

19th March 2012

Jeremy Spencer  
Vabel Limited  
112 Boundary Road  
London  
NW8 0RH

Our Ref: 401-03684-00001

Your Ref:

Dear Mr Spencer

**RE: 16A LYNDHURST GARDENS, LONDON**

As requested, we provide our initial response to comments made with regard to hydrological aspects of the planning application, as summarised in Table 1, below.

Specific responses to the Engineers Report are as follows:

***Impacts on surface water runoff and flooding:***

There would be no net increase in surface water runoff from the proposed development due to the proposals for surface water drainage and rainwater harvesting.

There is no risk of groundwater flooding due to the negligible permeability of the London Clay and lack of groundwater, as confirmed by monitoring at the site.

***Site Geology***

Site investigation via 3 trial pits and 3 boreholes (15m deep) has confirmed the geology at the proposed development. London Clay was identified at the site, and there was no evidence of the Claygate Beds underlying the site.

***Groundwater Monitoring***

SLR has completed three rounds of groundwater monitoring using the three monitoring boreholes (BH1, BH2 and BH3) located at the site.

BH1 is screened between 1 and 3 metres below ground level, opposite the Made Ground and weathered London Clay, with the Made Ground / London Clay contact at 2.30 metres below ground level.

BH2 is screened between 1 and 3.2 metres below ground level, opposite the Made Ground and weathered London Clay, with the Made Ground / London Clay contact at 1.70 metres below ground level.

BH3 is screened between 0.8 and 3.2 metres below ground level, opposite the Made Ground and weathered London Clay, with the Made Ground / London Clay contact at 1.70 metres below ground level.

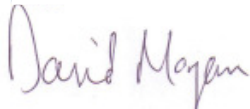
The monitoring results are as follows:

22<sup>nd</sup> July 2011: BH's 1, 2 and 3 were all dry.  
7<sup>th</sup> November 2011: BH's 1, 2 and 3 were all dry.  
28<sup>th</sup> February 2012: BH's 1, 2 and 3 were all dry.

These results confirm that the Made Ground and weathered London Clay deposits at the site do not contain a groundwater table and have been effectively dry throughout the monitoring period.

Should you require further information or detail, please do not hesitate to contact me.

Yours sincerely  
**SLR Consulting Limited**



**David Morgan**  
Technical Director - Hydrogeology

**Table 1: Summary of Responses to Comments Made on Hydrological Aspects of the Planning Application**

<b>OBJECTIONS IN CAMDEN LIST 120314</b>	<b>WRRRA</b>	<b>WCRK</b>	<b>Neighbours</b>	<b>Engineers</b>	<b>Parents</b>	<b>School<sup>A</sup></b>	<b>Hospice<sup>B</sup></b>	<b>RESPONSE</b>	<b>Basement Impact Assessment (SLR 2011)</b>
Inadequate geological information	√	-	√	√	-	-	-	Site investigation: 3 trialpits, 3 boreholes, 3 monitoring rounds including February 2012 with no groundwater present on these occasions.	ch 2.1
Deep piling increases flood risk	√	-	√	√	-	-	-	Negligible groundwater flow in London Clay. Drainage pathways provided above London Clay.	ch 2.2.2
Impact on surface water runoff	-	√	√	-	-	-	-	Proposals do not increase runoff, due to green roof and rainwater harvesting.	ch 3.1
Loss of water absorption by vegetation	-	-	√	-	-	-	-	Slight reduction in vegetation would be offset by the green roof.	
Noise from basement sump pumps	-	-	√	-	-	-	-	Sump pumps out excess runoff, now reduced by courtyard redesign as grass.	
Will french drain be installed?	-	-	√	-	-	-	-	Current detailed design underway based on BIA recommendations.	ch 2.2.2
Risk of rainwater storage overflow	-	-	√	-	-	-	-	Dual pumping system proposed in case sump pump fails.	ch 3.3.8
Tributary through 4 Wedderburn Rd	-	-	√	-	-	-	-	Not shown as watercourse on Camden Guidance Fig 11, nearest >100m.	ch 2.1
Risk of increased flows to no.16	-	-	√	√	-	-	-	Drainage provided between 16a and 16 for any groundwater flows as a safeguard.	ch 2.2.2
Risk of increased flows to school	-	-	-	-	-	√	-	Drainage provided to ensure no additional groundwater flows to school.	ch 4.3

**NOTES**

WRRRA

Wedderburn Road Residents Association

WCRK

Ward Councillors Roberts and Knight

<sup>A</sup> School - column in table above is based on letter dated 12th July 2011 by Signet Planning on behalf of school.

<sup>B</sup> Hospice - column in table above is based on letter dated 4th July 2011 from Barton Willmore on behalf of hospice.