

45 Great Ormond Street London WC1N

Structural Inspection Report

Prepared by:	Oladimeji Soleye MEng
Reviewed by:	George Reed Meng Ceng MStructE
Job Number:	30343

Date	Revision	Notes/Amendments/Issue Purpose
May 2024	P1	For Information

Note:

This report has been prepared for Great Ormond Street Hospital Children's Charity and their advisors, for the purposes noted in Section 1, using the information available to us at the time. It should not be relied upon by anyone else or used for any other purpose. This report is confidential to our Client; it should only be shown to others with their permission. We retain copyright of this report which should only be reproduced with our permission.

Contents		Page
1	Introduction	3
2	Description of Existing Structure	4
3	Observations	5
	Internal Observations	
	External Observations	
4	Recommendations	8

Appendices:

Appendix A Typical Remedial Details

Contains Ordnance Survey material © Crown copyright. All rights reserved. Licence number 0100058197
Contains British Geological Survey materials © NERC 2024 All rights reserved.

1 Introduction

Price & Myers visited 45 Great Ormond Street, London WC1N 3HZ on behalf of Great Ormond Street Hospital Children's Charity, on 23/04/2022 and 08/07/2022. The purpose of the inspection was to assess the structural condition of the existing building and advise on its suitability for refurbishment to the intended use as residential accommodation.

The inspection was limited to what could be seen without the removal of any finishes.

2 Description of Existing Structure

45 Great Ormond Street is located across the street from Great Ormond Street Hospital and is a four-storey Grade II listed Georgian townhouse which has been recorded as having been originally built between 1704 and 1708. 45 Great Ormond Street houses commercial spaces within its ground floor and lower ground floor, and 3No. residential properties (flats) in the upper floors. The entire building currently remains unoccupied except for a storage room in the lower floors by the hospital.

The existing structure is of a traditional construction comprising of a timber roof and an internal timber floor plate to all floors. The roof and floors span onto the loadbearing masonry walls and internal spine walls.



Figure 1 - 45 Great Ormond Street

3 Observations

Internal Observations

At 45 Great Ormond Street, there was some vertical movement observed with the main circulation stair in this property which was progressively worse up the building. This movement in the stair could be due to faulty drainage which caused additional settlement in the ground, timber creep and shrinkage, historical building settlement, or a combination of two or more of the above.



Figure 2 - Stairs at 45 Great Ormond Street

There was also some settlement/movement observed within the floors of the building which could be attributed to the use of the building over time, in combination with timber creep and shrinkage.

In the upper floors within the building, there are a few instances where the ceilings have caved in, likely due to a water leak in the roof/plumbing.



Figure 4 - Vertical movement in the ceiling/floor at 45 Great Ormond Street



Figure 3 - Caved-in Ceiling at 45 Great Ormond Street

External Observations

It was also observed that that the external walls to the rear of the building had been rebuilt/repointed at an unknown time, ridding any visual evidence of the wall having settled at any point in the past.



Figure 5 - Rear Elevation of 45 Great Ormond Street

4 Recommendations

The property is proposed to be refurbished and reused as residential properties, requiring some alteration works to and structural strengthening to the existing structure to ensure it is sound and safe for use.

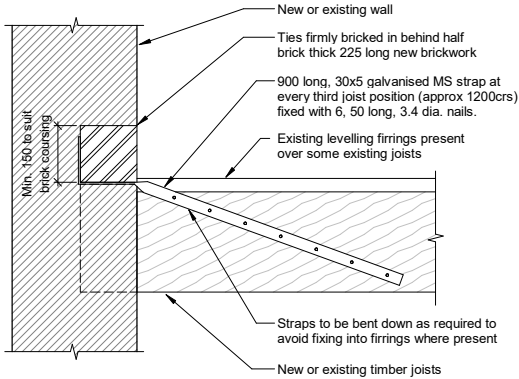
Unfortunately, without conducting further investigations, we are unable to give a more detailed outline of the exact works required, but we have noted what structural works are expected to both properties which are as follows:

- Crack repairs to existing masonry walls following removal of finishes.
- Replacement of rotten/damaged lintels to window and doors.
- Replacement of rotten/damaged floor joists and beams.
- Straps and ties between existing floors and walls.
- Remedial works and strengthening to stairs further investigation which may involve replacement of damaged treads and reinstatement of connections between timber members.
- Remedial works to timber rafters, ceiling joists, and wall plates to the roof structure. Allow for additional remedial works and possible partial rebuild of the parapet.
- Investigation and remedial/strengthening works where previous alterations have taken place.
- Infill/replacement of notched joists to reinstate original structure following full strip-out and raise of floorboards.

On the return of the CCTV survey, we will review the survey information to check for any causes of movement in the building due to leaks in the drains. We are still awaiting a response on request for quotes we sent out.

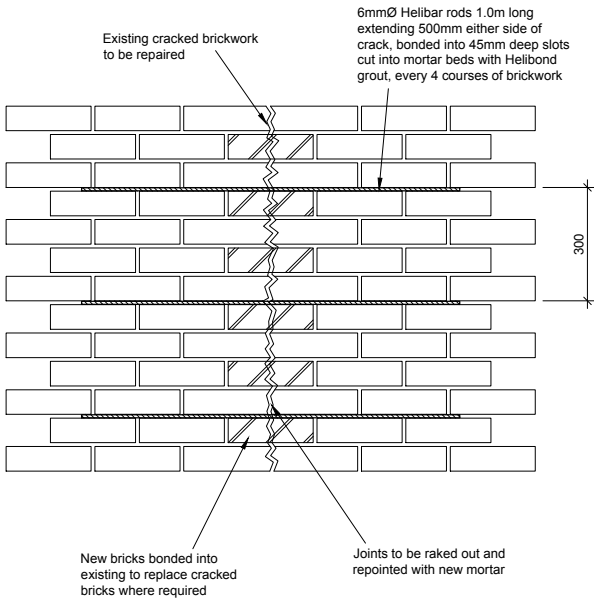
Appendix A

Typical Remedial Details



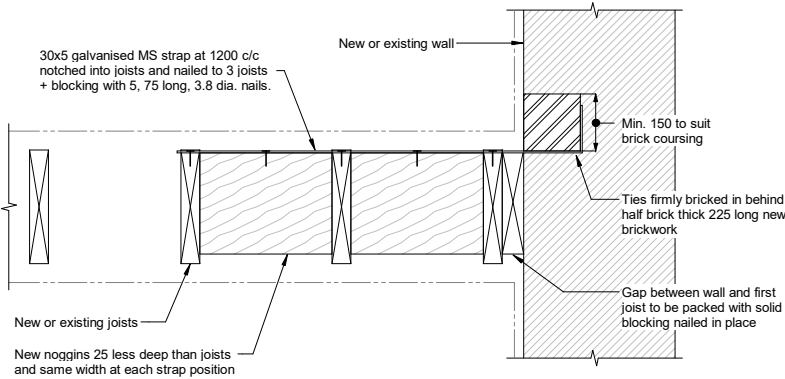
DETAIL 1
SCALE: 1:20 @ A3

TYPICAL RESTRAINT STRAPS TO JOISTS PERPENDICULAR TO WALL



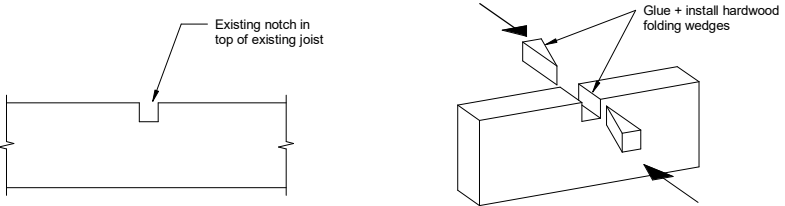
DETAIL 3
SCALE: 1:20 @ A3

REMEDIAL REPAIRS TO CRACKED BRICKWORK



DETAIL 2
SCALE: 1:20 @ A3

TYPICAL RESTRAINT STRAPS TO JOISTS PARALLEL TO WALL



DETAIL 4
SCALE: 1:20 @ A3

REPAIR DETAIL FOR NOTCHES IN TOP OF EXISTING JOISTS
(where existing notch is more than 500mm away from end)

Typical Details for Proposed Remedial Works
(As Noted @ A3)