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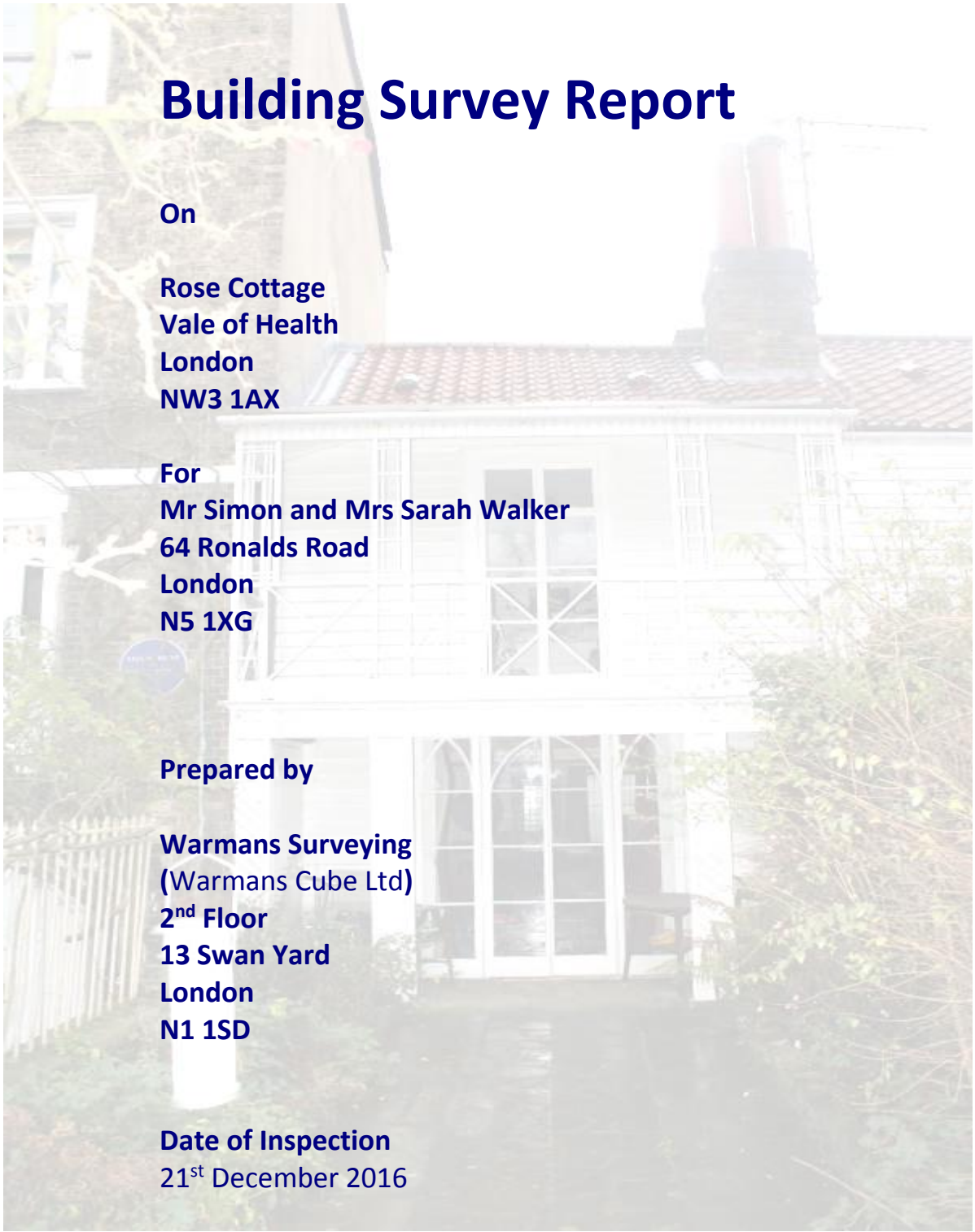

Building Survey Report

On

Rose Cottage
Vale of Health
London
NW3 1AX

For
Mr Simon and Mrs Sarah Walker
64 Ronalds Road
London
N5 1XG

Prepared by

Warmans Surveying
(Warmans Cube Ltd**)**
2nd Floor
13 Swan Yard
London
N1 1SD

Date of Inspection
21st December 2016

RICS

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1.00 GENERAL INFORMATION

1.01 Instructions

In accordance with your instructions we have carried out a Building Survey on the above property.

You will appreciate that due to the nature of this pre-purchase investigation, we have had to restrict our examination to those parts of the building that were accessible, exposed or uncovered at the time of our inspection. Our external inspection was from ground level and internally we have not opened up any concealed surfaces by removing plaster, furniture or raising fitted carpets, or floor coverings; we have done our best to draw conclusions about the construction and condition of the property from the surface evidence visible at the time of our inspection. Furthermore, this report must be read in conjunction with our Conditions of Engagement.

This report should be construed as a comment upon overall condition of the property and is not inventory of every single defect, some of which would not significantly affect the value of the property.

This report is based on the condition of the property at the time of our inspection and no liability can be accepted for any deterioration in its condition after this date.

Clients are advised to show a copy of this report to their legal advisers as it may affect investigations they will need to make.

No tests have been carried out to services. Only significant defects and deficiencies readily apparent from a visual inspection are reported. Compliance with regulations and adequacy of design, conditions or efficiency can only be assessed as a result of a test. Should you require any further information in this respect, it is essential that you obtain reports from an appropriate specialist before entering into legal commitment to purchase.

1.02 Property Address

Rose Cottage
Vale of Health
London
NW3 1AX

1.03 Name and address of Client

Mr Simon and Mrs Sarah Walker
64 Ronalds Road
London
N5 1XG

1.04 Inspected by

Ian Pearce, BSc (Hons) MRICS

1.05 Date of Inspection

21st December 2016

1.06 Weather

Overcast and raining very lightly at the date of the survey.

1.07 Tenure and Occupation

We are informed by the agents that the property is held freehold and will be sold with the benefit of full vacant possession.

1.08 Directions and Room Locations

The end elevation to the rear of the rear addition of the property faces a north easterly direction with the original front main elevation facing a south westerly direction.

2.00 GENERAL DESCRIPTION

2.01 Type

The subject property is a mid-terraced two storey dwelling house, party of traditional construction, primarily comprising brick external walls of differing thicknesses with pitched clay and slate tiled roof weatherings. Internally the floors are of suspended timber construction primarily with gas central heating and all mains services.

2.02 Age

The property is thought to have been constructed circa 1825.

2.03 Location

The subject property is located in the Vale of Health, which is considered to be a desirable location within Hampstead Heath. Substantial shops are provided in Hampstead Village, which is a short drive.

2.04 Accommodation

The accommodation comprises:

Ground floor:	Through reception room, kitchen, utility, ground floor cloak/bathroom.
First floor level:	Two separate bedrooms to the main section of the building and two bedrooms within the rear addition, one of which you have to walk through to access the other.
External:	Rear (original front garden) garden with a communal access path providing access to the local road network. On road parking via residents parking scheme.

3.00 CONSTRUCTION AND CONDITION

3.01 Chimney Stacks, Flashings and Soakers

A chimney stack is provided to the property frontage, this is of brick construction with corbelled coursing at high level and tall clay chimney pots.

The flaunchings could not be seen from ground level but the brickwork as far as could be seen was observed to be in reasonable condition. Lead flashings are provided to the perimeter of the base of the chimney stack and these again appear to be in reasonable condition.

The two pots serving the two fireplaces in from the front portion of the chimney breast comprise weathered cowlings; these reduce the possibility of vertical rainfall from passing through the pots into the stacks and into building below. The surface of these pots was observed to be age weathered but still in satisfactory condition.

The rear chimney stack is again of brick construction, comprising lead flashings to its perimeter and the chimney pots appear to have been capped and removed in this location. Again flaunchings were not observable from ground level but will form the weathering of the top of the stack, particularly with this chimney stack where the pots have been removed. The condition of the flaunchings does need to be monitored periodically. Flaunchings are a relatively low cost to repair and an inspection of these should be carried out during the first maintenance cycle. Some re-flaunching works may be necessary.

The flue terminal located within this rear chimney stack could contain asbestos. This will only be ascertained when the flue terminal is removed or inspected from roof level. If it is found to be asbestos then further advice from an asbestos removal specialist may be necessary. Further investigation required.

A chimney stack is also provided to the rear addition, which comprises a flue to the gas Aga. This stack is of brick construction with lead flashings to the roof abutment, an earthenware pot with mortar flaunchings. Some cracking was observed in the flaunchings and the pot is currently has an open top, which means that it is possible that water penetration could occur down the flue during periods of rainfall. There are two pots and a boiler flue cowling in the same location. It was difficult to observe the right hand side of the chimney stack as this was shielded by plants from the adjoining roof addition. An inspection of the top of this chimney stack could be carried out from the adjoining roof terrace. This should be carried out as a matter of course.

3.02 Roof and Valleys

The building is in two sections, the main part of the building and the rear addition. The main section of the building comprises a clay interlocking tiled weathering, which is consistent with buildings in the 1920's we suggest it may have been recovered at this time these tiles are not known for their durability or there waterproofing qualities as it is not uncommon for driving rain to penetrate behind them, in this regard we refer you to the roof void section of the report. The tiles to the rear slope as far as could be seen were observed to be in reasonable condition. Clay tiles are provided to the ridge, bedded in mortar, which is

traditional and as far as can be seen from the rear elevation this slope is in reasonable condition. A ventilating tile has been inserted in the centre of the rear roof slope and as far as can be seen this is satisfactory although not ideal as these type of roof tiles were not designed to have ventilating tiles located within them. No significant defects are apparent.

A cement flashing is provided at the abutment between the roof slope and the rear addition. This cement flashing appears to have been installed reasonably recently, probably within the last three to five years. Cement flashings have an inherent defect and they are liable to crack at the abutment between the tiled surface and the brickwork as a result of movement between a flexible timber structure and an inflexible masonry structure. At the time of our inspection the flashing appears satisfactory as far as could be seen, there were some slight cracks but these will need to be monitored and a lead flashing may need to be installed in this location at some stage in the future. You may wish to install this lead flashing over the top of the existing cement fillet during the course of refurbishment works as a precaution.

The rear addition roof covering was barely visible due to the height of the building and general lack of visual access. However the rear addition roof is of slate construction comprising leaded ridge and hips. We were unable to inspect the valleys at the abutment with the main rear roof slope and we were unable to inspect most of the right hand side roof slope, which could be more readily observable from the adjoining properties balcony. However as far as could be seen the lead weatherings to the hips and ridges were intact as were the slate weatherings. I was informed by the vendor that apparently some roofing works have been carried out in the relatively recent past. The detailing at the abutment between the chimney breast and the ridge is awkward and will need to be monitored. As far as can be seen the rear addition roof and the rear slope to the main roof are in reasonable condition considering their age and should have a reasonable life expectancy subject to day to day maintenance and monitoring etc. Ideally the slopes and hidden valley coverings should be inspected in more detail when the refurbishment works are carried out and a scaffold is erected to provide the necessary access.

A small mono pitched slate covered roof weathering is provided above the cloakroom with lead perimeter flashings and this was all observed to be in satisfactory condition.

The front roof slope is again of pitched construction comprising clay interlocking tiled roof weatherings. As far as could be seen from the front elevation the tiled slope was observed to be in satisfactory condition, there were no tiles that were significantly out of alignment or in poor condition and overall we consider the tiled slope section of this roof to be in satisfactory condition. A further very shallow pitched roof section is located above the balcony but we were unable to provide an adequate inspection of this weathering, which we suspect to be zinc and we recommend that an inspection is carried out as a matter of course, ideally prior to commitment to purchase but if not then provision should be made within the budget of the refurbishment for recovering this roof as a provisional sum I would suggest fifteen hundred pounds but it is difficult to see the detailing, particularly at the main roof abutment which may be necessary and further investigation is required.

3.03 Parapets

Not applicable.

3.04 Roof Void

Access to the roof space was provided by the roof access hatch located on the first floor landing. We were unable to gain access to the rear addition roof space but ideally an access hatch should be provided within this because we doubt whether any insulation is located within this area and due to the amount of movement that has occurred to this part of the building it would also be recommended to ensure that the rafter ends and ceiling joists are adequately seated on the external wall, particularly adjacent to the stairway, where it would appear that a significant amount of movement has occurred.

The main roof is of traditional timber construction comprising timber rafters, timber purlin supports discharging load on a central spine wall. A bitumen backed hessian underfelt is provided to the main slope, which would indicate that the roof was recovered probably in the 1970's or 1980's. The underfelt was generally in good condition, there was one tear which we believe is the position of a vent that provides ventilation to the roof space, which is good practice.

The roof structure has been altered with an additional purlin to the front and other additional struts and supports, which all appear satisfactory. 100mm of fibre glass quilt insulation has been laid in between the ceiling joists, ideally this should be improved with another 200mm installed over the existing covering. The party wall between the two timber framed cottages has been plasterboarded so a fireproof barrier is provided between the two adjacent dwellings, which is good practice. It is also apparent that the main chimney stack has had an additional flue or a section installed since the original brickwork was constructed, no defects were apparent.

Evidence of insulation in the rear addition roof was apparent although no visual inspection of this area was possible as there is no roof access hatch, ideally one should be installed. Overall we consider the roof space to be in good condition, there are no significant issues or concerns that we have in relation to this area.

3.05 Rainwater Goods

PVCu guttering is provided to the front balcony pitched roof. It was raining at the time of our inspection but there was no seepage observable from the rainwater goods and therefore we can only assume that they are in good and substantial repair. There are deciduous trees within the vicinity and as a result the gutters should ideally be cleared on an annual basis. A PVCu rainwater downpipe is provided and this discharges within the demise of the adjacent property no significant defects were observed as far as could be seen to the downpipe but water could be seen accumulating at the base of the downpipe. It could be that there is a blockage in a gulley, this needs further investigation.

We were unable to actually see the guttering to the rear elevation as it is concealed within timber fascia boarding but it is recommended that this is inspected and checked both during the refurbishment and on a regular basis in the future. Concealed guttering is not good

practice so preventative maintenance and periodic maintenance will be necessary. This secret gutter discharges into a cast iron downpipe, which simply discharges onto the stone pavings to the rear addition courtyard. The downpipe was observed to be in good condition, some minor corrosion was noted in areas but this is not considered to be significant only decorative cosmetic repair is recommended in this regard.

PVCu half round guttering is provided to the rear addition, this discharges via a PVCu down pipe into a gulley on the corner of the rear addition and thereafter into the underground drainage system but as previously stated we were unfortunately unable to inspect the underground drainage system as a result of a timber permanent letter box being located over the top of the inspection cover. Ideally this letter box should be removed and inspection of the inspection chamber carried out as a matter of course.

Due to the rotational movement of the building, as previously advised, we recommend that the underground drainage pipes are tested to ensure there is no seepage or water egress from the pipes between the internal toilet facilities and the chamber. A flexible new pipe will also need to be installed within the first floor bathroom which is proposed. This is relatively straight forward.

A cast iron soil stench pipe is provided to the side of the rear addition, this was observed to be in satisfactory condition.

3.06 External Walls and Elevations

The front elevation is of timber framed construction, comprising timber weatherboard on the over the external face. The timber framing is original and unobservable, there may be brick infill but only a single skin thick structure is afforded and therefore the thermal properties of the structure will be poor to these front external walls.

The timber frame is concealed and there are no indications of significant defect in this front elevation but it is possible that wood boring insect attack may be occurring within the frame. In addition, the timber framing has not been constructed in accordance with modern regulations and requirements, however the quality of timber used in those days was far superior than the quality of timber used today and so structures of this time can be relatively durable. In addition, the front external wall is partly protected from the weathering elements by the balcony structure.

There is some undulation in the front elevation but this is not considered to be significant. It is also likely that there is no insulation within the wall, certainly at ground floor level and this would be relatively difficult to incorporate but it would be easier to incorporate insulation within the wall structure at first floor level, subject to some minor exposure works internally. At ground floor level sliding doors are also provided, which do need renovation in order to operate satisfactory it is recommend to temporarily remove these if possible and to inspect and treat timbers particularly at lower level, which may be suffering from wood boring insect attack or decay prior to reinstating the sliding doors. The sliding mechanism may need to be replaced in order to operate the windows to a satisfactory standard.

At ground floor level the small section of the rear elevation of the main section of the building is of single skinned brick construction, comprising a rendered finish. Above, at first floor level, the external wall is of timber framed construction comprising a weather boarded

covering. The rear addition is of single skinned brick construction throughout comprising a rendered finish externally.

As can be seen in the attached photograph there is some lateral movement at first floor level in the rear elevation of the main wall at the party wall junction with the adjoining property. This lateral movement is caused by lack of lateral restraint of the roof structure. This has occurred because in normal roof structures the ceiling joists of first floor rooms rest on the outside wall and the rafters are connected to these ceiling joists which triangulates the roof structure and provides its strength. However, in this instance the ceiling joists are connected to the roof rafters, which creates a sloped ceiling before the ends of the roof rafters are connected to the top of the outside wall. This type of structural construction causes stress on the lower, sloped section of the rafters and this causes the rafter ends to push out, this is called spread and this has caused the distortion at the top of the outside wall. The extent of the "spread" depends upon the load imposed on the roof by the roof covering. The building is likely to have originally comprised a slate weathering, which is about half of the weight of the clay tiles now applied. There is no evidence of any current movement of the structure in this regard and therefore we believe it has stabilised and not of significant structural concern although should always be monitored.

The rear addition, as observed from the road behind, is undulating. The rotation is in an anti-clockwise direction whilst looking at it from the road, which would indicate there has been anti clockwise rotational movement of this part of the structure. It is obvious whilst observing from the inside of the building that this movement has occurred over the life of the building over two hundred years. There is cracking observable internally above the door leading to the rear addition bedroom. This indicates that this movement is ongoing. It is difficult to ascertain as to the last time this area was redecorated but we would suspect approximately fifteen years ago, so within the last fifteen years hairline cracks have developed in this section of wall between the chimney stack and the rear addition flank external wall. This part of the structure, above the internal door opening is timber framed and therefore the formation of cracks in a timber framed structure is less surprising as there is more flexibility than what would have been the case if this section of wall would have been of masonry construction.

Whilst this hairline cracking as can be seen in the attached photograph it illustrates that movement is minimal but possibly ongoing.

The external walls were inspected externally and evidence of minor cracking, mainly historic, was apparent again. Some evidence of rotational movement between the main building and the rear addition was apparent, which would indicate that the movement is mainly with the flank elevation of the rear addition.

The heads to the internal door openings along the side of the rear addition, particularly at ground floor level are observed to be deflecting and there is an indication that significant movement has occurred over a long period of time slowly in a vertical plane to this side wall. This movement is generally in a downward direction caused by settlement but this does appear mainly to be historic.

There is clearly a cause for this movement which has gradually occurred over the history of the building. Structures usually move as a result of two main issues, the first is the washing away of particles of soil from the underside of any foundations and the second is by the ground drying out as a result of root action from nearby trees. Buildings can also suffer from

ground movement as a result of heavy clay soils during prolonged dry summers and wet winters.

In this instance root action from trees can be discounted as there are no trees within the local vicinity of the building and there is no evidence to suggest that there ever were any large trees in this area because of the close proximity of adjoining buildings, roads etc.

We can also discount general ground movement on the basis that a chimney breast structure is located in the kitchen area and this has not suffered movement like the adjacent outside wall has as can be seen in the attached photographs, therefore the outside wall is suffering from the movement in isolation. Therefore the only plausible solution would be the washing away of fine particles of soil from the underside of the foundations or base of the brick outside wall.

This type of defect can occur from three main sources the first would be seepage from underground foul drainage pipework. As there appears to be no underground drainage pipes in the local vicinity of the main part of this side wall, this possible explanation can be discounted.

The next is as a result of seepage from underground rainwater drainage pipes. Again there appear to be none and therefore this can be discounted.

As can be seen in the attached photographs, the rainwater downpipe serving the main rear elevation roof slope, simply discharges over the ground. This rainwater over the years will have gradually washed away the fine particles of soil from the underside of the foundations in addition to the rainwater that naturally falls over the courtyard stones.

When you observe the condition of the York stone flagstones to the side yard it is apparent that they undulate and they have no sealed joints and some of the slabs, particularly adjacent to the brick buttress, have dropped more significantly, so much so that a trip hazard has formed between adjacent slabs, this indicates that water has washed away the particles of soil from underneath these slabs so if this event has occurred to the slabs then it would have happened to the adjacent foundations as well.

Walls of this type of building are likely to comprise shallow brick corbelled foundations. Traditionally there would be 2 corbelled courses of bricks forming the foundations on each side of the wall. This corbelling spreads the load of the wall on the earth below. As this wall is only 100mm wide and not the usual 200mm width, the base of the foundations is narrower than usual and arguably more prone to movement caused by the washing away of particles from the underside of the foundations.

The simple solution would be to lift up the paving slabs create a waterproof barrier preventing rainwater from passing through the slabs and washing away the fine particles of soil from underneath the existing foundations of the side wall of the rear addition, creating a gulley for the rainwater goods to the rear elevation of the main building and then running that into the inspection chamber located at the very front end towards the end boundary of the main building. There may be some very minor movement between now and in the next twelve months but this is likely to be extremely minor in nature and once this has been carried out we would not expect any more settlement type movement of this rear addition.

The rainwater goods gulley and the foul sewage inspection chamber is located to the rear corner of the rear addition. unfortunately due to a permanent letterbox structure being located partly over this inspection chamber we were unable to inspect it but we would suspect that the reason why the rear elevation of the rear addition has rotated is partly as a result of fine particles of soil being washed away from the underside of the foundations in this localised corner area of the drainage gulley and rainwater downpipe over a long period of time.

It is also possible that there may have been seepage from the underground drainage pipes or the rainwater goods may have been defective for a number of years which may have led to this. Therefore the pipes between the inspection chamber and both the rainwater gulley and the soil pipework, are likely to need to be replaced but both of these pipes can be tested first. We recommend you make provision for their replacement as a precaution.

Therefore in conclusion from a structural perspective the rear addition has suffered long term movement historically caused as a result of lack of a gulley and underground pipework serving the rainwater drainage pipework to the main roof slope and general rainfall to the rear courtyard. A new gulley should be formed, taking the rainwater from the downpipe to the rear roof slope, running to the existing chamber. The existing below ground pipes should be checked and possibly replaced and the side yard should be re surfaced and this movement will cease.

There has been some slight rotational movement in the rear addition and some simple ties between the party wall and the side elevation of the rear addition in conjunction with connections at ground floor ceiling and first floor ceiling height between the party wall and the flank wall of the rear addition the roof and floor structures should be able to stabilise this structure adequately. The construction of a new plywood floor at first floor level will also assist. In order to obtain a specific specification for this type of work you would need to instruct the services of a Structural Engineer and we would recommend David Rose of Rose Associates contact telephone number 02078330666. This structural strengthening should be carried out at the same time as the refurbishment works are carried out.

With regards to the external rendering there are areas of cracks and these cracks will need to be raked out and cosmetic repair carried out to these. A structural engineer may recommend some superficial resin bonded repairs to the brickwork in order to provide more stability.

We understand it is your intention to carry out some quite significant alternations to the rear addition kitchen area by opening it out. If it is your intention to remove the existing chimney breast at ground floor level then I would suggest it would need to be removed at first floor level as well and beyond the roof and at this time the necessary structural tying works could be carried out and these would be relatively simple and straight forward in nature.

In addition to this the cosmetic crack repairs should be carried out. The outside walls are of single skin construction and this is not ideal both in terms of stability and also particularly in terms of insulation, durability, water penetration etc. and for this reason we would recommend that you line the inside face of the outside walls of the rear addition with insulated plaster board or insulation between a timber stud framing as this would provide suitable insulation for the structure.

3.07 Damp Proof Course

The new stone slabs that have been built up to the external timber framed wall to the front, west facing elevation will have breached any damp proof course and part of the cill will be below ground level although protected to a degree by the balcony structure from the weathering elements it would however be better if the slabs were removed, any timber underneath ground level was checked and repaired and then a gap provided between the French door cill and the external stone slabs to prevent lateral moisture transferal between the timber structure and the damp ground. Further investigation is recommended.

No damp proof course was observable, if a damp proof course exists then it should in theory be underneath the door cill and underneath the timber framing but this has been bridged by the stone slabs and as previously stated a small gap should be provided between the slabs and the structure to allow the structure to breathe adequately and preventing moisture ingress into the external timber low level structure, re-detailing is recommended to this elevation.

The external walls to the rear addition are of single brick skin construction but due to the fact that the external walls are applied with render right the way down to ground level it is impossible to confirm as to whether there is damp proof course or where the damp course is positioned. What we do know is that if the damp proof course once existed originally it is now 75mm below the original position, due to the movement that has occurred in the flank wall of the rear addition. So it is possible it may now be close to or at ground floor level and bridging of the dampcourse is a real possibility. This should be checked and the installation of a physical damp course in conjunction with forming a new concrete floor slab may need to be incorporated in your refurbishment project. We refer you to the internal dampness section of the report with respect to this.

3.08 Sub Floor Ventilation

The floor is of suspended timber construction at ground floor level in the main reception room but there is no ventilation to the sub floor timbers. Instead slabs have been installed with a gradient falling way from the subject property and it is possible that underneath these slabs there are brick air vents provided. It is important to ventilate sub floor areas to prevent the moisture content of the sub floor timbers from increasing. When the sub floor moisture content increases to the sub floor timbers, this provides an ideal environment for wood boring insect attack and timber decay to occur to the joinery. As a result it would be beneficial to reinstate sub floor vents in this area. This is possible but detailing would need to be considered.

Within the rear addition area the external ground levels have been raised slightly by installing the stone slabs and vents have been formed which provide a continuation of the ventilation to the sub floor timbers within the rear addition. Due to the positions of these vents it does appear that most of the sub floor area to the rear addition is ventilated and we refer you to the internal flooring section of the report with respect to our comments regarding these.

In our opinion sub floor ventilation is not particularly adequate at the moment, if sub floor vents were provided at the other end of the building towards the rear garden then we would

consider sub floor ventilation to be satisfactory so ideally sub floor ventilation is required to this area but all the time the ground floor is of suspended timber construction then this sub floor ventilation needs to be maintained. If you decided to change the floor in the rear addition to concrete then the sub floor vents to the rear addition would not be required.

3.09 External Joinery

The property access gate to the east elevation comprises a timber weatherboarded fence, which comprises a gloss painted finish and was observed to be on the whole in good condition.

There is also a balcony structure to the west, which is of timber construction. Technically of course this is listed and any alteration to this would need listed building consent. I am not convinced that it is original in any way, the detailing suggests that it is of the 1920's design. Some pockets of timber decay were noted in various areas within this structure and repair is required.

In addition, the base to the two main front posts comprises a stone, which appears to be just resting on a flagstone and the timber frame has begun to move away from these supporting structural support "stones" and as a result we recommend that the structure is temporarily propped and a new support base is provided for the timber structure. It may be possible to retain the existing stone blocks but this does need to be readjusted because eccentric loading on these blocks is likely to cause them to fail at some stage in the future. (See attached photographs)

The joinery which is in disrepair and requires pockets of repair can only be repaired with a product known as The Window Care System. This is an epoxy based product and is applied to the area of repair once the rot has been drilled out and removed. It is eminently durable and is better to do this than splice timber repairs as modern timber is of poor quality and will fail prematurely and so when you engage a contractor to carry out this work you will need to ensure that they are experienced in window care repair works.

An example of this is a splice which has occurred to the left hand side lattice as can be seen in the attached photograph. This has been splice repaired in a traditional manner and this repair has failed and now a greater repair is required to this section.

Timber boarding is provided at first floor level to the balcony, this is a relatively basic structure but largely appears intact and in reasonable condition considering its age exposure and type but this will need to be monitored and maintained and the application of some timber preservative to this is recommended.

Timber French doors are provided in a gothic/regency style at ground floor level, these are original and were observed to be in good condition considering their age. As previously stated the door cill to the main reception room external doors is partly located below ground level, which is not good practice as it could be permanently harbouring dampness which could cause decay and as previously stated the sill needs to be exposed, inspected, repaired where required and ventilated permanently.

The base to the existing front entrance door was located in a very flimsy timber framed frame to the side addition it would be better to be installed where the steel gate is positioned.

We are aware that you are considering some significant works to be carried out to the building and no doubt this extends to the rear addition windows and doors. Listed building consent would be necessary for you to replace any of the external windows or doors, which may or may not be easily obtainable, you would ideally need to discuss this with the conservation officer or your project manager on site.

The back/front door (entering the hall/kitchen) is of 1980's construction and it comprises internal quality architrave located around it. Ideally it should just be replaced in its entirety with something more durable and better in detail.

Repair has been carried out at low level to the left hand architrave this will only fail again in the relatively near future because the timber is not treated or of external quality and cracks have already developed in the paint finish and water penetration will occur into this and decay will occur this is inevitable as a result we would recommend the door is replaced in its entirety and completely redetailed.

There is a door in the rear addition, adjacent to the previously mentioned one, which has been painted shut. This is a significantly older door with an elongated cill, again listed building consent will be required in order to change this but we recommend that it is changed or retained as a window it has no insulative qualities, either way joinery repairs and redecoration will be necessary to this.

Further along the flank rear addition elevation a window has been located over what was originally appears to be a door opening. Window care repairs to timber decay are required to the bottom rails of this window, which are not obvious unless you push the timber which is a little spongy and clearly there is decay in these locations.

Similarly there is a door which has been blanked over which leads to the rear of the ground floor reception room which has all been painted shut the door is completely unusable and listed building consent will be required in order to replace this.

At first floor level new double doors have been installed to the Juliet balcony and we understand this was as a result of police requiring access and these were observed to be in reasonable condition although a little draughty. Draught proofing is recommended around this pair of double doors.

The main reception room comprises a pair of French patio doors, which were observed to be very basic but still in operational condition, consideration should be given to making them more secure and possibly upgrading the operational support and slide mechanisms above and below the doors so they operate better.

Access to the balcony is provided at first floor level, the balcony timbers are generally in satisfactory condition there was some slight evidence of timber decay to the end of some of the boards but they were otherwise functional and the timber generally to the balustrade was in reasonable condition and this needs to be maintained. The gaps in the balustrading may be large enough for a small child to pass through so if you do rent the property out it

may be advisable to install Perspex or similar guarding below handrail height. In addition the doors accessing the balcony would benefit from some draught proofing.

The hall casement window is quite significantly out of alignment and this is caused as a result of the settlement that has occurred to the building over its life. This window will be particularly draughty as a result. However it is possible to make the necessary amendments to this window to fit more snugly into position and be more draught proof.

The actual joinery is in reasonable condition and there was not any significant sign of decay It is an integral historical part of the building and if to replace it technically speaking you would need listed building consent.

Easement adjustment and general repair of the other windows in the rear addition are also recommended including draught proofing just a general overhaul is required with some window care repair and redecoration. It would appear that this building has not been particularly well looked after over the last fifty or so years and now more substantial and specific rather than general repair is required.

An external gas meter box is provided adjacent to the east entrance gate, this would benefit from redecoration and repair.

3.10 External Decorations

The external joinery to the property comprises a gloss painted finish, this was observed to be peeling and redecoration is now due and it is really important that the existing coatings are removed back to a sound surface, the existing surfaces are adequately prepared and a good quality gloss finish applied to the existing coatings because whilst paint is only decorative, it does still provide some water proofing qualities to prevent water ingress occurring into the timber, which will inevitably reduce the likelihood of decay in the future. Redecoration is now due to the front elevation.

The masonry walls comprise a masonry paint finish whilst the external joinery comprises a gloss painted finish and all of the paint coatings were observed to be in poor condition and redecoration is now due.

3.11 Ceilings

Lath and plaster ceilings are provided in most areas, these have been lined and if you intend to remove these lining then replastering must be anticipated the ceilings are in relatively poor condition as a whole and we recommend that you consider over boarding them with plasterboard. The cloakroom ceiling has been plasterboarded and it sounds as though there is no insulation in this area and ideally fibre glass insulation should be installed above as a matter of course.

Where original ceilings are of lath and plaster construction, they have an inherent defect in that they are vulnerable to sudden collapse, particularly if subjected to undue vibration or dampness. They rely on the nibs between timber laths for their strength and if these nibs crumble or break, areas of ceiling plaster below become loose and can fall without warning.

Areas of ceiling plaster which can appear to be sound may be found to be loose and defective on removal of lining paper and other coverings.

The ceiling in the hallway above the stairs has been over boarded with ply wood and the ceiling in the rear main bedroom has been plasterboarded and lined.

The ceiling in the main bedroom may also have been plaster boarded but has also been lined it is not in particularly good condition and over boarding and skimming is recommended.

3.12 Internal Walls and Partitions

At first floor level the walls are of timber stud construction, very basic dry lining has been applied to the party wall between the subject property and the adjacent property to the north. This dry lining is constructed in hardboard or a similar material and this has been papered over, it is in poor condition and we assume it will be removed during the refurbishment.

The partitioning has suffered from long term movement, particularly in the rear addition but these areas of movement are in line with the general movement that has occurred to the building over its life and we remain unconcerned in relation to this if the recommended remedial works as previously described in relation to the rainwater disposal and the side elevation paving are carried out.

At ground floor level the main reception room comprises a large opening between the front and the rear sections. There is a slight deflection in the beam supporting the wall above this opening and we suspect that there is a timber beam behind it rather than a steel support but the deflection is minimal and overall we have no specific concern, although it will need to be monitored. The beam has been in place for a considerable time and the level of deflection is small in this regard.

Areas of debonded plaster were noted in a large number of areas and so plaster repairs must be anticipated when the wall coverings are removed.

Dry lining has also been applied to a number of internal walls, particularly in the kitchen area and we presume that you will be intending to remove this. We cannot confirm as to what this is concealing but it often conceals defective wall plaster, which is partly why we are anticipating relatively extensive plaster repairs. In the case of external walls we recommend insulated plasterboard is applied to the internal face of external walls to provide insulation as the external walls currently have none and the structure will be particularly difficult for heat to be retained.

3.13 Fireplaces, Flues and Chimney Breasts

The main reception room comprises two chimney breasts both of which were sealed and not accessible due to large items of furniture being in their way and we are therefore unable to comment on their condition.

The kitchen comprises a brick chimney stack, this comprises an Aga, which is currently operational and the flue terminal for this gas appliance discharges at roof level as previously

described under the chimney stack section of the report. No defects were observed in respect of this chimney breast. We understand it is your intention to have it removed at ground floor level. This is possible but we would recommend but listed building consent would be required for this.

The first floor chimney breast located directly above this has also been sealed over.

It is not clear as to why there is a damp patch in the wall at first floor level, in the bedroom adjacent to the chimney breast. This was observed to be relatively dry at the time of our inspection and enquiries should be made via the vendor but we suspect that this could be as a result of a roofing defect, which may have been resolved, this plaster is now defective and needs to be hacked off and replastered we would recommend that a waterproof plaster be applied in this location.

Again the fireplaces to both the first floor master bedrooms are covered with bed heads and as far as could be seen these have been sealed up and we cannot confirm their condition.

3.14 Floors

At first floor level suspended timber floors are provided throughout. The floors were observed to be out of level, particularly in the rear addition where the building has suffered from significant movement over its life. The flooring levels are consistent with this historic movement. It would be advisable to ensure that the floor joists have adequate seating on the external wall if not some remedial repairs may be necessary this is only purely because there has been so much movement in the external walls. No other significant defects were apparent.

At ground floor level suspended timber floors are again provided. Sub floor ventilation is provided within the rear addition but not within the front section of the original part of the building as described under the sub floor ventilation section of the report.

There is a significant area within the main reception room that we were unable to access due to furniture, belonging etc. being stored and we do have concerns in relation to this floor as a result of lack of ventilation to the rear. As and when you remove the existing carpets and go back to the original floor finish we would anticipate there to be wood boring insect attack in some of the sub floor locations and it is possible that there may also be timber decay and some repair is likely to be necessary. The extent of this can only be established when all the furniture and carpets are removed and a sub floor inspection is carried out.

In particular the area adjacent to the bottom of the stairs there were some creaky boards and also the floor does deviate in this location, which would indicate that some of the sleeper walls or joist ends may be defective and further investigation is required in relation to this.

It is difficult to advise in respect of the condition of the sub floor areas within the kitchen and rear addition. For example the kitchen floor undulates quite significantly underneath the linoleum finish but this is fairly consistent with overlaying of floor covering materials and it is possible that there are several layers of floor coverings underneath the linoleum finish.

The floor has a gradient from left to right as you look down the rear addition, which is consistent with the manner in which the building has moved over its life. The utility area comprises a timber boarded floor which was observed to be in as satisfactory condition but this appears to be part suspended timber and part concrete but the floor levels are relatively low and ideally there should be a gap of two brick courses i.e. 150mm between internal floor and external ground levels, with external ground level being the lower and this appears not to be the case in this instance. The existence of a gap prevents the likelihood of lateral moisture penetration occurring and we do feel that the presence of timber laminate flooring and the vinyl flooring are hiding a multitude of sins underneath. The flooring is considerably out of alignment and we understand that it is your intention to open up this rear addition and as a result we would recommend that you include in your budget to relay the floor structure. It would be worth considering laying an insulated concrete floor.

This will need some consideration as there is a reduced head height issue with the staircase position at the abutment between the kitchen and the hallway. Further investigations are recommended and we would anticipate that some sub floor timber repairs are likely to be necessary.

3.15 Internal Joinery and Kitchen Fitments

A timber door is provided to the main reception room, this was observed to be in satisfactory operational condition.

The staircase appears to be original and was observed to be a little flimsy but still in reasonable operational condition, there was movement in the lower treads when compressed, which may be due to age or defects within the floor underneath as previously described. Further investigation of the sub floor structure in this area is recommended.

The kitchen door does not fit particularly well. The hinges are poor it does self-close but it binds with the frame and on the whole the doors would generally benefit from easement and adjustment in order to operate them satisfactorily. There are also gaps above some of the doors, which you might wish to have infilled for privacy reasons, particularly to the cloakroom, bedrooms etc.

The utility area comprises a timber worktop, which was stained but functional. Wall mounted cupboards are also in a functional condition. Timber skirting's are provided and these were generally in reasonable order, timber panelling is provided in the hallway, which is likely to be original and was observed to be in reasonable condition.

Overall we consider the internal joinery to be in satisfactory generally operational condition although some easement and adjustment with doors etc. is recommended. The kitchen is of timber construction comprising a timber worktop again some staining is evident some of the doors are ill fitting and the kitchen would benefit from upgrading and we understand this is part of what you are proposing to the subject building.

3.16 Internal Decorations

A large number of areas comprise papered finishes and when these papered finishes are removed areas of debonded and damaged plaster are likely to become evident and as a result a large number of plaster repairs are likely to be necessary redecoration is also due.

Rather than going to the expense of removing some of these coverings you may elect to install insulated plasterboard straight over the existing finishes. This may be a more economic solution.

3.17 Cellar/Basement

Not applicable.

3.18 Dampness

A Mini 3 Protimeter was used to detect for damp and high damp readings were obtained in the following locations:-

In the utility, ground floor cloakroom, kitchen and moderate readings were obtained in the hallway at low level. It is therefore clear that there are some issues in relation to rising dampness from the ground and there may have been some damp proof course failure and as a result we recommend that you obtain a specialist damp proofing quotation prior to making a commitment to purchase and we refer you to the damp proofing appendices at the end of this report in this regard.

It is important to ensure the areas of dampness are eradicated in order to prevent moisture penetration from occurring into adjacent joinery, which can otherwise cause timber decay to occur. There was no significant evidence of timber decay caused as a result of this dampness but we must stress that our inspection was significantly restricted as a result of furniture particularly in the main reception room and there was hardly any access to the external perimeter walls in the rear addition at ground floor level due to the presence of kitchen and utility units etc.

It should be noted that in the rear addition where access was provided a number of areas of high damp readings were obtained and therefore you should expect to find further areas of dampness when better access is provided.

3.19 Timber Decay and Infestation

Some evidence of wet rot timber decay was apparent externally and we have already confirmed this located in cills and the balustrading/balcony structure etc. window care repairs should be carried out to these areas.

There were also some high levels of dampness at low level internally and in these areas the dampness needs to be isolated from adjacent timber, otherwise timber decay is likely to occur. Due to the lack of sub floor ventilation in the main reception room area we would not be surprised if there was timber decay in some of these areas and also wood boring insect attack. Our comments are the same in relation to the kitchen floors and provision should be made for timber treatment in your budget during your internal refurbishment works.

3.20 Thermal Insulation

The external walls are single skin brick and timber framed construction and perform poorly in terms of thermal insulation, however it is possible to line the internal face of the external walls with insulation such as Cellotex or similar, which will assist the walls in performing better in terms of retention of heat.

In addition, the roof should also be improved by adding at least another 200mm of fibre glass quilt insulation to all roof areas. General improvements can be made at reasonably low cost during the course of refurbishment works.

4.00 SERVICES

4.01 Gas

A mains gas supply is provided, the meter for which is located in the elevated timber box located on the back addition rear wall. This serves the Vaillant Eco Tech Pro 28 combination boiler located in the rear addition. This type of boiler is entirely suitable for this type of property as there is only one bathroom and the heating system to serve, it may be possible that this could be retained. A gas fired Aga is also provided, which is located in the kitchen and copies of gas service records should be obtained in relation to the servicing and maintenance of both the Aga and the gas boiler via your solicitor. Both items will need to be serviced on an annual basis.

Vaillant boilers are generally considered to be good quality and the Aga did provided a lot of heat to the kitchen as well as providing a cooking facility there are no obvious issues observable although the pipework was concealed from view. There is some steel barrel pipework located at high level in the rear addition we cannot confirm what this is serving but it could be the gas appliances. Ideally this should be run in copper and concealed.

4.02 Electricity

A mains electrical supply is provided, the distribution board for which is located again in the cloakroom at ground floor level and this is a relatively modern miniature circuit breaker distribution board. The miniature circuit breaker board appears to be well labelled, some re wiring works have been carried out and surface run PVCu conduit was apparent to some of these and we presume you are intending to bury all surface run conduit.

There is no central light in the main reception room and lamp standards are operated from a main switch, we were unable to find the electrical socket outlets in the main reception room due to personal belonging being located in this area but there were extension cables, which would indicate a lack of socket outlets and so upgrading of the electrical installation is likely to be required. If it is your intention to refurbishment the kitchen and rear addition as a whole then we do believe it would be more economic to rewire the property rather than to connect into the existing circuitry.

With some of the timber partitions some surface mounted electrical installations were noted these are not ideal as can be seen in the photograph one of the electric cables was observed to be exposed and should be concealed we therefore suspect that you will be rewiring the property as a matter of personal preference.

A double socket outlet is located in the cloakroom and this contravenes the wiring regulations and this should be removed.

4.03 Cold Water

A mains water pipe is provided and this appears to come into the property via a lead main. There are issues in relation to drinking water from lead mains and you would be recommend

to either install a water filter in the kitchen or have the lead main replaced with modern PVC.

Copper pipework was located above and below the stopcock and we did get access to this but the stopcock was seized and would benefit from replacement.

4.04 Hot Water

Hot water for the hot water installation is provided by the Vaillant boiler located in the utility room. Hot water pressure was observed to be satisfactory. There is no provision for hot water storage as hot water is drawn directly from the boiler on demand.

4.05 Space Heating

The Vaillant combination boiler produces hot water for the heating system and the heating system comprises a series of copper supply pipes and steel panelled radiators, which are of considerable age and will not be particularly efficient by modern day standards. These radiators comprise thermostatic control valves although a thermostat is also provided as a backup.

There appears to be an adequate number of radiators at first floor level but they would benefit from upgrading if you intend to retain the system due to the general lack of insulation in the external walls and also the minimal insulation in the roof.

4.06 Sanitary Fittings

A steel bath with shower adaptor, hand basin and separate cloakroom are provided. These were all observed to be in good operational condition. The toilet cistern is Bakerlite and contains asbestos fibres so it should not be smashed up and should be carefully disconnected and removed.

4.07 Drainage

An inspection chamber is located within the frontage area adjacent to the front gate, however this was not accessible due to the position of the timber letter box and as previously stated this need to be opened and checked as a matter of course.

A stench pipe is provided to the flank elevation, which is observed to be in satisfactory condition and the rainwater downpipe to the corner, serving the rear addition guttering is partly of PVCu and partly of cast iron construction and appears satisfactory. Deciduous trees are located in the vicinity and clearance of guttering will be periodically required as a consequence of routine maintenance.

5.00 THE SITE

5.01 Garage

Not applicable.

5.02 Substantial Outbuildings

Not applicable.

5.03 The Site and Local Factors

The property is accessed to the rear via a communal path, which traditionally appears to be the front elevation. This comprises a timber gate with lock. The timber gate was observed to be in functional condition at the time of our inspection.

The property frontage comprises stone crazy paving and as previously stated the area of stone slabs to the front of the double doors should ideally be reconfigured slightly in order to facilitate a two brick course gap between damp proof course and ground level to prevent any future potential bridging of damp proof course and also to enable sub floor ventilation.

The garden would also benefit from maintenance. There was no surface water drainage provision observable although there appears to be a general gradient away from the subject property there is a pile of stone slabs in the corner adjacent to the front tree and it is possible that there may be some rainwater gulley in this location, but this would need ascertaining. There was no build up or ponding of water at the time of our inspection.

The side courtyard comprises stone slabs and as previously stated these need to be re-laid ideally with waterproofing underneath them with the gradient away from the building and towards the front gate into a gulley which it should then be discharging into the inspection chamber.

A timber gate is provided to the east entrance, this was observed to be in reasonable condition and would benefit from redecoration.

5.04 Trees

There are trees located to the rear of the property and these were in the demise of other buildings but these are not considered to be of a suitable type that would be a concern with regards to root damage to the subject building as they are far enough away and as a result we remain unconcerned and you should ensure that trees are not planted close to the building because roots from trees are likely to cause damage to the shallow foundations of the subject building. There were no trees located to the property front yard/original rear addition.

5.05 Boundaries

Basic timber boundary fencing is provided to the western side of the building, this fence was in poor condition in areas, particularly adjacent to the building where it was leaning and the base appears to be rotten but the remainder appears to be satisfactory for the time being.

On the northern side wrought iron railings are provided and these would benefit from redecoration. Plants have been weaved around them but corrosion was observed around the base and also around the top and unless these are adequately prepared and redecorated soon then more significant corrosion will occur so it is advisable to redecorate these railings to a good standard.

Your solicitor should advise as to whether this is your boundary to maintain and they may be able to obtain such information from the land registry drawings, further investigation is recommended. There is also a section of brick boundary close to the building, some repointing repairs are recommended to this in the short term.

A brick boundary wall is provided to the eastern courtyard of the building, this is in fair condition considering its age, the decorative finish is in poor condition and this would benefit from redecorating. In addition, the plants should be removed as their roots will cause damage to the integrity of the wall over time.

There is trellising above the rear gate, some of this was missing and would at least benefit from treating you may wish to replace it as a matter of personal preference.

5.06 Wayleaves, Easements and Rights of Way

None obvious or apparent, solicitor to confirm.

5.07 Planning and Environmental Matters

We are informed that the property is grade II listed and located within a conservation area and there will therefore be quite significant restrictions on carrying out works other than like for like replacements and planning consent/listed building consent is likely to be necessary. Further advice is recommended depending on your personal requirements.

6.00 MATTERS TO BE REFERRED TO YOUR LEGAL ADVISERS

1. **Copies of any damp or timber guarantees.**
2. **Boundary maintaining liability.**
3. **Copies of any electrical certificates or building control approvals for the new boiler.**
4. **Details relating to the roofing works carried out.**
5. **Service history of the gas appliances.**
6. **Vendor advised there were investigations in relation to whether the rear addition needed underpinning. The report apparently concluded not; solicitor to provide a copy of this report. If this is not forthcoming then an engineer's report is recommended to the rear addition structure as a whole.**

7.00 LIMITATIONS

You will appreciate that due to the nature of this pre purchase investigation we have had to restrict our examination to those parts of the building that were accessible, exposed or uncovered at the time of our inspection. Our external inspection was from ground and roof levels and internally we have not opened up any concealed surfaces by removing plaster, furniture or raising fitted carpets, we have done our best to draw conclusions about the construction and condition of the property from the surface evidence visible at the time of our inspection. Furthermore this report must be read in conjunction with our Conditions of Engagement.

We have not at this stage arranged for a test on the plumbing or electrical installations.

No tests have been carried out on the service installations. Only significant defects and deficiencies readily apparent from a visual inspection are reported. Compliance with regulations and adequacy of design, conditions or efficiency can only be assessed as a result of a test. Should you require any further information in this respect, it is essential you obtain reports from an appropriate specialist before entering into a legal commitment to purchase. We would advise you that this report is deemed to be accepted on the understanding it is based on the following conditions.

The property was built prior to the current building regulations.

Our inspection of the roof was severely limited as was access to the perimeter walls at low level to the ground floor accommodation.

No access was provided to the inspection chamber.

8.00 CONCLUSIONS

In conclusion we consider the property to be in reasonable condition but there are some issues, which need to be addressed some are contained below:-

1. All items contained in Section 6 of this report.
2. Eradicate areas of damp and obtain specialist report and estimate.
3. Upgrade roof and wall insulation.
4. Install hard wired smoke and heat detection system
5. Rewire the property
6. Further investigate the sub floor structure at ground floor level.
7. Provide drainage system to serve rainwater goods and relay east courtyard pavings with damp membrane under.
8. External redecoration and joinery repairs and upgrading of misshaped windows and provide draught proofing.
9. Inspect areas of roof, including balcony roof which is unobservable without scaffold access.
10. Upgrade sub floor ventilation.
11. Re-seat supports to west balcony structure.

You are advised to ideally obtain quotations from reputable contractors before you exchange contracts.

When you have all this information you will be fully equipped to make a reasoned and informed judgement on whether or not to proceed with the purchase.

This report must be read as a whole and although we have stressed and itemised certain points, which we consider to be essential repairs, other items mentioned in the report must not be neglected.

There may also be other matters of a personal nature, which will involve expenditure in the future, these should be borne in mind.

Please note that we have inspected the site in so far as possible for evidence of Japanese Knotweed. You must be aware however that we are not specialists on this issue and it is quite possible that evidence of this plant may be concealed by other vegetation or simply the size of garden areas, the time of year and other factors. This plant in particular is becoming more common in the London area. Should this issue be of particular concern (and the presence of such plants has not been identified in the report), you may wish to obtain further specialist advice on this issue prior to your purchase of the property. Your legal

advisers should also investigate whether there have been any issues of this nature during the vendor's occupation or historically

9.00 ADDITIONAL ADVICE

It is recommended that the property is insured for not less than £600,000 (six hundred thousand pounds) in respect of standard perils. This figure should be annually adjusted, or index linked, thereafter to ensure that adequate cover is maintained.

Signature of Surveyor .....

Ian Pearce, BSc (Hons) MRICS

For and Behalf of: WARMANS Surveying
(Warmans Cube Ltd)
Second Floor
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Islington
London
N1 1SD

Telephone Number: 0207 226 2233

Date of Report: 4th January 2017

10.00 PHOTOS

1. **Inspect what appears to be a zinc roof to the balcony.**

2. **Sub floor ventilation required and a gap between door sill and external surfaces, also inspection of the condition of the timber sill, currently under ground level.**

3. As above.

4. Timber decay evident to balcony structure.

5. As above.

6. Window care repair required.

7. Paint coatings require redecoroation.

8. Redecoration required in conjunction with careful removal of corrosion to boundary railings.

9. As above.

10. Some minor brick boundary repairs also required.

11. This is the rainwater downpipe to the east courtyard that requires a drainage system taking the rainwater away from the building.

12. Deviation in the external rear wall caused as a result of roof spread.

13. Rainwater perculates through the paving gaps causing them to settle unevenly and contributes to the movement to the flank wall, this is why we recommend a damp membrane is located under these slabs.

14. Redecoration required.

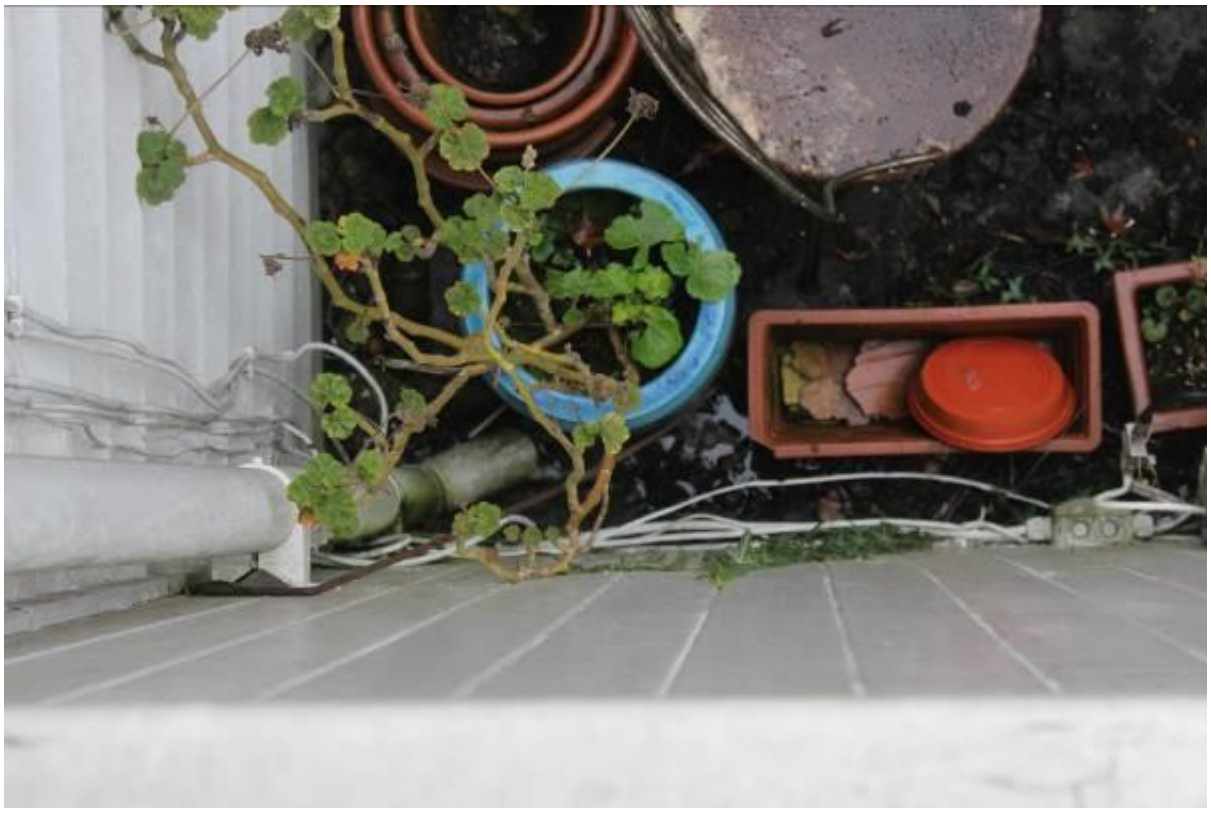
15. Joinery window care repairs required to some rear addition windows.

16. As above.

17. Poor internal quality architrave timber used, this should all be redtailed.

18. Rear reception room door fixed shut.

19. Ends of balcony decking showing signs of decay.



20. Rainwater build up noted in adjoining property to downpipe serving west elevation roof. Further investigation and repair/unblocking is required.

21. Redecoration and repair required to external joinery to rear addition.

22. As above.

23. Poorly formed surface run conduit.

24. Plaster repairs required to first floor bedroom where water damage has occurred.

25.

26. Repair and redecoration of gas meter box is required.

27.

28. Some cracking observed to rear addition masonry indicating the movement Is slowly ongoing.

29. Front balcony support base now out of alignment and in need of re-seating.

30. As above.

31. The balcony roof can be seen here to be zinc or lead, further investigation recommended.

32. Evidence of some insulation in back addition roof space as viewed from the front roof space. An access hatch in this roof space is recommended.

33. Additional roof supports and fireproofing of party wall to main roof space.

34. Support to base of rafter not ideal but currently satisfactory, this needs to be monitored or strengthened in some way.

35. Ceilings would benefit from overboarding.

36. Some minor movement evident in first floor bedroom.

37. Overboarding recommended to first floor ceilings

38. The roof construction has caused the rear wall to spread as demonstrated in photograph 12, but there is no significant evidence of this being ongoing.

39. Slight cracking above first floor door opening indicating movement is ongoing.

40. Door openings to the rear addition are out of alignment.

41. High damp readings noted.

42. High reading noted in first floor bedroom, this could be caused by salt contamination, replastering required and further investigate by inspecting roof above.

43. Air gap between door and frame.

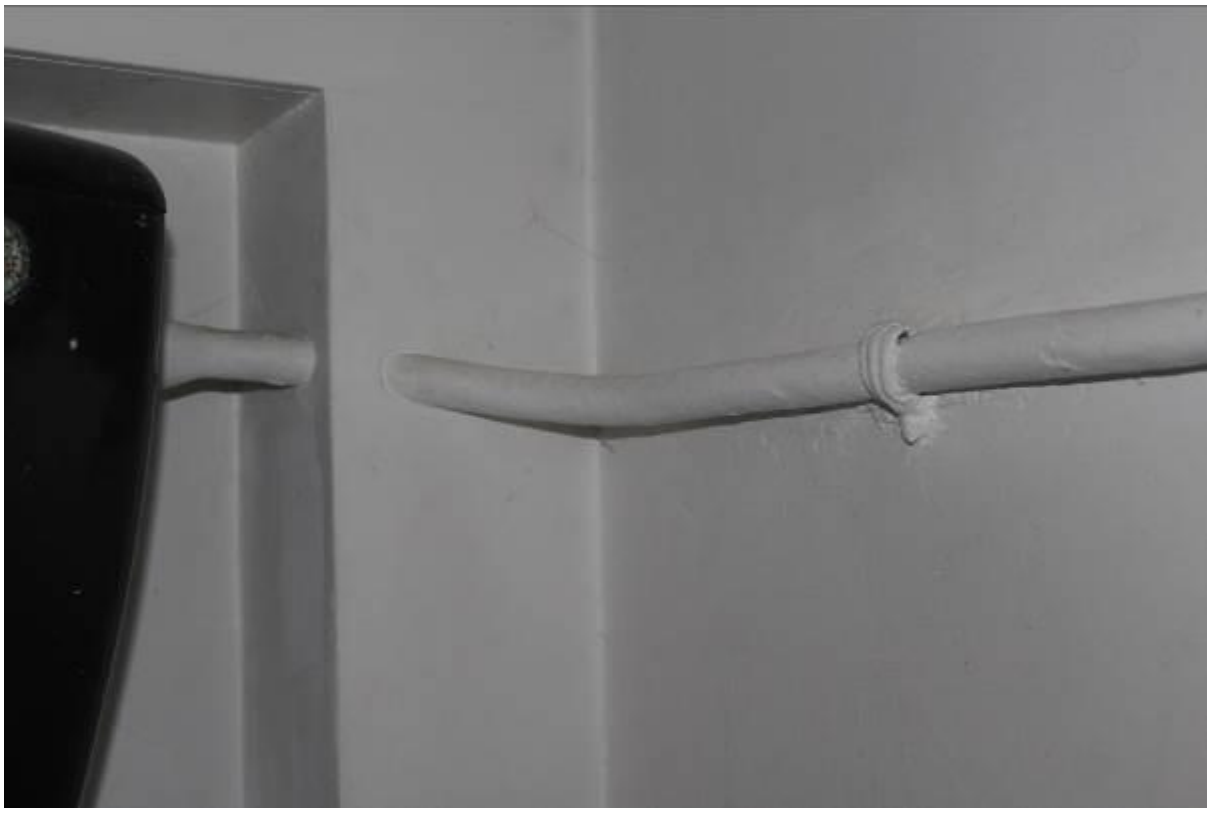
44. Replace broken glass pane.

45. Surface run ground floor pipework, unsightly, recommend concealment if not redundant.

46. Poorly designed electrical socket facilities, also note one of the positions has been blanked off with tape. Further investigation or rewiring required.

47. Poor electrical detailing.

48. As above.



49. Lead main cold water pipework.

50. Socket outlet in cloakroom contravenes the IEE wiring regulations.

APPENDIX A
BUILDING TERMS EXPLAINED

Aggregate	Broken stone, gravel or sand used with cement to form concrete. Aggregates may be course or fine and are often used in the construction of “soakaways”.
Air Brick	A perforated brick built into a wall for the purposes of providing air for ventilation purposes. Used for instance, to ventilate the underside of a wooden floor or a roof space.
Architrave	A moulding around a doorway or window opening. It usually covers the joints between the frame and the wall finish, thus hiding any shrinkage gaps, which may occur.
Asbestos	Material used in the past for insulation. Can sometimes be a health hazard – specialist advice should be sought if asbestos (especially blue asbestos) is found.
Asbestos Cement	Cement mixed with 15% asbestos fibre as reinforcement. Fragile – will not usually bear heavy weights. Hazardous fibres may be released if cut or drilled.
Asphalt	Black, tar-like substance designed to be impervious to moisture. Used on flats roofs and floors.
Barge Board	See “Verge Board”.
Balanced Flue	Common metal device normally serving gas appliances which allows air to be drawn to the appliance whilst also allowing fumes to escape.
Baluster	A post or vertical pillar supporting a handrail or parapet rail.
Balustrade	A collective name for a row of balusters or other infilling below a handrail on a stair or parapet.
Beetle Infestation	(Wood boring insects e.g. woodworm). Larvae of various species of beetle can tunnel into timber causing damage. Specialist treatment normally required. Can also affect furniture.
Benching	Shaped concrete slope beside drainage channel within an inspection chamber. Also known as “Haunching”.
Bitumen	Black, sticky substance, similar to asphalt. Used in sealants, mineral felts and damp proof courses.
Bond	The regular arrangements of bricks or stones in a wall so that the units may be joined together. The principal types of “bond” used in domestic construction being English, Flemish, header stretcher, diagonal or garden wall bond.

Breeze Block	Originally made from clinker cinders or ("breeze") – the term now commonly but incorrectly used to refer to various types of concrete and cement building blocks.
Carbonation	A natural process affecting the outer layer of concrete. Metal reinforcement within that layer is liable to early corrosion, with consequent fracturing of the concrete in some cases.
Casement Window	A window composed of hinged, pivoted or fixed sashes.
Cavity Wall	Traditional modern method of building external walls of houses comprising two leaves of brick or blockwork usually separated by a gap ("cavity") of about 50mm (2 inches).
Cavity Wall Insulation	Fillings of wall cavities by one of various forms of insulation material: **Beads:** Polystyrene beads pumped into the cavities. Will easily fall out if the wall is broken open for any reason. **Foam:** Urea formaldehyde foam, mixed on site, and then pumped into the cavities where it sets. Can lead to problems of dampness and make replacement of wall-ties more difficult. **Fibreglass:** Inert mineral fibre pumped into the cavity.
Cavity Wall-Tie	A twisted piece of metal or similar material bedded into the inner and outer leaves of cavity walls intended to strengthen the wall. Failure by corrosion can result in the wall becoming unstable – specialist replacement ties are then required.
Cesspool	A simple method of drain comprising a holding tank which needs frequent emptying. Not to be confused with "septic tank".
Chipboard	Often referred to as "particle board". Chips of wood compressed and glued into sheet form. Cheap method of decking to flat roofs, floors and (with Formica or melamine surface) furniture, especially kitchen units.
Cleaning Eye	Sometimes known as an 'access eye' or 'rodding eye'. An opening in a drain or ventilation pipe, covered by a plate, the removal of which allows the drain to be rodded to clear blockages.
Cob	Walling of damp earth sometimes mixed with cement rammed without reinforcement into a framework. This cheap method of walling has in the past been practised mainly in East Anglia and the West of England.
Collar Beam	A horizontal tie beam of a roof which is joined to opposing rafters at a level above that of the wall plates.

Collar	Horizontal timber member designed to retain opposing roof slopes. Absence, removal or weakening can lead to roof spread.
Combination Boiler	Modern form of gas boiler which activates on demand usually within a pressurised system. With this form of boiler there is no need for water storage tanks, hot water cylinder etc.
Coping/Coping Stone	Usually stone or concrete, laid on top of a wall as a decorative finish and designed to stop rainwater soaking into the wall.
Corbel	Projections of stone, brick, timber or metal jutting out from a wall to support weight above it.
Cornice	A large moulding at the junction between an inside wall and a ceiling. Can also include a moulding at the top of an outside wall designed to project and throw raindrops clear of the wall.
Coving	Curved junction between wall and ceiling.
Dado Rail	A wooden moulding fixed to the wall or capping panelling and forming the top most part of a dado. Originally designed to avoid damage to the wall where people or furniture brushed against it.
Damp Proof Course (or (DPC)	Layer of impervious material (mineral felt, PVC etc) incorporated into a wall and designed to prevent dampness rising up the wall or lateral dampness around windows, doors etc. Various proprietary methods are available for damp proofing existing walls including “electro-osmosis” and chemical injection.
Death Watch Beetle	(***Xestobium Rufovillosum)***. Extremely serious insect pest which attacks structural timbers. Usually effects old hardwoods with fungal decay already present.
Double Glazing	A method of thermal insulation usually either: Sealed Unit: Two panes of glass fixed and hermetically sealed together; or Secondary: In effect a second “window” positioned inside the original window.
Double Hung Sash Window	A window in which the opening lights slide vertically within a cased frame, counter balanced by weights supported on sash cords, which pass over pulleys in the frame.
Dry Rot	**(*Serpula Lacrymans).*** A very serious form of fungus which attacks structural and joinery timbers, often with devastating results. Can flourish in moist, unventilated areas.

Eaves	The overhanging edge of a roof.
Efflorescence	Powdery white salts crystallised on the surface of a wall as a result of moisture evaporation.
Engineering Brick	Particularly strong and dense type of brick often used as a damp proof course in older buildings.
Fibreboard	A cheap, lightweight board material of little strength, used in ceilings or as insulation to attics.
Flashing	Building technique designed to prevent leakage at a roof joint. Normally metal (lead, zinc, copper) but can be cement, felt or proprietary material.
Flaunching	A cement mortar weathering on the top of a chimney stack surrounding the base of the chimney pots to throw off the rain and thus prevent it from saturating the stack.
Flue	A smoke duct in a chimney, or a proprietary pipe serving a heat producing appliance such as a central heating boiler.
Flue Lining	Metal (usually stainless steel) tube within a flue – essential for high output gas appliances such as boilers. May also be manufactured from clay and built into the flue. Other proprietary flue liners are also available.
Foundations	Normally concrete, laid underground as a structural base to a wall; in older buildings these may be brick or stone.
Frog	An indention, usually V shaped in the bedding face of the brick to reduce its weight. “Frog down” or “Frog up” are the generally accepted ways of describing how the bricks are laid.
Gable	Upper section of a wall, usually triangular in shape, at either end of a ridged roof.
Ground Heave	Swelling of clay sub-soil due to the presence of moisture; can cause an upward movement of foundations in extreme cases.
Gulley	An opening into which rain and waste water are collected before entering the drain.
Gutter	A channel along the eaves of a roof or the edge of a path for the removal of rainwater.
Hardcore	Broken bricks or stone which, consolidated, are used as a foundation in extreme cases. Most often used under concrete slabs e.g. floors.

Haunching	See "Benching". Also term used to describe the support to a drain underground.
Hip	The external junction between two intersecting roof slopes.
Hip Tile	A saddle shaped or angular tile fitting over the intersection of those roofing tiles which meet at a hip.
In Situ	"In position " – applied to work done in the position where it is finally required, e.g. concrete may brickwork precast in sections which are later taken to the position where they are required or it may be cast 'in situ'.
Inspection Chamber	Commonly called the "man-hole": access point to a drain comprising chamber (of brick, concrete or plastic) with the drainage channel at its base and a removable cover at ground level.
Jamb	Vertical side face of a doorway or window.
Joist	A timber or steel beam directly supporting a floor and sometimes alternatively or additionally supporting a ceiling. Steel beams usually referred to as RSJs (rolled steel joists).
Key	The roughness of a surface which provides a bond for any application of paint, plaster, rendering, tiles etc., or spaces between laths or wire meshes which provide a grip for plaster.
Landslip	Downhill movement of unstable earth, clay, rock etc., often following prolonged heavy rain or coastal erosion, but sometimes due to sub-soil having poor cohesion.
Lath	Thin strip of wood used in the fixing of roof tiles or slates, or as a backing to plaster.
Lintel	A horizontal beam over a door or window opening usually carrying the load of the wall above. Often lintels can be partially or completely hidden from view.
Longhorn Beetle	***(Hyotrupe Bajulus).*** A serious insect pest mainly confined to the extreme south-east of England, which can totally destroy the structural strength of wood.
LPG	Liquid Petroleum Gas or Propane. Available to serve gas appliances in areas without mains gas. Requires a storage tank.
Mortar	Mixture of sand, cement, water and sometimes lime used to join stones or bricks.
Mullion	Vertical bar dividing individual lights in a window.

Newel	Stout post supporting a staircase handrail at top and bottom. Also, the central pillar of a winding spiral staircase.
Oversite	Rough concrete below timber ground floors.
Parapet	Low wall along the edge of a roof, balcony etc.
Pier	A vertical column of brickwork or other material used to strengthen the wall or to support a weight.
Plasterboard	Stiff "Sandwich" of plaster between course paper. Now in widespread use for ceilings and walls.
Pointing	Outer edge of mortar joint between bricks, stones etc.
Powder Post Beetle	***(Bostrychide* or *Lyctidae* family of beetles).** A relatively uncommon pest which can, if untreated, cause widespread damage to structural timbers.
Purlin	Horizontal beam in a roof upon which rafters rest.
Quoin	The external angle of a building; or specifically, bricks or stone blocks forming that angle.
Rafter	A sloping roof beam, usually timber, forming the carcass of a roof.
Random Rubble	Basic early method of stone wall construction with no attempt at bonding or coursing.
Rendering	Vertical covering of a wall either plaster (internally) or cement (externally), sometimes with pebbledash, stucco or Tyrolean textured finish.
Reveals	The side faces of a window or door opening.
Ridge	The highest part or apex of a roof, usually horizontal.
Ridge Tile	A specially shaped tile for covering and making weather tight the ridge of a roof. These tiles may have a rounded or angular cross – section.
Riser	The vertical part of a step or stair.
Rising Damp	Moisture soaking up a wall from below ground, by capillary action, which can cause rot in timbers, plaster decay, decoration failure etc.
Roof Spread	Outward bowing of a wall caused by the thrust of a badly restrained roof framework (see "collar").
RSJ	Frequently used abbreviation for a rolled steel joist.
Screed	Final, smooth finish of a solid floor; usually cement, concrete or asphalt.

Septic Tank	Drain installation whereby sewage decomposes through the action of bacteria, which can be slowed down or stopped.
Settlement	All properties settle to some extent, and this can show as cracking and /or distortion in walls. Very often minor settlement is not of great significance to the building as a whole.
Sewer	A large, underground pipe or drain used for conveying waste water and sewage. The Local Authority is usually responsible for the sewers, which collect the effluent from various drains, the drains being the responsibility of the land owners.
Shakes	Naturally occurring cracks in timber; in building timbers, shakes can appear quite dramatic, but strength is not always impaired.
Shingles	Small rectangular slabs of wood used on roofs instead of tiles, slates etc.
Soakaways	A pit filled with broken stones etc., below ground to take drainage from rainwater pipes or land drains and allow it to disperse.
Soaker	Piece of flexible metal fitted to interlock with slates or tiles and make a watertight joint between a wall and a roof or at a hip or valley. Stepped flashings are used over the soakers at a joint against a wall.
Soffit	The underside of an arch, beam, staircase, eaves or other feature of a building.
Soil Pipe/Soil Stack	A vertical pipe conveys sewage to the drains. Its upper end is usually vented above the eaves.
Solid Fuel	Heating fuel, normally wood, coal, or one of a variety of proprietary fuels.
Spandrel	Space above and to the sides of an arch; also the space below a staircase.
Stopcock	A valve on a gas or water supply pipe which is used to cut off the supply.
Stud Partition	Lightweight, sometimes non-load bearing wall construction comprising a framework of timber faced with plaster, plasterboard or other finish.
Subsidence	Ground movement, generally downward, possibly a result of mining activities or failure of the sub-soil.
Sub-Soil	Soil lying immediately below the top-soil.
Sulphate Attack	Chemical reaction activated by water, between tricalcium aliminate and soluble sulphates, which can cause deterioration in brick walls and concrete floors.
Tie Bar	Metal bar passing through a wall, or walls in an attempt to brace a structure suffering from structural instability.
Torching	Mortar applied on the underside of roof tiles or slates to help prevent moisture penetration. Not necessary when a roof is underdrawn with felt.

Transom	Horizontal bar of wood or stone across a window or top of a door.
Tread	The horizontal part of a step or stair.
Trussed Rafters	Method of roof construction utilising prefabricated triangular framework of timbers. Now widely used in domestic construction.
Underpinning	Method of strengthening weak foundations whereby a new, stronger foundation is placed beneath the original.
Valley Gutter	Horizontal or sloping gutter, usually lead-or-tile lined, at the internal intersection between two roof slopes.
Ventilation	Necessary in all buildings to disperse moisture resulting from bathing, cooking, breathing etc., and to assist in prevention of condensation. **Floors:** Necessary to avoid rot, especially dry rot; achieved by air bricks near to the ground level. **Roof:** Necessary to disperse condensation within roof spaces; achieved either by air bricks in gables ducts at the eaves, or vents within the roof covering.
Verge	The edge of the roof, especially over a gable or around a dormer window or skylight.
Verge Board	Timber sometimes decorative, placed at the verge of a roof; also known as “barge board”.
Wall Plate	Timber placed at the eaves of a roof designed to take the weight of the roof timbers and coverings.
Wall Tie	See ‘cavity wall tie’.
Waste Pipe	A pipe from a wash hand basin, sink or bath to carry away the waste water into the drains.
Weather Boarding	Horizontal overlapping boards nailed on the outside of a building to provide the finished wall surface.
Wet Rot	**(*Coniophora Puteana*).** Decay of timber due to damp conditions. Not to be confused with the more serious dry rot.

APPENDIX B

PROPERTY MAINTENANCE CHECK LIST

Your home represents a very considerable financial investment and it makes good sense to keep it in good order. Regular checks of various parts of the building and prompt maintenance can pay dividends in preventing potentially more serious and costly repairs. The following checklist is not intended to be definitive or fully comprehensive but is intended to be a simple easy to follow maintenance guide.

CHECK POINTS.

- Roof slopes and coverings, for example tiles, slates – particularly after severe weather conditions check for slipped, cracked or badly damaged tiles/slates.
- Cement pointing at the roof edges. Make sure that this is kept in good condition.
- Remove lichen and other moss growth from tiles/slates if this becomes heavy.
- Flat roofs, normally covered in felt or metal are prone to defects. Felt in particular has a limited life. Whenever possible try to avoid walking or standing ladders on flat roofs as the coverings can be very easily damaged.
- Check flashings and valley gutters or hidden gutters for blockages and leaks. Valley gutters are particularly prone to defects and should be cleaned out at regular intervals.
- Make sure the chippings to your flat roof remain evenly laid and clear away any heavy moss or lichen growth as this can retain moisture.
- Keep chimney pots and cowls in good order and ensure that the brickwork cement joints are in good condition.
- Gutters often become blocked with leaves, weeds or debris and should be cleaned out on a regular basis. Replace or repair any missing or defective sections immediately in order to protect the property.

LOFT

- Check for bird ingress or wasps nests. In very rare cases where you find bats, remember that they are a protected species so you will need specialist advice.
- Check condition of water storage tanks and pipework and ensure they are properly covered and lagged.

WALL

- Dampness can penetrate through defective mortar joints or hairline cracks in the rendering. Although very fine surface cracks may appear insignificant, it is always sensible to fill them to be on the safe side.
- Ensure that the cement mortar around the waste pipes is in good condition.

- Use a pliable waterproof mastic sealant to close any gaps around the window or door frames.
- Never bridge a damp course by building up external paving levels or garden borders. A sensible guide is to keep external levels at two brick courses below damp course level, or inside floor level.

- Never render walls down to external ground level, as this is likely to bridge any damp proof course. Always finish the rendering in a properly formed bell cast.

- Water may get behind poor rendering which could lead to dampness. Any cracked or loose areas of rendering should be repaired or replaced.

- Remove ivy or other climbing plants in particular from walls and gutters. Such plants can damage stone/brickwork and retain moisture in the wall.

- Do not allow any sub ground floor air bricks to become blocked. Failure to do so will prevent adequate air flow and could lead to decay.

- Check water downpipes for splits or leaky joints.

EXTERNAL WOODWORK

- Paint/re-stain window frames and other joinery at regular intervals.

- Periodically check window and door frames and repair any timbers affected by wet rot. Regular painting will help avoid the timber becoming rot affected.

- Replace broken or damaged sash cords or window latches.

- Renew cracked or broken panes of glass and replace missing or loose putties before redecoration.

ELECTRICS, HEATING AND PLUMBING

- We strongly advise that you have the electrical installation checked by the electricity board at least every three years as the system can deteriorate with age and Regulations are constantly updated.

- Ensure that you obtain qualified advice before making any alteration to the electrical wiring system.

- Ensure that you know how to get to external and internal stopcocks in the event of an emergency.

- Check your plumbing pipework and waste pipes for joint leaks and from time to time clean out bath, sink and wash hand basin traps. Reseal joints around shower bases and other appliances.

- Clean through overflow pipes from water tanks or cisterns.

- Arrange for central heating boilers, water heaters and heating appliances to be regularly serviced to maximise efficiency.

- Clear blocked soakaways or gullies. Blockages in a drain system may be cleared by rodding or pressure hosing.

IN THE GARDEN

- Shrubs and trees can be damaging to the fabric of the property and so their growth needs to be restricted. Keep soil, trees and shrubs away from outside walls whenever possible.

- Cut back any wall climbing plants as they can damage walls and can encourage damp penetration.

EXTENSIONS/ALTERATIONS

- Before you start any structural alterations or extensions check with you Local Council as to whether Building Regulation or Planning Approval is necessary. (Building warrants in Scotland).

- If you live in a Listed Building remember that Listing Building Consent may be necessary even in the case of minor alterations to the appearance of the building.

ENERGY CONSERVATION

- The thermal efficiency of your property can often be improved for a relatively modest cost. These measures can often result in an improved internal environment, reduced carbon dioxide emissions and lower fuel bills. Such measures include:

  Draft exclusion to windows and internal doors.

  Proper insulation of hot water cylinders and lagging of water pipes.

  Check that your loft insulation is thick enough but make sure that gaps are left at the eaves to allow sufficient ventilation of the roof space, and remove from below water storage tanks.

  Ensure that your heating controls are effective; for example consider the use of automatic time clock controls, thermostatic radiator valves, thermostatic cylinder controls etc.

  Double or secondary glazing of windows.

DAMP PROOFING APPENDIX

Rising dampness in a property results from one of the following problems:-

1. That the property was not constructed incorporating a satisfactory damp proof course. This is a layer of impervious material ranging from slate in older buildings to high performance felt in more modern buildings, laid within brickwork approximately 6”/150mm above external ground levels in order to prevent moisture entering the building via the brickwork forming part of the foundations. As a result of capillary action, water will have a tendency to seep through the foundations and low level brickwork, and enter the property, manifesting itself internally to the brickwork above floor level.

2. Some breakdown of the original damp proof course as a result of age, or possibly structural movement to the building (whether old or progressive) causing damage to the Damp Proof Course itself.

3. A rising of the ground water table. Ground water is a term used to describe the level of water inherent in the soil. This water level may rise as a result of heavy rainfall, the removal of trees in the locality or any other method by which the amount of water in the soil may be increased. This will only cause rising dampness if the ground water level has risen to a considerable extent or if this is coupled with breakdown to the original Damp Proof Course.

In buildings of solid brickwork, the easiest method to resolve the problem is to install what is known as a Chemical Damp Proof Course. This work generally requires the removal of plasterwork internally, usually to a height of 3ft. (approx.1.0m) above ground floor level. More plasterwork may be removed depending on the severity of the case. You should be aware that this may also involve the removal of kitchen fittings and other fixtures so that access can be obtained to the affected wall. A silicon base chemical is then injected into the brickwork after holes have been drilled at suitable intervals. After a period of time has elapsed in order for the chemical to fully percolate through the brickwork, the wall is then re-plastered usually in a render incorporating a waterproof additive and then finished with a thin layer of plasterwork to smooth out rough edges.

This render/plasterwork is an important part of the damp proofing installation. Even after chemical injection has taken place, hydroscopic salts absorbed from the soil will be present within the brickwork. These salts attract moisture from the air and will damage the original plasterwork if retained. It is essential that the new plasterwork should incorporate salt inhibiting constituents to ensure that any hydroscopic salts present in the brickwork after the chemical injection are not deposited on the face of the new plaster as this residual moisture dries out.

In certain instances, it may be suggested to inject the brickwork from the exterior so that internal plasterwork is not disturbed or in order that fitments such as kitchen fittings would not have to be removed. This is not a satisfactory method of installation, and should only be carried out where the existing plasterwork is in particularly good condition.

A guarantee for the installation of a Chemical Damp Proof Course is often provided by the Specialist Company who carried out the remedial works. It is preferable to obtain a guarantee with insurance backing or under a scheme where remedial works can be carried out by another specialist should problems arise and the original Specialist Contractor has ceased trading.
It is a common problem that guarantees cannot be enforced where only the chemical injection works have been carried out by the Specialist Firm, and the associated re-plastering works have been executed by another contractor. This often occurs when the Damp Proof Course has been injected as part of a redevelopment scheme and builders already on site are able to plaster the walls at a lower cost to the developer. Very often the specialist specification for the re-plastering is not adhered to and it is extremely difficult in the event of failure to prove that it was the chemical injection at fault rather than the quality of plasterwork.

Whilst the specialist firm would be liable under guarantees to carry out any remedial works to the chemical injection it would obviously not be liable for making good any defective plastering. You should also be aware that most guarantees do not cover the cost of making good to decorations should re-application of plasterwork be required upon failure of the Damp Proof Course.

Another common cause of damp problems in the ground and basement levels of a property results from what is known as penetrating dampness. This problem usually occurs when rooms are below external ground levels and the pressure of the ground water in surrounding soil causes water to penetrate through the brickwork. This is also common where walls which abut the brickwork are at a higher level than the Damp Proof Course.

The remedy in such a situation is to carry out remedial “tanking” which will require the removal of all plasterwork to affected areas, the application of a waterproof barrier to the internal face of the wall and for re-application of rendering and plasterwork to suitable specification. Sometimes the barrier takes the form of a waterproofing additive in the cement render. This means that the brick wall itself still remains damp but water is prevented from entering the room and causing damage to plasterwork, decorations and timberwork. Both the tanking and associated plasterwork should again be carried out by the same specialist contractor. A common area where this work is required is where the rooms have been constructed under the main entrance steps of the building.

The moisture that is still retained in the wall will have a detrimental effect on the structure over a period of time, although if the wall is constructed satisfactorily, it can withstand the presence of moisture to possibly tens or even hundreds of years. In certain severe conditions tanking will only retain the moisture for a certain period of time and require maintenance and possibly re-application.

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Other more technical damp proofing methods have been developed comparatively recently (particularly for use in severe instances) some of which use high performance

membranes and even pumps to drain away excessive moisture.

If the attached report has stated that rising or penetrating dampness has been discovered, a further report and estimate should be obtained from a specialist company. Surveys and estimates of this kind can be a free service, but some companies make a charge if they are not instructed to carry out the work.
We would be happy to recommend a specialist company if required.

Dampness can also enter the property via the floor construction. Floors primarily comprise two types, namely a suspended timber floor construction and a solid concrete floor construction. The former floor generally comprises timber joists resting on a timber plate supported by brick walls under the floor. In more modern constructions the brick wall should be built off a concrete base which is provided with a damp proof membrane although in older constructions the walls were very often built off compressed soil.

Ideally the walls themselves are provided with a Damp Proof Course in order to protect moisture rising into the timber floor and causing decay, although again in older constructions this is often not found and as a result timber decay problems can develop.

Modern solid concrete floor constructions should comprise two basic layers namely hardcore (compressed rubble) and the oversite concrete. A Damp Proof Membrane should be provided between these two layers usually with sand to the underside to protect it from the sharp edges of the rubble. Damage to the Damp Proof Membrane can result from settlement to the floor although most often it is caused during the course of construction. Should this occur, and damp penetrates the floor to a certain extent, the only satisfactory remedy would be to take up the floor and reconstruct it incorporating a satisfactory Damp Proof Membrane. In less severe cases some proprietary form of waterproofing material may be applied to the upper surface of the concrete, but this should be considered a temporary measure.

TIMBER DECAY APPENDIX

Note: The property upon which we have reported has had timber decay problems identified or there are areas where dampness has been found or the possibility of timber decay has been identified. As a result we set out below relevant information which you should consider and discuss if necessary.

"Dry Rot" and "Wet Rot" are two most widely known terms given to describe fungal decay of wood tissue. Dampness combined with lack to ventilation creates the ideal condition of fungal attack. These wood destroying fungi are actually plants of a low vegetable form of the saprophyte family which attack timber in buildings in order to extract food (cellulose) to maintain growth and generation of spores. One of the two, the true Dry Rot Fungus is more serious and consequently a greater hazard to structural timbers.

Dry Rot

The true Dry Rot Fungus normally requires a moisture content in wood of 20/35% for spores to germinate and develop. Poor ventilation to a roof space or sub-floor also assists in spreading the fungus. Hyphae (fine greyish fungal strands) grow from the spores to spread over and through wood to adjacent materials. Collectively, these hyphae strands form a sheet of fungus known as mycelium. The mycelium will vary in colour from dirty grey to pure white in wet conditions. Later sporophores or fruiting bodies will form giving off millions of spores in the form of "red dust". Timber attacked by this is dry and brittle with cuboidal fractures and may be crumbled by hand. It loses its structural strength.

Dry Rot is malignant and will spread even through brick walls, in search of more timber to attack. Unfortunately, where an outbreak occurs, the concealed attack is frequently well established before the first evidence appears. Fast, specialist action is essential if further extensive damage and decay is to be avoided.

Wet Rot

Although not as serious as Dry Rot, it is still a common cause of structural defect. It requires a moisture content of 50/60% (much higher than that required by Dry Rot) to become active. However, when the moisture is removed, all activity of this fungal growth ceases. Wet Rot mycelium does not usually spread over brick, stonework or other porous materials and is therefore easier to control. After attack by this fungus the timber is left in small cuboidal splits or longitudinal cracks and is dark brown in appearance.

Because the nature and biology of the wood rotting fungi it is necessary always to locate and remove the cause of the outbreak. The most usual causes are the absence of an effective Damp Proof Course, broken external downpipes, leaking service pipes either exposed or buried within the walls or floors, defective tiling or other roof coverings allowing rainwater to penetrate into the building and possibly worst of all, leaking or broken gutters which allow moisture to soak back to the structure and affect timbers both concealed and exposed.

Unfortunately these defects are often left unattended for long periods of time before being repaired.

Even when repairs are carried out to eliminate Wet Rot, unless treatment is given, an attack by Dry Rot may develop when the moisture content falls to an appropriate level.

Before you proceed with your purchase it is clearly ESSENTIAL that you obtain a specialist report and estimate in connection with problems identified.

Following his inspection and diagnosis, the specialist surveyor (not Warmans) will prepare a detailed report and specification and cost the estimate for the work eradication.

It is sometimes necessary to carry out what is termed exposure work. This may involve removing skirtings, floorboards and in serious cases, plaster from walls and ceilings, panellings and architraves.

The specialist Surveyor will detail all these requirements during his inspection but not until this exposure work has been carried out (possibly after completion of your purchase) will it normally be possible to ascertain the complete extent of the fungal growth and/or rot problems within the structure.

As stated most of the work is guaranteed for 20-30 years and is treated in accordance with the Surveyor's specification by trained operatives and all replacement timber is treated with specially formulated preservative fluids.

Insect Attack On Wood

In this country, the two most common forms of winged beetle which cause damage to timber are the Common Furniture Beetle and Death Watch Beetle. The layman's collective name for timber decaying beetle is woodworm.

Between June and August, Common Furniture Beetles lay eggs in the cracks and crevices and any dry softwood or hardwood. The eggs hatch and a small white grub emerges which tunnels in the wood, using it as food. They tunnel along the grain, and when fully grown after a year or two, they bore to just below the surface of the wood and emerge, again in June to August, as beetles. The timber/wood is only structurally weakened if a great number of tunnels are formed by a large number of grubs over may years, but the holes are unsightly in decorative timber panelling etc.

The Death Watch Beetle particularly thrives on old oak timbers and rarely attacks softwoods. Damage is similar to that caused by the Common Furniture Beetle; the name derives from the tapping noise of beetles' heads on the wood during the mating season.

It would take a large number of beetles over a number of years to cause structural damage, but often in older properties (for example under floors) this defect can go un-noticed for some time. Floors in bathrooms and cloakrooms/separate WC's are quite prone as the wood can be softened slightly by previous leaks or overflows and ground floors are susceptible as for fungal decay. Cellars/understair cupboards and roof spaces are also prone to insect attack.

If you are purchasing an older property, especially if in need of refurbishment, a Specialist Timber Treatment Contractor, should inspect all roof spaces and floors prior to purchase and allow for repairs and spray treatment as required. Spray treatment is relatively inexpensive and

guarantees can be given for this work.
If woodworm is found in one particular area, the entire property should be inspected regardless of age.

Summary

Any areas where dampness has been found, for example, rising/penetrating dampness, roof leaks, plumbing defects, leaks from external pipes or grouting etc., should be checked by a Timber Treatment Specialist Contractor, who can estimate accurately for repairs and timber treatment necessary to either deal with existing timber decay or prevent the defect occurring at a later date.

Should re-roofing works be recommended in this report, all exposed timbers during the course of these works should be inspected by the specialist contractor for evidence of decay. This is of particular importance when renewing flat roofs where timbers cannot be inspected without exposure works.

As previously mentioned, some exposure work may be required in order that the full extent of any timber decay can be fully ascertained. If you are purchasing a property in need of refurbishment, or where maintenance has been poor in the past, there is a strong possibility that timbers which at present are covered, inaccessible etc., may be exposed during refurbishment or repair works, are found to be decayed; you should make allowance in your budget for repairs of this nature.

It is essential that the full extent of any problems mentioned in the report is fully ascertained prior to exchange of contracts so that you are fully aware of the cost of the remedial repairs before proceeding.

There are numerous companies offering this service who then follow up by carrying out all necessary works and offering a guarantee for up to 30 years. We can certainly recommend such a company if required.

If there are any aspects of this explanation that you wish to have clarified, please contact us immediately.