

Friday 1st December 20XX

Mr & Mrs CLIENT NAME
CLIENT CORRESPONDENCE ADDRESS
London
XXXXXX

Dear Mr & Mrs NAME

Re: XX PAINES LANE, PINNER, MIDDLESEX HA5 XXX
Building Survey Report - reference no: RBSXPL2023

This report has been prepared following your instruction dated 1st of December 20XX to advise you and to carry out an inspection of the property you would like to purchase at XX Paines Lane, Pinner, Middlesex HA5 XXX and provide a summary report on my findings.

I trust this report covers all relevant matters. In the event, you have further queries, please do not hesitate to contact me.

Yours sincerely,



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RESIDENTIAL BUILDING SURVEY OF

XX PAINES LANE, PINNER, MIDDLESEX HA5 3BX

INSPECTED ON Wednesday 4th December 2019

**ON BEHALF OF CLIENT X
OF CLIENT CORRESPONDENCE ADDRESS
London NX XXX**

**PREPARED BY:
PHILIP N R SMITH BA (HONS) MSC (HONS) MRICS**

REPORT DATED: Friday 6th December 20XX

REF NO.: RBSXPL2023

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1.0 Introduction / Background

1.1 The Inspection

The inspection was carried out on Wednesday 4th December 20XX. At the time of the inspection, the weather was cool and dry, and following a period of changeable weather with significant rainfall in the preceding forty-eight hours.

The property was occupied and furnished, generally with fitted or fixed floor coverings. As stated in the terms of engagement, the survey comprises a visual inspection completed without opening up internal finishes. Access was provided by the vendor.

I am not aware of any conflict of interest as defined in the RICS Rules of Conduct. I have no links with this transaction.

1.2 Construction

The property is constructed of a modern imported post and beam timber frame structure, with timber roof trusses supporting the roof ridge beam and roof pitches which are covered with concrete tiles. The external walls are largely clad with an outer leaf of brickwork, with plasterboard and insulation internally. Some timber cladding has also been used on external walls.

The ground floor is of solid construction, with engineered piled foundations. Please refer to Section 4.5 below for further information.

Internally, the walls are largely dry-lined with plasterboard and internal partition walls are formed with timber studwork and plasterboard, with plasterboard ceilings. The first floor is formed of suspended timber floorboards and joists. Loads from the roof are passed through the concealed timber frame of the external walls and potentially some of the internal walls also down to the foundations.

1.3 Age and Heritage

The property was built in 2003, following the demolition of an existing bungalow on the same site. The orangery/conservatory to the rear left was added in 2012. Prior to the construction of residential homes at this location, the area was used for agricultural purposes.

1.4 Tenure

I understand the property is for sale on a Freehold basis.

1.5 Layout

Ground Floor: Kitchen, utility room, garage, five living rooms (living room, orangery, study and dining room), hallway, cloakroom, understair cupboard.

First Floor: Two bathrooms, 4 bedrooms, landing.

2.0 General Summary

The property is a two-storey detached residential dwelling built on order on behalf of the current vendor and designed by reputable architects (further details available on request). Overall, I consider the basic structure and fabric of the building to be generally sound and I have no major reservations, although I have identified a range of specific risks and building defects which will require attention either now or in future years.

I have briefly discussed the history of the property with the vendors, who I understand had the property built 2003. In approx. 2007/8, the rear extension (orangery) has been completed, which has an independent underfloor heating system to the rest of the property.

Several repair and routine maintenance items are discussed in more depth in the report which need to be addressed. In particular, the roof is extensively covered with moss and the gutters are partially congested with leaf debris. Regular maintenance of rainwater goods is recommended to prevent gutters spilling over the water damaging the internal fabric or timber frame.

The close proximity of large trees, in particular, the willow, would normally be an issue, but the design drawings I worked through suggest it has heavily engineered piled foundations which are designed to accommodate a significant degree of soil movement. Given there were no visible signs of cracking, I have no specific concerns.

I noted some thermal expansion of the oak ground floor covering, probably related to the underfloor heating, but it would not be something that would bother me. I suspect most purchasers would not regard this as a problem since it is a good quality finish.

A number of routine (but important) checks have been recommended, in particular, with regards electrical, gas and heating installations, including the two underfloor heating systems.

I have no specific concerns relating to the rear conservatory, but I do recommend checking this was fully approved by the Local Authority building control (or equivalent) at the time the works were undertaken. Your solicitor should ensure planning and building control approval has been obtained, as well as for the double-glazed windows and doors and the underfloor heating system, and obtain copies of the warranties which should pass with title.

I suggest these recommended further investigations and legal enquiries are completed before you make a legal commitment to buy the property. In this way you will be fully informed of your potential liabilities.

My findings are set out below. For ease of use, I have used colour codes to emphasize key advice. These are as follows:-

- **Red** for defects requiring immediate intervention.
- **Amber** for defects requiring future intervention.
- **Green** for other recommendations for improvement.
- **Blue** for recommended further investigations.
- **Purple** for matters to be referred to your solicitor or legal adviser.

A general comment is provided also for each area of the property in Sections 4 to 7.

3.0 Location

3.1 Site and Locality

The property is located within the residential area known as Pinner which is a suburb in North-West London. The area is situated within the London Borough of Hillingdon. The site is approximately level with some moderate slopes to the front.

3.2 Local Environment

The Geological Survey Map indicates that the subsoil is formed predominantly of clay, silt and sand. A moderate risk of subsidence exists in the wider area due to this type of subsoil.

Some parts of this area are in bands of elevated radon potential. Radon gas is a hazard to health. The maximum radon potential is recorded as being between 1% and 3 % in this area. Check the radon potential of individual addresses at UKRadon.org for more information. You should ask the vendor whether the property has been tested for radon levels. If not, you should ask an appropriately-qualified radon specialist to undertake this assessment. The minimum testing period is three months. In most cases, any necessary remedial works are not prohibitively expensive. Your legal advisor should explain to you the implications.

My research indicates that there are no other significant adverse environmental issues, such as past landfill use, ground contamination, mining or flooding at this specific location, although some flooding may occur on the same street which could affect access.

3.3 Facilities

The property is within a reasonable distance from a variety of local shops and restaurants, as well as more extensive retail facilities in Watford. A range of primary and secondary schools is located in the area and accessible by foot or by public transport.

The property is accessible by car, and it is approximately twenty minutes' walk from the closest station, Pinner, on the Metropolitan Line, which forms part of the London Underground network and which is approximately thirty minutes to Central London. Two bus routes operate in the area.

3.4 Other Factors

The percentage of owner-occupied properties in this street is above the national average. The local crime rate is above the national average.

3.5 Orientation

For the purpose of this report, the front of the property is assumed to face due North East, overlooking Paines Lane. All directions in relation to the property are taken as if facing the front from the road.

4.0 External Parts

The inspection of the chimney stacks, roof coverings, and upper sections of the walls, was carried out from ground level with the aid of binoculars.

Parts of the roof and stack were concealed from ground level and I am unable to comment on the condition of these. It is possible therefore, that defects may exist to these unseen areas and there may well be additional costs of repair which you should make allowance for.

4.1 Chimneys – Good Condition

A single brickwork stack is located over the flank wall to the left. The stack is reasonable, true and plumb, with no significant defects noted from a ground level inspection. The stack serves the fireplace in the front living room.

A clay pot embedded is evident to the top of the stack. I am unable to comment on the condition of the cement at the top of the stack as this cannot be viewed from street level. The chimney pots should be capped or sealed if they are not in use.

Metal flashings are provided to the junction of the chimney stack with the main roof covering. This appears to be in satisfactory condition.

4.2 The Roof – Maintenance required in future years

The main roof is formed of a timber-framed dual-pitched roof structure with a covering formed of concrete tiles. Generally, the visible roof slopes are in satisfactory condition and free from significant defect. No signs of undue dip or distortion are noted.

The concrete tiles appear generally in satisfactory condition for their age, with no serious disrepair evident. However, the tiles are covered to varying degrees with moss, algae staining and lichen, the presence of which may have two adverse effects. Firstly, it will serve to hold water, which could result in premature failure of exposed surfaces. Secondly, dislodged moss is likely to end up in gutter channels, probably causing blockage and water spillage. **I therefore recommend moss/lichen deposits are removed during the next cyclical maintenance.**

The main apex and the ridge lines are covered with half round clay tiles. These are pointed and fixed with a cement-based mortar. Some moss and poor pointing is evident to the ridges and some maintenance would be beneficial. The ridge tiles appear to be firmly fixed in place but it is not uncommon for them to become dislodged by high winds and occasional re-fixing of these must be anticipated.

The roof includes large projecting gabled sections and several dual-pitched dormers which form smaller lower roofs of similar style and materials. The above comments apply to these also. However, they have created a number of details and corners where some leaf debris has gathered. **You would be advised to clear the leaf debris annually to prevent moisture retention on the roof which will reduce longevity.**

The roof of the orangery has been inspected also with its associated hatches. A metal-framed-glazed lantern structure which terminates with a filial is set within lead-lined parapets. Extensive leaf debris build up is noted and **this again should be cleared.**

4.3 Rainwater Goods – *Maintenance required in future years*

The rainwater goods are generally formed in aluminium, which is unusual in this area. Gutters are securely fastened back to the walls and laid to the correct falls, and there is satisfactory provision of downpipes.

As it did not rain during the inspection, I am unable to confirm whether or not the joints on the gutters and pipes are watertight. They should be observed during heavy persistent rainfall and any defective joints or seals made good at such time.

Gutters and downpipes appear to be free from significant obvious defects. However, many gutters are partly clogged with leaf debris and the downpipes may be blocked. **Extensive leaf debris build up is noted in these gutters and these should be cleared to ensure free dispersal of rainwater from the roof to the ground and to prevent damage to adjacent areas of the external walls. The fittings need a complete overhaul, including checking alignment and watertightness, as well as cleaning out.**

Inadequate disposal of rainwater can cause serious problems in a building, including damp, timber decay and structural movement. Keeping gutters and downpipes (and the drains to which they connect) clean and in good condition is always important.

These 'Ogee' type of downpipes and gutters have a habit of having blockages, in particular where they change direction such as swan necks at the top of the downpipes. All gutters should be cleaned out regularly, to ensure free flow and discharge.

One of the rear gutters has been fitted with a hedgehog (to prevent sediment build up) and this has come loose and is projecting from the gutter. **You are advised to re-fix this.**

4.4 External Walls (including additions) – *Satisfactory*

The front façade of the property is recessed with assumed load-bearing columns to either side.

The property is of timber-framed construction. This means that there is a timber frame concealed, which is of United States style post and beam structure (T-frame). I understand that bespoke Fir wood has been used, sourced from North America. The external walls all appear plumb, within accepted tolerances, and there are no visible signs of any structural defects.

The timber-framed structure (Acorn) is covered or clad with an external leaf of brickwork in most areas. Most elevations are formed with Leicester red stick brickwork laid in stretcher bond and finished with a bucket handle pointing. More hardy engineered bricks are present at ground level. The pointing appears generally satisfactory.

Some areas of external walls are covered with a painted Cedar cladding and these appeared generally well maintained and free of any significant defects – the drawings indicate Western Red Cedar. The walls surrounding the window apertures are free of any significant visible defects and those formed of brickwork have vertical (soldier) bricks with weep holes to allow moisture release. The window reveals are relatively shallow for a property in this location, where heavy rainfall often occurs and there are no particular drip details to the base of the windows. This may prove to be an issue in future years.

Construction of this type has now become more established. Provided that the property has been constructed in the approved manner, in accordance with the relevant Codes of Practice, it should be structurally satisfactory. It is important that timber frame dwellings are constructed to a high standard of workmanship and that proper supervision has been undertaken.

This stability of external walls depends on the quality of ties holding together the frame and outer leaf of brickwork or cladding. These fittings, together with the necessary vapour barriers are now hidden and could not be examined.

The architectural drawings indicate the intention to include a suitable vapour barrier, but this cannot be checked within the scope of this inspection. It is critical that appropriate vapour barriers are included at strategic positions within the wall structures and that these have not been perforated in such a way as to allow humidity from the living accommodation to enter the wall structure and so cause the potential for damage.

A bituminous-type Damp Proof Course (DPC) has been installed within the brickwork close to ground level. I see no particular defects associated with this. A damp-proof course is a waterproof layer built into, or formed within the walls to prevent ground dampness from rising. No particular defects were identified at ground level and there is no significant dampness.

Air vents set within external walls are installed to provide sub-floor ventilation to the front, side and rear. These vents must be kept clear to ensure free flow of air beneath the timber floor and avoid a build up of moisture.

4.5 Foundations – *Further checks required*

The foundations could not be inspected within the scope of this report as they are below ground. The assessment of the adequacy of foundations is therefore, carried out by inspecting the condition of the structure above ground. I understand the piles associated with the foundations are 8m deep. The vendor has Architects/Engineers drawings showing the structure of the foundations and I recommend you ask for these to be provided upon handover.

I refer to the tree roots within influencing distances discussed in Section 8.2 below, in particular, the willow to the rear right. No indication of root damage was presently noted but no assurance can be given that damage will not occur.

We would normally recommend that further specialist advice be obtained in the circumstances from a Chartered Forester/Arboriculturalist or an Arboricultural Association registered consultant with regard to the suitability of the tree in its current position and its future management. However, given the depth of the piled foundations and engineered design, I suspect that the property has been designed to accommodate these trees and it appears to be unlikely that the trees will cause a problem to your property if they have not done so already. [I would therefore suggest making enquiries with the design engineers regarding protection against tree root damage.](#)

4.6 Windows – *Maintenance required in future years*

Most windows to the front are formed of double-hung sliding sashes. I understand from the Architects details that the windows are manufactured by Pella; they are aluminium clad with timber to the inside. These are a good specification of window, fitted with modern, toughened safety glazing.

The window frames are generally secure within their reveals. The sash frames have been fitted with sealed 'low E' argon-filled double-glazing and this has been done to a satisfactory standard. The windows are fitted with modern, tempered safety glazing and trickle vents to the double-glazed windows to help provide background ventilation.

Having tested random selection of windows, these appear functional and they are generally in good decorative order. However, some of the windows are stiff, difficult to operate or seized. [A general](#)

overhaul is needed, together with thorough easing, adjustment and attention to window furniture.

There is a requirement for ongoing maintenance to the sash frames, to check the cording and also ensure that they function satisfactorily. Sash windows can permit paint build up around the edges with each decoration, which will require maintenance and repair, to permit adequate opening and closing.

4.7 Doors, etc. – *Good Condition*

The main front entrance door is of a modern engineered timber construction with brass door furniture, glazing and matching side panels. No significant defects were noted and the lock mechanism is secure and fully functional.

The rear kitchen door to the garden is manufactured by Pella, and of similar aluminium clad timber construction to the windows. This appears fully functional and free of any significant defects.

4.8 Other Joinery – *Satisfactory*

Fascia boards, gable ends and soffit boards at the eaves are formed of timber, covered with a suitable external emulsion paint. External finishes appear generally well presented, although new paintwork may conceal defects to the underlying materials. In particular, wet rot often occurs to the top of fascia boards in properties of this age but cannot always be detected from ground level inspection.

Redecoration to external joinery works will need to be undertaken in future years. If encountered, any areas of defective woodwork must be replaced at that time.

4.9 Other (including additions) – *Maintenance required*

The orangery/conservatory to the rear left of the property was added 6-7 years ago, when I understand it was provided with a 5 year warranty, now expired. The structure is formed of some cavity wall brickwork with high timber-framed double-glazed units and the glazed roof is enclosed within leaded parapets. The structure appears generally sound and free of any significant defects. There is an extensive build up of leaf debris to the roof areas and this should be cleared to provide more longevity and prevent sediment and moisture build up.

5.0 Internal Parts

The property was occupied and fully furnished, all floors had fitted coverings and there were some fitted cupboards. I have not inspected beneath or behind these items. Stored personal effects throughout the property restricted the extent of the inspection.

5.1 Roof Void – *Satisfactory*

Access to the roof space is provided via a ceiling hatch from the corridor to the master bedroom. An electric light is provided in the loft.

The roof structure is of modern trussed rafter construction, and satisfactory with regard to both size of timbers and their layout. Generally, the structural elements are in satisfactory condition with no signs of any distress or distortion in the timbers. There is no significant deflection to the roof slopes.

The architectural drawings indicate a suitable underlayer to provide a secondary barrier against the weather, although this is concealed by the insulation currently. A random selection of the more accessible roof timbers was tested using the electronic moisture meter. No adverse recordings were obtained and there were no obvious visible signs of dampness. No sign of significant rot or wood beetle infestation was found to exposed timbers at the time of my inspection.

Ventilation is provided at the eaves and appears generally adequate at present. Care should be taken that the insulation does not cover the ventilation outlets and restrict air flow. Ceilings are part-boarded, revealing the insulation and ceiling construction.

The architectural drawings examined on site indicate appropriate levels of insulation both in the ceiling void between joints, and between the roof rafters. The insulation is in excess of 250mm deep and therefore considered adequate; current Building Regulations recommend a minimum depth of 250mm.

5.2 Ceilings – *Good Condition*

The ceilings are formed in painted plasterboard, generally with a painted skim finish. The ceiling finishes appear recently refurbished, they are generally well maintained and there are no significant defects.

Some modern ceilings have recessed spotlighting fitted and you may wish to seek confirmation that suitable fire hoods have been provided.

I note that the sloping ceilings in the eaves gable restrict head height and the useable area is therefore reduced.

The glazed rooflights in the rear orangery show no visible defects and appear to be watertight. The external seals to upstands will require future maintenance to prevent water ingress. However, some hairline fractures were noted to the wall/ceiling junctions in this room to the inside. These may be indicative of minor shrinkage or ground settlement and should be filled and redecorated in due course.

5.3 Walls internally – *Good Condition*

The inside face of the external walls and internal partition walls have been lined with plasterboard. This is often referred to as “dry-lining”. This means that there is a gap between the plasterboard and the walls. Because of the gap, it may be difficult to screw directly into the walls, although a range of proprietary fixing products can be found in DIY stores.

The architectural drawings indicate suitable levels of insulation have been installed within the external walls in line with regulations at the time of construction.

The internal walls were checked for excessive levels of dampness using an electronic moisture meter, particularly around window apertures and above the ground floor skirting boards. However, no adverse readings were recorded. Dry-lining can sometimes hide dampness. It is not possible to ascertain the condition of wall surfaces behind dry-lining. If the supporting timbers are not adequately protected and the intervening space ventilated, these can create the circumstances for decay to develop.

There is a small amount of condensation in some areas, such as the bathrooms, indicative of a lack of ventilation, for example in bathrooms.

Wall lights are fitted alongside the stair and these appear fully functional.

5.4 Floors – *Satisfactory*

The first floor is formed of suspended timber floorboards on engineered joists specified as Mitek Posistrut, typical for a property of this type. This is firm and level underfoot.

Floor finishes include fitted carpets with vinyl sheeting in the bathrooms. Most floor coverings are well-presented with only minor scuffs and stains. I would like to draw your attention to the full risk presented by the mezzanine landing to the top of the stair. Although suitable safety railings are provided, this may be unsuitable for some children.

The ground floors are of solid construction, presumed to comprising a cement screed laid over a damp proof membrane (DPM) combined with an asphalt-based compound in line with the architectural drawings. Generally, they were found to be firm and level underfoot with no signs of heave or settlement. The Architects/Engineers drawings indicate an engineered floor structure which separates this solid ground floor from the remainder of the foundations. Please refer to Section 4.5 above.

Much of the floor finish throughout the ground floor is of engineered Oak floorboards which are polished and generally well-presented. An underfloor heating system is present beneath the main ground floor, with a further separate system in the orangery. Please refer to Section 6.4 for further information.

There is evidence of significant thermal expansion and contraction of these timber floorboards. This may be partially related to the underfloor heating system. At the time of inspection, I noted some gaps between floorboards which appeared to be within reasonable tolerances and I do not consider this would present an issue to most occupants. However, this may be something which is considered problematic for some occupants and you should be aware.

The Oak floorboards are, in my opinion, of a high specification and quality, although you may find some modern engineered equivalents are less susceptible to any problems caused by thermal expansion and contraction.

5.5 Fireplaces, etc. – *Further checks required*

The fireplace in the living room appears to have been in recent use. The hearth is a suitable depth, compliant with current regulations.

It was not possible to assess the condition of the flue serving this fireplace and it is recommended that flues for open fires are checked and swept on a regular basis. [You are advised therefore to have this checked prior to use by a chimney specialist.](#)

5.6 Internal Joinery – *Good Condition*

Internal doors are formed of timber panels. The two internal doors enclosing the kitchen are both of a sliding type which are generally fixed open. As far as I am aware, these are not compliant with current Building Regulations in terms of prevention of the spread of fire and they increase the chances of fire spread through the property from the kitchen.

Internal joinery, including skirting boards, architraves and door linings are generally well presented with only minor wear and tear and no significant defects noted, beyond routine maintenance items. Some minor cracks were noted to mitre joints, for example on door frames.

The staircase is fully carpeted and formed of high specification solid Oak; the treads are firm and level underfoot and there is a satisfactory balustrade with handrail fitted.

5.7 Kitchen and Internal Fixtures & Fittings – *Satisfactory*

A fitted kitchen has been installed with a built-in appliances, including gas hobs. The kitchen fittings comprise a range of wall-mounted and ground-based units, being of modern design and standard factory manufacture. These are in satisfactory condition, doors and drawers are well adjusted and those randomly selected for testing operated smoothly.

I recommend any appliances which form part of the handover are tested.

Built-in wardrobes are fitted in the bedrooms. These have timber backings. Built-in fittings can conceal a variety of problems that are only revealed when they are removed for repair. For example, kitchen units often hide water, gas pipes and obscure dampness to walls and floors.

5.8 Bathroom & Sanitary Appliances – *Satisfactory*

There are two bathrooms on the first floor, formed of a modern suites of wash basin, WC and one with a bath and shower cubicle, the other with a shower. Both bathrooms have twin wash basins. The ground floor provides for a cloakroom with a WC and wash basin. There is adequate hot and cold water pressure to the tap fittings and the flush mechanisms operated effectively.

It is important that the seals around the edges of the sanitary fittings are maintained intact to prevent excess water from seeping behind and affecting adjacent areas, these should be checked and maintained on a regular basis.

Shower trays are always a potential problem area so far as dampness is concerned. The tray sealant

and tile grouting must be kept well maintained.

Sanitary fittings are connected to the plumbing system and discharge waste water into the drainage system so are vulnerable to water leaks. The sealants around the edges of baths and wash hand basins can also have the same effect. This damage can affect adjacent surfaces and, if not repaired quickly, wood rot can soon develop. The boxing and panelling around baths and other appliances can keep these problems hidden.

6.0 Building Services

As a general note regarding services, we are not specialised in this field and therefore recommend that you seek specialist advice on all service matters. The items below should be regarded as helpful comment and suggestions. They are not a full and complete assessment of any problems that may exist.

6.1 Electricity – *Further checks required*

The property is connected to mains electricity. The meter and consumer unit are located in the garage and are adequately earth bonded. A suitable fire-resistant insulative backboard is provided. The mains supply connects to a modern wiring system fitted with modern RCDs (residual current devices). There appears to be adequate provision of power sockets.

Internal lighting appears generally adequate, albeit with dated, inefficient light fittings. Some external lighting is provided to the front of the property. External lighting and sockets are provided to supply the rear garden which should be checked and tested by a suitably-qualified electrician.

I did not have any evidence that a recent safety inspection of the electrical installation has been undertaken within the past twelve months. You should therefore arrange for a registered 'competent person' to undertake a full inspection of the electrical installation prior to purchase.

6.2 Fuel Supply – *Further checks required*

The property is connected to the mains gas supply and the meter is located in the garage and was earth bonded. The supply serves the boiler and gas hob.

I am not aware that a recent safety inspection of the gas installation has been undertaken. You should therefore ask a registered 'competent person' to undertake a full inspection of the gas installation and appliances.

I recommend a carbon-monoxide detector is provided as a warning for any leakage.

6.3 The Water Supply – *Satisfactory*

Mains water is connected to the property and mains pressure to the taps is satisfactory. The internal stopcock is located under the sink. An external stopcock and water meter are also located in the pavement to the front of the property.

Visible pipework is provided in copper and plastic and there was evidence of adequate earth bonding.

An external water tap provides water for the garden.

6.4 Space Heating – *Further checks required*

Heating is provided by a wall-mounted gas fired Worcester Greenstar combination boiler located in the garage which is Sedbuk 'A' rated efficiency. This supplies a distribution of radiators in the first floor. The installation was in operation during the inspection and appears to be working effectively.

The system is controlled by an electronic programmer and a room thermostat and some zonal control

is possible. Most of the radiators have thermostatic valves fitted. These are generally dated and are likely to have a limited lifespan. TRVs enable occupiers to adjust the heating in each room independently, which permits energy savings to other rooms when not in use. *Where necessary, these should be upgraded.*

A 'wet' gas-fired underfloor heating (UFH) system is installed throughout the original ground floor. This comprises heated water pipes fitted beneath the floor finish. *Your legal adviser should confirm the installation details, together with details of any unexpired warranties.* The manifold system for the main underfloor heating is located in the understair cupboard.

A 'dry' underfloor heating (UFH) system is installed in the orangery. This is heated with electric filaments. The 'dry' systems tend to be more expensive to operate than 'wet' gas-fired systems. *I recommend you obtain copies of maintenance and service manuals, together with any unexpired warranties.*

The solid fuel fireplace in the living room provides a further source of heating. Please refer to Section 5.5. *Your solicitor could advise you on the 1956 Clean Air Act and subsequent amendments which regulate and restrict the use of solid fuel in some urban areas.*

Heating installations must be installed by a registered 'competent' person and thereafter serviced regularly (usually every year). I have not been given evidence of a recent safety inspection having been undertaken to the heating appliances in the property and it is therefore essential that you engage a registered 'competent' person to undertake an inspection of the heating appliances, prior to purchase.

6.5 Water Heating – *Further checks required*

A modern pressurised (unvented) Megaflow hot water storage cylinder (210l) is located in the loft. This is suitable for a property of this size.

This stored hot water system is 'sealed' (sometimes called a 'pressurised' system) can provide a better flow of hot water from the taps. To work safely, sealed hot water systems have to be fitted with appropriate safety devices and these should be checked as part of the annual heating system service plan.

Unvented cylinders must be installed by a competent and qualified engineer; this is a legal requirement in the UK and all installations must be certified and registered with the local council. Please see comments in Section 6.4 regarding a safety inspection of the boiler and Section 6.1 regarding a safety inspection of the electrical installation.

However, in my opinion, the hot water seemed rather low and I recommend having this system inspected by a suitably competent engineer.

6.6 Drainage – *Further checks required*

There are three heavy duty manhole covers, one to the front and two to the rear. These are fixed and cannot be lifted safely by one person. Although I found nothing to indicate a significant defect in the main foul drainage system, *I cannot confirm it is free from blockage, a specialist test of the full system is the only true way of confirming the condition of the drainage system. Therefore, a precautionary inspection and jet washing is recommended.*

The soil waste system is vented with a plastic soil vent stack affixed to the rear wall. No defects were noted.

We see no particular problems associated with the waste water (grey water) drainage from the kitchen and bathrooms.

I have no particular concerns regarding surface water drainage. Surface water is rainwater which falls on your property or water not only from rainfall on the ground, but from outside activities such as car washing or patio cleaning. The adjacent hard surfaces generally slope away from the external walls and the installation of pea shingle trenches provides further protection to the external walls.

However, leaf debris should be cleared from the gully covers serving the rainwater downpipes in order to prevent congestion.

6.7 Ventilation – *Satisfactory*

No specific ventilation problems were noted at the time of inspection. Extractor fans are provided in some locations. Consider installing heat recovery units which provide an efficient means to extract excess moisture and stale air whilst retaining the warm air inside, in particular to kitchens and bathrooms.

6.8 Telecommunications – *Satisfactory*

Connections for the usual telecommunications services are provided, including telephone and BT broadband internet. I was not able to confirm whether a functional TV aerial has been fitted.

7.0 Grounds

7.1 Garage / Outbuildings – *Further checks required*

The property includes an integral garage to the right-hand side. An electronic up and over door is provided to the front and this was tested and appears fully functional. The garage was largely full of stored items at the time of inspection, so it was not possible to inspect all surfaces.

The floor to the garage appears to be of a high quality industrial finish, assumed to cover the solid screed base to the rest of the property. This was largely concealed however by stored items during the inspection. A number of building service installations are present in the garage. Please refer to Section 6 above.

A timber shed is provided within the rear garden with a bituminous felt roof covering, timber-framed structure with weatherboard cladding, timber deck and single-glazed timber-framed windows. This appears generally in satisfactory condition and will require periodical maintenance to provide longevity. The felt roof will have a limited lifespan of several years and the structure overall will require annual maintenance.

A further summer house is located in proximity to the patio, with a terracotta floor which appears to be hollow underneath. I am not sure about the longevity of this structure and some maintenance may be required to the floor and roof. **Your legal adviser should confirm whether or not these structures are to remain and form part of the sale.**

7.2 Grounds, Garden and Boundary Structures – *Maintenance required in future years*

The area to the front of the property is largely covered with concrete pavements and a small lawn to the left. This provides parking space for three cars, potentially more. The rear garden can be accessed via a timber gate to the right hand side and this has a patio area adjacent to the property, formed with concrete pavements and a large lawn with a path to the right-hand side. The external areas are reasonably well kept, although a little bindweed was noted and the bamboo will need to be cut back from time to time to prevent it spreading and becoming a nuisance.

A number of trees within the front and rear garden are of a size and species that may adversely affect the property by tree roots drying out the clay sub soil and leading to subsidence of the foundations and walls. The Willow tree to the rear right of the property is a particular risk. I note a number of these trees have a TPO (Tree Preservation Order), which would prevent the tree being removed. Please refer to my earlier comments in Section 4.5 above relating to the building foundations.

We did not note any Japanese Knotweed during our investigations. However, this plant is generally deemed to be an invasive species which poses a threat to building structures and their foundations. We cannot guarantee there is none present, given the time of year.

The front garden is enclosed within large hedges and a low masonry wall. A number of large vertical cracks noticed to this wall, which may be the result of some tree root damage. **You are advised to allow for the cost of future repairs.** The rear garden is enclosed within large hedges and some timber panel fencing with concrete posts. This is generally satisfactory, although some maintenance will be required in future years.

8.0 General

8.1 Fire Safety

At this property, I have indicated the risk of fire spread from the kitchen and integral garage. The integral garage must have suitable fire stopping to its ceiling and walls and this would normally have been required as part of the building control sign off process. The architectural drawings indicate a suitable 30 minute fire door was specified, together with fire resistant board. **For peace of mind, it would be worthwhile checking building control was obtained to confirm this was included.**

All dwellings require easy means of escape in the event of fire. It is important that doors and upper floor windows can be opened in the event of emergency escape and rescue. Any window keys should be readily at hand.

Modern mains-operated smoke detectors are located throughout the property, so I have no particular concerns regarding the alarm system.

8.2 Other Health & Safety Issues

My main concern at this property is the fall risk from the mezzanine landing. A suitable railing is in place, but this is a risk you would otherwise need to accept, unless you intend to undertake alterations to the floor structure.

8.3 Security

Both doors can be securely locked, so I see no specific risks. The property benefits from an intruder alarm (which was not tested as part of the inspection). Alarm systems need regular servicing and maintenance. **The records should be checked and if the system has not been serviced within the last 12 months you should ask a specialist to service it for you.** Also ask the specialist to ensure that an automatic cut out device is in place.

Furthermore, PIR (passive infra-red) movement sensors are located in strategic positions throughout the property which have not been tested.

8.4 Accessibility

The property has been designed to accommodate people with restricted mobility in line with building regulations at the time of construction, for example, the height of electrical switches and sockets. However, I understand the original ramp and some sanitary fittings have been removed, so some minor modifications would be required for full compliance with the 2010 Equality Act.

8.5 Energy & Thermal Performance

Having reviewed the design documentation, the property appears to have been insulated to a relatively good standard compared to many, certainly in line with building regulations at the time of construction.

The roof, wall and floor insulation wrap the interior to form a continuous thermal envelope, reducing the need to wasted energy. The architectural drawings indicate the intention to use a 150mm thick glass fibre quilt to the roof, 100mm on walls. The sealed 'low E' argon-filled double-glazed windows

and doors also provide a decent level of thermal resistance.

Underfloor heating is a relatively efficient way to heat a property, although the electric UFH systems tend to be more costly to run (the main system appears to be gas-fired, however – please refer to Section 6.4). The solid fuel fire could potentially be a very 'low embodied carbon' method of heating, provided you can source the fuel economically and locally. This is because the wood burned consumes carbon-dioxide and gives off oxygen during photosynthesis whilst it grows.

Thermostatic radiator valves enable occupiers to adjust the heating in each room independently, which permits energy savings to other rooms when not in use. These may be dated and **where necessary, these should be upgraded.**

Current lighting is reasonable, but more efficient fittings are available. **Consider installing low energy light fittings, LEDs and timer switches. Consider installing a smart meter to monitor and inform you about energy usage, so your energy consumption and bills can be managed more efficiently.**

In addition to the above, you might consider installation of solar photovoltaic power cells and solar hot water heating which can be installed on the roof. You should first check the financial and carbon payback periods - the number of years it takes to recover the financial and carbon cost of upfront costs.

The EPC (November 2015) score is C78 and indicates a potential score of B83 is achievable, allowing for improvements described in this section. This would considerably reduce fuel bills. The property's Energy Impact Rating is C79 with a potential of B83.

8.6 Sound transmission

I have no particular comments or concerns relating to sound transmission, since the property is detached.

9.0 Legal Considerations

Please refer to my comments highlighted in purple throughout this report.

I did not identify any specific issues relating to land ownership. You should consult your solicitor in respect of boundaries of all registered land that will pass with title, together with rights of access and maintenance liabilities.

Planning Permission and Building Control approval are required for any structural alterations to the property such as the main construction and addition of the rear orangery. Building Regulations will apply to any new alterations. Your solicitor should check these are in place.