

Our Ref: 1675/62/JGa/mw

Jane Henderson
Lawn House
12 Hampstead Square
LONDON
NW3 1AB

75 Cowcross Street
London EC1M 6EL
t 020 7250 1555
e aba@alanbaxter.co.uk
w www.alanbaxter.co.uk

15 August 2016

Dear Jane

29 New End

I have reviewed the response by Fluid Structures. It appears to us that the developers team need to progress the design to a much greater level of detail than would normally be expected when producing the BIA due to the complexity and scale of what is proposed at this site.

Our detailed comments are as follows:

Ground Movements

We do not agree that the CIRIA ground movement curves are relevant for this project, due to the ground conditions on this site (i.e. the predominate soil is not London Clay) and because of the site geometry. The substantiation for this statement is based on a recent basement design which we have carried out where the level difference across the site was 3.5m. This resulted in a substantial lateral movement on the uphill side which had a significant effect on horizontal ground strains. The level difference for 29 New End is approximately twice this, and will result in greater horizontal strains.

We also do not agree that the 3D effects will be on the whole beneficial.

Basement Structure

We accept that the basement structure is monolithic insitu reinforced concrete, and for a normal basement on a level site, the details provided may be acceptable at planning stage. However, for this project there are substantial lateral loads which need to be transferred down to the lowest slab levels. The adequacy of the lateral support provided depends on this but there appears to be no assessment of these loads or how they are transferred to the lowest levels and then into the ground.

Fluid Structures note that the deflection of the sheet piles was considered in the 2D FE section, but the output from this was not used to assess damage to adjacent buildings. The CIRIA ground movements do not allow for this deflection.

.../2

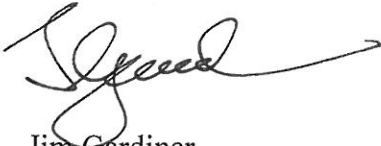
ABA STRUCTURAL & CIVIL ENGINEERING URBAN DESIGN MASTERPLANNING TRANSPORT & MOVEMENT CONSERVATION SUSTAINABILITY

Directors Alan Baxter CBE BSc MICE FStructE Michael Coombes MSc DIC FStructE James Gardiner BSc MICE MStructE Alan Fleet BSc MICE MStructE William Filmer-Sankney MA DPhil FSA MCIFA Adam Sewell MEng MStructE	Malcolm Turner MSc MICE Andrew Morton BSc MICE Paul Ragdale BEng MStructE Simon Bennett MEng MICE MStructE Richard Pollard MA MA Nicholas Davies BSc ACA	Associates John Mason MA MStructE Jon Taylor BSc MICE MStructE Clare Coates BSc Dip LA CMLI David Rathbone BSc MICE MStructE Adrian Tucker BEng MStructE Raihan Abu BEng MSc DIC MStructE	Trenton Williams BSc(Eng) MPhil David Lankester MEng MStructE Kit World BA Olivier Fernandez MA Thomas Roberts BSc MSc MStructE Ing. Lucia Frasca	Fredrik Nyberg MEng Consultants Robert Thorne MA FSA David Johncox BEng MICE MStructE
---	---	--	--	---

2/...

As previously advised, the design for this complex basement needs to be progressed to a much greater level of detail before the BIA can be signed off. We will comment in more detail when we receive the next version.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J Gardiner', with a long horizontal flourish extending to the right.

Jim Gardiner
for Alan Baxter Ltd