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STRUCTURAL REPORT ON THE CONDITION OF THE EXTERNAL WALLS TO NO.99 CAMDEN MEWS LONDON NW1 9XA

Issue	Purpose	Date	Ву

1.0 Preamble

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2.0 Terms of Reference

We have been appointed in January 2015 by Mr Stephen Weiss on behalf of the owner of the property, Ms. Liliane Lijn, to inspect and report on the condition of the external walls and to make recommendations on how they should be treated in a proposed redevelopment.

3.0 Summary

None of the three walls examined, front, north flank and rear is in good condition and all have been subjected to numerous modern interventions.

The flank and rear walls have been damaged by the effects of both subsidence and poor restraint and large areas have been altered, rebuilt or extended. To provide a sustainable future, sensibly the walls should all be rebuilt on appropriate foundations rather than attempting to keep them as deteriorating and compromised structures requiring frequent remedial work.

Should it be necessary to retain the front elevation for reasons of conservation, attention should be given to tying it back and checking its foundations.

4.0 Introduction

No.99 Camden Mews is located adjacent Camden Square north east of Camden Town. The purpose of this report is to comment on the condition of the façade, northeast flank and rear walls of the building and to put forward recommendations for their treatment in the context of the alterations and reconstruction of the property proposed by the owner and shown on the Architect's drawings.

The inspection was carried out by Michael Eatherley on Tuesday 13 January 2015 accompanied and assisted by Mr Stephen Weiss and Michael Brundle, the Architect.

Woodwork or other parts of the structure, which are covered, unexposed or inaccessible were not inspected and cannot be reported as being free from defect.

5.0 Observations, discussion and recommendations

5.1 Description of the existing building and history of interventions see MIBRA Architects location plan

The original building complex, thought to date from the second half of the 19c, consists of two two-storey stable blocks with gables facing the street and set at the sides a central yard. The larger southern block is now under different ownership and is not part of or affected by the present proposal, other than over party wall matters.

In 1977 the courtyard and northeastern block were converted to make a studio/workshop with limited sleeping accommodation and involved very significant interventions into the original fabric: the central yard is now filled by a single storey building with an accessible flat roof/ terrace area above; the ground floor is open over the full width of the former yard and northern block with steel beams and brickwork columns supporting the structure above; the north gable has new ground floor windows.

Nothing of the original internal structure remains.

Refer to Architect's drawing W -12 - 004

In 1991 a new house (no. 101) was built immediately to the northeast of the property leaving a narrow passage in between. A large Chestnut tree had to be taken down to make space. The new house has piled foundations.

Also in 1991 a claim was made for subsidence damage at the north corner of the building. The cause was identified as the action of a large Tree of Heaven (Ailanthus) and of the Chestnut tree (Aesculus) in drying out the clay formation below the footings. The Tree of Heaven was also removed and movement in the damaged walls monitored over a number of years.

A price was given for underpinning this portion of the wall in 1991, but it was later reported that only deep piling would be practicable. Eventually, following long term monitoring, underpinning was deemed unnecessary and works were confined to repairing and replacing damaged brickwork and bearings to beams etc. The brickwork repairs involved rebuilding the top 2.5 metres of the northeast flank wall and an area close to the north corner (above the area of most subsidence), which all proved to be in an unstable condition. This work took place in 2007.

Refer to letter from Ben Russell Associates 27 May 2008

5.2 Foundations

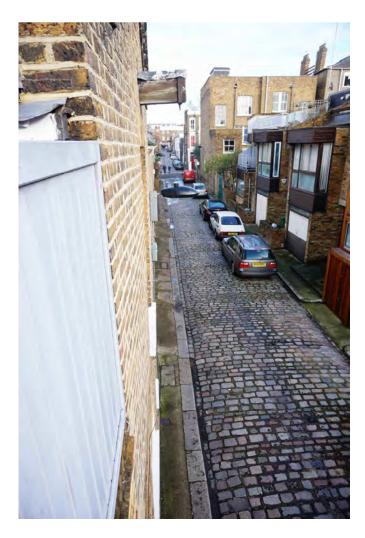
Two trial pits and auger holes were made outside the rear wall of the property in 1991, one at the north corner and the other near the middle. These indicate brickwork footings to a depth of 750 to 950mm on a formation of firm clay, compromised by the presence of tree roots and significant desiccation identified down to a depth of 1.6m. In the case of the second auger hole in the middle, the clay stratum becomes very soft between 1.8m and 5m. There is no information on foundations to the walls on the north flank and Camden Mews elevation.

Refer to SIL report dated Feb 1991

5.3 Camden Mews elevation – Architects drawing W -12-001

The "middle" portion of the wall to the mews elevation of the old courtyard was built in 1977 as a single brick thick intervention in Flemish bond stocks. Although of poor quality, structurally this part currently is reasonably stable. However the design intention is for this part of the façade to be taken down and replaced in a rather more sympathetic manner as shown on the Architect's proposals.

The gabled elevation to the mews is predominantly original, although compromised by the insertion of the two ground floor windows and possibly by an enlargement of the first floor window. The top courses of brickwork on the gable are much degraded and in order to prevent water penetration, in 2007, the gable was capped with modern cement coping stones.



Front elevation showing bowing

The upper part of the wall bows out around the first floor window up to 75mm. Again the wall is in single brick Flemish bond stock in lime mortar, repaired with cement mortar. The construction is currently stable, although there is a risk that the presence of the tall central window and lack of ties to the internal structure could lead to progressive further bowing from the effects of moisture and thermal change. If this wall has to be retained, it would be advisable to consider incorporating ties back to the roof and floors and inside walls. In areas where cement mortar has been introduced, the mortar should be raked out and made good with lime mortar in order to allow more flexibility in adjusting to thermal effects.

The present foundation arrangement is not known, but likely to be similar to the rear wall where the brickwork extends down to a depth of about 750mm bearing onto a clay formation. The proposed new construction behind will have deeper, or possibly piled foundations similar to the adjoining property. If this part of the façade wall has to be preserved, it is advisable that some form of underpinning should be adopted to maintain the integrity of the building.

5.4 Northeast flank wall – Architect's drawing W – 12 – 003

The single stock brick wall in Flemish bond of rather poor quality has been much altered since its original construction. The unstable upper part and a lower area loosened by subsidence at the northeast corner were rebuilt in 2007. The horizontal dividing line between the original wall and the new wall above has a line of flashing covering a step in the brickwork. The step is the result of 60 -70 mm bowing out in the middle of the lower wall and the straight modern part above. External steel ties have been installed at three levels as a means of reinforcing the corner brickwork at the back.



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Flank wall

Flank wall rear repairs

Photos from the Party Wall Agreement of 1991 indicate that at some time the front wall continued to the northeast and the presence of corbels at mid height along the flank wall suggest that in the past there must have been a single storey store to the north. The lower part of the wall is very damp that is apparent both outside and inside. The wall has cracks at both ends and poorly repaired in inappropriate cement mortar. The form of the cracks suggests that there may have been slight continuing subsidence since the repairs were carried out.

Refer to Party Wall Agreement June 1991



Flank wall showing flashing and old corbels

This wall has large areas of modern intervention and is in poor condition. As it stands it has a limited long term future requiring constant remedial work. In order to provide a "sustainable future", we consider that, for the proposed redeveloped house, it would be appropriate to demolish the wall, as far as possible saving and cleaning the bricks, and to rebuild on new foundations compatible with the proposed new construction behind. If required, the bricks may be reused and the wall rebuilt with the more accommodating lime mortar.

5.4 The rear wall – Architect's drawing W – 12 – 002

Again the wall is constructed in stock bricks, one brick thick in Flemish bond, with the central upper part extended to form a parapet to the roof terrace. The brickwork is not of good quality and suffers from a bowing out of about 60mm in the middle and also from a noticeably incline in the coursing, no doubt a result of the very soft formation material identified in the soil report. New windows were inserted in 1977.



Rear wall

For the same reasons as the flank wall coupled with the proposed changes in window locations. we consider that it would be inappropriate to retain this wall in the proposed new construction and recommend that it is demolished and rebuilt on appropriate foundations, again re-using the old bricks as may be required.

Appendix Michael Brundle RIBA Location plan and drawings W – 12 - 001 to 004 which are marked with the observations made on 13 January 2015

Other references Party Wall Award 6/06/1991 Blanchard drawings for adjoining houses Richardson's botanical Identifications 05/06/1991 Soil Investigation Report Feb 1991 Ben Russell Associates Correspondence November 2003 to May 2008

Report Prepared by:

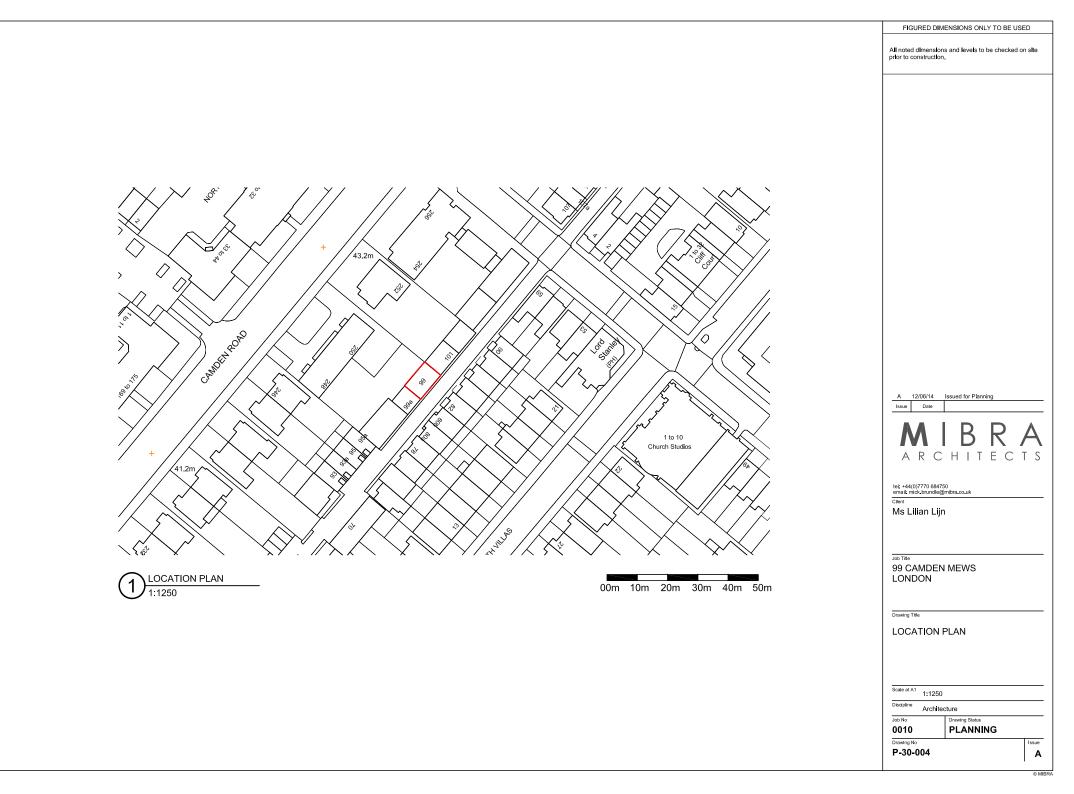
Michael Eatherley

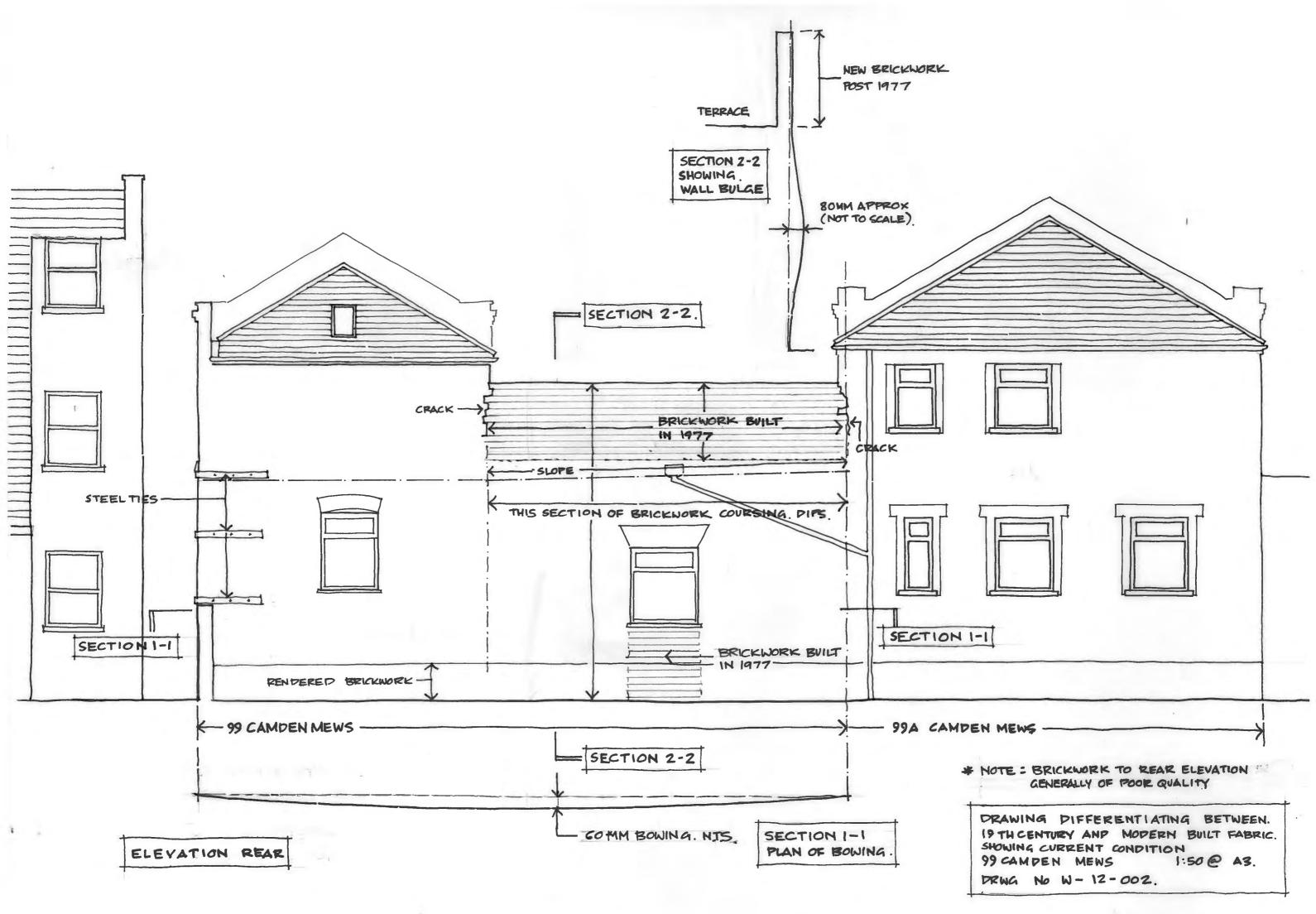
For Michael Barclay Partnership LLP

Report Approved by:

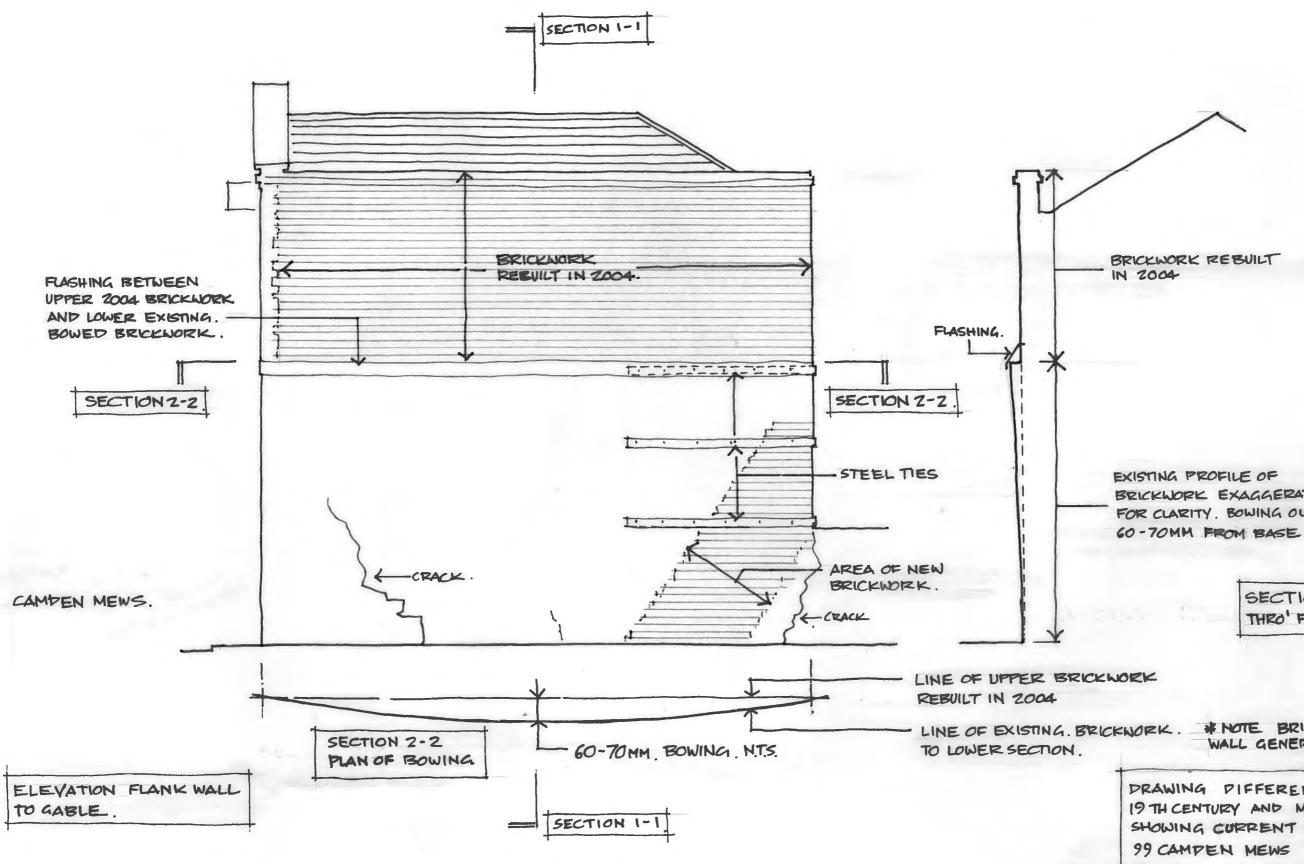
Malcolm Brady Date: 03 February 2015

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DRAWING PIFFERENTIATING. BETWEEN . 19 TH CENTURY AND MODERN BUILT FABRIC. SHOWING CURRENT CONDITION . 99 CAMPEN MEWS 1:50@A3. DRWG NO W-12-003.

* NOTE BRICKWORK TO FLANK WALL GENERALLY OF FOOR QUALITY .

SECTION 1-1. THRO' FLANK WALL

BRICKWORK EXAGGERATED FOR CLARITY. BOWING OUT BY

