



Structural Report

Property:

47 South Hill Park, London, NW3 2SS

Job No. 10 - 157

Date: 7th August 2012

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1.0 Introduction

- 1.01 CSEconsulting were instructed by Metropolitan Development Consultancy Ltd to undertake a structural appraisal of the property known as 47 South Hill Park, London, NW3 2SS.

Our brief was to undertake an inspection and to comment on the structural condition of the property and specifically to provide a preliminary assessment of any obvious signs of damage to the building which may be indicative of on-going subsidence related movements.

- 1.02 The engineering appraisal has considered the structural engineering aspects of the building, reporting on the main load-bearing elements and their performance. The appraisal has not dealt with non-structural elements such as:

- a) The general condition of services to and within the property.
- b) The decorative condition of the property.
- c) The position of the property with respect to local amenities.
- d) The condition of the property with respect to dry rot, timber infestation, dampness and the like.

- 1.03 This report has been based on a single visual walk-over inspection of the property undertaken on the 6th August 2012. The inspection was limited to the upper and lower ground floor levels only.

No trial pits were excavated, exposure works undertaken, nor any tests carried out on the materials used in the construction of the building. This report cannot therefore be considered a definitive structural assessment of the materials or the condition of the main structural load-bearing elements of the building.

1.04 We have not inspected woodwork or other parts of the structure that were covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

Our comments have been based solely upon information available externally and from within the property, subject to the limitations of access and visibility.

1.05 This document presents findings from the appraisal from which a series of conclusions have been drawn and presented in section 4.

2.0 Description of Property

2.01 The subject property is a substantial five storey building which forms one part of a semi-detached block constructed it is thought during the late 1800's or early 1900's using traditional building techniques with loadbearing masonry walls and timber floors.

2.02 The lower ground floor level extends from the front to the line of the central spine wall to the property. The remaining rear section of the property from the central spine wall to the rear wall is in effect founded at the higher ground level. The present lower ground floor level appears to have been constructed with a nominal difference in level of approximately 600 mm below the pavement level to front of the property.

3.0 Observations and Discussions

3.01 Front Elevation: The front elevation does exhibit areas of historic brick repairs most notably in instances to the aprons between the window openings and in localised areas at lower levels adjacent to the party wall with the neighbouring property. Evidence of mortar repairs are present adjacent to the party wall line running near vertically at the higher storey levels. The front bay feature does not appear to be original and it is thought that this bay structure has been rebuilt at some stage in the past.

The front elevation to the property appears generally to be true in both vertical line and horizontal level and we could observe no obvious signs of significant distortions or damage in the form of cracking which would be indicative of the building having suffered any adverse movements or rotations. All the window and door openings through the external elevations appeared to have remained relatively true and level.

3.02 Flank Elevation: The flank wall appears generally to be true in both vertical line and horizontal level and we could observe no obvious signs of significant distortions or damage in the form of cracking which would be indicative of the building having suffered any adverse movements or rotations. The wall is restrained at the first and upper floor levels using traditional iron anchor plates and tie rods.

3.03 Rear Elevation: The Rear wall appears generally to be true in both vertical line and horizontal level and we could observe no obvious signs of significant distortions or damage in the form of cracking which would be indicative of the building having suffered any adverse movements or rotations. Damage in the form of vertical cracking does exist in the brickwork apron between the head of the middle first floor window opening and the cill of the corresponding window at second floor level. This cracking is located the right hand side of the window when viewing from the rear and has resulted from the failure of the shallow brick arch lintel to the window and has not resulted from or is indicative of any significant movement of the building as a whole.

3.03 Internal: An internal walkover inspection at the upper and lower ground floor levels was undertaken. The rooms were in poor decorative order and signs of cracking could be observed through the finishes in a number of places. In particular a near vertical hairline crack is visible through the papered finishes in the partition running orthogonally to the rear elevation about 300 mm away from its intersection with the rear wall. These internal areas of minor damage are to be expected in a building of this age and are not considered not to be of any structural significance.

4.0 Conclusions and Recommendations

- 4.01 It is apparent from our inspection of the subject property where access was made available to us that the buildings appeared to be in a very poor decorative order. Internally; where minor cracking is apparent through the decorative finishes, this has in our view occurred as a consequence of thermal movement and is not indicative of any underlying deficiency or damage to the main building structure.
- 4.02 The subject property may have undergone a degree of historic movement which has resulted in localised brickwork repairs. It should be noted that such historic movements are to be expected for a building of this age and our observations would confirm that any such historic movements have ceased and are not progressive.
- 4.03 From our inspection of the building elevations externally and from observations from within the building itself we are of the opinion that there have been no movements within the buildings that could be directly attributable to excessive building foundation settlements or recent and ongoing subsidence.
- 4.04 The present proposals to extend the existing lower ground floor level to the full footprint of the building together with the associated underpinning will serve to decrease the buildings potential for any future subsidence related movements. The underpinning of the existing wall foundations will result in increased existing foundation formation levels within the clay sub-soil. The clay soils at the increased depth are less susceptible to variations in moisture change.

Signed for and on behalf of SCconsulting



K M Choudhary

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CSEconsulting - Director