**SPACE BASEMENTS LTD**

**RESPONSES TO BASEMENT IMPACT ASSESSMENT AUDIT**

**FOR**

**PROPOSED BASEMENT AT 5 ALDRED ROAD**

**WEST HAMPSTEAD**

**NW6 1AN**

**QUERIES RAISED BY AUDITORS**

**Query No. 1 – BIA General**

The qualifications for the authors of the BIA are as follows:-

Michael Jones, Chartered Building Surveyor – on behalf of Space Basements Ltd.

Philip Graham, CEng, M I Struct E, who is based in Muswell Hill and has extensive experience of working within the North London area.

**Query No. 2 – Stability**

Q9 – According to the 1920s Geological Map the existing ground condition is undisturbed London Clay extending to a depth beyond the level of the proposed basement. The proposed works would be built in and off the clay strata. Reference has been made to the report provided for the application for basement works to No. 3 Aldred Road prepared by Aviron Associates Ltd which is available on the Camden planning website.

Q12 – The works in relation to the lightwell and access steps adjacent to the pavement bordering Aldred Road has been considered in the design by the Structural Engineer incorporating a reinforced concrete retaining wall. A construction sequence for this part of the work has been included elsewhere.

Q13 – The Structural Engineer has taken into account the party wall foundations to the neighbouring properties. Party Wall Agreements are being prepared with the neighbouring properties and it is confirmed that neither have existing basements.

**Query No. 3 – Subterranean Flows**

Reference has been made to the Arup Hydro/Geological Report prepared for Camden Council, together with information provided within the Aviron Associates Ltd report mentioned above.

The information in this report can be taken to apply to ground conditions to No. 5 Aldred Road.

Ground water information is provided in Section 2.4 of the report with the conclusion that there may be “perched” water at a level of 3.65 metres below ground level.

Any ground water encountered during the course of construction will be removed using mechanical pumps draining into the existing manhole in the front garden area.

The habital basement area will be waterproofed using either a Newton 508 or equivalent Delta tanking system to the walls and floor of the basement, incorporating a sump pump which will discharge into the existing drainage system.

Any surface water within the lightwell/front access area will be collected within a sump and pumped to the existing manhole.

**Query No. 4 – Surface Flows**

Q6 – Reference has been made to the following:-

Camden Consultation in Managing Flood Risks (2013).

Camden Surface Water Management Plan

These documents are part of the Camden Flood Management Strategy.

According to this document extensive multiple remedial works have been carried out since 2002 and Aldred Road is outside of areas considered still to be at risk or in need of future improvement.

Within the Camden SFRA Figures 1 and 6 prepared by URS show that Aldred Road as having a very low flood risk of surface water.

Reference has also been made to the ARAP Hydro/Geological figures nos. 11-20.

**ADDITIONAL INFORMATION**

**Proposed Lightwell/Access Construction Sequence**

1. Remove front hedge and boundary wall, take up entrance path, remove gate.
2. Expose existing services and make arrangements for diversion to be carried out by Utility services.
3. Excavate to reduce levels to bottom of existing foundations, installing all necessary sheeting and props to the perimeter of the lightwell and existing house as work proceeds.
4. Excavate to reduce levels to formation level of underpinning/trenching to house wall.
5. Lay foundation and build up cavity wall to underside of existing.
6. Excavate remainder of area to required formation levels, continuing installation of sheeting and props as before.
7. Maintain existing drain run from rear of house to existing manhole.
8. Lay reinforced concrete slab as Engineer’s details including raised areas to steps and manhole.
9. Construct reinforced concrete retaining wall to perimeter of lightwell, removing sheeting etc as work proceeds.
10. Build cavity wall to form entrance lobby.
11. Form reinforced concrete suspended slab over lobby for new entrance path.
12. Construct access steps.
13. Construct new boundary wall.

**Condition Survey**

A visual survey of the existing basement was carried out by Michael Jones and Philip Graham, with the following findings:-

1. The existing brick foundations walls to the perimeter of the basement are in good condition considering the age of the property with no visible evidence of movement, damp penetration etc.
2. The floor of the basement area is generally rough concrete, again, showing no real evidence of water penetration.
3. Prior to construction commencing photographs will be taken of the basement to record the existing condition; similarly, photographs will also be required of the adjoining properties for the party wall agreements.

**Propping**

During the construction process the underpinning within the existing basement area will be carried out by hand causing minimum disturbance to the existing perimeter walls.

The existing ground floor construction will be propped in preparation for the removal of existing timber beams and the installation of new steel beams.

If any weakness is found within the existing walls, the areas will be propped and any necessary repairs or making good will be carried out in accordance with Structural Engineer’s recommendations.

**De-Watering**

Any ground water encountered during construction will be removed using mechanical pumps discharging into the existing drain run as described previously. This procedure will be maintained for the duration of the structural works, with the existing drain being maintained in live use, except for the short period of time when it is to be rerouted against the party wall.

Space Basements Ltd 15th December 2015