

PCDS Ltd
Unit 2, The Mead Business Centre
176-178 Berkhamstead Road
CHESHAM
Bucks HP5 3EE

Date: 15 December 2017
Your ref: 3356
Our Ref: NS/17173

For the attention of Mr J P Murphy

Dear Sirs

Re: 23 Healey Street, London NW1 8SR – Proposed extension works

Further to the exchange of emails between us on 13 December, we are writing to provide our comments in response to the request from a third party for consideration of the possible risk of heave resulting from the proposed basement construction works. You supplied us with copies of the following documents:

- 'Engineer's Report for Proposed Rear Basement' dated October 2017, reference 3356
- Drawing A1/3356/PW01 – Details for Party Wall Awards, Sheet 1 of 2
- Drawing A1/3356/PW02 – Details for Party Wall Awards, Sheet 2 of 2

Briefly, the proposed basement is a rectangular box with internal plan dimensions of around 4m by 5m and a general excavation depth of approximately 3m. Party walls at each side of the box are to be underpinned.

Our comments below are based on these documents and the substantial number of ground movement assessments our company has made for similar (but mostly larger) basement projects in Central London in similar ground conditions.

Some vertical ground heave is inevitable as a result of the basement construction. There will also be some inward movement of the ground beside the excavation during basement wall construction and the subsequent bulk excavation. However, provided the work is carried out to a high standard and the basement walls are stiffly propped at all times during construction, it should be possible to construct the basement with no more than very slight damage being imposed on the neighbouring buildings.

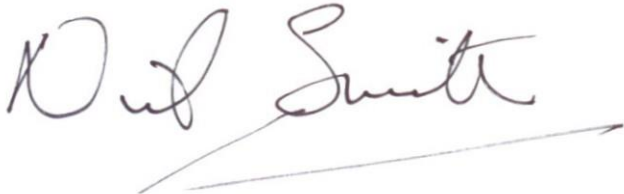
With specific regard to heave, long term heave can be restrained by avoiding the use of a void former below the basement slab. This also reduces the softening effects of stress reduction below a void former. We note that your drawings show the slab to be cast against the ground.

In conclusion, it is our view that the proposed basement can be constructed with no more than very slight damage being imposed on the party walls to numbers 21 and 25 Healey Street, given that high standards of construction will be used at all times.

We trust that this letter provides an adequate response, but should you have any queries, please do not hesitate to contact us.

Yours faithfully

For Applied Geotechnical Engineering

A handwritten signature in dark ink, reading "Neil Smith". The signature is written in a cursive style. Below the signature is a long, thin horizontal line that extends to the right.

Neil Smith
Senior Consultant