

**Parkhurst Gardens,  
Parkhurst Road, N7 0LJ**

## **Daylight & Sunlight Report**

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## Executive Summary

- This is a daylight and sunlight report into the revised planning application proposal by AHMM Architects dated June 2014. It provides daylight and sunlight analysis for the surrounding properties, internal to the scheme itself and sunlight amenity analysis to the open amenity spaces both within and around the scheme.
- The analysis is based on the methods laid out in the BRE Guidelines, used by planning officers to determine acceptability of daylight and sunlight.
- The daylight and sunlight results have improved from the scheme massing originally analysed for the original planning application scheme. The height and depths of the blocks have been reduced and the overall results have thus further improved. We concluded that the original planning application scheme was acceptable in terms of daylight and sunlight and now this scheme improves on that already acceptable daylight and sunlight position.
- The results for daylight and sunlight to the surrounding properties show all rooms and windows analysed will meet or be sufficiently close to the BRE Guidelines as to be acceptable with the proposal in place. As such, daylight and sunlight to the surrounding properties will be in accordance with local planning policy.
- The internal daylight results show that there are 318 out of 364 rooms which meet the BRE Guidelines in terms of ADF i.e. 87.4%.
- It should also be noted that 107 out of 112 (95.5%) units will receive planning compliant levels of daylight in ADF terms to at least half the habitable rooms in the unit, indicating that the development has been well designed for internal daylight across the site. Of the five units that do not meet this criteria, three contain at least one room which meets the BRE Guidelines for ADF.
- In terms of sunlight measured in terms of APSH, the BRE Guidelines make clear that main living rooms are of primary importance. The results show that 104 out of 112 (92.9%) living rooms meet the BRE Guidelines for APSH or are north-facing and so do not require analysis as per the BRE Guidelines.
- In terms of sunlight measured in terms of APSH, the majority of living rooms which have windows that face within 90 degrees of due south will have at least one window which meets the BRE Guidelines for both total APSH and winter APSH.
- The sunlight amenity results show that all open amenity spaces will meet or are sufficiently close to the BRE Guidelines' criteria. This shows that additional shadow caused by the scheme will be acceptable and in accordance with planning policy.

## 1. Introduction

This report provides analysis of the daylight and sunlight to the surrounding properties for the planning application scheme at Parkhurst Road, London, N7. The existing site is shown on drawings 0970-23 and -25 in Appendix 1, along with drawings of the proposal numbered 0970-59 to-61. Results for the daylight and sunlight analysis are found in Appendix 2 with the internal daylight and sunlight analysis in Appendix 3 and the sunlight amenity (shadow) results shown in Appendix 4.

The report has been written by Waldrams Chartered Surveyors, specialists in provision of daylight and sunlight reports. We have been involved with the scheme since the early design stages and have supported the architects in designing a scheme which maintains good daylight and sunlight to the surrounding properties and internal to the scheme itself. The analysis has been based upon the scheme drawings provided by the architect and a site visit, along with a photogrammetric survey of the site and surrounding properties.

This report has been written for planning purposes to demonstrate that the proposal meets acceptable levels of daylight and sunlight as specified within the BRE Guidelines and thus local planning policy.

### ***Summary of how daylight and sunlight are considered for planning***

Daylight and sunlight are planning considerations. The main reference used by local planning authorities to determine the acceptability of proposals in terms of their internal daylight and sunlight and the impact on daylight and sunlight to the surrounding properties is the Building Research Establishment (BRE) Guidelines, used in conjunction with British Standard BS8206 Part 2. The BRE Guidelines provide scientific, objective methods for establishing the acceptability of daylight and sunlight internal to the scheme and the surrounding properties. In practice it is principally the main habitable rooms internal to the scheme and within the surrounding residential properties which are sensitive in terms of loss of daylight and sunlight. This report therefore focuses on the internal daylight and sunlight and the change in daylight and sunlight to habitable rooms in the surrounding residential property.

The BRE Guidelines specify that the daylight and sunlight results be considered flexibly and in the context of the site. Clearly there would be a higher expectation for daylight and sunlight in a rural or suburban environment than in a dense city centre location. Likewise if the existing site is open or only has low existing buildings, but has been earmarked in local development policy for high density development, then it is inevitable that the change between existing and proposed levels will be relatively large. In these situations it is the retained level of daylight and sunlight which the primary

measure of acceptability, not the change between existing and proposed levels. The important factor in all cases is that the levels of daylight and sunlight are appropriate, taking into account all the planning policy requirements of the site. The BRE Guidelines acknowledge this in the introduction where the BRE Guidelines state:

“The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and thus this document should not be seen as an instrument of planning policy. Its aim is to help rather constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values.”

(Page 1, BRE Guidelines)

Thus, the numerical figures should not be rigidly applied, but instead used as part of the overall evaluation of the daylight and sunlight to the surroundings in context of the site, its existing massing, and the need for regeneration and local planning policy guidance for the site. In particular existing local precedents or recent planning consents may provide a good indication as to appropriate levels in the vicinity.

***Method for analysing acceptable daylight and sunlight to the surrounding residential properties***

The first test in determining acceptable levels of daylight and sunlight to the surrounding properties is the so-called 25 degree rule. If the development does not protrude through a 25 degree plane emanating from the centre of windows in the surrounding properties (or 2m from the ground in the case of ground floor windows), then it meets the BRE Guidelines in terms of daylight and sunlight.

Where the proposal slightly protrudes through these 25 degree planes, further more detailed daylight and sunlight analysis is recommended.

The method for assessing daylight to the surrounding properties is:

- Vertical Sky Component (VSC);
- Daylight distribution

and for sunlight it is:

- Annual Probable Sunlight Hours (APSH).

The BRE Guidelines also refer to calculation of the Average Daylight Factor (ADF). The ADF measure of daylight takes into account the main factors which affect the actual daylight appearance of a room including the area of the window.

ADF provides an absolute measure of daylight expressed as a ratio of daylight for the room in question as a proportion of the daylight outside at any moment in time. The ADF for a living room should be above 1.5% (i.e. the room should enjoy a minimum of 1.5% of the average external daylight at any moment in time), whilst that for a bedroom and kitchen should be in excess of 1% and 2% respectively. ADF is dependent on the area of sky visibility, which is closely related to VSC, the area of the window serving the room, the glazing transmittance, the total area of the room's surfaces and the internal reflectance of the room.

The test for sunlight is calculated for each main south facing window to habitable rooms and in particular living rooms. Bedrooms and kitchens are considered by the BRE Guidelines as less important for sunlight. The BRE Guidelines state that any south facing window may potentially receive up to 1486 hours of sunlight per year on average, representing 100% of the annual probable sunlight hours (APSH). Of this, each main window to a main habitable room may be adversely affected if it has less than 25% of the total APSH across the whole year or less than 5% APSH during the winter months (defined as the 6 months from September 21st through to March 21st).

***Method for analysing acceptable daylight and sunlight internal to the scheme itself***

The method for assessing internal daylight to the scheme is:

- Average Daylight Factor (ADF) based on the criteria for room use or where this is not known a criteria of 1.5% ADF (i.e. living room) has been used;

and for internal sunlight it is:

- Annual Probable Sunlight Hours (APSH).

The following parameters have been used in the ADF calculations:

- glazing transmittance: 0.68
- internal reflectance: 0.5

***Method for analysing acceptable sunlight amenity to the open amenity spaces within the proposed scheme***

The BRE Guidelines states that each open amenity space should receive at least 2 hours of sunlight on March 21st to at least 50% of its area or that the centre point of each amenity space should receive at least 2 hours of sunlight on March 21st.

***Method used for calculating the daylight and sunlight results***

The analysis provided in this report utilizes state-of-the-art software to calculate in three dimensions the internal daylight sunlight following the methods specified in the revised 2011 BRE Guidelines to correctly calculate the daylight and sunlight to all rooms and windows within the scheme. A three dimensional accurate computer model has been created for the existing site in context of the immediate surrounding properties which either could be affected by the proposal or which could materially affect the result of a potentially affected room and window.

**2. Sources of information used in the report**

**AHMM**

**IR03 AHMM**

3d Models:

13033\_3D\_140529\_Massing model

2D drawings:

13033\_(00)\_110 to 115

13033\_(00)\_201 to 207

**IR 04 AHMM**

140610FBRevisedGAsandElevations\_4

4122

**IR 05 AHMM**

13033\_Garden Wall Markup

**Received June 2014**

**Waldrams**

Site photographs

Ordnance Survey

***References:***

*BRE Guidelines (BR 209):- Site layout planning for daylight and sunlight: a guide to good practice, by PJ Littlefair (1991), revised 2011.*

These Guidelines provide the basis of the analysis described in this report. Please refer to this document for a detailed description as to the approach, methodology and implementation of the numerical analysis used in this report. A summary of the approach and methods recommended by the BRE Guidelines is included in the Introduction (Section 1) of this report.

### 3. The Existing Site

The existing site is shown on drawings 0970-23 and -25 in Appendix 1 and in photo 1 below.



Photo 1: Existing site at 65-69 Parkhurst Road

### 4. Daylight & Sunlight Analysis to Surrounding Properties

Daylight and sunlight are primarily of consideration for surrounding residential property. The analysis in this report will therefore focus on the impact to all the potentially affected residential properties adjacent the site.

The following properties have therefore been analysed for daylight & sunlight based on their usage and proximity to the proposals:

- 18-24 McCall House, Tufnell Park Road
- 45-57 McCall House, Tufnell Park Road
- Children's Day Centre
- 19-24 Moriatry Close
- 25-30 Moriatry Close
- 31-36 Moriatry Close
- 41-60 Moriatry Close

- 61-62 Moriatry Close
- 1-24 Holbrooke Court
- 25-40 Holbrooke Court
- 41-80 Holbrooke Court
- 41-52 Parkhurst Road
- 57, 59, 61 & 63 Parkhurst Road

The results for the daylight and sunlight analysis to these surrounding properties are found in Appendix 2. The window maps which reference the results in Appendix 2 are shown on drawings in Appendix 1.

#### **18-24 McCall House, Tufnell Park Road**

This residential block is located to the north-west of the proposal and is owned by the local authority at freehold level. It is shown in photo 2 below.

All windows within this property meet the BRE Guidelines' VSC criteria, except for windows W1 on the ground floor, W2 on the ground floor, W1 on the first, second and third floor. It is likely that W2 on the ground floor, W1 on the first, second and third floor serve the same room as the windows facing east on each floor, perpendicularly past the site, which meets the BRE Guidelines. Therefore, following the BRE Guidelines, since the main windows in these rooms face east, as they are the larger window to the room, the room as a whole on each floor will be fully BRE compliant for daylight on each of the ground, first and second floor rooms. The window W1 on the ground floor appears to serve non-habitable space, such as a utility room, and has been modelled as a shallow, small room. It therefore has no requirement in relation to daylight.

All windows facing within 90° of due south over the proposal meet the BRE Guidelines for sunlight with the proposal in place and indeed will retain very good levels of sunlight.

Therefore, daylight and sunlight to this property will be fully in accordance with planning policy.



**Photo 2: McCall House, Tufnell Park Road**

**45-57 McCall House, Tufnell Park Road**

All windows meet the BRE Guidelines in terms of VSC and APSH for sunlight and so the property is fully compliant with the BRE Guidelines and thus planning policy on daylight and sunlight.

**Children's Day Centre, 1a Holbrooke Court**

This children's day care centre, located to the north of the development site, is shown below in photo 3. It has windows well set back from the proposal, which are overhung by an awning, presumably to reduce the levels of daylight and sunlight into the classrooms beyond. Since this awning appear to be translucent we have disregarded this in the calculations; such overhangs are recommended as being disregarded according to the BRE Guidelines in any event.

The VSC results with the proposal in place indicate that all windows will meet the BRE Guidelines except two windows, W27, and W28 on ground floor which are narrow high level windows and do appear not to serve main habitable space - as such they too are acceptable.

In sunlight terms, all windows facing within 90° of due south over the proposal meet the BRE Guidelines for sunlight or are covered with an awning, which removes sunlight to these windows in the existing situation.

As such, this property is considered to meet or be sufficiently close to the BRE Guidelines to be in accordance with planning policy with the proposal in place.



Photo 3: 1a Holbrooke Court

#### **19-24, 25-30 & 31-36, 37, 38-40 Moriatry Close**

These residential blocks of flats are located to the west of the proposal. It should be noted that we have requested the actual room layouts of the Moriatry Close properties from John Carter at Brooke Vincent & Partners, but these have not been provided to date.

All windows within these properties meet the BRE Guidelines in relation to daylight and sunlight and so are compliant with planning policy with the proposal in place.

#### **41-60 Moriatry Close**

There are two windows on each floor of the flank wall of this residential building facing the site, the lowest two windows being obstructed by the high wall on the boundary between the Moriatry Close and the site. From the community consultation event, it is our understanding that the room layout is as the below figure:

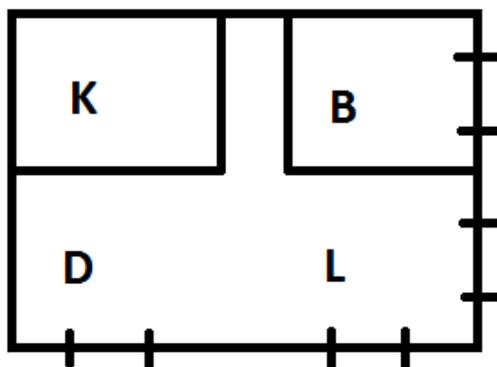


Figure 1: Believed layout of a flat in 18-24 McCall House

We have tried to gain access by contacting John Carter of Brooke Vincent & Partners, acting for the Moriarty Close residents, but to no avail. We understand that the two windows on each floor, W3 & W4, are secondary windows to a through dining/living room with a kitchen leading off from that, where this main window, W5, looks north away from the site and is therefore unaffected by the proposal.

The BRE Guidelines make clear that it is primarily the main window, W5, to each room which is of importance in relation to daylight and sunlight and, since the main window to these rooms is unaffected, looking north away from the proposal, although there is a loss to the two windows in the side flank wall, W3 & W4, the rooms they serve will still retain good levels of daylight with the proposal in place. Furthermore when the VSC results for the 3 windows serving each room are averaged, following the BRE Guidelines' approach, the average VSC will retain above 27% VSC for all rooms except the ground floor whose windows are located behind the high boundary wall where the average VSC loss is less than 20% at 17%. The Daylight distribution results for the room R3 on each floor will retain almost the whole of the room able to see the sky at desk height demonstrating that these rooms will retain very well lit appearance with the proposal in place. All other windows in this property will meet the daylight and sunlight criteria specified in the BRE Guidelines. Therefore, it can be concluded that the daylight to 41-60 Moriarty Close will meet or be sufficiently close to the BRE Guidelines in relation to daylight as to be considered acceptable with the proposal in place.

Likewise, in relation to sunlight all windows in this property meet the BRE Guidelines with the proposal in place, with the south facing windows retaining very high levels of sunlight with the proposal in place.



**Photo 4: 41-60 Moriarty Close**

#### **61-62 Moriarty Close**

The only windows in this building facing the site are the Velux windows in the sloping roof. We understand from an occupier of one of these properties that the Velux windows serve bathrooms and through living rooms served by windows facing west away from the proposal.

We have attempted to meet the owner of 62 Moriarty Close but they were unfortunately unavailable on the day of our visit, despite our attendance as arranged with the tenant.

The VSC results are fully compliant with the proposal in place to all the Velux windows. There is a new constructed dormer window, W12 on first floor, which will remain a VSC result of 23.7% VSC close to the 27% recommended by the BRE Guidelines as being ideal. This dormer did not exist prior to February 2014, when the construction began, and remains incomplete. According to the BRE Planning Guidelines this window creates a bad neighbour relationship with the as it has been constructed to face directly over the boundary. According to the BRE Guidelines such windows should be considered less sensitively. We do not know the internal configuration of this unit and it is possible that is open plan to the area below. Either way it will retain a daylight level sufficiently close to the BRE Guidelines to be considered acceptable in planning terms. The

daylight distribution results however show that this building will be fully compliant with the BRE Guidelines, showing that daylight to this property will be acceptable.

In relation to sunlight, all windows in this property that face within 90° due south in the vertical plane meet the BRE Guidelines with the proposal in place.



Photo 5: 61-62 Moriarty Close (rear façade showing new dormer, taken February 2014)

#### **1-24 Holbrooke Court and 25-40 Holbrooke Court**

These residential block of flats lie to the north and east of the proposed development site and are shown below in photo 6 and 7.

Photos 6 and 7 below clearly show that there are balcony overhangs above many of the main living rooms within these buildings. It is possible that the smaller windows on the outer façade of the building, facing over the site, are of bedroom or bathroom use.

Analysis has been carried out both with the overhanging building projections on (results shown in Appendix 2.1), comparing the existing and proposed situation and also, as recommended by the BRE Guidelines, removing the overhanging building projections (results shown in Appendix 2.2) to show the effect of the overhanging building projections on the VSC results.

The daylight results show that, in VSC terms, there are VSC reductions to the overhung rooms below the below the BRE Guidelines' 20% criteria. However, if the existing VSC to these windows is around 7% to 14% VSC, well below the 27% recommended, resulting in relatively small

absolute losses recording greater than 20% relative loss. Furthermore, those windows that are not overhung, with windows on the outer facade, have existing VSC in excess of 33% and retain close to or in excess of 27% in absolute terms and in all cases lose no more than 20% VSC, with the exception of those facing 25-40 Holbrooke Court, which are partially blinkered by that block. The daylight distribution results show that all but 4 rooms in Holbrooke Court will lose less than 20% daylight distribution with the proposal in place even when the balconies are taken into account. These four rooms within 1-24 Holbrooke Court all lose less than 31% of their daylight distribution and will have at least two thirds of their room area able to see the sky at desk height, demonstrating that they will remain well daylight with the proposal in place.

It should be remembered that the Guidelines are to be used flexibly and in context of the site, where some reduction below the Guidelines is likely to be considered acceptable in such an urban location.

Therefore, we consider that the VSC reductions substantially below 20% are primarily due to the presence of the overhanging building projections and when these are disregarded, as recommended by the BRE Guidelines, the percentage reductions are, at worst, close to the 20% reduction in VSC recommended in the BRE Guidelines. The acceptability of this result is further enhanced by the fact that all rooms meet the daylight distribution criteria except four, which are relatively close, even with the overhanging building projections on. These results indicate that the retained daylight level to Holbrooke Court overall is acceptable, albeit with some minor deviance from the strict numerical criteria within the BRE Guidelines.

In relation to sunlight, all rooms within 1-24 Holbrooke Court meet the BRE Guidelines for APSH with the overhanging building projections disregarded. In relation to 25-40 Holbrooke Court, these windows facing the site only slightly face within 90° of due south and, although retain good levels of VSC, will lose evening sunlight due to the presence of the block immediately to the south of the Children's Day Centre. The southernmost units in this block have sunlight levels below the BRE Guidelines however these windows are only just facing within 90 degrees of due south and if were slightly further north facing would not need to be analysed for sunlight according to the BRE Guidelines. The retained sunlight for the best sunlit window to each room tends to retain at least around 20% total APSH, which could be argued as a reasonable sunlight position for an urban location for a facade that only just faces within 90° of due south.



**Photo 6: 1-24 Holbrooke Court**



**Photo 7: 25-40 Holbrooke Court**

### **41-80 Holbrooke Court**

This Local Authority residential block of flats is located immediately adjacent the site, although faces primarily perpendicularly past the eastern side of the proposal.

Analysis has been carried out for the closest windows on basement, ground, first and second floors. The daylight distribution results for these rooms indicate that there is no change in the areas of each room able to see the sky and therefore the actual daylit appearance of these rooms will be materially unaltered with the proposal in place. The VSC results are reduced due to the insertion of the proposal, however, as demonstrated by the daylight distribution results, this will not adversely affect the actual daylit appearance of the rooms analysed. Therefore, it can be concluded that the daylight distribution to these properties is in accordance with the BRE Guidelines with the proposal in place and therefore in accordance with planning policy.

The windows facing towards the site do not face within 90° of due south and therefore do not need to be analysed according to the BRE Guidelines.



**Photo 8: 41-80 Holbrooke Court**

### **41-52 Parkhurst Road**

These properties are all fully compliant with the BRE Guidelines in terms of VSC and APSH with the proposal in place and therefore are in accordance with planning policy on daylight and sunlight.

### **57, 59, 61 & 63 Parkhurst Road**

All windows in these properties meet the BRE Guidelines in terms of VSC. There are two windows in 63 Parkhurst Road (W1 on first floor and W1 on second floor) which are understood to serve circulation space and therefore are not important in relation to daylight and sunlight.

Therefore, it can be concluded that these properties are compliant with the BRE Guidelines and thus planning policy on daylight and sunlight.



**Photo 9: 63 Parkhurst Road**

### **5. Internal Daylight & Sunlight Analysis**

The internal daylight and sunlight results for the proposal itself is included in Appendix 3, along with drawings 0970-76 to -87, showing the internal layouts and references to the results. The correct measure for daylight internal to new build accommodation is Average Daylight Factor (ADF) whilst that for sunlight is Annual Probable Sunlight Hours (APSH) both across the year as a whole and during the winter months (September 21st to March 21st). The BRE Guidelines make clear that only windows that face within 90 degrees of due south need to be analysed for

sunlight and that main living rooms are most important in relation to sunlight whilst bedrooms and kitchens are less important.

The internal daylight results show that there are 318 out of 364 rooms which meet the BRE Guidelines in terms of ADF i.e. 87.4%. Furthermore, of those few rooms that are not meeting the BRE Guidelines, almost all will be reasonably well lit for an urban location, slightly below the BRE Guideline criteria, as 108 out of 112 (96.4%) living rooms or living rooms/kitchens/dining rooms will achieve an ADF of above 1%.

It should also be noted that 107 out of 112 (95.5%) units will receive planning compliant levels of daylight in ADF terms to at least half the habitable rooms in the unit, indicating that the development has been well designed for internal daylight across the site. Of the five units that do not meet this criteria, three contain at least one room which meets the BRE Guidelines for ADF.

In terms of sunlight measured in terms of APSH, the BRE Guidelines make clear that main living rooms are of primary importance. The results show that 104 out of 112 (92.9%) living rooms meet the BRE Guidelines for APSH or are north-facing and so do not require analysis as per the BRE Guidelines.

Overall, therefore, the daylight and sunlight internal to the scheme is on the whole acceptable and in accordance with the BRE Guidelines, with a very small minority of rooms not meeting the BRE Guidelines. Furthermore, the vast majority of the units across the site will be well daylight and sunlit.

## **6. Sunlight Amenity Analysis**

Sunlight amenity analysis has been carried out on March 21<sup>st</sup>, as recommended by the BRE Guidelines, for each amenity space in and around the scheme. The results for this analysis are shown on drawing 0970-27 in Appendix 4. The results show that all amenity spaces within and around the site will be fully compliant with or sufficiently close to the BRE Guidelines, since they all maintain at least 50% of their area being able to see 2 hours of sunlight on March 21<sup>st</sup> except area 3, which maintains at least 2 hours of sunlight to 47% of its area, thus only slightly below the 50% considered ideal. In addition, it should be noted that the main amenity space internal to the U-shaped block in the scheme will maintain close to 100% of its area able to see 2 hours of sunlight on March 21<sup>st</sup>, indicating that this space will be very well sunlit on March 21<sup>st</sup>. Therefore, overall, the sunlight amenity for the scheme as a whole and to the surrounding vicinity is considered in accordance with local planning policy for shadow.

## 7. Changes in results from previous scheme

The daylight and sunlight results to the surrounding properties and internal to the scheme itself have improved from the original scheme submitted for planning. In particular, the revised scheme shows significant improvements to the levels of retained daylight and sunlight to the following properties:

- Holbrooke Court
- Moriarty Close properties

Internally there is a substantial improvement in the proportion of rooms meeting the BRE Guidelines for ADF rooms internal to the scheme itself. There are now 87% of the habitable rooms meeting the BRE Guidelines for ADF compared to 69% previously.

## 8. Planning Consultation Responses

The table below provides a list of planning objections received in relation to daylight and sunlight and a response to each of those objections, explaining why the scheme is planning compliant in relation to daylight and sunlight.

Objector	Objection	Response to objection
Gemma Daborn, Flat 3, Holbrooke Court (Tenants & Residents Association, Holbrooke Court)	“Amount of sunlight reaching our flats, communal garden & children’s play area being severely compromised”	All rooms within 1-24 Holbrooke Court meet the BRE Guidelines for sunlight. The reductions in sunlight from the existing position are generally very small and less than 4% of total annual sunlight (APSH). The Holbrooke Court flats will retain good levels of sunlight with the proposal in place and are compliant with planning policy. The sunlight amenity to the communal garden and play area comply with the planning guidelines.
Pauline Duffy, 61 Holbrook Road	“this block will cut out most, if not all, sunlight from our amenity area”	The sunlight to the grassed amenity spaces in and around Holbrooke Court will be fully planning compliant. The BRE planning guidelines seek to ensure that at least 2 hours of sunlight is enjoyed by 50% of each amenity space on March 21 <sup>st</sup> . Drawing number 0970-75 included in appendix 4 demonstrates that area 2, the closest and most likely to be affected grassed amenity space within the Holbrooke Court estate, will still enjoy 99.9% of its area receiving at least 2 hours of sunlight to 50% of its space on March 21 <sup>st</sup> , unchanged from the existing position. Therefore, the proposal is fully planning compliant in relation to sunlight to the grassed amenity spaces around Holbrooke Court.
Carla Sever, 62 Moriarty Close	Concern in relation to loss of sunlight	The Velux windows within the roof of 61-62 Moriarty Close do not face within 90° due south and so do not require analysis according to the BRE Guidelines. Therefore, following the BRE planning guidelines’ recommendations, there is no requirement

		in relation to sunlight for these windows and therefore there is no valid planning concern in relation to loss of sunlight to them.
Marian O’Gorman, 32 Moriarty Close	“this will impact on my privacy and natural daylight”	All rooms/windows within 31-36 Moriarty Close meet the BRE Guidelines in terms of daylight and sunlight and so are fully planning compliant.
Carolyne Hodkin, 49 Moriarty Close	“I cannot reconcile the Daylight & Sunlight report (page 11) with the figures on page 39-40”, “I have two windows directly affected”	<p>The report referred to by Carolyne Hodkin is dated 6<sup>th</sup> December 2013. This has been superseded by this report. The VSC results for the two windows to her flat facing the site, now referenced as W3 and W4 on the first floor, now retain 23.88% and 25.97% VSC respectively. Carolyne Hodkin confirms that the room is actually open plan, with an arch between the kitchen part of the room and the dining/living area. Hallways have no requirement for daylight or sunlight in planning terms. Although we acknowledge there is a reduction in VSC to windows W3 &amp; W4 facing the site, the daylight distribution results show that the whole room will be very well lit as 100% of its area will see the sky at desk height with the proposal in place, unchanged from the existing position. The BRE Guidelines also acknowledge that where there are a number of windows serving the same room, the VSC may be averaged to 27.8% VSC, above the 27% considered ideal by the BRE Guidelines, further demonstrating that the level of daylight to the rooms as a whole will remain good.</p> <p>In relation to the Children’s Day Centre, it is untrue to say that a 1-2% reduction beyond a 20% reduction is unacceptable. On the contrary, the BRE Guidelines acknowledge that where results are very close to the numerical guidelines, these are likely to be acceptable in an urban location. Indeed, the results demonstrate that the Children’s Day Centre will remain very well daylit with the proposal in place since all windows to main room meet the BRE Guidelines.</p>
John Carter, BVP	Letter from BVP dated 7 <sup>th</sup> February 2014	<p>In relation to 25-36 Moriarty Close, all windows facing the scheme have now been analysed. The upper and lower results for windows follow the BRE Guidelines recommendations for ADF, whereby the portion of the window below 85cm is deemed to have a lower contribution to ADF (15%) than the upper part above 85cm from the floor.</p> <p>The BVP report draws attention to ADF, however, the windows analysed in this building are fully compliant for VSC which is the primary test, above ADF, according to the BRE Guidelines and, as such, are fully compliant with the BRE Guidelines. Since the internal layouts are not known, this furthermore reinforces the need to analyse the VSC for this property, rather than results pertaining to room layouts such as ADF. The VSC results demonstrate, irrespective of the room areas, that the scheme is daylight compliant to this building.</p> <p>In relation to 42-60 Moriarty Close, as clarified in the above point to Carolyne Hodkin, she confirms that the rooms are open plan</p>

		<p>and therefore do enjoy mitigating daylight. It is therefore untrue, particularly in relation to Carlyne Hodkin’s flat, that the kitchen is reliant solely on W3 for daylight in our 7<sup>th</sup> February report. As clarified above, although we acknowledge there is a reduction in VSC to windows W3 &amp; W4 facing the site, the daylight distribution results show that each of these rooms served by windows W3-W5 will be very well lit as 100% of their area will see the sky at desk height with the proposal in place, unchanged from the existing position. The BRE Guidelines also acknowledge that where there are a number of windows serving the same room, the VSC may be averaged to 27.8% VSC, above the 27% considered ideal by the BRE Guidelines, further demonstrating that the level of daylight to the rooms as a whole will remain good (except on the ground floor, where the existing VSC is already low). We disagree, therefore, that there will be a significant adverse effect. In relation to the rooms facing south, these retain close to 100% of their daylight distribution, proving that these rooms will retain very good daylight penetration and will therefore be very well daylight with the proposal in place.</p> <p>The massing has been reduced from the time of the BVP report. The effect of overshadowing has indeed been fully covered in our report, since detailed sunlight amenity results are included in Appendix 4.</p> <p>Subsequent to the letter received from John Carter we have spoken to him and have requested the internal layouts for Moriatory Close. He has not provided these layouts.</p>
<p>Metropolis Report for Moriatory Close residents, dated February 2014</p>	<p>“5.14 The proposals for Blocks A &amp; B would result in a loss of amenity in terms of loss of sunlight and daylight and create an unacceptable sense of enclosure”</p> <p>“5.15 Development would have an adverse impact on its northern &amp; eastern boundaries – see shadow analysis in Appendix A”</p> <p>“5.20 The Applicant’s daylight and sunlight study incorrectly states the velux windows in 61-62 Moriatory serve bathrooms and corridors and the rear part of a through living area”</p> <p>“5.26 The layout of these flats rely on these windows to provide light to their kitchen areas. The proposed seven storey block will reduce the light to these windows and their outlook will be</p>	<p>As detailed above, the daylight and sunlight results to Moriatory Close are either fully compliant to the BRE Guidelines or sufficiently close to be considered acceptable given the flexibility allowed in the BRE Guidelines in urban locations. In particular, the daylight to 41-60 is proven acceptable by virtue of the very good retained daylight distribution results to all rooms, demonstrating that they will retain a very high level of daylight penetration, compliant with BRE Guidelines levels. In relation to 41-60, the BVP report confirms the Velux windows mainly serve bathrooms, which have no requirement for daylight and sunlight, or open plan space with mitigated light from away from the proposal.</p> <p>In relation to alleged overshadowing to the Children’s Day Centre playground, our sunlight amenity analysis confirms that the sunlight to this playground will be fully planning compliant, since it retains over half its area able to see 2 hours of sunlight on March 21st.</p> <p>Inevitably, in relation to internal sunlight to the proposal, it is usual for some units to face in a northern direction. In our opinion, the sunlight to the scheme itself is satisfactory and compliant with policy DM3.4.</p>

	<p>compromised”</p> <p>“5.29 A high proportion of units within Blocks A&amp;B propose living spaces served only by north or north-east facing windows.... Likely to receive less than adequate levels of sunlight given their relationship to 41-60 Moriarty Close and the boundary wall. As a consequence, many of the proposed flats will receive limited or no direct sunlight”</p>	
<p>Gerard Maguire, 29 Holbrooke Court</p>	<p>“Concerned regarding 6 storey front building, which would cause overshadowing and a loss of light. Mr Maguire is deaf and needs light to read etc.” “Holbrooke Court currently receives natural light which supports social/community activity amongst residents” “existing children’s play area would need new floodlighting to compensate for the loss of natural light”</p>	<p>The BRE Guidelines are designed to protect daylight and sunlight amenity to neighbouring buildings. Our daylight &amp; sunlight report demonstrates that the retained level of daylight with the proposal in place will either meet the BRE Guidelines in all cases or be sufficiently close to ensure that Mr Maguire will be materially unchanged in terms of reading ability within his premises.</p>
<p>Ishbel &amp; James Rose, 61B Parkhurst Road</p>	<p>"This concerns us as our main source of natural light will be diminished. This will affect our quality of life..."</p>	<p>The daylight and sunlight report submitted with the planning application included daylight and sunlight results for all rooms and windows facing the proposal within 61 Parkhurst Road. The results show that the scheme is fully compliant with the BRE Guidelines and thus planning policy to this property.</p>
<p>Leninha Maria De Assis, 63 Parkhurst Road</p>	<p>"It [the proposed development] takes our privacy and light., it causes shadow in the garden and to our windows"</p>	<p>The daylight and sunlight report submitted with the planning application included daylight and sunlight results for all rooms and windows facing the proposal within 63 Parkhurst Road. The results show that the scheme is fully compliant with the BRE Guidelines and thus planning policy to this property. The scheme is located primarily to the north of the rear garden to 63 Parkhurst Road and the sun tracks across the southern sky in the UK, thus meaning that the proposal cannot materially impact the rear garden at 63 Parkhurst Road in terms of additional shadow.</p>
<p>Marianne &amp; Paul Delon, 63 Parkhurst Road</p>	<p>"It has a huge impact on the light to our house and garden. Even the light analysis done by the developer shows up to 30% reduction in average daylight factor (ADF) and up to 38% loss of vertical sky component (VSC)."</p> <p>"We will be in shade practically all</p>	<p>The daylight and sunlight report submitted with the planning application included daylight and sunlight results for all rooms and windows facing the proposal within 63 Parkhurst Road. The results show that the scheme is fully compliant with the BRE Guidelines and thus planning policy to this property.</p> <p>The scheme has been reduced and set back in massing from the time of this objection. VSC is the primary test for acceptability of daylight and the results for the current scheme are now fully</p>

	<p>of the time, except for about 2 hours in the summer when the sun is high. There will be no sun in winter or mornings and evenings because the sun will be obscured by the high buildings."</p>	<p>compliant in relation to VSC (i.e. lose less than 20%). The ADF change is now very small and is less relevant.</p> <p>The scheme is located primarily to the north of the rear garden to 63 Parkhurst Road and the sun tracks across the southern sky in the UK, thus meaning that the proposal cannot materially impact the rear garden at 63 Parkhurst Road in terms of additional shadow. Therefore, the rear garden will not be in shade practically all the time and will see good levels of sunlight, particularly in the evening when it is unaffected by the scheme. The main obstruction to winter sunlight is the building at 63 Parkhurst Road itself. There is some additional morning shadow, however, the scheme is still fully compliant in relation to the BRE Guidelines and thus planning policy for shadow.</p>
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## 9. Conclusion

This is a daylight and sunlight report into the revised planning application proposal by AHMM Architects dated June 2014. It provides daylight and sunlight analysis for the surrounding properties, internal to the scheme itself and sunlight amenity analysis to the open amenity spaces both within and around the scheme.

The analysis is based on the methods laid out in the BRE Guidelines, used by planning officers to determine acceptability of daylight and sunlight.

The daylight and sunlight results have improved from the scheme massing originally analysed for the original planning application scheme. The height and depths of the blocks have been reduced and the overall results have thus further improved. We concluded that the original planning application scheme was acceptable in terms of daylight and sunlight and now this scheme improves on that already acceptable daylight and sunlight position.

The results for daylight and sunlight to the surrounding properties show all rooms and windows analysed will meet or be sufficiently close to the BRE Guidelines as to be acceptable with the proposal in place. As such, daylight and sunlight to the surrounding properties will be in accordance with local planning policy.

The internal daylight results show that there are 318 out of 364 rooms which meet the BRE Guidelines in terms of ADF i.e. 87.4%. Furthermore, of those few rooms that are not meeting the BRE Guidelines, almost all will be reasonably well lit for an urban location, slightly below the BRE Guideline criteria, as 108 out of 112 (96.4%) living rooms or living rooms/kitchens/dining rooms will achieve an ADF of above 1%.

It should also be noted that 107 out of 112 (95.5%) units will receive planning compliant levels of daylight in ADF terms to at least half the habitable rooms in the unit, indicating that the development has been well designed for internal daylight across the site. Of the five units that do not meet this criteria, three contain at least one room which meets the BRE Guidelines for ADF.

In terms of sunlight measured in terms of APSH, the BRE Guidelines make clear that main living rooms are of primary importance. The results show that 104 out of 112 (92.9%) living rooms meet the BRE Guidelines for APSH or are north-facing and so do not require analysis as per the BRE Guidelines.

In terms of sunlight measured in terms of APSH, the majority of living rooms which have windows that face within 90 degrees of due south will have at least one window which meets the BRE Guidelines for both total APSH and winter APSH.

The sunlight amenity results show that all open amenity spaces will meet or are sufficiently close to the BRE Guidelines' criteria. This shows that additional shadow caused by the scheme will be acceptable and in accordance with planning policy.

The report also provides responses to the daylight and sunlight concerns raised by the various consultees, explaining why in all cases the concerns are unfounded in planning terms and that the scheme is overall compliant with planning policy on daylight and sunlight.