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Our ref: 06051

Jill Sinclair 141 Hamilton Terrace London NW8 9QS

5<sup>th</sup> May 2006

Dear Ms Sinclair,

## SCHOOL HOUSE, MAYFAIR MEWS.

Further to visiting the subject property with you to view the evident cracking, I have returned once to view the floor structure where your builder Terry Gilmore had lifted a floor board in each bedroom and again when he had ladder access to the roof to plumbline the front wall. I report now on what I have seen.

## STRUCTURE OF THE FIRST FLOOR

I have only seen a small sample of the floor structure, but what I have seen is indicative of some sort of "sprung" or "resilient" floor and so not well suited to support added partitions. Very unusually the floor boards are supported on slender battens across counter battens over the basic floor structure. Where seen, the main floor structure appears more normal being joists spanning along the building between timber beams spanning front to rear. The original floor joists were seen to have moved away from their supporting beams and to be very poorly supported in the one location exposed. There are some modern additional joists added in but these seemed only to support the ceiling below and not the floor above. A calculation on one of the main beams showed it would be overstressed and deflect excessively if ever subjected to a full design load. I would not expect an old structure necessarily to meet current standards but in this case the deficiency is unusually large.

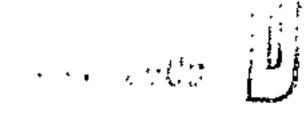
All the foregoing factors explain the vertical displacement across the cracking at partition junctions with main walls and ceilings. I cannot be completely sure without having all the floor boards lifted to allow full inspection, but all the indications seen to date are that the overall floor structure is very poor and that you should consider completely renewing it. This would entail renewing the ceiling over the ground floor and all the first floor fitting out and services.

## FRONT WALL

The front wall can be seen to be bowed outward at roof parapet level and bulged outward, throughout its height, worst at first floor level. The roof level parapet bow is about 40mm and the bulge at first floor level relative to ground level is about 110mm. This is excessive and may also be near to failing the bearings of the first floor main beams. The wall has been "dubbed out" externally and internally. It is probably a 9 inch wall above first floor and a 13\_ inch wall below plus various thicknesses of render giving an overall thickness of between 16 and 18 inches depending where measured. The wall may therefore also be delaminated.

Recent cracking patterns indicate the wall still to be moving outward and therefore to need rebuilding or to be provided with positive restraint to prolong it's useful life.

Rebuilding the wall might require a new foundation together with rebuilding the kitchen partition in masonry to provide restraint.



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Alternatively new steel portal frames could be introduced at about 3 metre centres to positively restrain the existing wall both directly and via a new first floor structure. The portal frames would comprise columns abutting the front and rear walls with a connecting beam within the new first floor or under it. The front wall would then be connected to the columns and to the first floor, involving tie plates externally which could be recessed into the renders if required for aesthetic reasons.

#### **REAR WALL**

From the roof it can be seen that there are two contiguous walls. I presume one belongs to your neighbours. Their wall is full height for about 6 metres along the back of the School House, then only to about first floor level for the remainder.

Internally the rear wall has been dubbed out with render. I cannot tell if it is plumb. There are however significant cracks in the internal render. Some of the cracking has a blocking pattern generally illustrative of poor rendering or poor substrate. There are also two sets of generally vertical cracks which are likely to reflect similar cracks in the wall masonry perhaps at sites of previous alterations or damage.

If you rebuild the front wall you should also consider investigating and perhaps rebuilding the back wall, although this would be less straightforward because of the neighbour's abutting wall. There are value judgements that need your decision. On the one hand the School House could be provided with better restraint (by new portal frames or internal walls depending on your revised layout), a new first floor and be tied together to prolong its useful life. The worst part of the front wall could be rebuilt. The School House would still be a very poor building and problematic in terms of potential cracking, resale etc. On the other hand complete demolition and rebuilding, if possible, should provide a much more secure future in structural terms for the property within the constraints of the site and party walls. The options may be more limited if the School House is a listed building or has conservation area status.

Please note that this report is of a superficial inspection only of evident structure. It is limited to the points noted and is not of a comprehensive structural survey.

Please let me know if you have any queries or wish to discuss the matter. I should be pleased to take the project forward if you wish.

To date I have spent 9\_ hours and I will submit a fee application in due course. Could you also please let me know if the kitchen proposal at 141 Hamilton Terrace is to progress or whether I should also submit my fees to date.

Yours sincerely

Michael Chester

Michael Chester for and on behalf of Michael Chester and Partners LLP

CONSERVATION AREA STATEMENT FOR PARTIAL DEMOLITION in accordance with the requirements of PPG15 paras. 3.16-3.19.

FOR: THE OLD SCHOOL HOUSE, MAYFAIR MEWS, 77 REGENTS PARK ROAD, LONDON NW1

The proposals submitted are for the partial demolition (and rebuilding) of the above property, which is deemed to make a positive contribution to the Conservation Area. In preparing these proposals the following considerations have been addressed:

## 1. The condition of the existing building.

The building is currently in a poor state of repair. This is not necessarily the result of neglect but rather the result of the construction methods originally used and the way the building has been altered in the past. The engineer's report (copy enclosed) refers to the unstable condition of the first floor structure, the rear wall and the front façade. The building is not safe in its present condition and remedial action is required urgently.

## 2. Efforts made to retain the building in use.

Initial discussions with the structural engineer favoured complete demolition of the building, however the engineer has now developed a proposal that will stabilise the existing rear wall by inserting a steel framework into the interior of the building. The first floor structure and front façade (which bows out more than 100mm from the vertical) are however beyond repair.

The intention therefore is to demolish and rebuild the front elevation, while inserting a steel frame into the interior to stabilise the retained rear and sidewalls, and support a new first floor and roof structure. The overall height and mass of the building will remain unaltered.

The rebuilt front façade, although similar to the existing, has been designed with subtle alterations to the door and window openings, which we believe to be an improvement on the original. New timber framed sliding box sash windows and French doors are to be used throughout.

# 3. Alternative proposals for the site.

After completion of the proposed works the building will continue to be used as a single dwelling.

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