

Ref: 2113/DR

22<sup>nd</sup> March 2016

Chris Jones First Plan Bramah House 65-71 Bermondsey Street London SE1 3XF

by email

Dear Chris,

## 16 Chalcot Square, London, NW1

STRUCTURAL REPORT

We understand that you have been asked for an engineering explanation of the roof proposals from the conservation officer. Please find this below:

The original roof structure comprised timber rafters running from eaves to ridge level, with intermediate support provided by a timber purlin at mid-span. This purlin was regularly propped with diagonal timber struts down to the spine wall under.

The roof has been subjected to a number of poorly considered and executed alterations over the years. These alterations include the removal of some diagonal struts, the introduction of modern timber beams to provide support to the rafters and the removal of sections of the supporting timber stud spine wall.

The original roof members are to be retained in position. In order to restore the structural integrity of the roof, new steel beams are to be introduced within the roof space, spanning from Party Wall to Party Wall. Pockets will be carefully cut into the Party Walls to allow the introduction of spreaders to accommodate the new beams. The spreaders will be formed from steel plate rather than mass concrete in order to minimise the size of the pockets formed in the Party Wall. These beams will provide support to the rafters and ceiling joists and allow the removal of the poor quality modern timber beams.

Steel beams have been selected for these members in order to be as unobtrusive as possible. Alternatives, such as glulam timber beams, would be considerably deeper and thicker, and vary considerably in appearance with the original fabric

Yours sincerely

Dave Heeley for and on behalf of Morph Structures

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