DIXON PAYNE

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*Date:* Tuesday, July 22, 2014
*Our ref:* rs/ROL.14/1

Dear Luke

**1-8 COLLEGE YARD**
**DAYLIGHT/SUNLIGHT ASSESSMENT**

Further to your instructions, this Report has been commissioned to determine and demonstrate the effect of the redevelopment on daylight and sunlight to the windows of the adjoining residential buildings as a consequence of the proposed development.

Assessments have been carried out in accordance with the *Building Research Establishment* Report document entitled "*Site Layout planning for daylight and sunlight: A guide to good practice*" *Second Edition 2011*.

The *BRE Second Edition 2011* does give numerical guidelines, but recommends that these should be interpreted flexibly because natural lighting is only one of a number of factors in site layout design. In special circumstances a planning authority may wish to use different target values.

The technical analysis demonstrates that either the resultant *VSC* - amount of skylight received - is above the primary figure of 27% or the reduction in daylight is less than 20% of the original figure and therefore a reduction which is not discernible to the human eye.

Similarly with regard to sunlight, those windows which meet the criteria for assessment accord with the recommendations of the *BRE Second Edition 2011*.

Prior to confirming my detailed advice, I would like to confirm that I am a Chartered Building Surveyor (**MRICS**) working predominately in the field of boundary disputes dealing with matters arising under *The Party Wall etc. Act, 1996,* neighbourly matters including boundary disputes and rights of light including daylight and sunlight assessments. I have an extensive and highly specialised knowledge, in these areas having worked in the past for both Anstey Horne & Co. for five years and Schatunowski Brooks (formerly known as Michael Brooks Associates as it was when I joined and now known as GVA Schatunowski Brooks) for three years, as well as Delva Patman Associates for four years prior to joining in partnership Dixon Payne. All are acknowledged Experts in these fields. I regularly provide Expert Witness advice in respect of Planning Applications in respect of daylight and sunlight at Planning Inquiries acting for both Appellants and Planning Authorities. I was consulted by the *Building Research Establishment* with regards to the proposed revision of their current guidelines.

Following the publication of the information paper entitled *"Site Layout planning for daylight and sunlight: A guide to good practice"* by the *Building Research Establishment 1991*, the assessment of daylight and sunlight has been generally carried out in accordance with the criteria set by this publication and which is generally taken to be the accepted basis for such assessment and adopted by most Planning Authorities. This publication has been superseded by the *Second Edition 2011.*

The proposals upon which this Report has been prepared are those produced by GML Architects, *inter alia,* include the demolition of the existing buildings and the construction of a ground and two upper storeys building to provide six residential units.

The analysis attached has been undertaken using the 3d computer model prepared by the Architects and using specialist computer programmes, the effect upon daylight has been calculated.

*Camden Planning Guidance 2011 CP6 Amenity* states:

*6 Daylight and sunlight*
*KEY MESSAGES:*
*• We expect all buildings to receive adequate daylight and sunlight.*
*• Daylight and sunlight reports will be required where there is potential to reduce existing levels of daylight and sunlight.*
*• We will base our considerations on the Average Daylight Factor and Vertical Sky Component.*
*6.1 Access to daylight and sunlight is important for general amenity, health and well-being, for bringing warmth into a property and to save energy from reducing the need for artificial lighting and heating. The Council will carefully assess proposals that have the potential to reduce daylight and sunlight levels for existing and future occupiers.*

*6.2 This guidance relates to:*
*• Camden Core Strategy policy CS5 - Managing the Impact of Growth and Development;*
*• Core Strategy policy CS14 - Promoting high quality places and conserving our heritage; and*
*• Policy DP26 – Managing the impact of development on occupiers and neighbours of the Camden Development Policies. DP26 sets out how the Council will protect the quality of life of building occupiers and neighbours by only granting permission for development that does not cause harm to amenity.*

*When will a daylight/sunlight report be required?*
*6.3 The Council expects that all developments receive adequate daylight and sunlight to support the activities taking place in that building.*
*6.4 A daylight and sunlight report should assess the impact of the development following the methodology set out in the most recent version of Building Research Establishment' (BRE) " layout planning for daylight and sunlight: A guide to good practice" Reports may be required for both minor and major applications depending on whether a proposal has the potential to reduce daylight and sunlight levels. The impact will be affected by the location of the proposed development and its proximity to, and position in relation to, nearby windows*

*WHAT DOES THE COUNCIL REQUIRE?*
*The Council will require a daylight and sunlight report to accompany planning applications for development that has the potential to reduce levels of daylight and sunlight on existing and future occupiers, near to and within the proposal site. Daylight and sunlight reports should also demonstrate how you have taken into consideration the guidance contained in the BRE document on passive solar design; and have optimised solar gain. Please refer to the BRE guidance on daylight and sunlight.*
*6.5 While we strongly support the aims of the BRE methodology for assessing sunlight and daylight we will view the results flexibly and where appropriate we may accept alternative targets to address any special circumstances of a site. For example, to enable new development to respect the existing layout and form in some historic areas. This flexible approach is at the Council' discretion and any exception from the targets will assessed on a case by case basis.*

The *Second Edition 2011* states that if a proposed development subtends a line drawn at 25° from the centre of the lowest window then more detailed checks are required in respect of daylight.

The primary assessment of daylight is based on the calculation of the vertical sky component (*VSC*) to an affected window in both the existing and proposed condition. The *VSC*, simply put, is the amount of light received at the centre of a window. It does not indicate distribution within a room for which other assessments are required.

The *Second Edition 2011* states that this assessment should be undertaken for habitable rooms that include living rooms, dining rooms and kitchens. Windows to bathrooms, toilets, storerooms and circulation areas need not be analysed. It states further that states than if at the centre of a window the *VSC* is greater than 27% of the visible dome then enough skylight should be reaching the window. To put this into terms more readily understood, when looking at the sky dome within an open field you would be able to see 40% of the total sky dome.

This said, a *VSC* of 27% is the ideal, but in most urban situations unlikely to be achieved. The *Second Edition 2011* states, however, that if the *VSC* is below 27%, and as long as any reduction is within 0.8 of the original value, no significant loss will occur (a reduction which is deemed to be of no consequence and not readily identifiable). In the event that this standard is not achieved then the area lit by the affected window may appear less well lit and supplemental lighting may be required more of the time.

The attached analysis - Waldram diagrams - demonstrates that the technical analysis demonstrates that either the resultant *VSC* - amount of skylight received - is above the primary figure of 27% or the reduction in daylight is less than 20% of the original figure and therefore a reduction which is not discernible to the human eye.

By way of explanation, Percy J. Waldram invented the Waldram diagram as a method of showing on a 2d image the curved and three dimensional view of the sky from a fixed point. The area of a Waldram diagram drawn to scale is 396cm² which represents the total amount of unobscured sky that can be seen from a vertical plane. The vertical edges of any obstructions are plotted as vertical lines on the diagrams by reference to their angle from the reference point. The head of any obstruction are plotted along the droop line corresponding to their altitudes above the horizontal measured in the section perpendicular to the reference point.

Waldram diagrams titled 1001-1009 are for assessment points to the adjacent properties to Evangelist Road, diagrams 1010-1021 for assessment points to College Lane and 1022-1034 for the properties to Highgate Road.

In respect of sunlight, the guide details the assessment of this by way of calculating the number of probable sunlight hours. The amount of sunlight that will be received is dependant upon orientation and the assessment is only of use where a window is within 90° of south.

Probable sunlight hours take into account the total number of hours a year that the sun is expected to shine taking into account average levels of cloud cover for the geographical location.

Sunlight is considered important for living rooms, but less so for bedrooms and kitchens. If the assessment is appropriate, the guide states that a window should receive at least 25% of annual probable sunlight hours with at least 5% of winter probable sunlight hours, but no less than 0.8 times the former if the sunlight is originally below these levels.

The orientation of a window is important when considering sunlight. A south facing window, generally, will receive the most sunlight whilst east and west facing windows will only receive sunlight at certain times of the day. A north facing window will only receive sunlight on a very few occasions during early morning and late evening in summer.

With regard to sunlight, those windows which meet the criteria for assessment accord with the recommendations of the *Second Edition 2011*.

I hope that the foregoing clarifies matters, but if you require any further clarification or have any queries, please do not hesitate to contact me.

Yours sincerely,

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