



9 Nassington Road, NW3 2TX

Structural Methodology Report

Brief

This document is the structural methodology report carried out for the purposes of the planning application for the proposals at no. 9 Nassington Road. It should be noted that this report outlines and suggests the assumed construction at this stage. It should also be noted that, as is standard for works of this type, the main contractor will be fully responsible for the design and erection of all temporary works.

The purpose of the report, with the Basement Impact Assessment prepared by LBH Wembley Engineering, is to demonstrate that a subterranean development can be safely constructed on the particular site having regard to the sites existing structural conditions and geology.

The Basement Impact Assessment prepared by LBH Wembley Engineering references the stages set out in the CPG Basements planning document.

Richard Tant Associates

Richard Tant Associates are consulting Civil and Structural Engineers comprising a number of chartered engineers. We have experience in post basement construction and have successfully carried out a number of basements in the Borough Camden from the Basement Impact Assessment stage through to construction on site.

Description of Proposed Basement and Internal Works

9 Nassington Road is a semi-detached brick, Victorian, four storey house comprising timber floors and load bearing masonry walls. The lower ground floor varies between 2.0m to 2.4m approx. below external pavement level under the main house. The existing garden level is approximately 2.5m below the external pavement level.

During World War Two a bomb destroyed a property opposite and we believe the blast delaminated the rear wall of the property. Lateral ties have been fitted to tie in the rear elevation. There are no signs of recent significant differential movement and the property appears to be in a stable structural condition. The proposal will include the reconstruction of the rear elevation like for like.

The proposed works are to lower the existing lower ground floor and to extend out towards the garden and remove a number of internal load bearing walls. A small front extension and lightwell are also proposed.

Please refer to the drawings prepared by the Architect, UV Architects: AL(00)001A, 002A, 003A, 004A, 010A, 011A, 020A, 021A and the existing survey drawings.

Basement with Ground Floor Extension

The proposal is to underpin under the party wall of the house with a reinforced concrete retaining wall to a depth of approximately 2.4m below current lower ground floor level. The existing masonry boundary wall will be underpinned with reinforced concrete walls, width to suit existing. A new reinforced concrete retaining wall up to 450mm thick will form the remaining extent of the proposed basement extension.

A geotechnical and hydrological report has been carried out by LBH Wembley Engineering together with a SUDS strategy. We confirm the trial holes show a limited thickness of made ground underlain by the London Clay formation comprising typical firm, becoming firm to stiff, pale brown mottled grey



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fissured silty clay with scattered selenite crystals. No shallow groundwater table was found beneath the site.

Based on this geotechnical information, the new basement construction is to comprise reinforced concrete underpinned retaining walls with an internal cavity drain system. This will be described in more detail throughout this report.

Trial holes have been completed and inspected; the information is shown on drawing SM01.

Please refer to our drawings 4811-SM01, SM02 and SM03 for the suggested sequence showing temporary and permanent works.

Structural Stability of the Existing buildings

The proposed basement is to be constructed between reinforced concrete underpinned party and boundary walls and reinforced retaining walls. The reinforced concrete underpinned party and boundary walls and retaining walls will be designed to retain the ground pressures and possible accidental water pressures and distribute the vertical load down.

Refer to calculation sheets for justification of the retaining walls: 4811-P1 et seq.

Refer to the Impact Assessment section of the LBH Wembley Engineering report confirming the proposed development is not expected to have any significant effect on the adjacent buildings.

Supporting the Proposed Loads

The vertical loads from the proposed basement will be supported via reinforced concrete underpinning or retaining walls into strip footings. The loads from the superstructure will be supported via the new steel frame in turn supported via the new pad and strip footings. Ground pressures and possible accidental water pressures will be resisted by reinforced concrete retaining walls, refer to the calculation sheets for justification of the retaining walls: 4811-P1 et seq.

Structural Integrity of Surrounding Structures and Utilities

While a private sewer will need to be re-routed, we do not expect there to be any public utilities, tunnels or infrastructure within the area of influence of the proposed basement works and therefore we do not expect any impact regarding the structural integrity to these items.

Slope Instability

The proposal is to construct the walls in stages that will be temporarily propped until the final base is constructed and cured. Where battering back is proposed, temporary trench sheeting will be installed to retain ground until the permanent structure has gained adequate strength and stability. We refer to the LBH Wembley Engineering Basement Impact Assessment where the risk of slope instability is addressed and discharged.

Impact on Drainage and Surface Water

We do not expect there to be any existing public drainage within the area of influence of the proposed basement works. With regards to surface water we refer to SUDS Strategy document prepared by LBH Wembley Engineering and identified in their Basement Impact Assessment report.



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Geological & Hydrological Concerns

The application is informed and supplemented by the hydrological section of the geotechnical report carried out by LBH Wembley Engineering and identified in their Basement Impact Assessment report.

Impact on Trees

A 6m pear tree is due to be removed and the proposal is to keep a tree that will influence the new foundations. We confirm the new foundations will be designed in accordance with the guidance provided by the NHBC with regards to building near trees.

Temporary Works

Please refer to the proposed drawings: 4811-SM01, 02, and 03 enclosed, for details of the temporary works. When the contractor is appointed, he will be fully responsible for the temporary works including the design and erection.

This report has been produced for the sole use of Camden Council and for their use only and should not be relied upon by any third party. No responsibility is undertaken to any third party without the prior written consent of Richard Tant Associates.

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