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BY EMAIL ONLY – Michael.Cassidy@camden.gov.uk

Dear Michael,

Application 2016/6891/P – 1-6 Centric Close, London NW1 7EP
Daylight and Sunlight Review

In accordance with instructions, I have reviewed the daylight and sunlight reports prepared by GIA and submitted in support of this planning application for the redevelopment of 1-6 Centric Close, London NW1. This review is undertaken on behalf of the London Borough of Camden. We have been asked to review the daylight, sunlight and overshadowing assessment to advise on the suitability of the methods of assessment, the criteria used for the study and the conclusions derived from those criteria and the results obtained. This is to assist the Council in understanding the technical conclusions of the report, and the implications of these results on planning policy.

This review does not extend to a detailed technical analysis. We have not constructed a 3D computer model nor run our own calculations. This report assumes that the study undertaken by the Applicants is accurate and simply reports on the results and the conclusions and recommendations given.

London Borough of Camden Requirements

The London Borough of Camden requires that the assessment of daylight and sunlight effect should be undertaken with reference to the Building Research Establishment (BRE) report "Site Layout Planning for Daylight & Sunlight: A Good Guide to Good Practice 2011". The scope of the assessment should include those windows/rooms in the existing neighbouring properties to the development which are likely to be affected by that development (as defined in the BRE Guidance). These will principally be main habitable rooms to residential properties.

For daylight, the following parameters should be calculated:

1. Vertical sky component (VSC); and
2. No skyline/contour (NSL)

These should be used as the primary methods of measurement and should be presented on an absolute scale followed by a comparative scale measuring the percentage reduction.

Average daylight factor (ADF) can also be calculated. This should be presented on an absolute scale for testing the adequacy of proposed new dwellings and can also be submitted to supplement, but not in place of, VSC and NSL for measuring the impact on neighbouring properties. In calculating the ADF values, the input variables for glazing transmittance, reflectance values and frame correction factors should be agreed with the London Borough of Camden beforehand.

For sunlight, the Applicant should calculate the annual probable sunlight hours (APSH) for windows of main habitable rooms of neighbouring properties that face within 90° due south and are likely to have their sunlight reduced by the development massing. The results should be presented on an absolute scale followed by a comparative scale measuring the percentage reduction.

Methodology Review and Appropriate Standards

GIA have produced two reports. The first dated 08/12/2006 and a second addendum report dated 17/05/2017. The second report was produced in relation to 19 and 23-27 Oval Road only following the receipt of further, more detailed survey and internal layout information obtained since the first report was produced.

On review the GIA approach and methodology to the technical analyses is sound and of a standard that is acceptable and professional.

GIA have clearly stated their sources of information used to generate their analysis model and where assumptions have been made with regard to internal layouts or to the estimated positioning of windows on neighbouring elevations where clear access has not been possible, either due to inaccessibility or due to the overgrown nature of some of the adjacent areas blocking the view of certain neighbouring building elevations.

GIA have discounted neighbouring commercial properties from consideration and have also discounted non-habitable room uses within residential accommodation. This is a sound approach and recognised standard practice.

The reports do not set any significance criteria for the daylight and sunlight assessment. We recommend that the significance criteria that should be adopted should be as follows. This applies to VSC where VSC is reduced to less than 27%, to NSL, and to APSH where the APSH is reduced to less than 25% and/or less than 5% in the winter months.

- Reduction of 0% of 20% negligible impact
- Reduction of 20% to 30% minor adverse impact
- Reduction of 30% to 40% moderate adverse impact
- Reduction of more than 40% major adverse impact

Where I have expressed an opinion on impacts in this report, it is by reference to these criteria, as they apply to buildings as a whole or in relation to individual parts of the buildings.

Desk Top Review – VSC, NSL & APSH

The initial report identifies a total of 18 neighbouring properties that have been considered for assessment. From my own desk top review of the site and surrounding buildings in context the scope of the GIA analysis is adequate and I cannot identify any additional properties that should would also warrant further consideration.

The report identifies that 10 of the neighbouring properties will remain sufficiently well let when measured against the VSC, NSL and APSH assessment criteria and will therefore fully comply with the BRE Guideline in daylight and sunlight terms. The results in the appendices support this statement.

Where the analysis illustrates reductions beyond the BRE criteria GIA state that in the majority of cases that this is in fact due to the presence of self-obstructing elements inherent on the neighbouring buildings themselves which inhibits the direct access of natural light in effect artificially skewing the numerical results and apparent effects of the development proposals when considered in isolation.

GIA support this justification by reference to paragraphs 2.2.11 & 2.2.12 of the BRE Guide itself which recognises that unsympathetic design for daylight inherent within neighbouring buildings can restrict their own sky availability currently making them more sensitive to changes in massing than would otherwise be the case. I can concur with this as a fact-based approach and can confirm from review of the window maps illustrated and from my understanding of the nature of the neighbouring buildings that these self-obstructing design elements do exist on the neighbouring properties.

Review of the Waldram diagrams generally in Appendix 05 of the first report does clearly illustrate the tunnelling effect that these projecting wings can create and the influence they can have on the results derived from the analysis modelling. For those rooms affected by this principle it will be possible for a secondary assessment to be undertaken to illustrate the effect of the development proposals whilst discounting the effects of these self-obstructing elements which could demonstrate the cause and effect that GIA are adopting as justification for much of the adverse effects rather than as a result of the over development of the site itself.

GIA provide a detailed explanation of the assessment results for the 8 neighbouring properties which will experience infringements of the BRE assessment criteria.

The Lockhouse – West Block
The VSC analysis illustrates that 11 of the 75 windows assessed will experience a reduction beyond BRE criteria. However, all of these infringements are to rooms where there is at least one further window serving the same room mitigating the isolated window losses. This is supported by the NSL analyses which illustrates in all 7 neighbouring rooms concerned that the retained NSL to these rooms within the building will achieve in excess of 95% daylight distribution.

In sunlight terms a total of 37 of the 39 windows assessed will retain sufficient sunlight levels. As above where there are infringements of the criteria these are to rooms where there is at least one further window serving the same room mitigating the isolated window losses. Thus, the rooms as a whole will remain relatively unaffected.

Overall therefore despite the isolated reductions beyond the BRE criteria to windows the retained light to the rooms will remain adequate and the effect on this neighbour will be negligible.

The Lockhouse – East Block
The VSC analysis illustrates that 9 out of the 72 windows assessed will experience a reduction beyond the BRE criteria. In all cases the VSC infringements are 20%-30% and thus are regarded as minor adverse effects only. In addition, the NSL analysis illustrates that all but a single room will achieve the assessment criteria with the single infringement is 20.13% which is only a fraction beyond compliance.

The sunlight analysis illustrates full compliance with the assessment criteria.

Overall therefore despite the isolated reductions beyond the BRE criteria to windows the retained light to the rooms will remain adequate and the effect on this neighbour will generally be negligible.

29 Oval Road
The VSC analysis illustrates that all windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 6 of the 7 windows will experience minor adverse effects with the remaining window experiencing a moderate adverse effect. Despite the reductions, it is noted that the retained VSC figures are in excess of 23% for 3 of the rooms and above 16% for the remaining 4 rooms. These levels of retained light in excess of 15% VSC, whilst not compliant with the BRE criteria, can generally be considered good for an urban location such as this.

This is generally supported by the NSL analyses where all but one of the rooms will retain in excess of 50% light coverage.

The poorest performing rooms are to the basement and ground floors the results for which GIA point out are affected by the projecting wings of the contextual massing which is artificially affecting the results to these neighbouring windows/rooms.

The sunlight analysis illustrates that only 1 of the 6 windows assessed will infringe the assessment criteria. The window affected also having the access to light influenced by the projecting wings.

It can be concluded therefore that the effect of the scheme proposals on this neighbour is generally minor adverse only with self-obstructing elements artificially affecting the quantum of percentage change rather than as a result of the over development of the site itself.

27 Oval Road – Addendum Report
The VSC analysis illustrates that 5 of the 7 windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 4 of the 5 windows will experience minor adverse effects with the remaining window experiencing a moderate adverse effect. Despite the reductions, it is noted that the retained VSC figures are in excess of 27% for two of the rooms; 5 will remain in excess of 23% and all will remain in excess of 15%. These levels of retained light in excess of 15% VSC, whilst not compliant with the BRE criteria, can generally be considered good for an urban location such as this.

This is generally supported by the NSL analyses where all but one of the rooms will retain in excess of 50% light coverage.

The poorest performing rooms are to the basement and ground floors the results for which GIA justify by arguing that these neighbouring rooms are affected by the projecting wings of the contextual massing which is artificially affecting the results to these neighbouring windows/rooms.

The sunlight analysis illustrates that only 2 of the 7 windows assessed will infringe the assessment criteria. The two windows affected also having their access to light influenced by the projecting wings.

From the GIA analysis presented it can be concluded therefore that the effect of the scheme proposals on this neighbour is generally minor adverse only with self-obstructing elements artificially affecting the quantum of percentage change rather than as a result of the over development of the site itself.

25 Oval Road – Addendum Report
The VSC analysis illustrates that 4 of the 6 windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 2 of the 6 windows will experience minor adverse effects with the remaining 2 windows experiencing moderate adverse effects.

Further review of the retained light levels reveals that 3 of the VSC figures will remain in excess of 15%, whilst not compliant with the BRE criteria, can generally be considered good for an urban location such as this.

The NSL results illustrate that a single room will comply with the assessment criteria, 3 will experience minor adverse effects and the final basement space will experience a major adverse effect. It is noted that this basement room is a bedroom which is less sensitive to light as by the nature of its use it is mainly occupied at night time and the effects are impacted by projecting wings of the contextual Oval Road buildings mass.

Overall therefore the effects here are generally minor to moderate adverse with a single major adverse effect in daylight distribution terms.

23 Oval Road – Addendum Report
The VSC analysis illustrates that 8 of the 11 windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 1 of the 8 windows will experience minor adverse effects with the remaining 7 windows experiencing a moderate adverse effect. Of the 8 adverse reductions only 2 of the rooms will have retained VSC values of less than 15% which is at a level generally considered good for an urban location such as this.

The NSL results illustrate that all rooms at ground floor and above will comfortably achieve the assessment criteria.

The basement rooms will experience major adverse reductions but as above it is noted that the room use are bedrooms and the effects are influenced by the projecting wings of the contextual Oval Road buildings mass.

In sunlight terms 7 of the 11 windows assessed will experience reductions beyond the BRE criteria with those rooms achieving the criteria on the upper floors.

Overall therefore the effects here are generally negligible to moderate adverse with 2 major adverse effects at basement level in daylight distribution terms. The sunlight effects range from negligible to major adverse.

23 Oval Road, Coach House – Addendum Report
The VSC analysis illustrates that 5 of the 7 windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 4 of the 7 windows will experience minor adverse effects with the remaining window experiencing moderate adverse effects.

Further review of the retained light levels reveals that 4 of the deficient VSC results will retain light levels in excess of 23% which is very good for an urban location such as this.

The NSL results illustrate that the single basement bedroom will experience a major adverse reduction with the single upper floor room remaining all but unaffected by the development proposals.

In sunlight terms the upper room will experience negligible reductions with the basement bedroom experiencing a substantial loss in APSH terms.

Overall therefore the effects here are moderate to major to the basement room with negligible effect to the upper room.

21 Oval Road – Addendum Report
The VSC analysis illustrates that 1 of the 7 windows assessed will experience reductions beyond the BRE criteria. On review of the percentage reductions 1 failing window will experience minor adverse effect with a reduction of 22.8% just beyond the BRE 20% criteria.

The NSL results illustrate that all rooms assessed will remain fully compliant with the BRE criteria in daylight distribution terms.

In sunlight terms, all rooms considered will achieve the APSH assessment criteria.

Overall therefore the effect here is an isolated minor adverse impact to a single window but all rooms will remain BRE compliant in NSL and APSH terms.

19 Oval Road – Addendum Report
The VSC analysis illustrates that all 7 windows assessed will achieve the BRE assessment criteria.

The NSL analysis illustrates that all 6 rooms assessed will achieve the BRE assessment criteria in daylight distribution terms.

The APSH analysis illustrates that 3 of the 7 windows assessed will achieve the BRE assessment criteria. One window will experience a minor adverse effect; 2 will experience a moderate adverse effect and the final window will experience a major adverse effect.

Overall therefore there will be only negligible effects in daylight terms but with minor to major effects in sunlight terms. With GIA justification for these effects being some further self-obstructing elements artificially affecting the quantum of percentage change rather than as a result of the over development of the site itself.

Trees
GIA have also provided a short note to state that the dense belt of trees to the rear of the Oval Road properties, if taken into account, would have a material effect on the analysis undertaken such that any material effects to the rear of the Oval Road properties would ‘disappear’.

The BRE does make the definition here with regard to evergreen trees forming a permanent barrier. As far as I understand the trees to the rear of the Oval Road properties are deciduous and therefore the tick nature of their appearance in Figure 05 Tree Screen is not a permanent state and there will be times of the year when there will be a good proportion of light which will pass through this belt of trees. Therefore, whilst it is clear, that by taking into account the effect of these trees within the analysis may well greatly reduce the effects illustrated it is less clear whether the effects will disappear to the lower floors in their entirety.

Conclusion

The scheme proposal will have an adverse effect to 8 of the neighbouring properties considered for assessment. These are isolated to The Lockhouse building and the rear of 19 – 29 Oval Road.

The adverse effects on The Lockhouse building are isolated to individual windows in VSC terms but the analysis does also clearly illustrate that all rooms will retain adequate light levels in NSL terms and so any effects can be considered negligible to minor adverse only.

The rear of the Oval Road properties are affected with a range of negligible to major adverse effects. Above ground floor the substantial number of any effects are negligible to minor adverse only.

The basement and ground floors, however will experience a range of minor to major adverse effects as illustrated but in many cases these effects have been attributed by GIA to the inherent self-obstructing design elements of the Oval Road buildings themselves rather than as a result of the over development of the site itself.

Review of the modelling, window maps and waldram diagrams does provide evidence for the reasoning and justification GIA have reported which is also supported by statement within the BRE Guide itself.

For those rooms affected by this principle it will be possible for a secondary assessment to be undertaken to illustrate the effect of the development proposals whilst discounting the effects of these self-obstructing elements which could demonstrate the cause and effect that GIA are adopting as justification for much of the adverse effects rather than as a result of the over development of the site itself.

GIA have also made reference to the belt of trees to the rear of the Oval Road properties which, if taken into account, would have a material effect on the analysis undertaken such that any material effects to the rear of the Oval Road properties would 'disappear'. Whilst it is clear, that by taking into account the effect of these trees within the analysis may well greatly reduce the effects illustrated it is less clear whether the effects will disappear to the lower floors in their entirety.

On review of the analyses it is clear that there will be some infringements beyond the BRE Guidelines in certain areas and to the rear of the Oval Road properties in particular. Whilst some of these infringements can be credited, in part, to the inherent design elements of the neighbouring buildings themselves it can also be possible to incorporate modifications to the scheme proposals that mitigate further the effects on the Oval Road properties to some extent although full compliance with the daylight standards is unlikely to be achieved without significant remodelling and reduction of the modelling adjacent to these properties.

I trust the above is sufficient for your current purposes but please do not hesitate to let me know if you require anything further.

Yours sincerely,

Stuart Gray
Partner
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