## **morph**structures

consulting structural & civil engineers

## STRUCTURAL METHOD STATEMENT

PROJECT	16 Chalcot Square
PROJECT No.	2113
DATE	7 <sup>th</sup> March 2016

The following method statements relate to the proposed structural remedial works at the above property.

## Floor Levelling at 2<sup>nd</sup> & 3<sup>rd</sup> Floor

The 2<sup>nd</sup> and 3<sup>rd</sup> floors are sloping as a result of:

- Settlement due to the removal of the loadbearing masonry walls at basement level as part of the structural alterations during the late 20<sup>th</sup> century.
- Alterations to the original spine wall as part of the structural alterations during the late 20<sup>th</sup> century.

The floors are to be levelled by the introduction of new timber joists positioned between the existing floor joists. The existing joists will remain in place however the single row of herringbone strutting will be carefully removed to allow the installation of the new joists. The new joists will sit on the existing timber wall plates on the front façade, rear façade and internal spine wall.

## Roof Structure re-support

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.