SUPPORTING INFORMATION FOR

15 GLOUCESTER AVENUE REAR BALCONY, LONDON, NW1

1 Introduction

This information is provided in support of the original Listed Building Application 2017/4254/L following the on-site meeting with Nick Baxter on 21st August 2017.

2 Original Balcony Construction

Two separate and independent structural engineers assessed the balcony. Their reports are appended to this document and found the following:

Identifying the material used to construct the balcony was inconclusive and concrete, sandstone and unreinforced reconstituted stone were all suggested.

Both reports concluded that the balcony was not safe and repairing the existing balcony was not a safe or feasible option.

The first engineer to inspect the balcony suggested that the steel curved plate sections behind the single skin facing brick arch was supporting the balcony and presumed a cantilever structure. However, through further inspection, the second engineer concluded that the balcony was held in place simply by the brick wall and the balustrade, resulting in a balcony with very little restraint, i.e. not cantilevered.

3 Proposed Balcony Construction

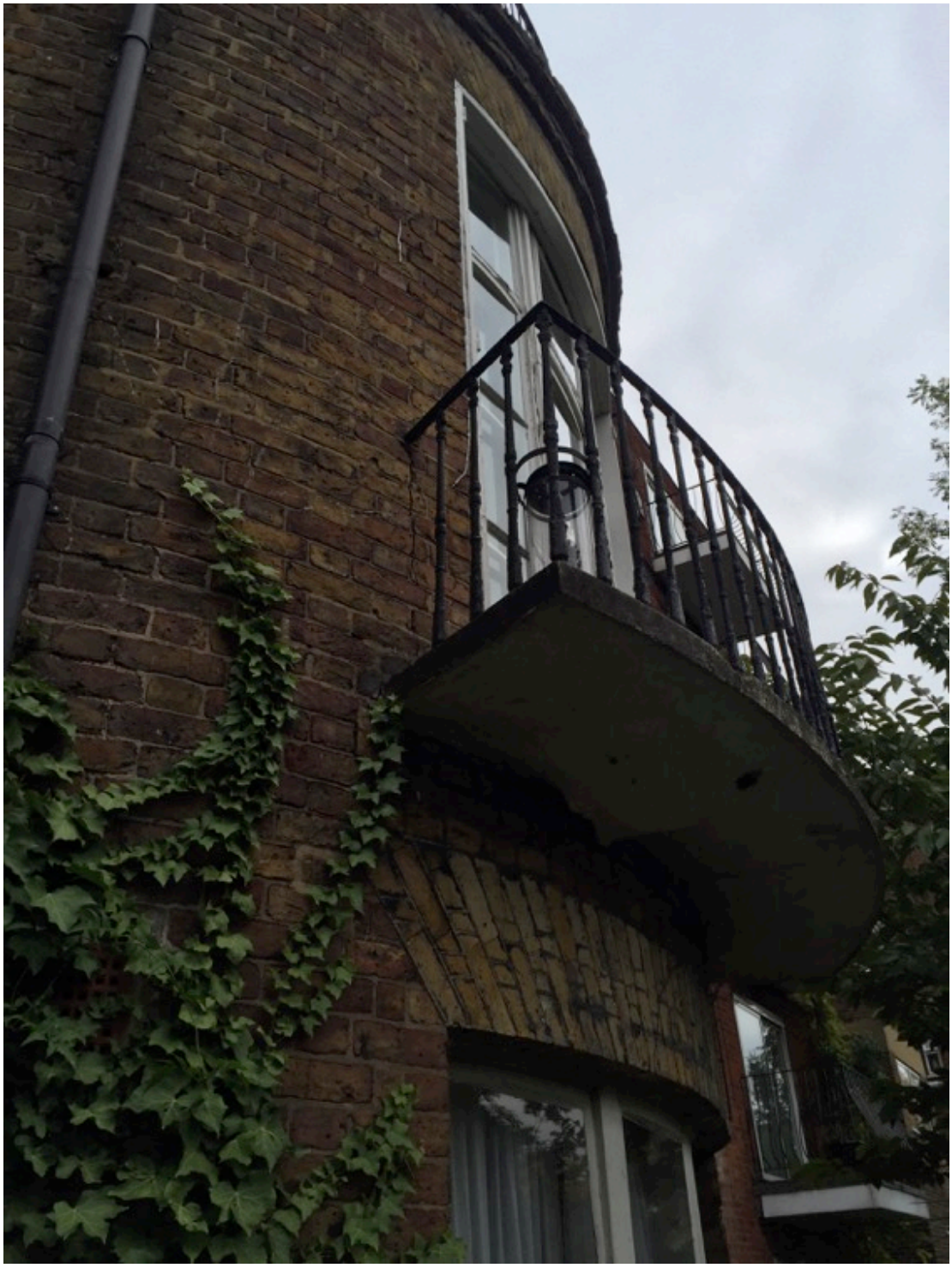
The proposed balcony will be in keeping with the heritage of the building, however this will not be at the expense of safety to the residents. The original balcony design was unsafe and therefore cannot be replaced exactly like-for-like.

As detailed in the original Listed Building Application, the engineer designing the replacement balcony has recommended that the structure should extend into the floor zone of the flat. This is to counter balance the balcony and is proposed to be constructed using a light steel structure, minimizing stresses onto the brickwork to the side and underneath the balcony.

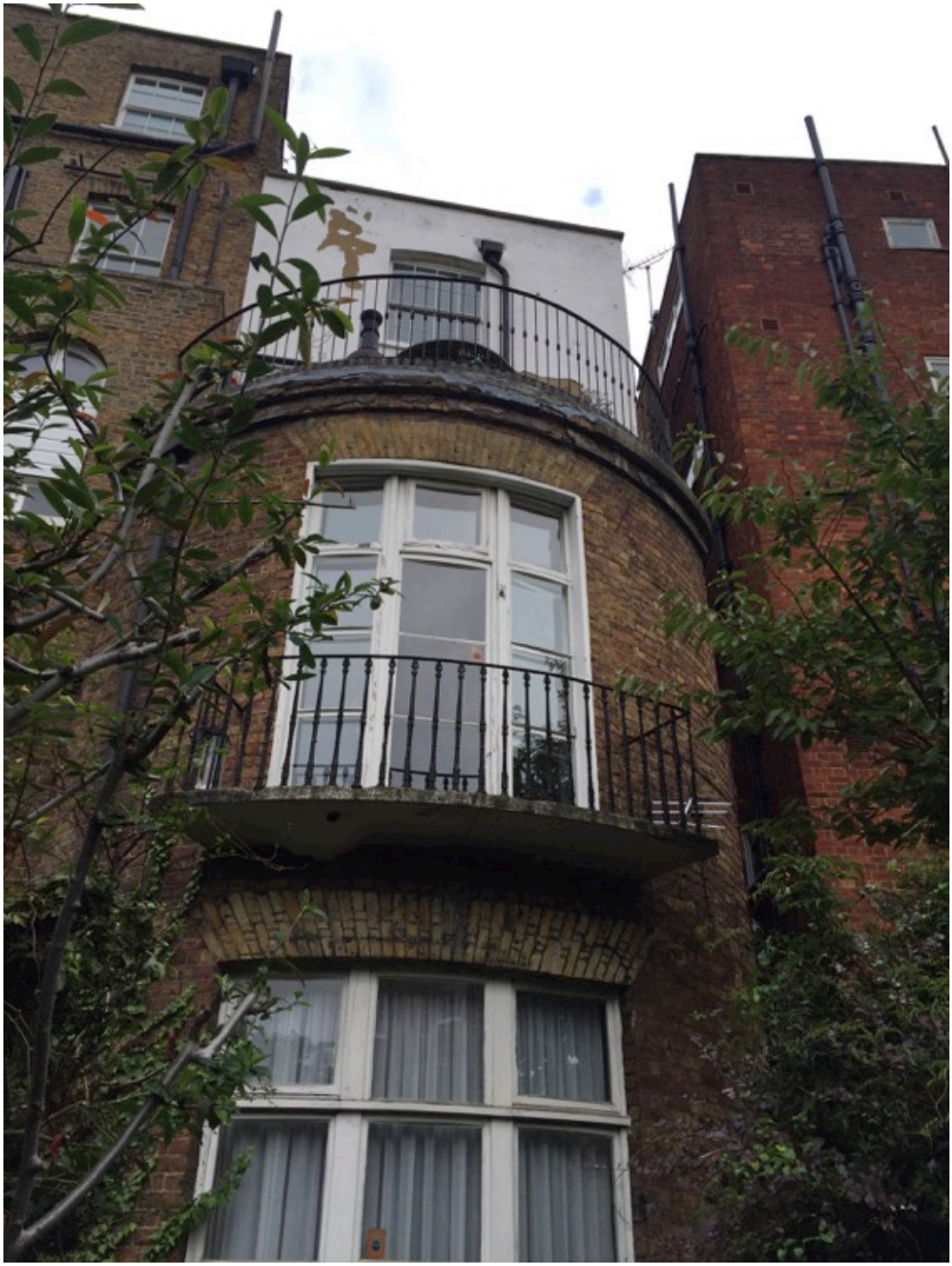
During the on-site meeting with Mr Baxter, it was evident looking at the rear facade of Gloucester Avenue that no other stone or concrete had been used for the construction of balconies. They are all of metal/ironwork construction and therefore the proposed metal balcony would not be out of context with the rear façade.

4 Photographs

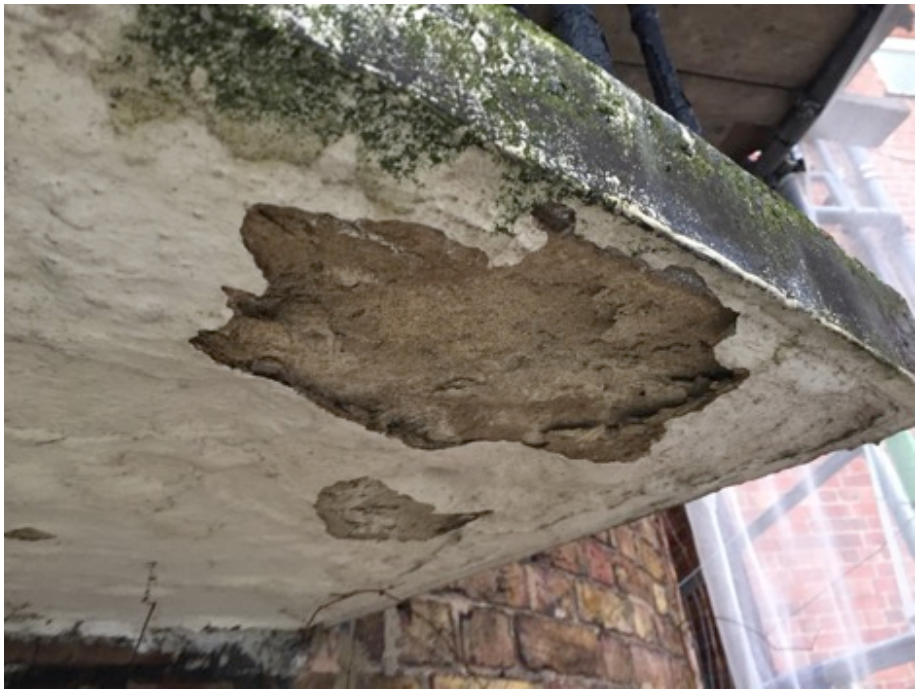
The following photographs show the original balcony, the abundance of metalwork to the rear façade and evidence that the balcony was not a cantilever design.



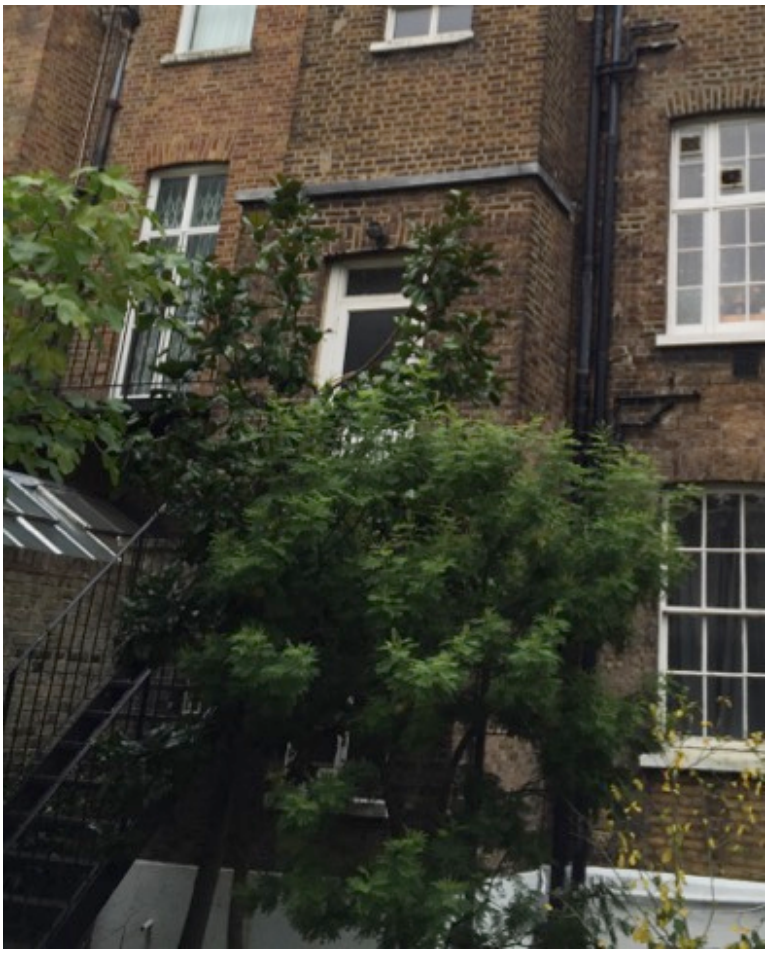
Photograph 1 – Balcony in disrepair



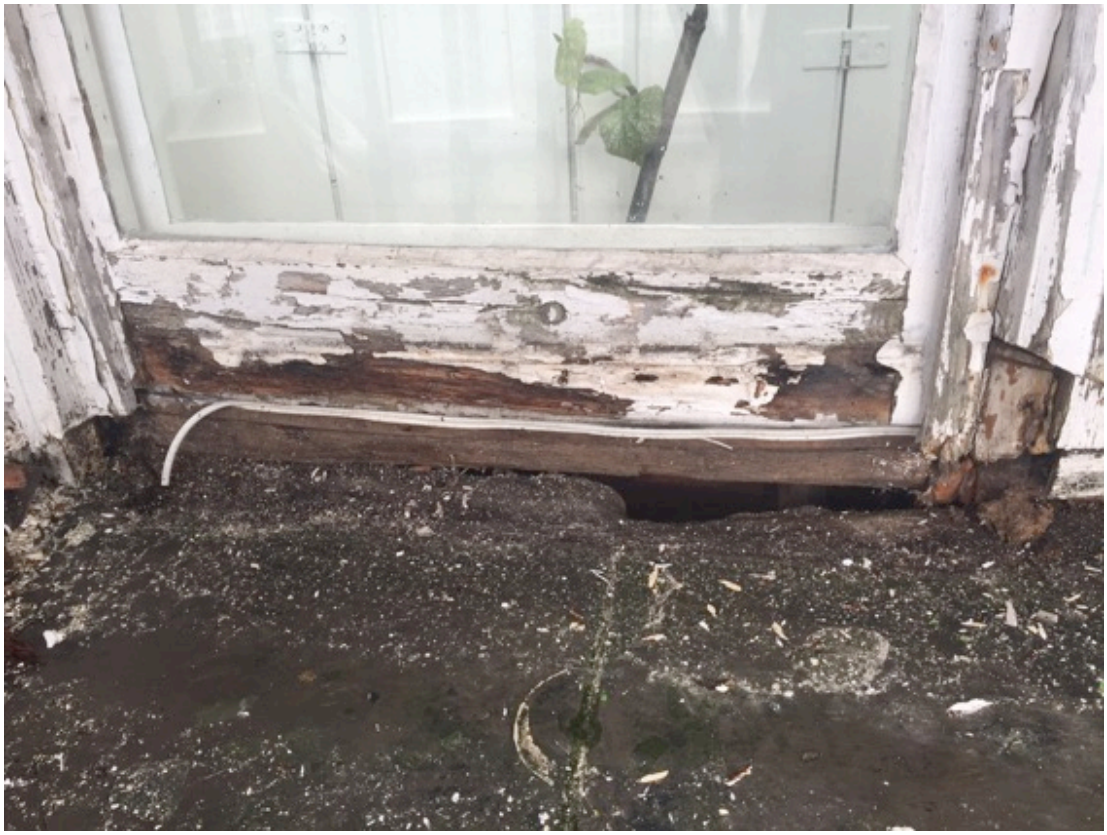
Photograph 2 – The balcony as deemed unsafe



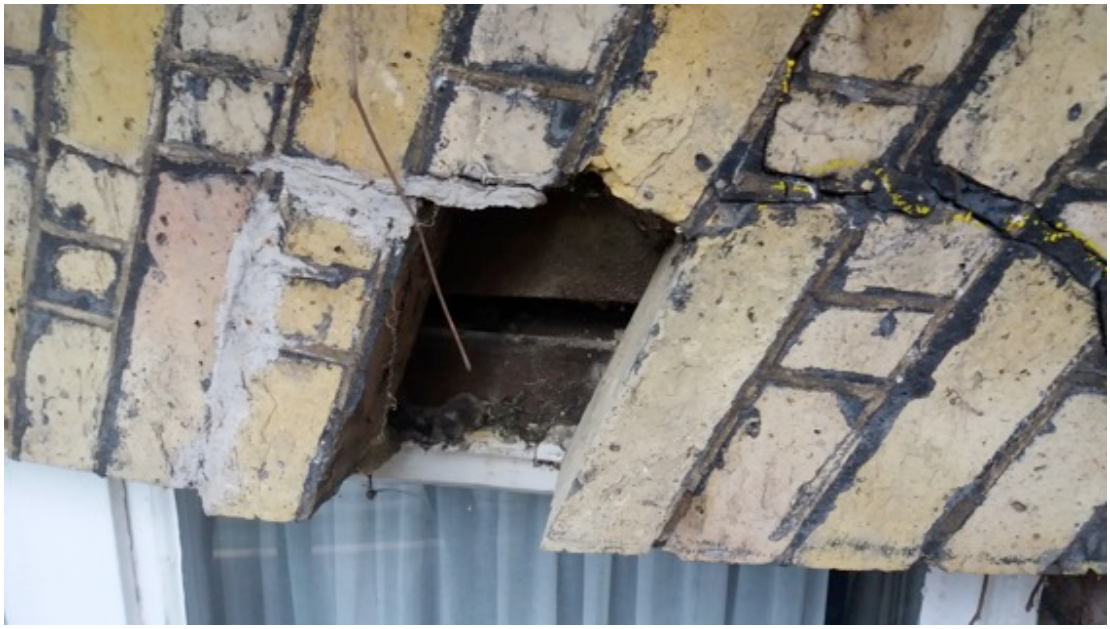
Photograph 3 – Large section of the underside of balcony fallen off



Photograph 4 – Full metal balcony and railings to rear facade (LHS of picture)



Photograph 5 – Gap between the balcony and main building indication it was not a cantilever design.



Photograph 6 – Curved steel support below the balcony.

From: **Jim Fleming** jim.fleming@fairhurst.co.uk
Subject: RE: 15 Gloucester Avenue, NW1
Date: 10 February 2017 12:03
To: FionaTogher fiona@hamiltondarcey.com
Cc: John Lau john.lau@fairhurst.co.uk

JF

Dear Fiona,

It was good to meet you yesterday. As we discussed on site, please see below my observations and recommendations on the issues with the rear cantilevered stone balcony:

At 15 Gloucester Avenue there is a curved bay window in the rear elevation. There is a cantilevering balcony at ground floor level with a curved on plan brick arch below. This sits one storey above the rear garden level. The balcony consists of 2 stone slabs curved on plan with an offset central joint. The slab is 65mm thick natural sandstone or possibly unreinforced reconstituted stone. There is significant delamination to the underside with loss of 10 to 15mm section in places. Generally the stone is in poor condition.

There is an iron balustrade with a number of the connections into the stone slab corroded away completely, as can be seen in the attached photo. The rest of the balustrade is also moderately corroded and the connection of the curved handrail into the wall looked very insubstantial, possibly due to corrosion.

There are significant cracks in the right hand side of the flat brick arch below slab, as can be seen in the attached photo. Evidence of previous brick repairs could be seen and some flat arch bricks could be removed where they were loose. This was done whilst on site and as can be seen in the attached photo this revealed a steel curved plate sections behind the single skin facing brick arch, which is supporting the balcony, wall and floor above.

The balcony deflects with moderate force and therefore doesn't feel very secure currently. It is believed that the stone slab is recessed into 13.5" brick wall but it is not known by how far.

It is our opinion that whilst repairs to the stone slab and ironwork may be possible they would be very difficult to carry out effectively and achieve a reasonable design life. In particular, the condition of the stone is so poor that it may well disintegrate further whilst being repaired and having the balustrades refixed. It is also not clear how the existing cantilevering stone slab could be justified structurally. Therefore on balance the balcony is probably beyond repair.

As discussed yesterday, we recommend the following 2 options:

1. Replace the existing balcony slab with a new reinforced concrete or reconstituted stone slab to match the original. This could either be cast in-situ or precast, recessed into the wall. Provide a new metalwork balustrade to match the original, fixed into the slab and anchored into the wall.

2. Remove the existing balcony and install a new metalwork Juliette balcony in lieu of the cantilevered slab. This may require planning consent.

In addition, the cracked brickwork surrounding the balcony should be repaired with cracked bricks replaced, loose bricks relaid and helefix reinforcement pointed into the bed joints. The end of the brick arch should be rebuilt, using thin inclined perp joints to match the original.

I hope this is clear and sufficient for your requirements at this stage. If you have any comments or queries please let me know.

Kind regards,

Jim

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11 September 2017

Dear Sirs,

RE: 15 Gloucester Avenue, London NW1 7AU - Balcony replacements at no. 15.

During the refurbishment of the elevations we were requested to attend site to inspect the balcony at number 15 due to the balcony being unsafe.

The balcony is a concrete balcony with a steel balustrade. The balcony follows the curve of the curved bay on the building. The original balcony is held in place by the brick wall and the balustrade. This construction has resulted in a balcony with very little restraint. Over the years this has lead to failure of the brickwork. Cracking was found to both the side of the balcony and to the brickwork over the window below. It is our view that the balcony is not safe in it's current state and repairing the existing balcony and brickwork will not result in a safe balcony.

We therefore recommended that the balcony is replaced with a new balcony. The new balcony structure should extend into the floor zone of the flat so that it counter balances the balcony. This can be undertaken using a light steel structure which is designed in such a manner that it does not put high stresses onto the brickwork to the side and under the balcony.

Should you have any queries, please do not hesitate to contact us using the above details.

Yours faithfully,

Claus J Thomsen
BSc CEng MICE
Director

Enc.

Job no: 1786