Civil & Structural Engineers & Party Wall Surveyors

Project ref: 15189/MS/KEA/revB

Mr Michael Wilkinson 4 Mecklenburgh Street London WC1N 2AH

30<sup>th</sup> June 2015

Dear Mr Wilkinson,

## Re: 4 Mecklenburgh Street, London WC1N 2AH

Further to your instructions an inspection of the below ground vaults at the above property was carried out on the 16<sup>th</sup> June 2015 to inspect a specific partition for which demolition works are proposed.

## **Extent of Report**

The extent of this report is to comment on the proposed demolition of a partition wall within one of the original vaults which extends at basement level beneath the public highway of Mecklenburgh Street.

Further, it is required to comment on the feasibility of lowering the vault floor level to obtain greater headroom.

## **Description and Observations**

The subject property is a five-storey house situated within a Georgian terrace. The subject of the inspection was purely concerned with the front brick vaults, and therefore no internal inspection of the property was made.

The property includes two, original brick arch vaults at the front lower ground floor level, beneath the public highway of Mecklenburgh Street, London WC1N. The vault structures are separated from the main body of the house by an external area, accessed from footpath level above on the main highway.

The partition that is marked for demolition runs in the transverse direction across the left-hand vault as viewed from the front of the property, looking out to the street.

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From inspection the partition is constructed in a painted, single skin of brickwork, measuring approximately 102mm overall thickness. Exposure works carried out to the head of the partition prior to our inspection indicated a clear gap between the head of the partition and the underside of the original vault structure. The partition appears to be constructed from a modern brick in cement mortar, pre-dated by the original masonry of the vault construction.

At the time of inspection no trial pits were opened and the foundations of the vault walls were not visible.

## **Discussion and Conclusion**

From the information available at the time of inspection we believe it is reasonable to conclude that the partition in question is non load bearing, serving only to divide space within the vault. We also do not believe that there is a risk of this partition becoming load bearing through any deflection or settlement of the original vault structure.

We therefore believe it reasonable to conclude that the demolition of the partition will have no adverse effect on the overall vault structure or support to the public highway.

All demolitions are to be carried out carefully proceeding from the top down. Any inconsistency with the above should be reported to BCS Consulting immediately.

Although not visible at the time of inspection, from experience it is reasonable to assume that the vault foundations are shallow, and located near the surface of the current lower ground floor level.

Any excavation to increase depth or form a new floor structure will therefore likely require underpinning to the vault walls in order to avoid undermining the existing foundations. Within short depths not exceeding 500mm this could normally be achieved in simple, mass concrete underpinning, installed in a traditional hit/miss sequence.

From the information available at the time of our inspection there was no reason to suspect that underpinning the vault walls to shallow depths in this way would have a detrimental effect on the overall vault structure.

It is not within the scope of this report to design or specify the underpinning. BCS consulting will be able to provide all necessary details and design under further appointment.

We trust that the above is satisfactory for your immediate needs however should you have any queries or wish to discuss any points arising from the above please do not hesitate to contact us.

Please find enclosed an invoice of our professional fees for your kind attention.

Yours sincerely

Eur Ing Barry Smith BSc C. Eng. MICE FFPWS

**For BCS Consulting** 

Enc.

c.c. Tim Greatrex – by email only