

Basement Impact Assessment

Basement Impact on Structural Stability

85 Camden Mews, London NW1 9BU

Response to Section F Item 11;

Maintain the structural stability of the building and neighboring properties

Over the years many of the properties in Camden Mews have had basements added. The proposal is to add a basement area that extends over the full width of the plan of no 85, together with a rear lightwell in the rear garden.

The adjoining owner of 87 Camden Mews has indicated their wish to construct a basement within their property in the future (subject to planning etc.). Consequently we propose the walls to the new basement walls to no 85 are to be positioned and designed to accommodate the future construction of a basement to no 87. The construction rational is extended to the south of the site to accommodate any future basement expansion to number 83. The timetable of any work on the adjacent properties is unknown and cannot be guaranteed to coincide with work to no 85.

A small light well is proposed to the rear.

Design of the lightwell and basement

The small light well is constructed using concrete retaining walls and base slab. The walls are designed as vertical cantilevers. The ends of the side walls are to be secured into the new concrete under the rear elevation, the connection of which is designed to resist lateral movement but allows for relative vertical movement. The structure of the light well, being an open U on plan, is inherently stiff and stable. Details are shown on drg 85_CM_BIA 03.

The walls of the main basement are to be designed as vertical cantilevers from a concrete base. Construction details are shown on drg 85_CM_BIA 03 & 07. The maximum depth of the construction will be in the order of 3m below general ground level.

The new basement walls will be designed to cater for the following:

- To take the vertical load from the retained party wall, the load from the self weight of no 85, and the loads from the adjacent properties which could be in full occupation.
- The new basement walls to be widened out at the bases to take the full loading from above ensuring a bearing pressure on the ground within the limits set by Southern Testing shown in the report.
- To resist lateral earth pressures and any hydraulic pressure using the data supplied by Southern Testing.
- The walls under the party walls will be designed assuming that adjacent basements will be constructed at a later stage, so that the new walls can accept lateral pressures from the retained the soil.
- Cater for the infiltration of ground water using concrete of a low water content to concrete to limit shrinkage cracking.

A check will be carried out to ensure there is sufficient self weight in the structure to prevent flotation. This will apply particularly to the lightwell structure.

Throughout the duration of the construction, the Works will need to kept clear of ground water. There will need to be a drainage sump to allow a pump to dispose of any water found on the site.

Construction sequence

A construction sequence is outlined later in this report

Outstanding Issues

The following items need to be cleared before work this work may commence:

- Receipt of Town and Country Planning approval.
- The drawings and structural calculations covering the construction to be submitted to Building Control for their approval.
- Party Wall Awards have been received from adjoining owners.

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