

Appendix 8.1

Planning Policy and Guidance

At present there is no specific legislation related to daylight, sunlight and overshadowing (DSO).

In terms of planning policy and guidance, the Proposed Scheme has been considered against the following key reference documents and best practice guidance:

- National Planning Practice Guidance ('NPPG'), 2021¹;
- National Planning Policy Framework ('NPPF'), 2021², in particular paragraphs 119, 124 and 125c) of Chapter 11 'Making Effective Use Of Land';
- Building Research Establishment (BRE) Report 209: 'Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice', Third Edition, 2022 ('the BRE Guidelines')³.

Key sections of a number of these relevant documents are set out overleaf.

NPPG (2021)

The NPPG states the following under its 'Effective Use of Land' guidance (Paragraph 007, Reference ID: 66-007-20190722):

"All developments should maintain acceptable living standards. What this means in practice, in relation to assessing appropriate levels of sunlight and daylight, will depend to some extent on the context for the development as well as its detailed design. For example in areas of high-density historic buildings, or city centre locations where tall modern buildings predominate, lower daylight and daylight and sunlight levels at some windows may be unavoidable if new developments are to be in keeping with the general form of their surroundings.

In such situations good design (such as giving careful consideration to a building's massing and layout of habitable rooms) will be necessary to help make the best use of the site and maintain acceptable living standards."

¹ Ministry of Housing, Communities and Local Government. National Planning Practice Guidance. 2021.

² Ministry of Housing, Communities and Local Government. National Planning Policy Framework. 2021.

³ Building Research Establishment. Report 209: Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice. Third Edition. June 2022.

NPPF (2021)

The NPPF gives guidance at government level and is a material consideration in planning decisions. Chapter 11 of the NPPF relates to 'Making effective use of land'. At paragraph 119 it states:

"Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land."

Paragraph 124 goes on to note that:

"Planning policies and decisions should support development that makes efficient use of land, taking into account:

a) the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it; ... d) the desirability of ... promoting regeneration and change."

It recommends that local planning authorities take a 'flexible approach' when applying daylight and sunlight guidance to planning applications. Paragraph 125, section c) states that:

"Local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."

In summary, the NPPF aims to ensure that daylight and sunlight matters are not limited to an overly simplistic technical exercise against the default BRE Guidelines recommendations without due regard for the current and future physical and planning context.

The BRE Guidelines (2022)

The daylight, sunlight and overshadowing assessments undertaken in support of this report are based upon the methodologies set out in the 2022 Building Research Establishment (BRE) – *'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice'* ('the BRE Guidelines'). It provides methods for calculating the impact on light received by neighbouring buildings and amenity space, as well as the provision of light amenity provided within new scheme.

The BRE Guidelines are not fixed standards but should be applied flexibly to take account of the specific circumstances of each case. Its introduction notes:

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design... In special circumstances the developer or planning authority may wish to use different target values." (1.6)

The flexibility it advocates should reflect the particular characteristics of each case under consideration. It is important to bear in mind that the default numerical targets within the BRE Guidelines are largely based on a low-density suburban housing model. Therefore, it may be entirely appropriate to apply different values, especially where the general scale of obstruction will inevitably be greater. For example, when dealing with large-scale developments in dense urban environments, or where there is a planning aspiration to deliver increased densities in areas with low levels of existing obstruction. In such circumstances, achieving the initial BRE values would be very challenging and conflict with other beneficial factors in site layout design. This is further acknowledged in the introduction of the guidance, which notes that *"in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings"* (1.6).

This does not mean that the recommendations and targets within the guidance should be disregarded, but instead applied with careful consideration of each site and its specific constraints. Otherwise, rigid adherence to the BRE recommendations could easily result in an inappropriate form of development. This is acknowledged at section 2.2 of the guidance, under 'Existing Buildings':

"Note that numerical values given here are purely advisory. Different criteria may be used based on the requirements for daylighting in an area viewed against other site constraints."

Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light." (2.2.3)

Suggested approaches for using alternative target values are provided within Appendix F of the BRE guidelines, where it confirms that *"different targets may be used, based on the special requirements of the proposed development or its location"* (F1).

The above in mind, it is also important to consider the effect on daylight, sunlight and overshadowing in terms of the quantum of light that will be left, rather than simply focusing on percentage alterations in the existing levels; a 'noticeable' alteration may nonetheless be considered acceptable.

Furthermore, the inherent design constraints of surrounding buildings can also be a key factor, making windows and rooms particularly sensitive and exaggerating the effect of new scheme. For example, where rooms are greater than 5m in depth and lit from only one side, the guidance recognises that *"a greater movement of the no sky line may be unavoidable"* (2.2.12). And if windows are set beneath balconies, are

recessed or located adjacent to projecting wings, the BRE acknowledges that *'even a modest obstruction opposite may result in a large relative impact'* (2.2.13).

Existing Neighbouring Buildings & Amenity Space

For daylight and sunlight, Section 2.2 of the BRE Guidelines outlines preliminary tests for determining whether the potential effect on a surrounding building's light may require more detailed technical assessment. For neighbouring property directly facing proposed new scheme, the guidance suggests the use of its preliminary '25°-line test':

"If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected." (2.2.23)

For the assessment of neighbouring windows located directly adjacent to proposed scheme, the BRE Guidelines suggest application of the '45°-line approach' instead:

"Take the elevation of the window wall and draw diagonally down at an angle of 45° away from the near top corner of the extension... Then take the plan and draw diagonally back at an angle of 45° towards the window wall from the end of the extension... If the centre of a main window of the next-door property lies on the extension side of both these 45° lines then the extension may well cause a significant reduction in the skylight received by the window." (2.2.17)

If a proposed scheme does not meet the above preliminary tests, a more detailed technical assessment is likely to be required.

There are three detailed methods for calculating daylight recommended in the BRE Guidelines: the Vertical Sky Component (VSC), the No-Sky Line Contour (NSL) and the daylight illuminance or daylight factor tests for daylight within new scheme. The VSC and NSL are intended for the assessment of existing buildings. The daylight illuminance and daylight factor assessments are principally designed for use in new scheme, as outlined within BS EN 17037 'Daylight in Buildings'. For sunlight, the Annual Probable Sunlight Hours (APSH) method is also provided for existing buildings.

The key methodologies relevant to the site and undertaken against the proposed scheme are now set out below.

Daylight

The VSC assessment measures the amount of skylight received on a vertical wall or window, following consideration of any visible obstructions e.g. other buildings and boundary walls. It is calculated from the centre of a window on the outside face. The maximum VSC value is almost 40% for a completely unobstructed

vertical wall or window. One of the inevitable shortcomings of the VSC is that it does not take account of the size of the window or the size or use of the room served by the window.

The NSL assessment measures the distribution of daylight within a room at the horizontal 'working plane' i.e. desktop height (BRE guidance suggests using a working plane height of 0.85m for residential properties). The NSL plots those areas of the working plane which receive direct sky light from those which cannot. This therefore represents those parts within the room where the sky can be seen through the window. This second methodology takes account of both the number and size of windows serving a room. It also takes account of the dimensions of the room and therefore, is most reliable when the actual internal layouts are known.

For the above daylight tests, the BRE Guidelines suggest that existing daylight may be noticeable/adversely affected if either: windows achieve a VSC below 27% and are reduced to less than 0.8 times their former value; or the existing levels of NSL within the rooms are reduced to less than 0.8 times their former values.

As noted, the above VSC and NSL criteria should be applied flexibly and in view of the specific site constraints. For example, where existing light levels are low, even very small light losses can translate into large relative or 'percentage' alterations; however the perceptible change in daylight may in reality be negligible to the occupants. Equally, where there are low levels of existing obstruction and planning aspirations for increased levels of development, greater effects on daylight and sunlight may be inevitable. This does not mean that retained light levels will necessarily be unacceptable, or out of character, with prevailing levels experienced around such scheme. As noted above, Appendix F of the BRE Guidelines provides examples of alternative targets.

Alternative target values have also been accepted as appropriate in assessing major schemes in dense urban environments, including in London, as illustrated by the Whitechapel Estate appeal decision in November 2018 (Ref: APP/E5900/W/17/3171437). In that case, the inspector overturned the Local Authority's reasons for refusal and determined to grant planning permission, commenting on daylight and sunlight as follows:

"112. The figures show that a proportion of residual Vertical Sky Component ('VSC') values in the mid-teens have been found acceptable in major developments across London. This echoes the Mayor's endorsement in the pre-SPG decision at Monmouth House, Islington that VSC values in the mid-teens are acceptable in an inner urban environment. They also show a smaller proportion in the bands below 15%. Even if there were some discrepancy in the appellants' figures for this lower band at Whitechapel Central, which is disputed, the VSC outcomes for the appeal proposal would in general be very similar to those of the other major schemes. The appeal proposal would therefore appear to be in compliance with the LP as amplified by the SPG and as it is being interpreted by the Mayor. The GLA responses to the planning application did not raise any concern about neighbours' amenity."

"113. I acknowledge that a focus on overall residual levels could risk losing sight of individual problem areas. It is accepted that light is only one factor in assessing overall levels of amenity, but I consider that

the trade-off with other factors, such as access to public transport or green space, is likely to be of more relevance to an occupier of new development than to an existing neighbour whose long-enjoyed living conditions would be adversely affected by new buildings. However, I also consider that Inner London is an area where there should generally be a high expectation of development taking place. This is particularly so in the case of the appeal site, where the WVM [Whitechapel Vision Masterplan] and the OAPF [Opportunity Area Planning Framework] have flagged the desirability of high density development. Existing residents would in my view be prepared for change and would not necessarily expect existing standards of daylight and sunlight to persist after development."

"125. I conclude that the proposal would result in some significant individual reductions in daylight and sunlight levels, but that this is almost unavoidable in achieving the policy requirement for high density development in a confined urban setting. The new buildings would for the most part be comparable in height with the existing and would re-define traditional street frontages. Retained levels of daylight and sunlight would be adequate and comparable with existing and emerging urban conditions. The effects would appear very comparable with those recently allowed by the Council at Whitechapel Central. There would be minimal adverse losses of outlook and increases in overlooking. Taken as a whole, the proposal would not result in unacceptably harmful effects on living conditions and would comply with the development plan in this respect."

Where existing light levels are low, it is also important to recognise that even very small light losses can translate into large relative or 'percentage' alterations, but the perceptible change in daylight may in reality be negligible to the occupants; or where there are low levels of existing obstruction and planning aspirations for increased levels of development, greater effects on daylight and sunlight are likely to be unavoidable. It is also important to note whether existing and proposed buildings have specific design features (such as projecting balconies, deep recesses, bay windows etc.) that can make them more susceptible to light changes. In that context greater effects may be unavoidable and flexibility should reasonably be applied, as acknowledged by the BRE.

Sunlight

For sunlight, the APSH test calculates the percentage of probable hours of sunlight received by a window or room over the course of a year. With regard to existing adjacent properties, only those windows orientated within 90° of due south and which overlook the site require assessment. The main focus is on living rooms, with bedrooms and kitchens deemed less important.

The guide suggests that the sunlight to existing dwellings may be adversely affected if the APSH to main living rooms is less than 25% annually, or less than 5% during winter, and reduced to less than 0.8 times its former value; with a loss of sunlight over the whole year greater than 4% APSH in real terms. Therefore, if any of these criteria are met, the BRE Guidelines are deemed to have been satisfied for the purposes of this report.

Overshadowing

The BRE Guidelines note that good site layout planning for daylight and sunlight should not be limited to providing good natural lighting within buildings and makes recommendations concerning sunlight received by amenity spaces between buildings. Amenity spaces relevant for considerations may include main back gardens of houses, allotments, parks and playing fields, children's playgrounds, outdoor swimming pools, sitting-out areas, such as in public squares and focal points for views, such as a group of monuments or fountains.

Where sunlight to neighbouring amenity spaces may be affected by new scheme, the BRE Guidelines recommend that an overshadowing assessment is conducted. The key analysis is the '2hrs sun contour' test, which compares the proportion of an amenity area (e.g. rear gardens, parks and playing fields, public squares etc.) receiving at least 2hrs of sun on the 21st of March in the existing and proposed condition.

The BRE recognises that different types of amenity space may have different sunlighting requirements and therefore, it is hard to provide a definitive rule. However, the guidelines suggest that a check may be undertaken, to see if at least 50% of an amenity area should receive 2hrs of sun after the scheme is in place; or if below this level, whether it retains at least 0.8 times the former value (i.e. no more than 20% loss of the existing level). If these are not met, the loss of sunlight is likely to be noticeable and the *"amenity area will tend to look more heavily overshadowed"* (3.3.11).