



Report on condition
Cedar House
Church Avenue
Clent
Worcestershire DY9 9QT

Prepared by

David E J Prosser FRICS
3 Mallow Close
Malvern
Worcestershire
WR14 3SS
Telephone: (07836) 384355
e-mail: info@dpsurveys.co.uk
website : www.dpsurveys.co.uk

Inspected on 11th February 2021

Instructions

I have been instructed by Mr & Mrs A Yates of Cedar House to report on the condition of their property, Cedar House, to include maintenance and repair requirements associated with this type of property.

The report is required in contemplation of redeveloping the house.

Description

The property comprises a detached mainly two storey house with a gross external floor area in the region of 1843 ft.². It stands in a garden which, according to the Ordnance Survey Pro Map website, extends to 0.87 of an acre. The house is, therefore, undersized for this size of plot.

Construction

The property comprises a timber frame and clad structure manufactured by WH Colt Son and Co and I believe it to be in the region of 65 years old.

Colt Son and Co have been trading since 1919 when they started by providing agricultural buildings but quickly moved into residential construction due to customer demand.

This particular house is typical of its period comprising timber frame panel walls which are bolted together with timber cladding on the outside and internal walls finished with

fibreboard. The present owners have replaced a few of the fibreboard sheets with plasterboard.

By contrast the walls of modern timber frame houses comprise, from the inside outwards, plasterboard, vapour barrier, insulation material, boarding, breather membrane and then the cavity before the brickwork.

The roof is pitched on a timber frame and finished with a covering of cedar shingles.

Rainwater goods are a mix of aluminium and PVC gutters and include some sections of cast-iron downpipes.

At the time the property was built it was standard practice not to include any insulation in the floors, walls or roof space.

Inherent defects

Insulation

With so much emphasis on energy conservation in modern construction the most obvious inherent defect in a Colt House of this age is the poor quality of insulation. Whilst the owners have made some attempt to improve the situation with loft insulation and some insulation panelling in the walls, the house remains fundamentally cold.

On the right-hand gable wall there is a hole in the external cladding where a waste pipe or similar has been removed. From this point it is possible to see through to the foil backed insulation boarding installed by the owners. I understand that it is in this one particular bedroom only. There is no intervening insulation.



I checked the temperature of several walls using a laser thermometer. The first step is to take a reference temperature from an internal wall. This can be seen as the top reading on the adjacent photograph. The lower reading is the surface temperature of an external wall in the same room. Differences of 5° to 7° were noted in a number of rooms throughout the property.



The outer walls are approximately 15 cm thick from the outer edge of the cladding to the inner decorative finish (modern cavity walls are usually a minimum of 25 cm thick with an insulated cavity). This is not sufficient to install insulation boarding without

losing floor space and creating difficulties around dormer window openings. Thin insulation boarding would be of limited effectiveness.

Condensation

Condensation problems go hand-in-hand with poor insulation. In this case the original metal window casements, which are notorious for producing condensation, are still in place. I understand they have to be wiped down every morning to remove condensation although this was still visible in one room at the time of my inspection. Despite the owner's efforts the condensation has rotted the internal frames in a number of areas.

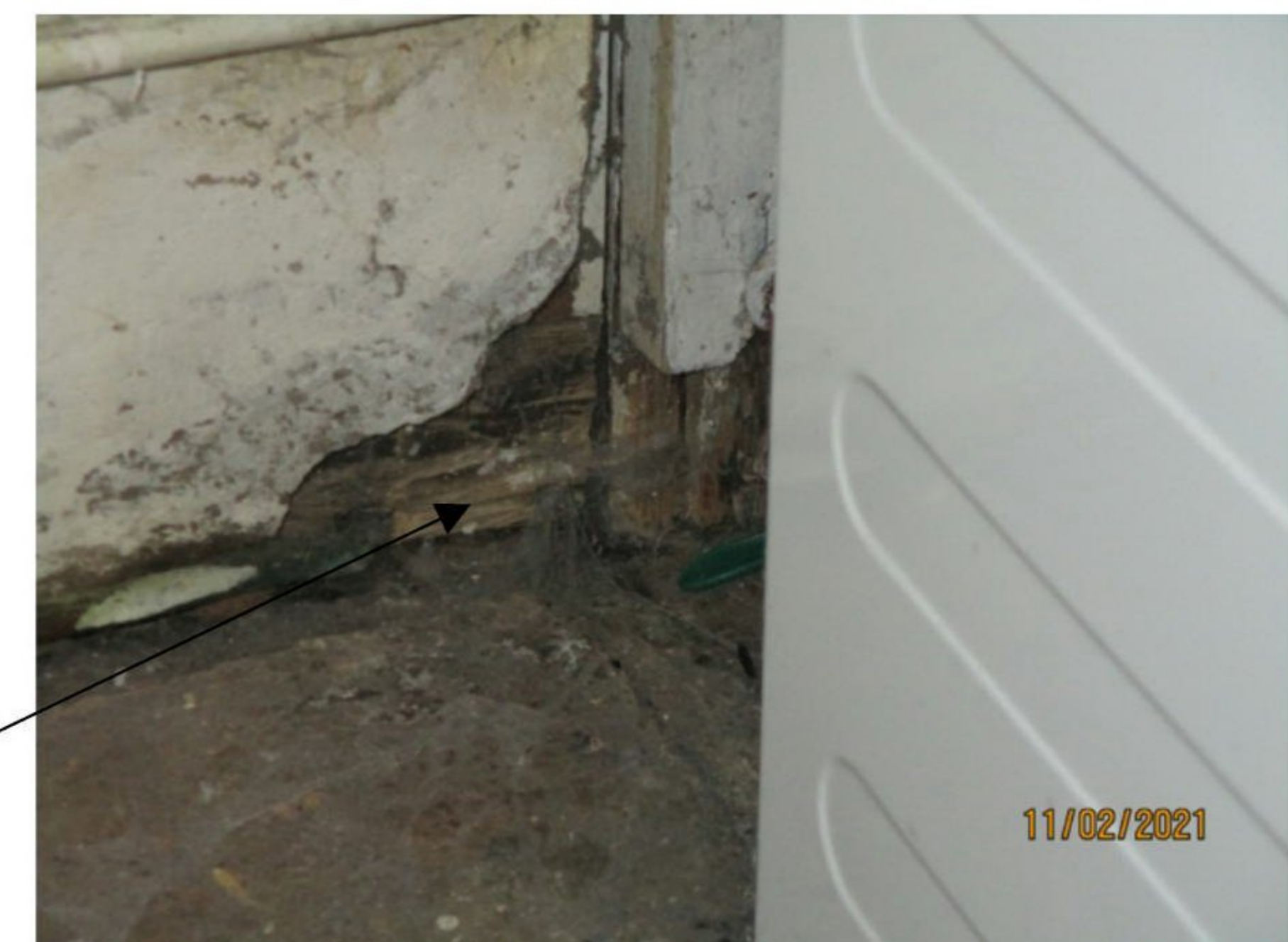


Damp

Working drawings for the property and my own inspection indicate that the timber panels are set onto brick footings with a layer of bitumen material providing a damp proof course. In this case the exposed bitumen has become brittle with age making it easy to break down. As a result its effectiveness is limited. Because it projects beyond the timber it is holding moisture on the exposed upper surface and is allowing deterioration of the lower timber panels.



Internally there is also evidence of deterioration to the lower timbers.



Weathering

Cedar roof shingles of this type have a normal life expectancy of between 30 and 40 years. They will then need extensive overhaul to include replacement.

The shingles on this particular roof have warped and are beginning to split along the grain. There is also mildew where the shingles are in shadow particularly adjacent to the dormer windows. Similar symptoms are evident on the garage roof.



In January of this year I inspected a timber frame bungalow in south Worcestershire with timber cladding and cedar shingles. The bungalow is approximately the same age as Cedar House. Nine years ago the roof covering of shingles had to be stripped and replaced.

Timber cladding to the walls (of Cedar House) is also subject to weathering particularly at low level, where there is a risk of splashing from rainwater, and mildew on areas which receive limited natural light.

Specific defects

I have not carried out a detailed invasive inspection of the property and neither have I inspected areas which were covered or inaccessible. I have not raised fixed coverings or moved heavy items of furniture.

Although the present owners have made efforts to improve insulation they are of limited effectiveness. An energy performance certificate has been obtained which results in a low rating of F31. Comments from the EPC are reproduced below.

“When the description says 'assumed', it means that the feature could not be inspected and an assumption has been made based on the property’s age and type.

Feature	Description	Rating
Wall	Timber frame, as built, partial insulation (assumed)	Average
Roof	Pitched, 50 mm loft insulation	Poor
Roof	Flat, no insulation (assumed)	Very poor
Window	Single glazed	Very poor

Feature	Description	Rating
Main heating	Boiler and radiators, oil	Average
Main heating control	Programmer, TRVs and bypass	Average
Hot water	Oil range cooker, no cylinder thermostat	Very poor
Lighting	Low energy lighting in 10% of fixed outlets	Poor
Floor	Solid, no insulation (assumed)	N/A
Secondary heating	Room heaters, dual fuel (mineral and wood)	N/A

The rating of F31 means that the property is not considered suitable for renting to a tenant. The following is an extract from The National residential Landlords Association.

<https://www.nrla.org.uk/resources/energy-efficiency/minimum-energy-efficiency-standards>

“As of 1 April 2018, there is a requirement for any properties rented out in the private rented sector to have a minimum energy performance rating of E on an Energy Performance Certificate (EPC). The regulations came into force initially for new lets and renewals but extended to existing tenancies on 1 April 2020.

As of now it is unlawful to rent a property which breaches the requirement to have at least an E rating, unless there is an applicable exemption.

While most properties in the private rented sector meet this level comfortably, for some landlords this means that they will no longer be able to rent out their property if it has a rating of F or G.”

As referred to earlier the roof shingles have deteriorated and I consider that they have reached the end of their effective lifespan and need to be replaced.

The rainwater goods are showing evidence of corrosion. Where one downpipe joint has started to leak it is allowing water onto the timber cladding which will result in deterioration.



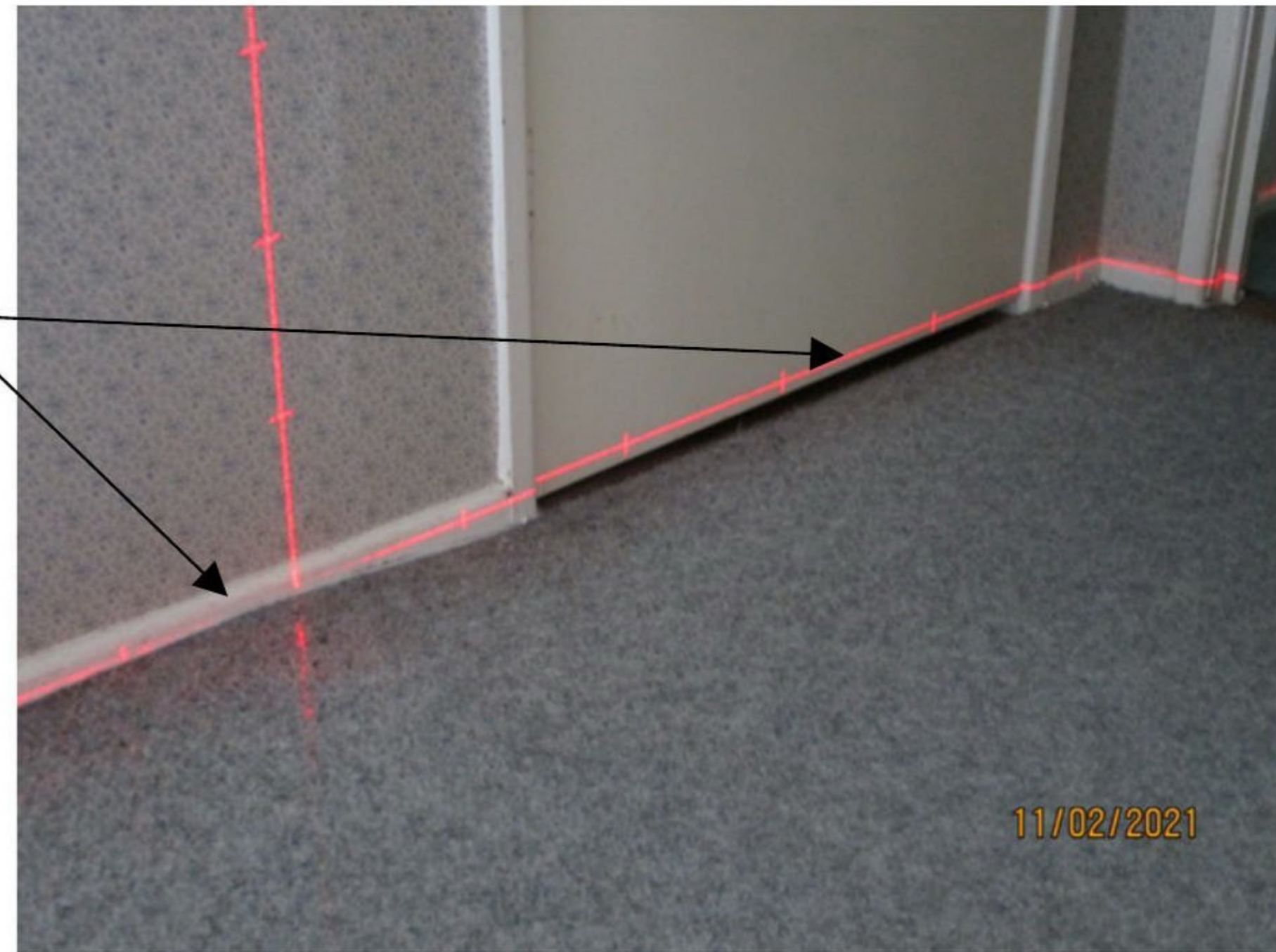
Deterioration is evident to the wall panels as referred to earlier. At the rear of the property is a first floor projection supported on timber posts. One of the posts is rotten which will cause the projection above to subside.



Internally there is also evidence of movement with cracks at the panel joints. A further invasive inspection is require to diagnose the extent of damage.



The left-hand section of the house is an extension which I understand was constructed a little over 50 years ago. There is a marked change in floor level on entering the extension at first floor level. It is most unlikely that it was constructed in this manner and I formed the opinion that the change is the result of movement within the timber frame.



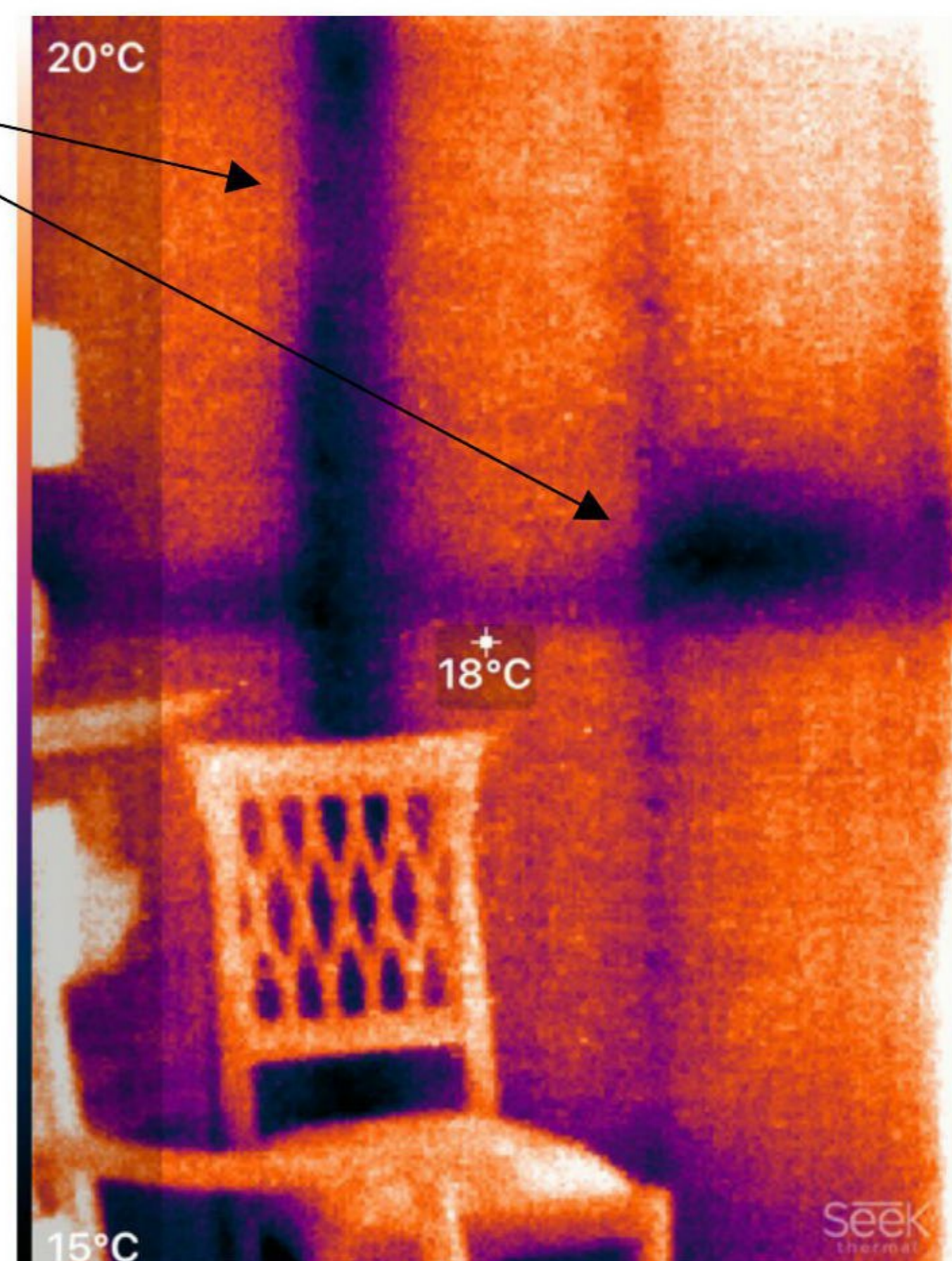
The windows are heavily corroded and beyond repair. They have caused damage to the wooden frames internally and externally.



External joinery is in poor condition notably the timber panels to the dormer cheeks and the sill to the rear porch which is split.

Only part of the roof space has underfelt. This will need to be addressed when the roof shingles are replaced. The roof also requires improved ventilation to minimise the risk of condensation.

Using a thermal imaging device it is possible to detect the timber frame members which cause a 'cold bridge' allowing heat to escape and cold to penetrate.



As referred to previously condensation is a problem which requires daily attention.

The ground floors comprise boarding laid on a concrete slab. The concrete is visible in the utility. There is no evidence of a membrane beneath. If the property is to be redeveloped it will need to satisfy part L of the Building Regulations which deals with insulation. To satisfy the requirements it will be necessary to excavate the floor completely and relay it to incorporate polystyrene insulation or similar.

Services

The electrical installation is dated and includes two old fuse boards into which trip switches have been inserted.

The central heating boiler and most of the ancillary equipment is dated. I estimate that the system is at least 40 years old.

I understand that the Aga stove in the kitchen was installed by a previous owner and is older than the house.

Asbestos and deleterious materials.

There appears to be short length of flue pipe serving the Aga and which appears to be of asbestos cement. It should only be handled by a competent contractor

I have not arranged for any investigation to be carried out to determine whether or not high alumina cement, calcium chloride or permanent woodwool shuttering, or any other deleterious materials have been used in the construction or refurbishment of this property. Asbestos is present in many forms in the majority of properties. The most dangerous is 'blue' asbestos often used as an insulation material. 'White' asbestos was often used as boarding or in flue pipes. This is relatively common and, if present, is only a health risk if the material is cut or abraded in such a way that it forms a dust. Asbestos can also be found as a component of materials as diverse as paint or floor tiles. I am unable to report, therefore, that the property is free from risk in this respect.

Summary

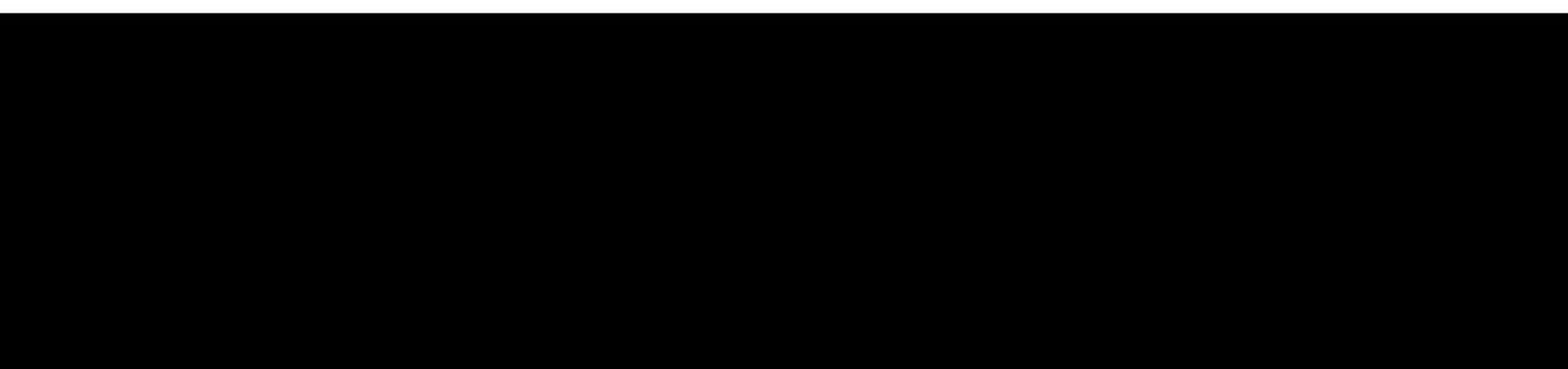
The difficulties in upgrading this property to provide a modern living environment are essentially centred around energy conservation, damp and general deterioration of the external fabric which has a relatively short design life.

There is no practical solution to bringing insulation up to modern standards. Whilst additional material can be laid in the roof space the walls and solid floors cannot be upgraded without major alterations.

The problems of condensation, which can result in long-term health problems, go hand-in-hand with poor insulation.

The external envelope of the property is beyond its design life and requires significant repair including structural changes to the main timbers at low level.

I appreciate that there is concern about the cost of upgrading work but I am satisfied that it would, in any case, prove to be impractical and would result in alterations which would be difficult to accommodate. Redevelopment of the site would be the most cost-effective and environmentally friendly solution.



David EJ Prosser FRICS

19 February 2021