

N0.4 Templewood Avenue, Hampstead

 **COPY**

Proposed basement extension (February, 2012)

Hydrological implications.

There will be no change to the stated risk of surface water drainage considerations by extending the basement. The proposal to increase the volume of the Main Basement by 25 m³, and the Lower Basement by 208m³, represents a total volume increase of 233m³ – or some 7% of the originally approved excavation volume. This small increase in volume within the relatively impermeable Claygate Beds lithology underlying the site will have no measurable effect on the extremely small calculated groundwater flow of 0.2m³/day, or the head change of +/- 0.5 m upstream and downstream of the building, as modelled by the hydraulic calculations of Arup in their July, 2011 BIA report. Seven % of 0.2m³/day gives an additional 14 litres of groundwater flow affected, whilst 7% of 0.5m gives a 35mm head differential which, with an annual seasonal fluctuation of some 840mm, is barely perceptible. Furthermore, since these additional excavations are to take place on the north and east sides of the building, this will enable this small, additional flow to be diverted into the spacious area underlying the road width of Templewood Gardens, thereby having no effect on neighbouring properties.

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