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STRUCTURAL ENGINEERS REPORT
ON
FRONT ELEVATION WALL
AT
110 UPPER STREET, LONDON, N1 1QN
FOR
MR R. KILIKITA

Ref: 13027/AS/WM
Date: 18th April 2013

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CONTENTS

1 INTRODUCTION

1.1 We visited the above property at Mr R. Kilikita's instruction in order to advise on the structural integrity of front elevation wall.

1.2 Mr A. Savvides BSc (Hons) MSc CEng MIStructE, Director of the practice inspected the property on 27th March 2013 and 15th April 2013. An internal and external visual inspection was carried out of the front elevation of the building.

1.3 It should be appreciated that during a visual examination we have not opened up parts of the structure that were covered up, unexposed and inaccessible at the time of our visit, and we are unable to report on hidden defects.

1.4 Excluded from this report are matters relating to all finishes including roof coverings, rising damp, timber rot and infestation, asbestos, secondary fixing items such as doors and window frames and all services into the building. It should not be construed as a RICS Structural Survey Report or a full list of every defect in the building.

1.5 This report has been provided for the sole benefit of the named client, and is confidential to the client and his professional advisers. It should not be reproduced, in whole or in part, nor relied upon by other parties for any purposes without agreement in writing from the author.

1.6 All references to 'left' or 'right' are for an observer viewing the property from the front.

2 DESCRIPTION OF PROPERTY

2.1 The property is a four storey terraced property that was built over 100 years ago. It is of traditional construction with external facing brickwork walls of 215 mm thick and 300 mm thick internal suspended timber floors on recently introduced new steel beam.

2.2 The roof of the property is of traditional timber pitched design and weathered with plain tiles.

2.3 The property consists of a shop at ground floor level with residential accommodation at first, second and third floor levels. Access to the residential unit is via a front access on the right hand side of the property.

2.4 The ground floor shop is currently being occupied whilst the upper residential unit is empty.

The upper residential unit is in the process of rebuilding but it appears that these works have stopped quite a while back.

The works carried out to date are sub-standard and there is still an enormous amount of work required to make this unit habitable.

3 FRONT ELEVATION WALL

3.1 The front elevation wall is constructed in 330 mm thick brickwork and set in, above the ground floor shop front.

In general this wall is in an extremely poor condition with very old poor patch repairs, frost damaged bricks, damaged brick arches and with a very large bulge (over 120 mm) at second floor level. Please refer to photo 1.

The front elevation wall was constructed as a solid wall but with an inner 215 mm thick skin in Fletton bricks or similar and with an outer 103 mm thick facing brickwork skin. The bulge has occurred due to the lack of tying between the two brickwork leafs and the lack of restraint at each floor level. Please refer to photo's 2 and 3.

3.2 The masonry to the top of the wall is suffering from frost damage and requires extensive repairs. Please refer to photo 4.

3.3 The flat brick arches over the windows at first floor level have failed and would require re-building.

PHOTO 1
Side view of front elevation showing bulge in the wall

PHOTO 2
Front elevation view taken from second floor window showing very poor condition of bricks

PHOTO 3
Internal view of central wall pier at first floor level showing inner 215 mm and facing 103 mm leaf

PHOTO 4
Top of front elevation wall showing different bricks as well as frost damaged brickwork just below the parapet

4 CONCLUSION

4.1 Because of the extensive bulge, damage to the flat arches over the first floor window, frost damage and poor repairs to the front facade we would strongly recommend that this wall is carefully demolished and rebuilt in facing bricks to match adjoining properties.

4.2 Further input from ourselves will be required to prepare the design and detailing of the rebuilt front wall and supporting structure.

Antonis Savvides BSc(Hons) MSc CEng MIStructE
Director