



CIVIL AND STRUCTURAL ENGINEERS

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Report on

**The Affects of Historic Alterations
on Structure of Building**

At

**1, 3 and 5 Park Street
Hatfield AL9 5AT**

For

Latymer Land and Property Ltd

REPORT COMPILED BY: Robert M Wallbank BSc., C.Eng., M.I.C.E.

DATE: 28th February 2018

JOB REFERENCE NUMBER: RMW/11622/18

RWA Consulting is the trading name of RWA Consulting Engineers LLP

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Mr E Flynn
Latymer Land and Property Ltd
Amersfort Hall
The Common
Potten End
HP4 2QF

our ref: RMW/11622/letrep1/18
date: 5th March 2018

Dear Mr Flynn

Re: 1, 3 and 5 Park Street, Hatfield AL9 5AX

Thank you for your instructions to comment upon the structural integrity of the above property with specific reference to a proposed conversion to habitable use.

I confirm I undertook my inspection on Thursday 1st March 2018.

We draw reference to existing layout drawings by JSA and proposed layout drawings from Good Architects reference 16_372/001A, 002C, 010C, 010D, 011C, 011D, 011E, 012B, 013B, 014C, 014D, 015C, 016C, 016D, 017C, 018B, 019B, 019C, 020C, 020D, 021C, 021D, 022C, 030D, 031C, 031D, 032C and 033C.

I confirm that our work involves undertaking an inspection to identify matters of a structural nature pertaining to the structure of the building, covering issues such as subsidence, bulging and unrestrained walls, sinking or subsiding floors and, where visible, internal and external structures of the roof and peripheral issues that could have an impact on the structural stability of the property, such as geology, proximity of trees and drains.

I confirm that this report does not provide comment upon fixtures and fittings, in or outgoing services, or on matters of general condition. My report does not deal with non-structural matters, such as the general condition of the property, asbestos, damp issues including damp proof courses, mould, rot or beetle attack on timber, Japanese knot weed, or the condition of incoming or outgoing services. This list is not exhaustive but sets out to highlight some non-structural issues that a Home Buyers Report might cover. I therefore cannot guarantee that the building is otherwise free from defect.

Reference should be made to our standard terms and conditions regarding Structural Engineer's inspections, these are appended and form an integral part of this Report.

1.0 General Description, History and Structural Condition

1.1

We defer to other descriptions and dates relating to the subject property, but confirm that the building in its entirety is generally considered to be detached and formed of one single structure that has been altered over the years from three separate dwellings into one single office unit. I believe that the conversion into an office was undertaken many years ago, but subsequent alterations, removal of walls and the erection of partition walls have all taken place over the life of the building, with little consideration to the history of the building, or its overall structural condition. Many of the alterations have

had little regard for the structural support of elements of the building and as a consequence movement has occurred.

1.2

A description of the pre-existing structural work in the basement comprises of new blockwork walls, no doubt in front of historic walls that are now vented. Beyond this are the original flint walls, but with some newer brickwork added to support structural steelwork.

1.3

The existing main steelwork comprises generally of 203 x 133 Universal Beams that support the floor joists, which vary between 200mm deep and 150mm deep, even though they span similar distances. The steel work spans between the front to the rear basement walls. In one area the steel has been split into two sections and has an intermediate steel support.

1.4

To the rear of the property there are two old masonry steps that turn and wind up to the ground floor area, one of which is under the timber staircase that serves the ground and first floor. The flooring has now been infilled in this area and the staircase and the staircase above has suffered depressions and downward movement.

1.5

The support of the lath and plaster wall and the stringer to the staircase, as well as the treads and winder, are all supported on a myriad of steel beams and a steel post that prop timbers, some coach bolted and others that have been packed using folding wedges, further timbers and steels have been packed on a mixture of brickwork and old roof tiles. There does not appear to be any considered or engineered design to the installation of the support of the staircase and has the appearance of being made as it went along. Some timbers are soft and are beginning to degrade due to the damp atmosphere of the basement. Original timbers are observed in amongst the newer timbers and these are in poor condition in places, but there are a number of sound timbers that currently still remain.

1.6

It is believed the ground floor levels have been raised at some point during the conversion time line of the building. Whilst many of the floor joists are newer replacements there is still evidence of undulation in the floor, possibly due to poor building construction.

1.7

There are a number of steps between rooms, particularly between properties nos. 3 and 1 and the support of these steps is questionable. The area of greatest concern is around the original main staircase where the risers dip to the right hand side of the building. The partition wall between the staircase and the small cupboard has dropped and it is directly beneath this that the myriad of timbers and questionable supports and packing exist.

1.8

At first floor level there is a mixture of original structural and non-structural walls, as well as newer non-structural stud partitions of a more recent nature. The newer stud walls are adding dead weight to the floor structure over open spans below and as a result the floors have deflected inwards at the position of these stud walls.

1.9

Deflections to floors are very apparent within the building. This is likely to be due to the slender section size of the floor joists that would have once been appropriate for domestic habitable use, whereas over the last twenty or thirty years the building has been used as an office. Live loads are different for offices compared to domestic use and this is likely to have resulted in the excess stresses and deflection to the floor timbers. Where deflections to walls have taken place the doorheads have skewed, which can generally be seen on the main landing. Some of the deflected walls may be as a result of poor propping from below.

1.10

There are a number of different floor levels throughout the building, probably as a result of the internal alterations to the building. Such differential floor levels, generally between what would have once been three dwellings, is now considered inaccessible for commercial buildings in terms of disabled access for a Design Access Statement.

2.0 Comments and Recommendations

2.1

It is clear that unauthorised structural and non-structural alterations have taken place to the building over the last thirty years during previous ownership. As a consequence there are a large number of alterations that have removed not only the original character of the building but also structural elements. Opening up of walls in no. 1, new partitions and the separation of office rooms have all broken up the original room sizes that would have existed in the original format for three cottages. The use of gypsum plaster, steel, concrete and new timber beams over new openings, the raising of the main ground floor and alterations to the basement have all impacted the structural integrity. Sadly of these alterations have caused damage to elements, such as the main staircase, and it is not clear from my inspection whether proper support actually exists despite all of the timber and steel used. It is doubted due to the unusual and unorthodox means of propping the structural stair elements.

2.2

A process to rectify the staircase would be to carefully prop the staircase and dismantle the timber framing that is unlikely to supporting it well and then to re-fabricate the structural frame and support that is would then be in keeping with the building and would also help support the staircase for a long time into the future. This work is necessary whether or not a conversion takes place.

2.3

A conversion to separate dwellings removes the awkward level changes that only exist because the previous commercial use opened up the building, thus exposing the level

changes. The proposals allow for reinstatement of structural walls to re-support the upper floors in a similar manner to the original layout. It can also be seen that the new basement staircase is to be removed and the previously existing access staircases reinstated. These can be seen under the damaged main staircase and the reinstatement will permit a structural support to be re-formed to its original, or near original, format. This will simplify the current format. Care is to be exercised in temporary propping, but will be very achievable.

2.4

It is essential that the conversion works progress swiftly, as the damp conditions in the basement, due to the building being uninhabitable, are leading to a degradation of the fabric and structural elements, which will not only cost more to rectify, but also potentially damage the older timbers that could otherwise be salvaged and conserved if the works can be undertaken at the earliest opportunity. Sadly the previous works have made the process more difficult to undertake and there is little that can be done to the framework in the location of the vulnerable areas without consent to do so. I cannot stress enough the importance of the urgency to progress these necessary works in an ordered manner, to be carried out in tandem with the proposals that will make the support process much easier.

Yours sincerely

c., C.Eng., M.I.C.E.

rob@rwaconsulting.co.uk

NB This report is not a full or any other form of survey but is a specialist structural report on the items contained therein. Therefore no responsibility can be accepted for any other defects which are found in the property.

NB This report was commissioned by Latymer Land and Property Ltd, owners of the above property and a copy of this report may be used by their professional advisors, Building Society, Bank, or Building Insurers. No other person may receive a copy of this report without first obtaining our permission in writing.

NB We have not inspected woodwork or other parts of the property or structure which are covered, unexposed or inaccessible and we are therefore unable to comment whether such parts are free from defect.

TERMS AND CONDITIONS

1. The copyright of our Report remains vested with RWA Consulting Engineers LLP.
2. Our Reports are confidential to our Clients and RWA Consulting Engineers LLP and we do not accept responsibility to third parties to whom our Report, or any part thereof, is made known, without formal agreement beforehand.
3. Our inspection of a property is intended to provide the information set out in either paragraphs (a) or (b) below. Our reports will indicate the exact nature of our brief.
 - (a) Specific advice on any structural problems which have been brought to the attention of the Engineer and which may also be the sole basis for commissioning the report. Examples of this are fractures to walls, previous repairs etc, or
 - (b) To provide a general overview of the condition of the principal structural elements of the property with a view to advising whether the property is suffering from deficiencies such as subsidence, heave, landslip, structural instability or failure of structural components.
4. The inspection is not a full "Building Survey" as defined by the Royal Institution of Chartered Surveyors. A "Building Survey" deals with many of the non-structural aspects of property condition. Our Structural Survey will not cover items other than structural items and any comments on matters non-structural are for information and may require specialist advice. For example: breach of damp proof course, damp, roof tile conditions, wood boring beetle or rot, drainage, rain water goods, electrics, Planning and Building Regulation compliance are examples of matters not covered in our report. Other than general comments the inspection will not include the testing of any services to the property, nor will it consider the presence of any hazardous materials.
5. Inspections can only be made of those areas which are freely accessible. Unless arrangements have been made beforehand no inspection can be made of the foundations or areas buried beneath the structure or behind cladding, neither can any comment be made upon areas that are obscured by fitted carpets or fixed coverings. In the event that such further inspection is advisable then this will be referred to in the report. However, there is always the possibility that there are hidden defects which cannot reasonably be established from a Structural Engineer's inspection.
6. The report should not be construed as an implied warranty in relation to the structure.
7. Clients should always obtain legal advice on matters involving the sale and purchase of property; our reports do not address legal issues.
8. It must be remembered that the condition of any property is a constantly changing variable. With the passage of time new defects can arise and existing ones worsen. The report should only be taken as a record of the property's condition at the time of the inspection.

PAYMENT TERMS

10. Our quotation fee is for attending site, inspection of property under the conditions as set out above, consideration of findings and reporting thereon. This fee is based on the initial instruction received. Any further involvement required if the property is found to be of a more complex nature, additional site visits and further correspondence, will be charged at our standard hourly rate, which is currently £150.00 plus VAT.
11. Unless otherwise agreed, it is company policy that our structural survey report will not be released until payment has been received in full. Payment of outstanding invoices is expected by return. We will exercise our statutory rights to claim interest and compensation for debt recovery costs under the terms of the late payment legislation if payments are unreasonably delayed.
12. All rates quoted are exclusive of VAT.
13. The financial liability of RWA Consulting Engineers LLP under the terms of these conditions is limited to losses only incurred to the value of the Professional Indemnity Insurance available and in force at the time of this Report.
14. The client shall pay the fees in full without deduction by way of set off, counterclaim, discount, abatement, retention or otherwise.