



19 South Street, London

Daylight, Sunlight and Overshadowing Report – March 21

Version 2

Client: Sam Farmar

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1 Executive Summary

- 1.1 In relation to the Daylight and Sunlight effect of the Proposed Development upon the surrounding properties, the analysis demonstrates a high rate of compliance with the typical recommendations in the BRE Guidelines, particularly for a dense urban locality of this type.
- 1.2 Overall, 94% (67 out of 71) of habitable residential windows assessed (including small kitchens) meet the typical BRE Guidelines recommendations for VSC; 100% (54 out of 54) rooms meet the typical BRE recommendations for NSL; and 82% (14 out of 17) of windows relevant for Sunlight assessment meet the typical BRE Guidelines for APSH.
- 1.3 In the few instances where any Daylight and Sunlight effects occur to windows and rooms in surrounding properties that do not fall within the typical recommendations of the BRE, they only exceed the recommendations by a minor extent. This is in keeping with any dense urban context of this type where Daylight and Sunlight amenity is inherently more constrained, and so is considered to be readily within the flexible application of the BRE Guidelines, which the BRE themselves acknowledge is appropriate. Therefore, the Daylight and Sunlight effect of the Proposed Development on surrounding properties is considered to be minor.
- 1.4 The Overshadowing from the Proposed Development is disproportionately represented by the typical 21st March SOG analysis recommended by the BRE Guidelines, due to the dense urban locality and the inherently limited Sunlight availability in the Existing Situation. This renders the typical two-hour threshold for the SOG analysis suggested by the BRE unrealistic in this context.
- 1.5 As a result, the typical SOG analysis identifies effects occurring that are technically in excess of the generic recommendations in the BRE. However, a more detailed appraisal of the position shows that in practice any Overshadowing effect from the Proposed Development is relatively limited in duration and modest in extent, relating to a one-hour period in mid-morning in March. During the summer period there is no material effect from the Proposed Development and the surrounding amenity areas will continue to enjoy excellent Sunlight availability.

2 Scope of Report

- 2.1 Development & Light Consultancy Ltd (DLC) have been instructed to undertake a quantitative assessment of the Daylight & Sunlight effect of the current development proposals for 19 South Street, London W1Y 5PH, hereafter referred to as 'the Site', on the surrounding properties. DLC have also undertaken analysis of the Sunlight availability to the proposed courtyard within the development proposals. The Site is a mid-terrace property, located within the City of Westminster, on the northern side of South Street.
- 2.2 The Daylight and Sunlight assessment follows the methodology set out in the Building Research Establishment publication '*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice*' (Second Edition, published in 2011). Hereafter, this document is referred to as 'the BRE Guidelines'. The BRE Guidelines are the most recognised authority in the UK for undertaking Daylight and Sunlight assessments.
- 2.3 Our understanding of the development proposals is based upon the information provided by Totem Studio on 15 March 2021. This massing forms the subject of our Daylight and Sunlight assessment and hereafter will be referred to as 'the Proposed Development'. Drawings 043/01 to 043/06 in Appendix 1 illustrate the 3D digital model of the existing Site and surroundings and also our understanding of the Proposed Development.
- 2.4 The range of properties subject to our assessment have been defined by our professional judgement in consideration of the scale of the Proposed Development within the surrounding context and with reference to the parameters set out in the BRE Guidelines. The following surrounding properties have been identified as relevant for Daylight and Sunlight assessment for the purposes of this report (working clockwise around the Site):
- 17 South Street
 - 8 Rex Place
 - 10 Balfour Mews
 - 55 Park Lane (first floor and above)
- 2.5 The location of each of the properties listed above is shown on drawings 043/01 to 043/06 in Appendix 1.

3 Methodology

- 3.1 The analytical model used as the basis of our assessment has been created using measured survey information procured for the Site and surrounding properties relevant for assessment. The full sources of information used in the technical assessment are detailed on drawings 043/04 to 043/06 in Appendix 1.
- 3.2 We have undertaken research into the relevant surrounding properties to determine their likely internal configuration. In the absence of any substantive information regarding the configuration of rooms, we have made reasonable assumptions as to the layout behind windows. By necessity, assumptions are also made within the analytical model of the internal floor levels and internal window reveal details in each property. Our assumptions are based upon external observations, industry practices and any other relevant information that is available. The tables of results in Appendix 2 specify where room layouts and / or uses have been assumed or clarify the information they are based upon in the third column. Where properties experience any potentially sensitive losses of Daylight or Sunlight, the basis of our understanding of the internal configuration of the property is also expressly specified in the text of this report.
- 3.3 Using specialist software that follows the methodology set out in the BRE Guidelines, the existing levels of Daylight and Sunlight for each relevant window, room and amenity space ('the Existing Situation') are quantified and then compared to those with the Proposed Development in place ('the Proposed Situation'). The Existing Situation is depicted on drawings 043/01 to 03. The Proposed Situation shown on drawings 043/04 to 06.
- 3.4 It is important to recognise that the BRE Guidelines themselves acknowledge that they are not an instrument of planning policy and the numerical targets they identify should not be applied rigidly¹. Therefore, when interrogating Daylight and Sunlight effects it is essential to consider any effects within the context of the site, the density of the locality and any current or emerging development framework that may be relevant.

¹ Building Research Establishment, '*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice*', Second Edition, 2011, para 1.6, p.1

- 3.5 The Site is a mid-terrace property, within Zone 1 of central London. This is a very dense urban environment. The opposite side of South Street from the Site is occupied by large buildings, ranging from six to 10 storeys in height. To the rear (i.e., north) of the Site, there is a mews environment (i.e. Balfour Mews), by virtue of which there is typically less separation between the surrounding properties and any overlooking windows than a normal urban street scene. Given these characteristics, this is clearly a locality where there are inherently lower levels of, and a lower expectation for, natural light than anticipated by the generic recommendations in the BRE Guidelines. As per the recommendations of the BRE Guidelines directly referenced above, in this context it is therefore essential to adopt a flexible approach to their typical suggested numerical parameters for Daylight & Sunlight assessments.
- 3.6 The BRE Guidelines advise that Daylight and Sunlight effects should be considered sensitively primarily in relation to surrounding residential accommodation, or other buildings which are considered to have a reasonable expectation of Daylight or Sunlight amenity. Non-habitable space, such as corridors and bathrooms or toilets, are not considered sensitively within Daylight and Sunlight assessments. Where small kitchens exist that fall beneath the typical definition of a ‘habitable room’ provided in the GLA Housing SPG from March 2016², to maintain a comprehensive approach these are still included within the analysis, albeit they arguably could be considered to not be relevant for assessment. Any effects to these spaces are identified and considered separately.
- 3.7 The Daylight and Sunlight methodologies set out in the BRE Guidelines are generally two-stage tests, involving either achieving absolute target values or limiting relative change to within an acceptable margin. However, it is common for both the absolute levels of Daylight and Sunlight and also the relative change between the two scenarios in the assessment to be expressed in percentage units, which can lead to confusion. Therefore, for ease of interpretation in this report, we avoid reference to absolute levels of Daylight and Sunlight using percentage units and instead we express them as simplistic units of the relevant methodology – i.e. 27 VSC (rather than 27% VSC); 25 APSH (rather than 25% APSH) or 1.5 ADF (rather than 1.5% ADF) etc.

² Mayor of London *Housing – Supplementary Planning Guidance* (March 2016), para 1.3.19

Daylight

- 3.8 When considering potential Daylight effects to surrounding properties, the BRE Guidelines recommend two forms of assessment; namely, the Vertical Sky Component (VSC) and the No Sky Line (NSL). In simple terms, the VSC assesses the Daylight potential available on the external pane of a window and how this might alter following the implementation of the Proposed Development; and the NSL considers the distribution of Daylight within a room at working plane height and how the Proposed Development could affect this.
- 3.9 For the VSC assessment, the BRE Guidelines recommend a two-stage test. The first step focuses on an absolute target value of retained daylight potential (i.e. absolute VSC), which the BRE suggests should be 27 VSC. If the absolute target value of 27 VSC is not achieved in the Proposed Situation, then the relative change between the Existing Situation and Proposed Situation should be considered. The BRE typically suggests that the relative change between the two scenarios should be less than 20% (i.e. a ratio of more than 0.8).
- 3.10 Where possible, the NSL assessment should be considered in tandem to the VSC assessment and focuses purely on relative change. The BRE Guidelines again suggest that any relative change in NSL between the Existing Situation and the Proposed Situation should be less than 20% (i.e. a ratio of more than 0.8).
- 3.11 If both the VSC and NSL tests are satisfied, then the BRE Guidelines advise it is unlikely that the Daylight in the surrounding property will be significantly affected.

Sunlight

- 3.12 The Sunlight assessment recommended by the BRE Guidelines is the Annual Probable Sunlight Hours (APSH) method. Unlike the Daylight assessments, the APSH methodology is sensitive to the orientation of windows, as it focuses on those that face within 90° of due south. Furthermore, the assessment is also primarily focused on living rooms and conservatories, whereas kitchens and bedrooms are identified as being less important (but for the avoidance of doubt these rooms are still included in our assessment). The assessment establishes the Sunlight potential available to each window, both during the winter period and annually, in the Existing Situation and identifies how this would be altered in the Proposed Situation.

- 3.13 Similar to the VSC Daylight assessment, the APSH is also a two-stage test, based upon initial suggested absolute target values and thereafter considering the reduction that is caused. The BRE Guidelines' suggested absolute target values for APSH are 25 APSH annually, with at least 5 APSH during the winter period. If in the Proposed Situation these values are not achieved and the total absolute loss of APSH annually is also greater than 4 APSH, then the BRE Guidelines suggest the relative change between the Existing Situation and the Proposed Situation should be less than 20% (i.e. a ratio of more than 0.8).
- 3.14 If the APSH test is satisfied, then the BRE Guidelines advise it is unlikely that the Sunlight in the surrounding property will be significantly affected.

Overshadowing - Sun-on-Ground

- 3.15 In addition to the potential Daylight and Sunlight effects to windows in surrounding properties, the BRE Guidelines also recommend that the potential change in Sunlight availability should be assessed for any open spaces surrounding the development site which have a reasonable requirement for Sunlight amenity. Ordinarily, this includes gardens and amenity areas within the vicinity of a development site that have the potential to experience overshadowing from a proposed development.
- 3.16 The appropriate test for the loss of Sunlight potential to open spaces recommended by the BRE Guidelines is known as the Sun-on-Ground (SOG) assessment. The BRE Guidelines recommend that the SOG assessment should be undertaken on 21st March, being the equinox, to form a representative view of the Sunlight potential available to open spaces throughout the year. The SOG assessment is a two-stage test. Firstly, it is necessary to determine whether at least 50% of the open space will receive at least two hours of Sunlight with the Proposed Development in place. If this threshold is not met, then the relative change should be considered between the existing condition and when the Proposed Development is in place. The BRE suggests that the relative change between the two scenarios should be less than 20% (i.e. a ratio of more than 0.8).
- 3.17 If either of the two stages of the SOG test are satisfied when assessed on 21st March, then it is unlikely that the Sunlight availability to the open space will be significantly affected.

- 3.18 The BRE Guidelines suggest that it can also be helpful to consider the SOG test on 21st June to gain an understanding of the Sunlight availability during the summer period; although it should be noted that the 21st June assessment is the best case of minimum shadow. For winter shadows, the 21st December represents the appropriate date for assessment, although the BRE recognises during this period it is common for large areas of ground to be in shadow due to the low angle of the sun; and this position is of course accentuated in any urban locality.
- 3.19 Given the dense urban context of the Site and the inherently more limited Sunlight penetration between buildings, in this instance further SOG analysis has been undertaken on 21st June, in addition to the typical 21st March test, to provide an additional reference point. The 21st December SOG analysis has not been undertaken, as due to the density of the locality there is no material Sunlight penetration between buildings during this period in the Existing Situation. The Sunlight availability on 21st December is however considered within the Transient Shadow analysis (see below), which clearly illustrates the lack of any existing material Sunlight availability during this period.
- 3.20 When considering dense urban contexts such as this, the generic parameters of the BRE SOG assessment are arguably excessively linear and unrealistic; in that the typical assessment is derived to only measure those areas that record in excess of two hours of Sunlight availability, but does not register lesser levels of Sunlight availability. For example, any assessment areas recording between one and two hours of Sunlight availability would not register on the generic SOG assessment, albeit this may also provide some valuable Sunlight amenity, particularly within a dense urban context where Sunlight penetration is inherently more restricted.
- 3.21 Therefore, a more detailed SOG assessment has been undertaken for this report to aid in the consideration of the effect of the Proposed Development on the Sunlight availability to surrounding amenity areas within this dense urban context. Rather than considering only the proportions of surrounding amenity areas recording in excess of two hours of Sunlight availability, the assessment also breaks down the Sunlight availability below two hours to each surrounding amenity area into 15-minute increments. We consider that this provides a more informed basis to fully understand the effect of the Proposed Development within the context of this dense urban locality, where Sunlight availability is inherently more restricted.
- 3.22 The Transient Shadow assessment also provides a further helpful reference point to consider in tandem with the SOG assessment. This is discussed further below.

Overshadowing - Transient Shadow

- 3.23 In some cases, the BRE Guidelines suggest it can also be helpful to track the shadow cast by a potential development on the surrounding area at different times of the day and year. This is known as a Transient Shadow assessment. It entails simulating the shadows cast by the Proposed Development at hourly intervals on key dates of the year and comparing these with those shadows cast in the existing situation. As with the Sun-on-Ground assessment, the key dates used in this assessment are 21st March (equinox), 21st June (summer) and 21st December (winter).
- 3.24 The Transient Shadow assessment is a non-numerical assessment and is purely intended for illustrative purposes. Therefore, it should be viewed in conjunction with the numerical Overshadowing assessment – the Sun-on-Ground.

Daylight and Sunlight Assessment Results

- 3.25 Tables of results and drawings detailing each of the relevant forms of Daylight and Sunlight analysis are included in Appendix 2. The VSC Daylight analysis and the APSH Sunlight analysis, both of which primarily relate to the effect on windows, are expressed in the same table and are supported by window maps illustrating the location of each window detailed in the table of results. The NSL analysis, which relates to effects on rooms, is expressed in a separate table of results and is supported by the NSL contour drawings. The NSL contour drawings depict the layout of each room that has been assessed and the area receiving a view of the sky at working plane height in both the existing situation (green contour) and when the Proposed Development is in place (red contour); the shaded areas denote the part of the room experiencing a change in sky view.
- 3.26 The SOG analysis for surrounding open spaces is depicted on the drawings in Appendix 3. The drawings depict the Sunlight availability to each surrounding open space, measured in 15-minute increments up to 120 minutes (two hours), on 21st March and 21st June in the Existing Situation and the Proposed Situation. A colour-coded format is used to denote each of the increments, with a key provided that also details the relative proportion of the amenity area falling within each threshold under each scenario assessed. The change between the Existing Situation and the Proposed Situation is considered within the main body of this report.

4 Assessment Results – Daylight and Sunlight

- 4.1 All of the properties identified in the Scope section above have been assessed. Overall, the technical Daylight and Sunlight results for all properties assessed around the Site can be summarised as follows:

VSC:	67 out of 71 (94%) windows meet BRE
NSL:	54 out of 54 (100%) rooms meet BRE
APSH:	14 out of 17 (82%) windows meet BRE

- 4.2 The following properties are those in which all windows and rooms relevant for assessment meet the BRE recommendations in all cases for the VSC, NSL and APSH assessments:

- 8 Rex Place
- 55 Park Lane

- 4.3 Any Daylight and Sunlight effects to the windows and rooms within these properties are within the recommendations of the BRE Guidelines and therefore any effect to their Daylight and Sunlight amenity is considered to be negligible. No further commentary is provided in relation to these properties. The remaining two properties are considered in further detail below.
- 4.4 Results of the analysis and supporting window maps and NSL contour drawings are included in Appendix 2 for all properties. Any room and window references below tie in with those used in the tables of results and supporting information in Appendix 2. Any information acquired that has been used to inform our understanding of room configurations in surrounding properties is included within Appendix 4.

4.5 17 South Street



17 South Street – rear elevation (lower)



17 South Street – rear elevation (upper)

Use:	Residential
Internal configuration:	Partial floorplans, survey and access
VSC:	4 out of 5 windows meet BRE
NSL:	2 out of 2 rooms meet BRE
APSH:	N/A

- 4.5.1 This is the neighbouring three-storey property to the west Site. Our understanding of the internal configuration of this property has been informed by a combination of drawings from the planning portal relating to the second floor and survey plans covering some other areas of the building. Copies of this information are included in appendix 4. Further guidance has then also been provided in relation to the room uses and configuration of the lower floors by members of the project team who have had access to the property.
- 4.5.2 The main habitable rooms in this property are either located in the rear extension, facing north; or look out onto South Street and away from the Site. The other rear windows are either set back from the rear extension or face in an easterly direction over the Site, as shown in the photos above, and thereby have a view of the Proposed Development. Our information indicates that the east-facing windows at ground and first floor serve a hallway and landing, respectively; and the north-facing windows at first and second floors serve bathrooms. The north-facing window at ground floor serves a small kitchen. At second floor there is also a study, leading onto the terrace, which faces north and has partial view of the Proposed Development.
- 4.5.3 As per the Methodology section above, the Daylight effect of the Proposed Development has been assessed in relation to the habitable rooms with a view of the Site. These are the small ground-floor kitchen (ref Ground/R1 in the results and drawings in Appendix 2) and the second-floor study (ref Second/R1); albeit the size of the kitchen may in practice fall short of the definition of a 'habitable room' provided in the GLA Housing SPG from March 2016³. In accordance with the BRE methodology, any Sunlight effect to the north-facing windows in the kitchen and study is not relevant for assessment, due to their orientation. Drawing 043/09 in Appendix 2 illustrates the window positions in this property and identifies the references as used in the analysis.
- 4.5.4 In regard to the study (ref Second/R1), the analysis in Appendix 2 shows that all of the windows meet the typical recommendations of the BRE Guidelines for the VSC Daylight analysis and the room also meets the recommendations for the NSL analysis. The small kitchen (ref Ground/R1), comfortably meets the BRE recommendations for the NSL analysis, but records a relative change in VSC to its window (ref Ground/W1) of 25% from the Existing Situation, which is marginally in excess of the typical 20% relative change suggested in the BRE Guidelines.

³ Mayor of London *Housing – Supplementary Planning Guidance* (March 2016), para 1.3.19

4.5.5 In reality, the absolute change in VSC to the kitchen window caused by the Proposed Development is minimal, being less than 0.6 VSC, but this is expressed relatively as just over the typical 20% margin due to the lower existing value. There is also no material effect on the Daylight distribution within the kitchen by reference to the NSL methodology. As the VSC effect to the kitchen is only marginally beyond the typical BRE parameters, which is common for any urban environment, and the property meets the BRE Guidelines in respect of all other assessments, overall the Daylight and Sunlight effect to this property is considered to be minor.

4.6 10 Balfour Mews



10 Balfour Mews– south elevation (upper)



10 Balfour Mews– south elevation (lower)

Use:	Residential
Internal configuration:	Floorplans
VSC:	17 out of 20 windows meet BRE
NSL:	6 out of 6 rooms meet BRE
APSH:	13 out of 16 windows meet BRE

- 4.6.1 This residential property is located directly to the north of the Site and has south-facing windows between lower ground and second floors, and westerly-facing windows between ground and second floors that have a view of the Proposed Development. Our understanding of the internal configuration of this property has been informed by floorplans from a sales brochure that cover the full extent of the property. A copy of this information is included in Appendix 4.
- 4.6.2 Three of the south-facing windows serve non habitable space and consequently have not been subject to assessment. This relates to a utility room at lower ground floor, a small dressing area at first floor and a bathroom at second floor. All other windows and rooms in this property with a view of the Proposed Development have been subject to Daylight and Sunlight analysis. Drawings 043/07-08 in Appendix 2 illustrate the window positions in this property and identify the references used in the analysis.
- 4.6.3 In Daylight terms, the analysis shows that all but three windows assessed will meet the typical BRE recommendations for VSC and all of the rooms will meet the typical recommendations for NSL. The three windows that do not meet the typical BRE recommendations relate to a bedroom (ref Lower Ground/R2) and a media room (ref Lower Ground/R3), both at lower ground floor level. There are two windows serving each of these rooms of equal size and therefore the BRE suggests it may be more practical to consider the VSC effect by reference to the mean value between the two windows. On this basis, the bedroom (ref Lower Ground/R2) experiences a 23% relative change from Existing Situation; and the media room (ref Lower Ground/R3) a 25% relative change. Both rooms comprehensively meet the typical BRE recommendations for the NSL assessment.
- 4.6.4 As with 17 South Street, the absolute change in VSC to these three windows that is caused by the Proposed Development is small, being less than 2 VSC, but this is expressed relatively as just over the typical 20% margin due to the lower existing value. Again, there is also no material effect on the Daylight distribution within these rooms by reference to the NSL methodology. This type of effect is common for any urban environment where Daylight levels are inherently lower and therefore higher relative changes than the typical margins suggested by the BRE are to be expected. Given the effect to these two windows only exceeds the typical BRE recommendations by a margin of 5% (i.e. up to 25% rather than the typical 20%) and both rooms comprehensively meet the recommendations for NSL, the Daylight effect to this property is considered to be minor.
- 4.6.5 In regard to Sunlight, again the majority of the windows meet the typical BRE recommendations, but there are three that fall slightly short. In all three cases the individual windows affected are one of several windows serving three different rooms; and therefore it is appropriate to consider the Sunlight effect in terms of the cumulative levels to the relevant room, taking account of the Sunlight provided by the other windows too (this approach is recommended by the BRE Guidelines). The windows and rooms affected are as follows:

- First/W6 – Bedroom (First/R2)
- Upper Ground/W7 – Dining Room (Upper Ground/R3)
- Lower Ground/W6 – Media Room (Lower Ground/R3)

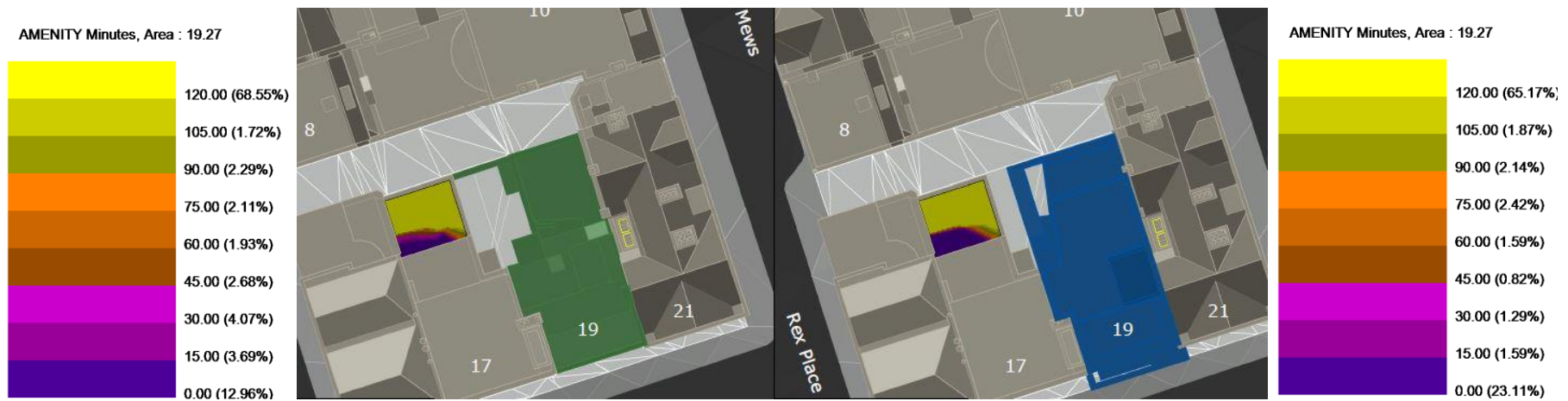
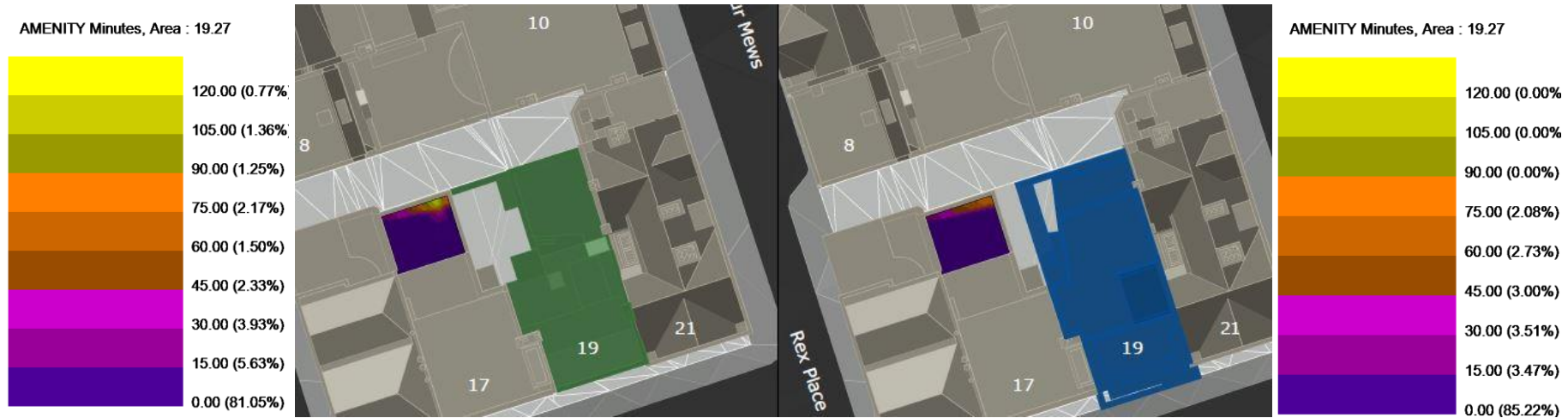
- 4.6.6 The first of these – the bedroom at first floor (First/R2) – records notably higher Sunlight potential than the typical absolute targets recommended in the BRE Guidelines with the Proposed Development in place. Therefore, whilst there is an isolated effect to one window in respect of winter Sunlight only, this is an anomaly and immaterial, as overall the room comprehensively meets the BRE recommendations.
- 4.6.7 The dining room at ground floor (Upper Ground/R3) also experiences an isolated effect to one of the six window panes serving the room. Overall the dining room still retains in excess of the typical absolute targets recommended by the BRE for annual Sunlight, recording 28 APSH rather than the BRE's suggested 25 APSH. However, as the room loses 1 APSH in the winter period and overall the total reduction in Sunlight potential to the windows is above the 4 APSH absolute margin suggested by the BRE – being in this case a 7APSH absolute change in total - the room technically falls short of the typical BRE recommendations. It is clear from the analysis that winter Sunlight potential to this property was minimal in the Existing Situation, as the analysis identifies only 1 APSH of winter Sunlight as currently being available to this room. As the absolute change is not substantial and overall the room retains in excess of the annual recommendations suggested by the BRE, the Sunlight effect to the dining room is considered to be minor.
- 4.6.8 The BRE Guidelines advise that when considering Sunlight effects to surrounding properties, the primary focus is on living rooms and kitchens, whereas bedrooms are less important. In this context, it is not clear that the media room at lower ground floor would necessarily be treated sensitively when considering Sunlight effects. The analysis in Appendix 2 shows that the winter Sunlight potential to the media room will be unaffected by the Proposed Development, but there is an absolute reduction to the annual Sunlight potential of 6 APSH, which is slightly above the suggested absolute margin of 4 APSH. However, the total relative change to this room is only slightly above the suggested 20% margin in the BRE, being 27%; furthermore, it still retains 16 APSH annually with the Proposed Development in place, which is relatively high for a lower ground floor room in a mews environment such as this. Given the dense urban context of the Site, the ambiguity as to the sensitivity of the media room and the fact that the relative change is only slightly above the suggested 20% margin, the Sunlight effect to this room is considered to be minor.

- 4.6.9 Therefore, while there are a few Daylight and Sunlight effects to this property that technically exceed the typical margins suggested by the BRE, these only exceed the recommended 20% relative change by a small margin that is typical for any dense urban context such as this. Overall, the Daylight and Sunlight effect to the windows and rooms in this property is considered to be minor.

5 Assessment Results - Overshadowing

- 5.1 The potential Overshadowing caused by the Proposed Development to any sensitive surrounding amenity areas or open spaces has been considered quantitatively via the Sun-on-Ground (SOG) assessment, as recommended by the BRE Guidelines.
- 5.2 As discussed in the Methodology section above, given the dense urban context of this Site and the inherently more limited Sunlight penetration between buildings, a more detailed SOG assessment has been undertaken in both March and June. This breaks down for each amenity area the Sunlight availability below the typical two-hour (120 minute) threshold into 15-minute increments. This analysis, in conjunction with the Transient shadow analysis, provides a comprehensive basis to understand the effect of the Proposed Development on the Sunlight availability to the surrounding amenity areas.
- 5.3 The surrounding amenity areas subject to consideration in respect of the overshadowing from the Proposed Development are as follows:
- 17 South Street – terrace, 2nd floor
 - 10 Balfour Mews – garden, ground floor
- 5.4 Both of these amenity areas are considered in detail below with reference to both the SOG and Transient Shadow analysis. Drawings detailing both forms of analysis are contained in Appendix 3. The key or relevant elements of the analysis are also additionally included below for ease of reference.

5.5 17 South Street – terrace, 2nd floor



- 5.5.1 The images above are taken from the SOG analysis drawings in Appendix 3. These provide a colour-coded interpretation of the Sunlight potential available to the second-floor terrace of 17 South Street in both the Existing Situation and the Proposed Situation, in March and in June. On the relevant side of each image is a breakdown of the numerical analysis of the Sunlight potential available to each proportion of the amenity area, in 15-minute increments.
- 5.5.2 The top image, from March, shows clearly how limited the current Sunlight availability is to the second-floor terrace in the Existing Situation, due to the dense urban context of this locality. Reference to the numerical results, which are shown above and also in the key of the drawings in Appendix 3, shows that in the Existing Situation over 90% of the terrace will receive less than 1 hour of Sunlight potential on 21st March, even though the terrace is at second floor level. This is a clear example of the limited Sunlight penetration between buildings in dense urban contexts, such as this.
- 5.5.3 The analysis identifies that in the Existing Situation 0.77% of the second-floor terrace in 17 South Street receives more than two hours of Sunlight potential (the typical numerical threshold recommended by the BRE) on 21st March. This tiny proportion of the amenity area registering two hours of Sunlight potential is considered to be de minimis and not representative of any material Sunlight amenity in real terms. This also shows the impracticality of only considering the generic two-hour Sunlight threshold suggested by the BRE for this context.
- 5.5.4 As the image above shows, there is no significant difference in March between the Existing Situation and Proposed Situation. Whilst there is technically a reduction to the two-hour Sunlight potential of the terrace, due to the tiny area receiving two hours of Sunlight potential (0.77%) being affected by the Proposed Development, as this is de minimis it is not considered to be material. On this basis, we do not consider the Proposed Development to cause any material change in Sunlight availability to the second-floor terrace in March.
- 5.5.5 The analysis in June, as shown by the bottom image, shows much improved Sunlight potential to the second-floor terrace in both the Existing Situation and the Proposed Situation. In both scenarios, the terrace records over 65% of its area receiving in excess of two hours of Sunlight potential during this period, which in practice is when the terrace is most likely to be used. The comparison between the Existing Situation and Proposed Situation also shows no material difference in Sunlight availability due to the implementation of the Proposed Development.
- 5.5.6 The Transient Shadow analysis provides further evidence on these points. This clearly shows the limited Sunlight availability to the second-floor terrace in March and the de minimis effect of the Proposed Development during both March and June.

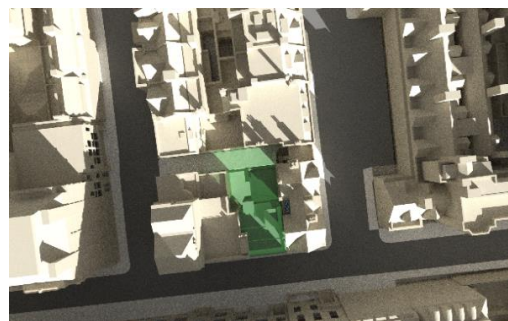
5.6 10 Balfour Mews – garden, ground floor



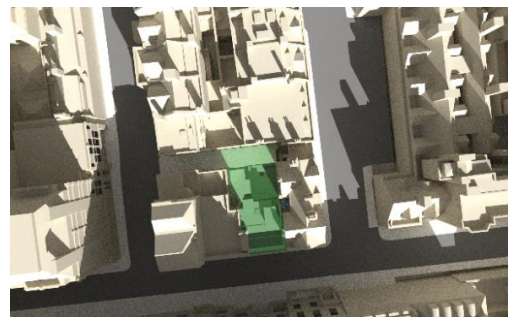
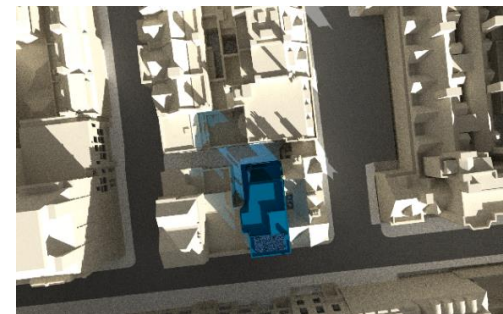
- 5.6.1 The results above and in Appendix 3 show that in the Existing Situation more than half of the garden of 10 Balfour Mews would receive no Sunlight potential at all on 21st March. 43.18% of the garden currently receives over one hour of Sunlight potential, with 31.57% of this receiving in excess of two hours (the generic BRE SOG threshold).
- 5.6.2 The Proposed Development does affect the Sunlight availability to the garden recorded by the SOG analysis in March. The results above show that the implementation of the Proposed Development would result in 40.01% of the garden receiving over one hour of Sunlight potential, with none of the garden receiving more than two hours of Sunlight (the generic BRE SOG threshold).
- 5.6.3 The analysis in June, as shown by the bottom image, shows much improved Sunlight potential to the garden and an identical position in both the Existing Situation and the Proposed Situation. In both scenarios, the garden records over 79% of its area receiving in excess of two hours of Sunlight potential during this period, which in practice is when it is likely to be most used.
- 5.6.4 Given the reduction to the area of the garden receiving more than two hours of Sunlight on 21st March, the effect of the Proposed Development does not meet the typical recommendations in the BRE Guidelines. However, this is not surprising, as the analysis of this property and 17 South Street in the Existing Situation, and also the Transient Shadow analysis in Appendix 3, clearly illustrate how unrealistic the generic BRE Guidelines SOG threshold is for dense urban localities of this type.
- 5.6.5 The BRE typically suggests that all amenity areas should have at least 50% of their area receiving at least two hours of Sunlight potential on 21st March; yet both of the amenity areas assessed record existing Sunlight availability that is already well below this threshold. In such instances, the generic SOG analysis recommended by the BRE can disproportionately reflect the position due to this constrained starting point, which is somewhat removed from the suburban context upon which the BRE Guidelines were predicated. Therefore, it is important to adopt a more forensic approach to understand the Overshadowing effect caused by the Proposed Development in detail.

5.6.6 When the SOG analysis is broken down into 15-minute increments and considered in detail, it shows that there is very little difference between the area of the garden receiving over one hour of Sunlight potential on 21st March under each scenario. As identified above, in the Existing Situation the proportion of the garden receiving more than one hour of Sunlight is 43.18%; whereas in the Proposed Situation it is 40.01%. This point is also reflected by the colour-coded images above, which show that in March extent of the brown-coloured area of the garden (indicating over one hour of Sunlight potential) in the Proposed Situation (top-right-hand image) is very similar to the yellow-coloured area (indicating over two hours) in the Existing Situation (top-left-hand image). This indicates that the effect of the Proposed Development equates to a loss of roughly one hour of Sunlight potential in March.

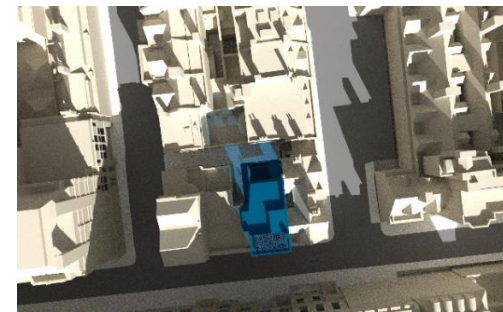
5.6.7 To consider this point further, it is helpful to also reference the Transient Shadow analysis in Appendix 3, which tracks the Sunlight availability to the garden and the shadows cast by existing obstructions in hourly intervals. The images below are lifted from the analysis in Appendix 3 for ease of reference.

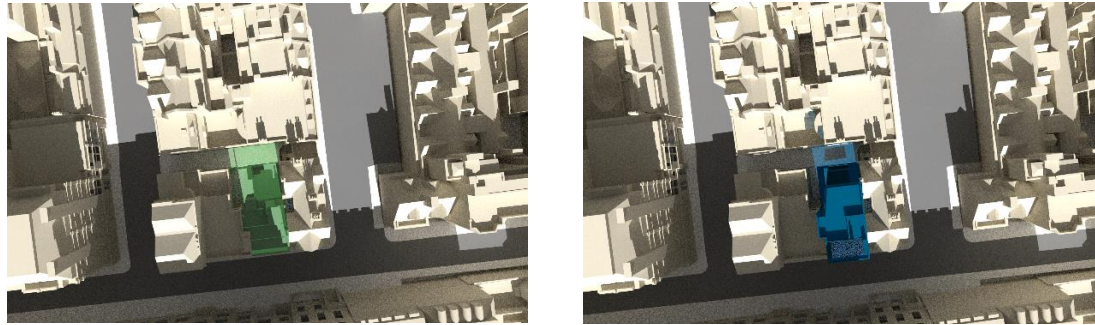


21st March – 09:00



21st March – 10:00





21st March – 11:00

- 5.6.8 The images above track the shadows cast by existing obstruction and also the Proposed Development between 9am and 11am on 21st March. The shadows cast by the Existing Building on Site are coloured in green, those of other existing obstructions in grey, and those of the Proposed Development in blue.
- 5.6.9 The images of the Existing Situation, shown on the left, clearly show that the garden of 10 Ballfour Mews will currently start to receive Sunlight at c.9am on 21st March. The images of the Proposed Situation, on the right, show that the shadow of the Proposed Development (coloured blue) will move past the garden by c.11am. Therefore, the period when the Proposed Development will cast shadow on the garden of 10 Balfour Mews is between 9am and 11am on 21st March.
- 5.6.10 However, as the images show, the effect of the Proposed Development does not endure for the whole of the window between 9am and 11am. At 9am most of the garden is already in shadow from existing obstructions; and by 11am there is minimal shadow from the Proposed Development remaining in the garden. Roughly 10am is the period when there is the worst-case effect of the Proposed Development. Therefore, on balance it seems that the material effect from the Proposed Development is likely to be between c.9.30am and 10.30am on 21st March. This will be the period when the area receiving over two hours of Sunlight availability in the Existing Situation (as identified by the SOG analysis) experiences additional shadow, causing the Sunlight potential to fall beneath the generic two-hour threshold but to generally remain above one hour in total, as identified by the detailed SOG analysis.

- 5.6.11 Therefore, whilst the generic SOG analysis on 21st March reflects a material change in Sunlight potential to the garden of 10 Balfour Mews that does not meet the typical BRE recommendations, more detailed consideration with reference to the incremental breakdown of Sunlight availability and the Transient Shadow analysis identifies that the effect of the Proposed Development is limited to a loss of one hour of Sunlight potential on 21st March, occurring between 9am and 11am.
- 5.6.12 On balance, this is actually a relatively modest and short-lived effect, but in technical terms it causes the garden to fall short of the generic two-hour threshold recommended by the BRE. However, the inherently limited Sunlight availability in this locality during this period (as shown by the analysis of the Existing Situation) renders the generic two-hour threshold for the SOG analysis suggested by the BRE unrealistic in this context. As a result, the generic SOG analysis disproportionately reflects what is in practice a loss of one hour of Sunlight availability, limited to the mid-morning period in March. During the summer period (i.e. 21st June analysis) there is no registerable effect from the Proposed Development whatsoever and the garden will continue to enjoy excellent Sunlight availability.