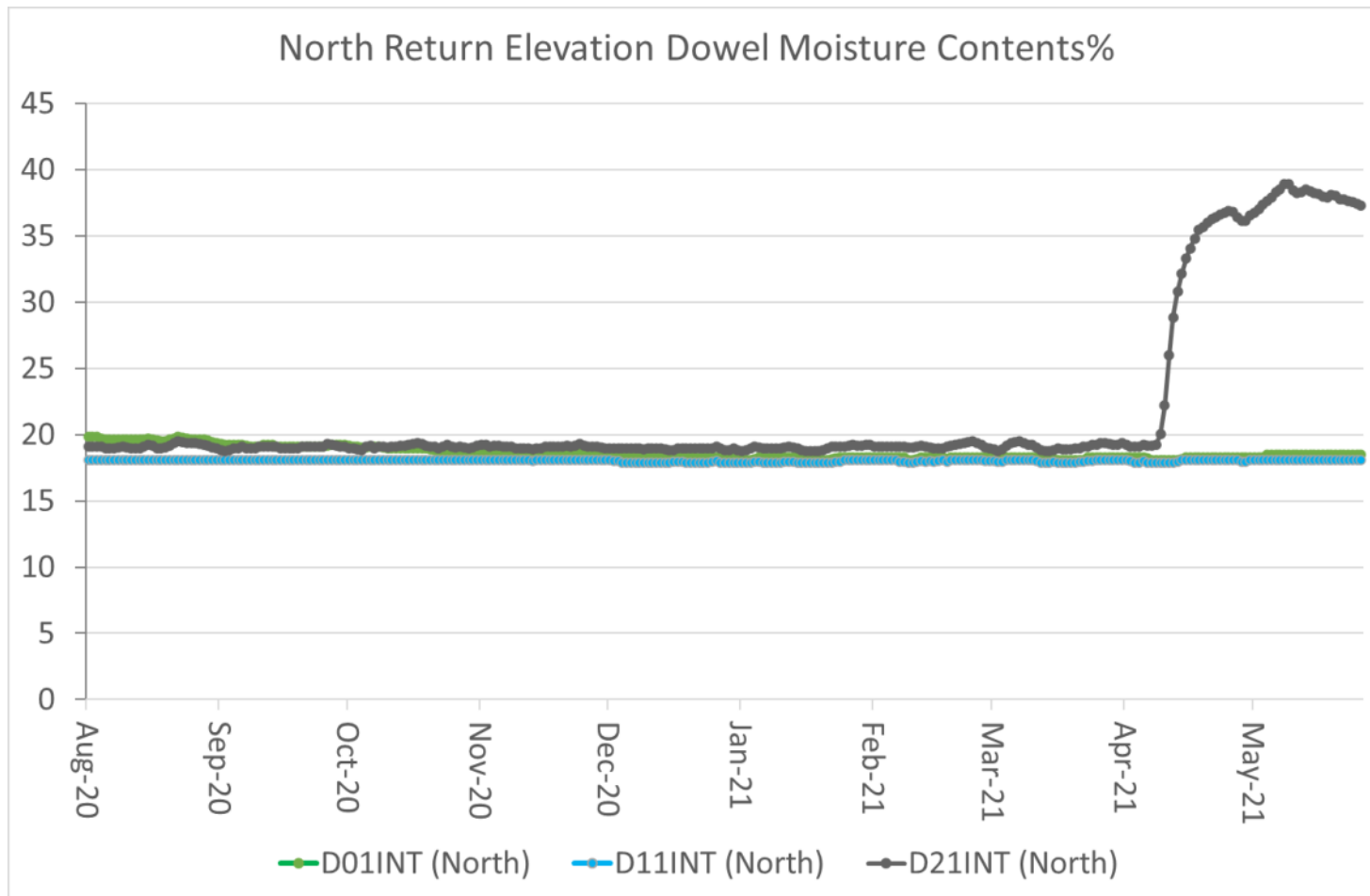


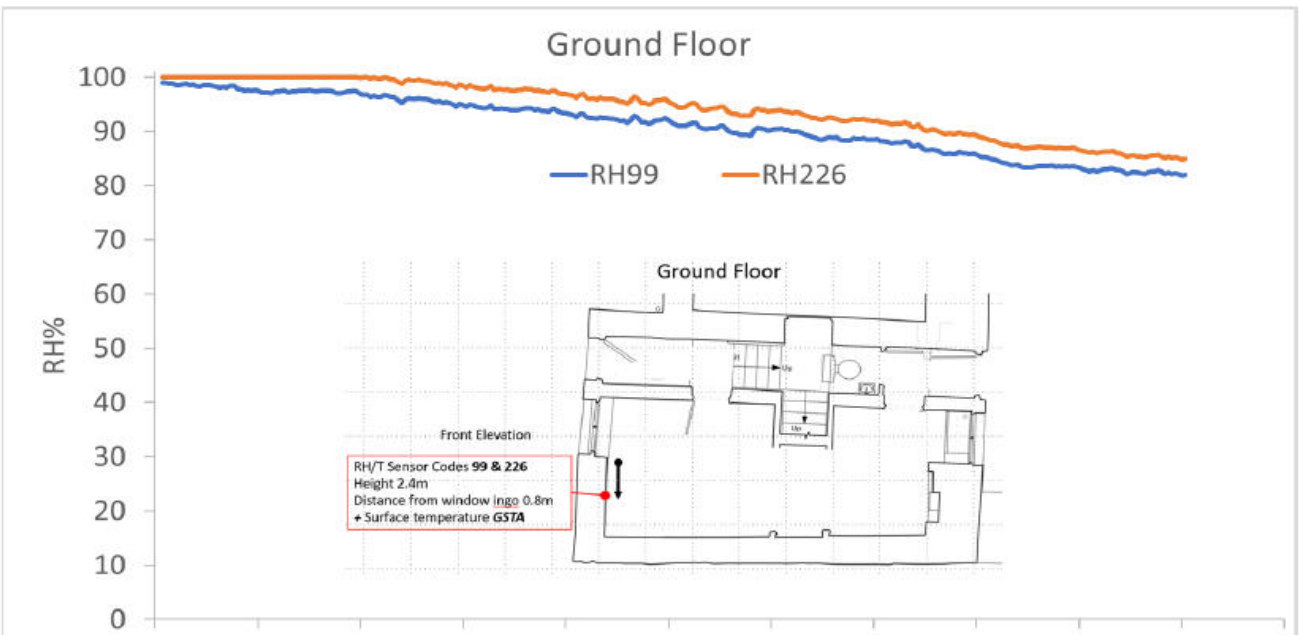
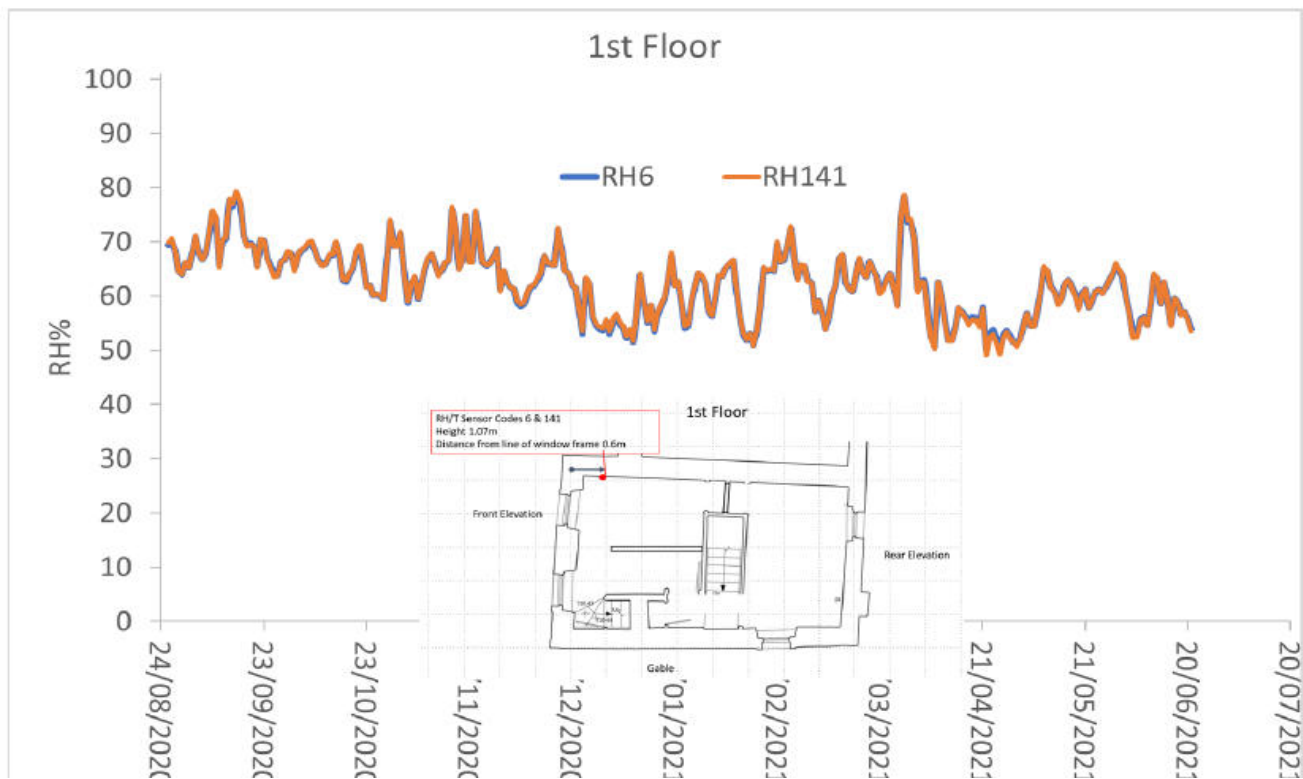
Front Elevation Dowel Moisture Contents%

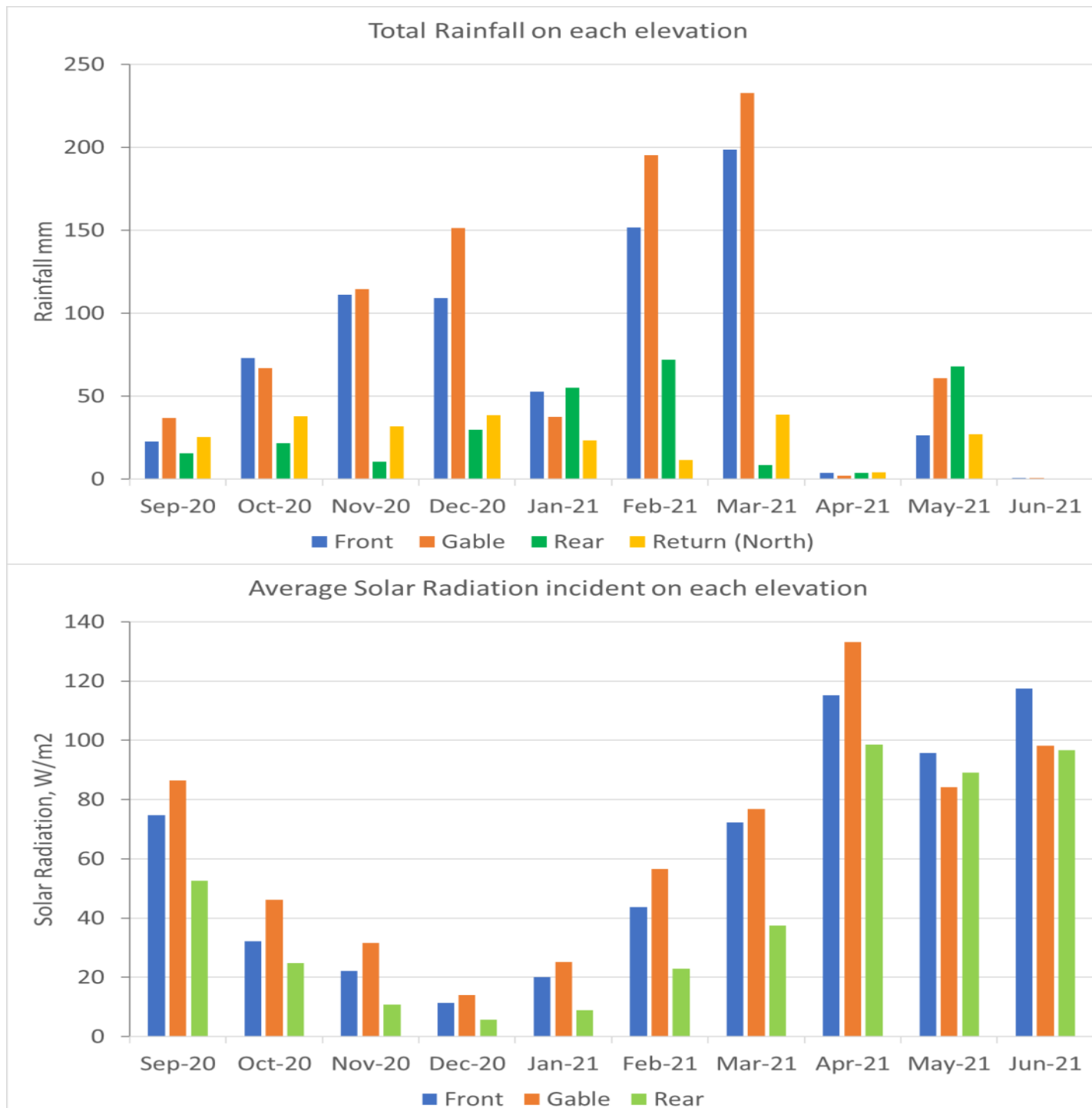


Gable Dowel Moisture Contents%









Responsible Retro-fit Guidance Wheel

STBA
SUSTAINABLE TRADITIONAL
BUILDINGS ALLIANCE

WELCOME TO THE RESPONSIBLE RETROFIT KNOWLEDGE CENTRE

STBA.org | Share

Type search here

All Categories

MEASURES

CONCERNS & ACTIONS

REFERENCES

CASE STUDIES

ABOUT

Welcome to the Responsible Retrofit Knowledge Centre. In addition to providing knowledge its purpose is also to encourage people to share feedback on their experiences, and support a national movement to the more responsible retrofit of traditional buildings.

Knowledge Centre

Are you looking for general information and advice?
Here you will find information about:

- Wall
- Roof
- Floor
- Windows
- Doors
- Chimney

View Services

View Behaviour



Guidance Wheel

Do you have a specific building you would like to explore measures for?



Click to view the Guidance Wheel

Featured Additions

FEATURED MEASURE
Frame infill insulation



Click here to view

FEATURED CONCERN
Use of sympathetic materials



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FEATURED REFERENCE
Energy Efficiency in Historic Buildings - secondary glazing for



Click here to view

FEATURED CASE STUDY
Wells O'Warren Cottage



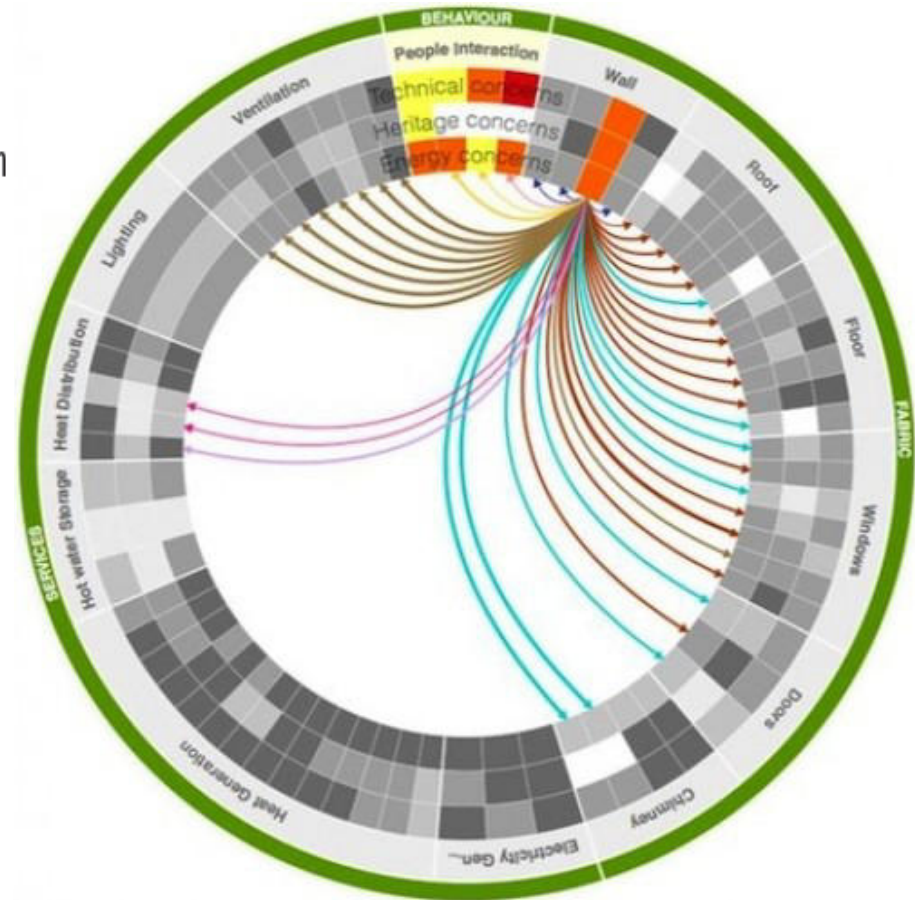
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Most Viewed

Responsible Retro-fit Guidance Wheel

Guidance Wheel

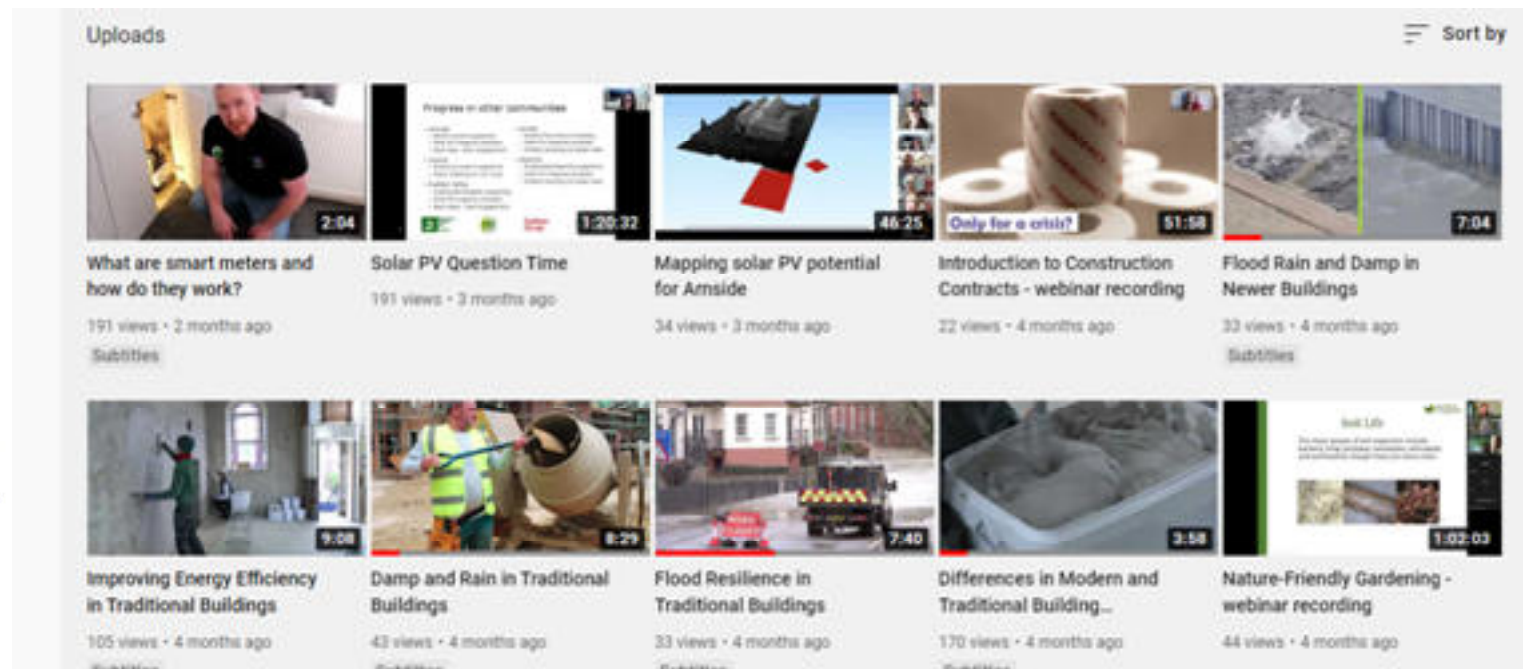
The STBA Guidance Wheel is a free-to-access online tool which helps to enable informed decision-making about retrofit strategies. Having set the context for a specific building, users can select measures for its retrofit and the Wheel then flags up related measures which need to be considered, together with the reason for the connection. For example, *wall insulation* is linked to *window refurbishment* for reasons of *air tightness* and *indoor air quality*. The Wheel also provides an assessment of the level of technical risk for any particular measure, highlights its potential impact on heritage and identifies any reasons why the savings predicted may not be realised in full. The Guidance Wheel is available at: <http://responsible-retrofit.org/wheel/>



CAfS YouTube Channel

[Cumbria Action for Sustainability - YouTube](#)

- Flood Resilience in Traditional Buildings
- Flood Rain and Damp in Newer Buildings
- Improving the energy efficiency in traditional building
- Damp and Rain in Traditional Buildings
- Differences in Modern and Traditional Building Construction

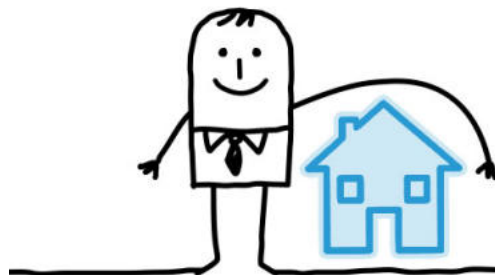


Guides



Repair and restoration of buildings following floods

www.ciria.com/flooding | flooding@ciria.org



WELCOME TO THE BLUE PAGES

THE UK'S LEADING INDEPENDENT FLOOD DIRECTORY

Flood Resilience Guidance

Society for the Protection of Ancient Buildings (SPAB) Guidance - Technical Q&A 31 : Floods and Old Buildings (www.spab.org.uk/advice/technical-qas/technical-qa-31-floods-and-old-buildings/)

For free technical advice and information on every aspect of repairing and caring for old buildings including appropriate materials, contractors & professionals phone 020 74560916 Mon to Fri 9.30 to 12.30

Historic England Guidance - Flooding and Historic Buildings (<https://content.historicengland.org.uk/images-books/publications/flooding-and-historic-buildings-2ednrev/heag017-flooding-and-historic-buildings.pdf/>)

RICS Guidance - A clear, impartial guide to Flooding (www.winfields.uk.com/pdf/RICS%20Guide%20To%20Flooding.pdf
www.winfields.uk.com/pdf/RICS%20Guide%20To%20Flooding.pdf)

CIRIA Guidance - www.ciria.com/flooding/ OR www.ciria.com/flooding/repairs_introduction.htm

National Flood Forum - Supporting & Representing Flood Risk Communities
Tel: 01299 403101 Fax: 07734 899708 Web: www.nationalfloodforum.org.uk
<http://www.nationalfloodforum.org.uk/flood-protection-adviser/>

Cumbria Flood Action Plan

First published: 30 June 2016, updated December 2016. Sets out what the Environment Agency and partners (the Cumbrian Floods Partnership) are doing to make communities safer.

The plan includes:

- the summary document, giving an overview of what has been done since December 2015, and plans to prepare for flooding in the future.
- Separate Community Action Tables for all major towns

Local Flood Risk Management Strategy

Produced by Cumbria County Council. The Management Strategy Action Plan is updated annually. Includes details of flood risk for specific areas.



Many Thanks

cafs.org.uk/events

