

gia

Daylight and Sunlight

Centric Close

Prepared by: Sophie Pearce

Reference: 9333

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By Email

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Dear Mr Cassidy,

Re: Centric Close, Planning Application Reference: 2016/6891/P – Daylight/Sunlight and Overshadowing

Please find below our response to the Daylight/Sunlight and Overshadowing objection letter received from Anstey Horne dated 23rd March 2017 on behalf of 19 and 23–29 Oval Road.

The BRE Guidelines

GIA's Daylight and Sunlight report dated 8th December 2016 has been undertaken in accordance with the BRE Guidelines – Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011). Appendix 01 of our report provides full details of the daylight calculation methods and the associated BRE criteria.

As stated in our report, the guidelines provide a recommendation to inform site layout and design, they are not mandatory nor do they form planning policy and their interpretation may be treated flexibly depending on the specifics of each site. In Section 3.0 of our report we note that the BRE Guidelines are predicated on a suburban type of environment and discuss the flexibility recommended by the guidelines themselves. A degree of interpretation is necessary and the results should be considered in terms of the quantum of light lost and retained, not purely upon the percentage change.

The London Borough of Camden's Planning Guidance on Amenity states:

"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." (CPG6; Section 6.5)

With regard to our statement that the Vertical Sky Component (VSC) is the primary method of daylight assessment, it is clear from Section 2.2 of the BRE Guidelines that VSC is the main method for assessing Daylight as it is discussed first. Furthermore, in Figure 01 below from the BRE Guidelines (*BRE Guidelines 2011 – Site Layout Planning for Daylight and Sunlight – A guide to good practice: page 10*) VSC is listed as the first daylight calculation and therefore it is the first test.

The No Sky Line (NSL) method of daylight assessment is most useful when room layouts are known, thus by implication the NSL test follows the VSC test and VSC can therefore be considered the primary method of assessment. The BRE Guidelines state:

"Where room layouts are known, the impact on the daylighting distribution in the existing building can be found by plotting the 'no sky line'." (BRE Guidelines 2011 – Site Layout Planning for Daylight and Sunlight – A guide to good practice: paragraph 2.2.8, page 7).

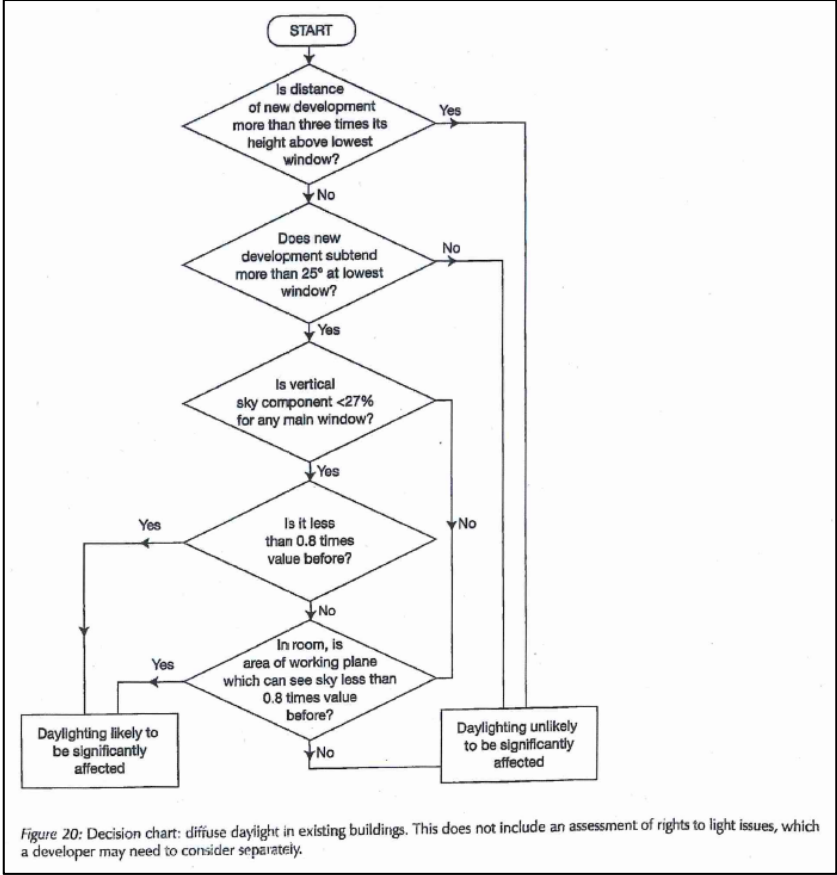


Figure 01 – Image from the BRE Guidelines

Our daylight analysis follows the BRE Guidelines by focusing on the VSC and NSL analysis as a means of assessing the retained levels of daylight and the alteration in daylight amenity. The Average Daylight Factor (ADF) is not recommended by the BRE for assessing daylight to existing surrounding properties, as it is often not possible to obtain knowledge of the internal configurations of rooms behind the fenestration. Anstey Horne have confirmed that they are happy with our approach in considering the VSC and NSL analysis, as the ADF assessment should mainly be used in consideration of new buildings. The BRE Guidelines advise that:

"In assessing the loss of light to an existing building, the VSC is generally recommended as the appropriate parameter to use. This is because the VSC depends only on obstruction, and is therefore a measure of the daylight environment as a whole. The ADF also depends on the room and window dimensions, the reflectances of interior surfaces and the type of glass, as well as the obstructions outside. It is an appropriate measure to use in new buildings because most of these factors are within the developer's control" (BRE Guidelines 2011 – Site Layout Planning for Daylight and Sunlight – A guide to good practice: Appendix F, page 62).

Modelling

The 3D model was created using a photogrammetry model prepared by Vertex Modelling which has circa 150mm-250mm accuracy, and aerial/site photography. In addition, we have used information from plans obtained from the Camden Local Authority Online Planning Portal where possible. Our model is therefore more than sufficient for the Daylight and Sunlight assessment for planning and using models such as this are common practice within the industry.



Windows in the rear elevation of 19 Oval Road were modelled using plans obtained from the Camden Local Authority Online Planning Portal. Window W1/1099 that Anstey Horne have referred to was modelled from elevation plans that were obtained from planning application reference: J11/1/11982A;

Figure 02 below illustrates the window on the elevation plan and Figure 03 the corresponding window map depicting W1/1099.

As access was not obtained to the property and the window could not be seen from aerial or site photography due to dense tree coverage, the window was modelled from the plans available. Additional information has now been made available by Anstey Horne as they were able to gain access to 19 Oval Road subsequent to our modelling and analysis being undertaken. If this window were to be modelled as the double French doors then this would improve the quantum of light in the room as the aperture would be larger.

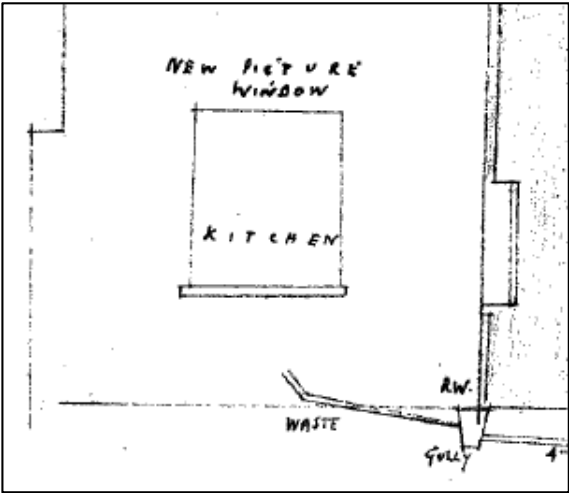


Figure 02 - Elevation from planning application J11/1/11982A

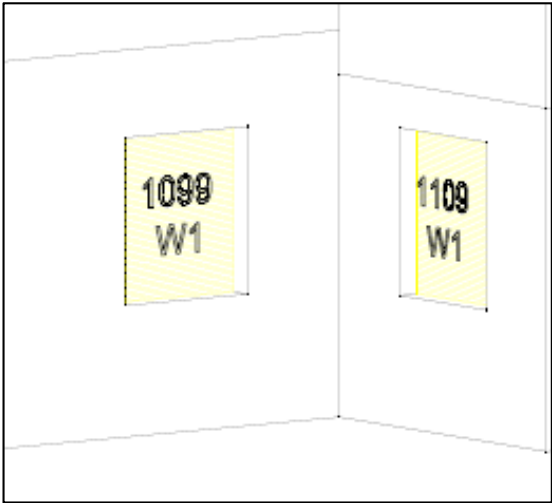


Figure 03 - Window Map depicting W1/1099

Due to the dense coverage of trees illustrated on the aerial image below, we were not able to identify the location and size of the dividing walls/fences between the rear gardens of 19 and 23-29 Oval Road. It is our understanding that Anstey Horne have recently gained access to the rear gardens of these properties and have been able to take photographs of the walls/fences. At the time of our modelling we were not party to this information.



Figure 04 – Aerial Google Maps Image of the Site and neighbouring properties

If one were to include these walls/fences then there may be a relative alteration to the existing and proposed values, however the absolute percentage alteration would not change. Whilst the garden walls/fences may reduce the retained values to the lower ground floor/basement windows, given it's only a garden wall/fence it will be a small absolute change. Furthermore, the retained values at basement level would still remain very close to the values in our report and still commensurate with basement accommodation in central London. An example of this is that our technical analysis shows that the VSC is already as low as 14.8% at basement level (*W2/799 in 25 Oval Road*) and this figure may be lower with the walls/fences in place; this level of VSC is comparable with a number of the proposed basement values in our technical analysis.

In addition, the existing extensive tree coverage within the rear gardens of 19 and 23-29 Oval Road would obstruct light reaching the rear windows in the existing condition, particularly at lower ground floor level and would contribute to low existing levels of light.

In our report we state that the BRE Guidelines are predicated upon a suburban development model and the values that they set out are based upon a suburban situation i.e. two 2 storey dwellings facing one another across a reasonable width road and the level of light that one would expect in that context. The BRE recommends that a target value of 27% should be obtained in order to achieve reasonable levels of daylight, which equates to an obstruction angle of circa 25°, as illustrated in Figure 05 below. It is clear that this is not a realistic target value for a dense urban environment, such as the one the Site is located in, particularly in consideration of basement level windows which are set below ground floor level and thus have lower existing levels of light. As the BRE criterion does not specifically relate to city locations, a degree of flexibility needs to be applied when assessing the significance of daylight and sunlight impacts in urban locations such as Camden.

It is also worth noting that The Mayor of London's Housing SPG comments:



"The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm." (Housing Supplementary Planning Guidance, March 2016; Section 1.3.46)

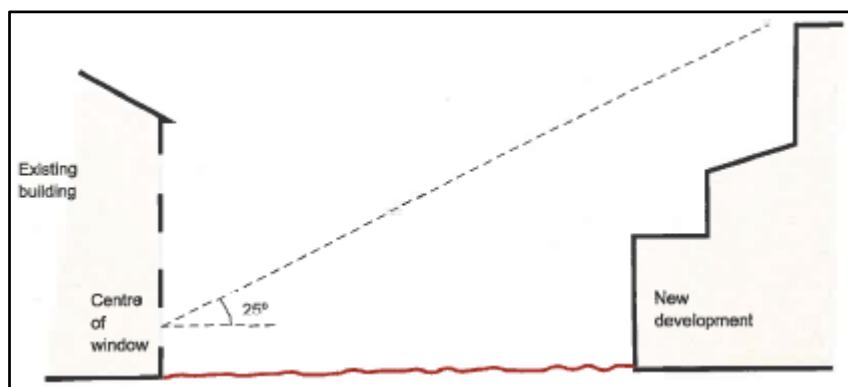


Figure 05 – BRE Target Values

19 and 23-29 Oval Road

Anstey Horne have incorrectly summarised the VSC impacts to 23-29 Oval Road at the bottom of page 4 of their letter. For the VSC results for 23-29 oval Road, 23 out of 33 windows (70%) do not meet the BRE criteria. Anstey Horne incorrectly calculated this as 28 out of 33 windows (85%) as they have mistakenly highlighted five windows (W1/711, W3/800, W1/801, W1/812 and W1/901) which meet the BRE Guidelines.

In relation to 19 Oval Road, all of the six windows assessed will meet the VSC daylight criteria, thus there will be a negligible alteration in light to these windows. One room experiences an alteration in daylight distribution (NSL) of 25% which is just above the 20% allowed for within the BRE Guidelines, however the window serving this room fully adheres to the VSC criteria therefore there will be a negligible daylight impact to the room.

As previously mentioned, a degree of interpretation is necessary with regard to applying the recommended BRE criteria to an urban area such as Camden. The daylight and sunlight results should be considered in terms of the quantum of light lost and retained, not purely upon the percentage change, as this may be misleading, particularly where baseline values are small. In addition, a number of the windows assessed retain levels of VSC that could be considered commensurate with an urban environment such as Camden and the rooms retain good levels of daylight distribution which should ensure that they remain sufficiently lit. Therefore, in line with The Mayor of London's Housing SPG we would not consider there to be unacceptable harm to the residential amenity.

Furthermore, a number of the alterations in daylight and sunlight can be attributed to existing architectural features such as projecting wings that restrict the sky visibility in the existing scenario, which makes the windows and rooms sensitive to alterations in new massing. The BRE acknowledges the constraints that architectural features such as balconies and projecting wings can have on the ability to satisfy the criteria in paragraphs 2.2.11 and 2.2.12.

Anstey Horne state that Section 8.0 of our report only makes reference to the VSC results and no commentary is made in regard to the NSL results. This is incorrect as we also discuss the daylight distribution/NSL in this section. VSC is discussed firstly as the primary daylight assessment, however we have also considered the rooms served by the windows.

We have not included No Sky Line contour plans as these are not usually requested by the council as Anstey Horne are aware. The full results of the NSL analysis are located in Appendix 03 of our report.

Both R2/699 and R1/709 on the basement and ground floor of 27 Oval Road and R1/799 and R2/800 on the basement and ground floor of 25 Oval Road are served by one single aspect window each (W2/699, W1/709, W2/799 and W1/800). These windows experience alterations in VSC which are in breach of the BRE Guidelines; however, all four windows are located next to projecting wings (see *window map 9333/03 in Appendix 04*) which restricts the view of the sky from these windows and thus reduces the levels of daylight entering the rooms served by these windows. Therefore whilst these four rooms and the associated windows experience alterations in daylight beyond the recommended BRE criteria, the alterations can be attributed to the existing projecting wings that restrict the view of the sky in the existing scenario, meaning the lower levels of light are not exclusively attributable to the Proposed Development.

With regard to the sunlight results, as stated in our report five properties experience alterations in sunlight beyond the recommended BRE Guidelines. However, the windows are orientated west and thus there is a restriction in the amount of sunlight received. Furthermore, where alterations occur they are heavily influenced by the primary western aspect and the existing architectural design near windows with projecting wings limiting the available sunspots, particularly in winter. Thus even a modest increase in massing is likely to cause alterations in breach of the BRE Guidelines.

Furthermore, the London Borough of Camden's Planning Guidance on Amenity comments:

"The Council recognises that not all of the guidance contained within the BRE document, particularly orientation, can be adhered to in all developments due to the dense and constrained urban nature of Camden." (CPG6; Section 6.18)

Overshadowing (Sun Hours on Ground)

GIA have carried out a Sun Hours on Ground Overshadowing assessment using the methodology and criteria recommended by the 2011 BRE Guidelines, to enable an evaluation of the effects that the proposed development at Centric Close may have upon the neighbouring amenity spaces located at 19-29 Oval Road.

The methodology for Sun Hours on Ground (Overshadowing) analysis is set out in the 2011 BRE Guidelines. The Sun Hours on Ground assessment is based on the 21st March (Spring Equinox). Using specialist software, the path of the sun is tracked, at one minute intervals, around the 3D computer model of the site and its surrounding buildings to establish where sunlight would fall on the ground and where it is prevented from doing so as a result of surrounding obstructions.

The Sun Hours on Ground analysis establishes the area of an amenity area which receives at least two hours of sunlight on the ground on 21st March. The part of an amenity area which receives two or more hours of sunlight on 21st March is highlighted in yellow. The 2011 BRE Guidelines suggest that for a garden or amenity area to appear adequately sunlit throughout the year, at least half (50%) of the area should receive at least two hours of sunlight on 21st March.

The 2011 BRE Guidelines go on to suggest that if, as a result of a new development, an existing garden or amenity area does not meet the guidance, or the area which can receive some sun on 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be perceptible (*Site Layout Planning for Daylight and Sunlight – A guide to good practice; Paul Littlefair – Second Edition 2011; Page 20, Paragraph 3.3.17*).

The Sun Hours on Ground assessment has been undertaken against seven private gardens for 19-29 Oval Road and the technical analysis is located in Appendix 01.

The technical analysis found that the six rear gardens of 19-25 and 29 Oval Road will fully accord with the recommended BRE Guidelines for Sun Hours on Ground. Therefore there will be a negligible impact caused by the proposed development to these gardens.

One rear garden serving 27 Oval Road currently receives direct sunlight on 21st March to 2% and 16% of its amenity space in the existing scenario, which is significantly below the 50% recommended by the BRE, making it inherently sensitive to alterations in new massing. These reduce to 0% and 8% in the proposed scenario, however the affected areas are only 0.33 Sq.m and 2.51 Sq.m which are unlikely to be perceptible.

The garden space serving 27 Oval Road is narrow and enclosed by walls and fences running along three sides of the garden. In addition, it should be noted that the existing extensive tree coverage within the rear gardens of 19-29 Oval Road would further impact on the sunlight received by these gardens in the existing condition. Whilst trees offer privacy, the dense tree coverage contributes to shadowing in the rear gardens. In consideration of the urban location and the poor existing condition, in addition to the absolute loss of direct sunlight, the impact to the garden serving 27 Oval Road is considered to be negligible in nature.

In summary, the overshadowing impact of the proposed development to these seven gardens is considered to be negligible.

Summary

In summary, the 3D model that was used to carry out the analysis is accurate on the basis of the information available at the time of modelling. As stated previously in this letter, the location and size of the windows in the neighbouring properties are based on floorplans where obtained, site observations and brick counting where possible. With regard to the walls/fences, we were unable to model these due to dense tree cover and furthermore any alteration in the existing and proposed VSC values would be relative and it would not change the absolute percentage alterations.

19 and 23-29 Oval Road will experience alterations in daylight/sunlight beyond the BRE Guidelines. However, the BRE Guidelines state that they must be interpreted flexibly and should be viewed in the context of the specific site constraints. It is therefore necessary to consider a number of influencing factors relating to these alterations such as the projecting wings which reduce the view of the sky and the westerly orientation of the windows that restricts the amount of sunlight received. In addition, a number of the retained VSC values could be considered commensurate with urban environments such as this and a number of rooms retain good levels of daylight distribution indicating that they should remain sufficiently lit.

To conclude we reiterate the conclusion in our report, that within the context of the Site and the nature of the Proposed Development, despite alterations in Daylight/Sunlight beyond the recommended BRE Guidelines, which is based upon a low rise suburban environment, where these occur they are not unusual in development sites such as this. Furthermore, a number of the windows assessed retain levels of VSC that could be considered commensurate with an urban environment such as Camden.

Yours sincerely
For and on behalf of GIA

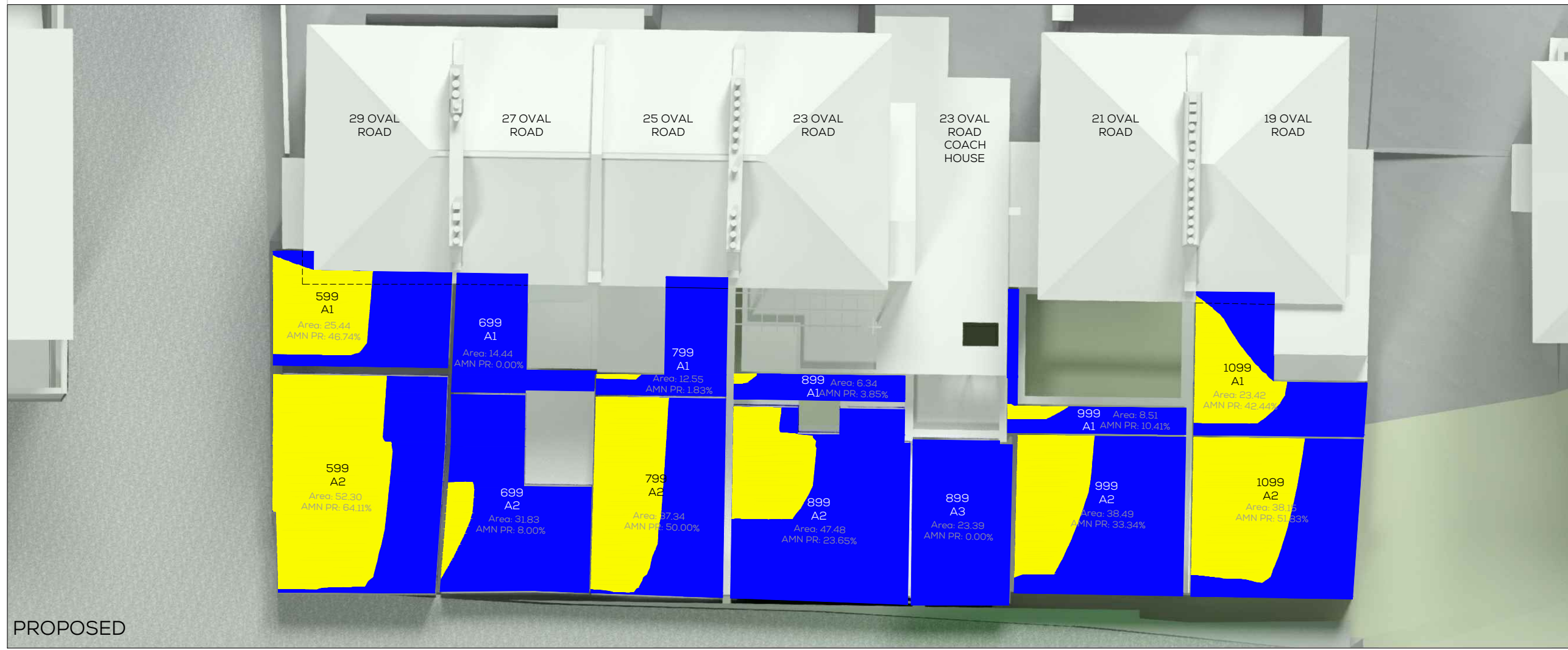


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Encl. Appendix 01 (SHOG Assessment)

Appendix 01

Sun Hours on the Ground Analysis

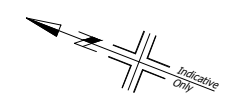


SOURCES OF INFORMATION
 VERTEX
 IR02-9333-040315-VERTEX
 FIND MAP
 IR03-120315 FIND OS MAP
 SURVEY MODEL
 IR31-300117
 GIA
 SITE PHOTOS & SURVEY NOTES
 PLANNING DOCUMENTS

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

AREA THAT RECEIVES MORE THAN 2 HOURS OF DIRECT SUNLIGHT ON 21ST OF MARCH
 AREA THAT RECEIVES LESS THAN 2 HOURS OF DIRECT SUNLIGHT ON 21ST OF MARCH

NOTES:
 N.B. DO NOT SCALE OFF THIS DRAWING



PROJECT:
 CENTRIC CLOSE
 LONDON, CAMDEN NW1

DRAWING NAME:
 SUN ON GROUND HOURS ASSESSMENT
 PROPOSED SCHEME RECEIVED
 IR-24 24.11.16

DWN BY	SCALE	CHK BY	STATUS	DATE
RG	1:175@A3		OV	31.03.2017
PROJ No.	REL No.	IS No.	DWG No.	REV No.
9333	REL009	IS02	006	A

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 L O N D O N • M A N C H E S T E R

Floor Ref.	Amenity Ref.	Amenity Area	Lit Area Existing	Lit Area Proposed
19 OVAL ROAD				
1099	A1	Area m2 Percentage	23.42 41%	9.64 42%
1099	A2	Area m2 Percentage	38.15 52%	19.77 52%
21 OVAL ROAD				
999	A1	Area m2 Percentage	8.51 11%	0.90 10%
999	A2	Area m2 Percentage	38.49 34%	12.92 33%
23 OVAL ROAD				
899	A1	Area m2 Percentage	6.34 5%	0.29 4%
899	A2	Area m2 Percentage	47.48 26%	12.41 24%
23 OVAL ROAD - COACH HOUSE				
899	A3	Area m2 Percentage	23.39 0%	0.00 0%
25 OVAL ROAD				
799	A1	Area m2 Percentage	12.55 2%	0.23 2%
799	A2	Area m2 Percentage	37.34 54%	20.26 50%
27 OVAL ROAD				
699	A1	Area m2 Percentage	14.44 2%	0.33 0%
699	A2	Area m2 Percentage	31.83 16%	5.01 8%
29 OVAL ROAD				
599	A1	Area m2 Percentage	25.44 55%	14.08 47%
599	A2	Area m2 Percentage	52.30 68%	35.74 64%

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