

15 Daylight & Sunlight

15.1 Introduction

15.1.1 This chapter of the ES assesses the likely significant effects of the 2018 Application Scheme with respect to daylight and sunlight.

15.1.2 The daylight, sunlight, and overshadowing conditions within the proposed residential units of the 2018 Application Scheme are set out within a separate report, which accompanies the planning application submission titled 'Light Within Report (October 2018).

15.2 Policy Context

15.2.1 This section reviews the existing national, regional and local planning policy, legislation and guidance relevant to the daylight, sunlight and overshadowing aspects of the 2018 Application Scheme.

National Planning Policy

Overview

There is no current, specific national planning policy or legislation relating to developments and their potential effects on daylight, sunlight and overshadowing. National Planning Policy Framework (2018)

15.2.2 The National Planning Policy Framework (NPPF) (Ref. 15-2) is the key national planning policy relevant to the Development. The NPPF stipulates at paragraph 123:

“Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities and ensure that developments make optimal use of the potential of each site. In these circumstances:

...

(c) 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”.

Planning Practice Guidance (2014)

15.2.3 Whilst the Planning Practice Guidance (PPG) refers to daylight and sunlight amenity, when considering development proposals, it is normal to have regard to 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice (Second Edition) (referred to as the BRE guidelines) (Ref. 15-3), as discussed below.

Regional Planning Policy

Mayor's London Plan (2016)

15.2.4 The Mayor of London's 'London Plan – The Spatial Strategy for London Consolidated with Alterations since 2011' (March 2016) (Ref. 15-4) sets out the spatial development strategy for

London. It forms part of the development plan for Greater London, along with local plans of the London boroughs. 'Minor Alterations to the London Plan' were published in 2015 and 2016.

15.2.5 However, the draft new London Plan (GLA) was published by the Mayor for consultation in December 2017. The consultation period ended in March 2018 and a report is being prepared to summarise the main issues. On 13 August 2018 the Mayor published a version of the draft Plan that includes his minor suggested changes. The relevant amended policies are set out below:

15.2.6 Policy D4 Housing quality and standards:

"The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

a. Policy H2 Small sites and small Housing developments states at **paragraph 4.2.8** that:

"Small housing developments are envisaged to be within close proximity to existing homes. These should be carefully and creatively designed to avoid an unacceptable level of harm to the amenity of surrounding properties in relation to privacy, for example through the placement and design of windows and the use of landscaping. Environmental and architectural innovation should be supported, and schemes should achieve good design and ensure that existing and proposed homes benefit from satisfactory levels of daylight and sunlight."

Mayor's Housing Supplementary Planning Guidance

15.2.7 The Mayor of London's 'Housing Supplementary Planning Guidance' (March 2016) (Ref. 15-5) provides guidance on how to implement the housing policies in the London Plan and replaces the 2012 edition.

15.2.8 Part 1 of the Supplementary Planning Guidance (SPG) covers housing supply and sets out the Mayor's approach to optimising housing output. In relation to the effect on daylight and sunlight to surrounding properties it advises:

"Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties ... Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time."

"The degree of harm on adjacent properties ... should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced, but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm."

Local Planning Policy and Guidance

15.2.9 The LBS's current planning policies contain several references to daylight and sunlight, overshadowing and residential amenity. The New Southwark Plan, which is currently in consultation, will be a new borough-wide planning and regeneration strategy up to 2033. Once finalised and adopted, it will replace the saved Southwark Plan policies and the Core Strategy. The proposed new policies include the following:

“P12: Design Quality

Development must provide:

...1.3 Adequate daylight, sunlight, outlook and a comfortable microclimate for new and existing neighbouring occupiers;”

London Borough of Southwark (2011): Core Strategy

15.2.10 Whilst Southwark’s current Core Strategy (2011) (Ref. 15-6) does not specifically refer to daylight and sunlight, it states that:

“the height and scale of development is an important consideration in creating attractive and distinctive places. English Heritage and CABI have produced guidance on tall buildings, which has been endorsed by the Government. This advises that in the right place tall buildings can make positive contributions to places.”

London Borough of Southwark (2007): Saved Southwark Plan policies

15.2.11 Several policies were saved in April 2013 from the Southwark Plan (Ref. 15-7), several of which refer to daylight and sunlight. Policy 4.2 (Quality of Residential Accommodation) provides that:

“planning permission will be granted for residential development including dwellings within mixed-used schemes, provided that they achieve good quality living condition; and high standards of natural daylight and sunlight.”

15.2.12 The reason being, good quality housing is necessary to provide for the accommodation needs of the borough, while also meeting the health, safety, quality of life and amenity needs of current and future residents.

15.2.13 Regarding urban design, Policy 3.13 provides that:

“consideration must be given to the height, scale and massing of buildings – designing a building that is appropriate to the local context and which does not dominate its surroundings inappropriately”.

15.2.14 Therefore, it is vital to take the principles of urban design into consideration when designing new development to ensure that the new development fits within its environment.

London Borough of Southwark (2011): Residential Design Standards SPG

15.2.15 **Section 2.7** daylight and sunlight of the Residential Design Standards SPG (October 2011) (Ref. 15-8), states that:

“residential developments should maximise sunlight and daylight, both within the new development and to neighbouring properties. Development should seek to minimise overshadowing or blocking of light to adjoining properties.”

15.2.16 The SPG quotes the Building Research Establishment (BRE) Site Layout for Daylight and Sunlight – A Guide to Good Practice (1991) and details the various daylight and sunlight minimum tests to be applied to avoid the unacceptable loss of daylight and/or sunlight resulting from a development. Regarding overshadowing it is stated that developments should seek to minimise overshadowing or blocking the light to adjoining properties. In addition, “care must be taken so that private amenity space such as roof terraces and balconies does not adversely affect neighbouring residents’ privacy or sunlight”.

London Borough of Southwark (2007): (Layout) of the Design and Access Statements SPG

15.2.17 **Paragraph 4.1.3** (Layout) of the Design and Access Statements SPG (2007) (Ref. 15-9), provides that

“it is important, particularly for residential developments, to maximise good sunlight and daylight and passive solar heating, and to take advantage of interesting views. The Application Site layout can affect the microclimate.”

Other Relevant Policy, Standards and Guidance

Building Research Establishment Handbook: Site Layout Planning for Daylight and Sunlight 2011: A Guide to Good Practice (Second Edition) (BRE Guidelines) (2011)

15.2.18 Detailed guidance on daylight, sunlight and overshadowing was published by the BRE in 2011. The daylight, sunlight and overshadowing assessments have been undertaken in accordance with the methodologies and numerical guidelines recommended in the BRE Guidelines.

15.2.19 Whilst the BRE Guidelines does not rule out the assessment of non-domestic buildings such as offices / commercial accommodation, local authorities are principally concerned with the impact to residential properties and in particular ‘habitable rooms’ within these. A more detailed explanation of the BRE Guidelines can be found in the BRE Guidelines note which is enclosed at Appendix J, provided in ES Volume III: Technical Appendix M.

15.2.20 The BRE Guidelines provide guidance on site layout to retain good daylighting and sunlighting in existing surrounding buildings. Whilst the guidelines are intended for use by designers, consultants and planning officers and give numerical guidelines, the advice given is not mandatory and should not be used as an instrument of planning policy. The introduction section of the BRE Guidelines states that “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 light is only one of many factors in site layout and design.”

15.2.21 The Guidelines further state:

“...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 the Application Site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, 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” (Section 1, Paragraphs 6).

15.2.22 Based upon these statements, it is important to apply the guidance sensibly and flexibly considering the context of the Surrounding Area. This is particularly important given the density of this urban location, with the Application Site identified for high density residential development.

The British Standard 8206-2:2008

15.2.23 The British Standard 8206-2:2008 ‘Lighting for buildings – Part 2: Code of practice for daylighting’ cites (Ref. 15-10) the BRE Guidelines as being a source of “guidance regarding the loss of light to existing buildings following construction of a proposed new development”. Therefore, when assessing the neighbouring receptors, the BRE guidelines to methodology have been applied as described at **section 14.6** below.

15.2.24 Guidance is also given within the Historic England (formerly English Heritage) / Commission for Architecture and the Built Environment (CABE) Guidance on Tall Buildings (Ref. 15-1). **Paragraph 4.1.9** of this guidance recommends that the following criteria should be addressed:

“The effect on the local environment, including microclimate, overshadowing, night-time appearance, vehicle movements and the environment and amenity of those in the vicinity of the building.”

15.3 Methodology

15.3.1 The impact assessment (the Assessment) was undertaken using computer modelling and simulation, the methodology for which is described below.

15.3.2 Data on existing and surrounding buildings was collated from the following sources:

- MBS Survey Software Ltd. 3D laser scan survey model dated 01.11.2016
- MBS Survey Software Ltd site photos dated 01.11.2016
- Aerial photography from Microsoft Bing dated accessed 12.09.2018

15.3.3 Information about the 2018 Application Scheme was collated from Rolfe Judd Architect’s 3D sketch up model ‘SCHEME4_MSR-RJA-SW-3D-A-0002 received 12.09.2018

Methodology for Determining Baseline Conditions and Sensitive Receptors

Extent of the Study Area

15.3.4 Southwark Council’s planning policy focuses on safeguarding daylight and sunlight to residential buildings. Furthermore, the BRE Guidelines consider that residential properties have the highest requirement for daylight and sunlight. Therefore, this chapter primarily considers the impacts to any such buildings which surround and face the Application Site. In addition to the residential properties, Space Studios at 90 Haymerle Road has been included in the analysis, on the basis that the sensitivity of this receptor is low/medium in its current use as artist studios.

15.3.5 The uses of the surrounding properties have been established from external observation as well as undertaking Valuation Office Agency (VOA) checks. A number of residential properties have been identified.

15.3.6 The preliminary 25-degree and 90-degree tests described within BRE Report 209 and summarised below at **paragraphs 14.6.23** and **14.6.30** have also been applied in order to determine those sensitive receptors which require daylight and sunlight consideration. The existing properties (the Properties) identified as requiring consideration by the application of these tests are listed within **Table 15.1** below and are illustrated on the plan ROL7034_12_004 at **Appendix 15.1**.

Table 15.1: Existing Receptors Considered within the Assessment

Address	Daylight	Sunlight
54, 56, 90 and 92 Latona Road	Yes	No
Denstone House	Yes	No

Address	Daylight	Sunlight
Ednam House	Yes	No
Greystoke House	Yes	Yes
Northfield House	Yes	Yes
18 – 24 Peckham Park Road	Yes	Yes
Space Studios, 90 Haymerle Road	Yes	Yes

- 15.3.7 The existing residential receptors considered for the assessment of the likely significant effects of the 2018 Application Scheme are listed above.
- 15.3.8 There are two committed schemes considered as part of the Cumulative Scenario for daylight and sunlight analysis.
- 15.3.9 The first committed scheme is Nye’s Wharf application reference 17/AP/4596. The second committed scheme scoped into the Cumulative Scenario is at 49-53 Glengall Road application reference 17/AP/4612. These two schemes are considered due to their proximity to the 2018 Application Scheme and the likelihood of them impacting the daylight and sunlight levels within the existing sensitive receptors.
- 15.3.10 These schemes will be considered as part of a Cumulative Scenario to assess the cumulative impact on the existing surrounding receptors.
- 15.3.11 Additionally, we have quantified the light levels within the committed schemes with the 2018 Application Scheme in place (i.e. in the Cumulative Scenario). The 2018 Application Scheme may begin construction before or at the same time as these two committed schemes and both committed scheme developers are aware of the 2018 Application Scheme coming forward. The light levels within the committed schemes have therefore not been tested in the Existing Scenario as future occupants are unlikely to experience these light levels.

Research for internal building layouts

- 15.3.12 The room uses and layouts have a bearing on the significance of the effects on daylight and sunlight. Research was undertaken on LBS’s online planning portal and additionally on estate agent websites such as Rightmove and Zoopla to obtain floor plans of the relevant properties, where possible. The effective date of our research is 5 September 2016 and floor plans were obtained for the following properties:
- Northfield House: Council Planning website - App No 09CO0103 – all drawings. Supplemented by estate agent’s plans from Right Move online website - <http://www.rightmove.co.uk/house-prices/SE15/Peckham-Park-Road.html>
 - Greystoke House: Council Planning website - App No 15AP2901 - drawing no. Theec4f
 - Denstone House: estate agent’s plans from Right Move online website
 - <http://www.rightmove.co.uk/house-prices/detail/Matching.html?prop=39358899&sale=4367854&country=england>
 - <http://www.rightmove.co.uk/property-for-sale/property-34212384.html>
 - <http://www.rightmove.co.uk/property-for-sale/property-54240728.html>

- 18-24 Peckham Park Road: Council Planning website - App No 15AP1593 - 24 Peckham Park Road – drawing no. The3958, and App No 11AP3065 - 24-22 Peckham Park Road – drawing no. The700c, The7003, The7006 and The7009
- Space Studios, 90 Haymerle Road: received from GIA 11.01.2017 drawing ref. 662-P01C, 662-P02D and 662-P03D

15.3.13 Where plans were not available, the internal layouts adopted in the Assessment have been based on assumptions (where possible from external observation). The internal dimensions are only relevant to the daylight distribution test (the second method of daylight analysis); however, in the absence of suitable plans, estimation is the conventional approach.

Scenarios Considered

15.3.14 The objective of the assessment is firstly to determine the effect of the 2018 Application Scheme on the daylight and sunlight levels within the surrounding residential properties and in particular the habitable rooms within them.

15.3.15 The following scenarios have been considered within this chapter:

- Baseline Scenario
- Development Scenario
- Cumulative Scenario

15.3.16 The Baseline Scenario consists of the Application Site in its existing condition and the neighbouring existing sensitive receptors and considers the daylight and sunlight currently being received. This scenario is illustrated on drawings ROL7034_V12_001, 002 and 003 at **Appendix 15.1, Volume 3**.

15.3.17 The Development Scenario considers the potential daylight and sunlight impacts of the 2018 Application Scheme on the existing surrounding sensitive receptors. This scenario is illustrated on drawings ROL7034_V12_004, 005 and 006 at **Appendix 15.1, Volume 3**.

15.3.18 The Cumulative Scenario considers the combined potential daylight and sunlight impacts of the 2018 Application Scheme and the adjacent committed schemes (Nye's Wharf and 49-53 Glengall Road) on the existing surrounding sensitive receptors. This scenario is illustrated on drawings ROL7034_V13_004, 005 and 006 at **Appendix 15.1, Volume 3**. The light conditions within the committed schemes have also been assessed with the Cumulative Scenario.

15.3.19 Note that as a result of ongoing design work, a number of minor changes have been made to the footprint and massing of Block B5 located in the outline component of the 2018 Amended Application. These changes are incorporated into the Parameter Plan Rev 3 ('Submitted Plan') as explained in Section 3.2 of the ES. The Submitted Plan has been reviewed as part of our assessment. The changes between the Testing Plan and Submitted Plan are likely to bring about an improvement in daylight/sunlight conditions as the building-to-building separation is increased. However, due to the scale of the change we can confirm that the changes shown do not alter the assessment of significant impacts made in this chapter nor the conclusions of the environmental assessment in respect of this Daylight and Sunlight Assessment.

Assessment Modelling

15.3.20 Computer simulation was used to carry out the technical analysis using the tests recommended within BRE Report 209. A three-dimensional computer model was built in AutoCAD from measured survey. The model includes the existing Application Site, surrounding residential receptors, the 2018 Application Scheme and any other background context massing which may have a bearing on daylight, sunlight and overshadowing.

15.3.21 Specialist software, which uses the Waldram method of analysis as described in Appendix B of the BRE Report 209, was used to quantify the level of daylight and sunlight in the Baseline Scenario and Development Scenario.

Assessment Methodology

Methodology for Determining Demolition and Construction Effects

15.3.22 The construction phase is less relevant for the assessment of daylight and sunlight because the full effects will only occur once the 2018 Application Scheme is complete (2027).

15.3.23 A qualitative summary of the short-term effects of the demolition and construction phase is however set out at in the 'Potential Effects' section of this Chapter (at **paragraph 14.9**).

15.3.24 The assessment of potential effects of the 2018 Application Scheme has considered the operational phase of the completed scheme (Year 2027).

15.3.25 The impact assessment was carried out using the tests recommended in BRE Report 209, as described below.

Daylight to Surrounding Buildings

15.3.26 Section 2.2 of BRE Report 209 makes recommendations concerning the effect of new development on daylight to existing buildings. In summary, the BRE report states that:

"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."

15.3.27 So, where the angle to the horizontal subtended by a new development, measured at the centre of the lowest window in an existing surrounding building (the angle of obstruction), is less than 25°, the diffuse daylight to that building is unlikely to be adversely affected and therefore has not been assessed.

15.3.28 Where the obstruction angle is greater than 25°, the BRE Guidelines recommend carrying out two more detailed daylight tests, namely the vertical sky component (VSC) and no-sky line tests.

Vertical Sky Component (VSC)

15.3.29 The VSC test measures the amount of sky visible at the centre of a window on the external plane of the window wall. It has a maximum value of almost 40% for a completely unobstructed vertical window wall. The test takes no account of the size of the window being tested, the size of the room it lights or the fact that the room may be lit by more than one window. The results can therefore be misleading if considered in isolation and need to be read in conjunction with the results of the second test, namely daylight distribution.

Daylight Distribution

15.3.30 The no-sky line test assesses the daylight distribution inside the room by calculating the area at working plane level that will have a direct view of the sky. This is done by plotting the no-sky line, which is the line on the horizontal working plane beyond which no direct light from the sky will reach. This no-sky line is plotted in both the Baseline Scenario and Development Scenario so that the effect on daylight distribution can be quantified as either a loss or gain in lit area.

15.3.31 One benefit of the daylight distribution test is that the resulting contour plans show where the daylight falls within a room and a judgment may be made as to whether the room will retain light to a reasonable depth.

15.3.32 In respect of dwellings, the BRE Guidelines state at **paragraph 2.2.2** that daylight in living rooms, dining rooms and kitchens should be assessed. Bedrooms should also be checked, although it states that these are less important. Other rooms such as bathrooms, toilets, storerooms, circulation areas and garages need not be checked.

Average Daylight Factor

15.3.33 Where the internal layout of an adjacent property is known, the Average Daylight Factor (ADF) calculation can be undertaken. The ADF is defined as:

"A ratio of total daylight flux incident on a reference area to the total area of the reference area, expressed as a percentage of outdoor luminance on a horizontal plane, due to an unobstructed sky of assumed or known luminance distribution".

The ADF method of assessment takes into account:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass);
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows);
- The proportion of window located above the working plane; and
- The angle of visible sky reaching the window/windows in question

15.3.34 It also makes allowance for the average reflectance of the internal surfaces of the room and for external obstruction. Reasonable estimations of internal reflectance are used if not known.

15.3.35 The BRE guidelines (Building Research Establishment, 2011) set out the ADF test at Appendix C, and further guidance, such as the reflectance of certain materials, is provided within BS8206-2:2008.

15.3.36 The BRE guidelines and BS 8206-2:2008 suggest that the following ADF values should be achieved for the following room types:

- Bedrooms 1%;
- Living Rooms 1.5%; and
- Kitchens 2%.

15.3.37 Certain constants are assumed in the formula, which in the case of the assessments confirmed in this report, are as follows:

- The diffuse light transmittance is taken as 0.68;
- Maintenance factor for dirt on glass is taken as 0.92; and
- The average reflectance of interior surface was taken as 0.8 (i.e. showing the equivalent of white walls and light-coloured flooring).

- 15.3.38 The ADF results are obtained for each room individually and expressed as a percentage. Where there are two or more windows serving one room, the ADF is calculated separately for each window, and the results summed.
- 15.3.39 Where a room has more than one use i.e. a kitchen, living room and dining room, the higher of the ADF values for the uses is used. With an open plan living/dining/kitchen area, the kitchen has the highest value of 2% ADF, and it is this value that would be used. However, although the above is considered best practice it may also be appropriate to consider whether the room without the kitchen area would achieve the suggested standard for a living room (1.5% ADF), as the kitchen area is likely to have additional task lighting fitted.
- 15.3.40 The ADF calculation is designed to quantify the amount of daylight in a room as a whole and does not, therefore, illustrate the likely levels of daylight in the different areas of a large multi-use room. For example, where the living room is generally situated at the front of the room, followed by the dining area and then the kitchen at the rear, the living room area may actually receive good levels of daylight whilst the kitchen at the rear may not. Although the open plan living space as a whole may not strictly meet the ADF criteria, the significance of the impact is less if the living area at the front of the room can still receive good levels of daylight. The BRE guidelines go further at paragraph 2.1.14 to state that if the layout means that an internal kitchen is inevitable then *“it should be directly linked to a well daylight living room”*.
- 15.3.41 To make the best use of a development site, whilst still providing adequate areas of amenity space, and to ensure the building is as efficient and sustainable as possible, the use of large open living/dining/kitchen spaces is generally appropriate for urban locations such as Malt Street.
- 15.3.42 The BRE guidelines support the above by stating at **paragraph 2.1.14**:
- “Non-daylit internal kitchens should be avoided wherever possible, especially if the kitchen is used as a dining area too. If the layout means that a small internal gallery-type kitchen is inevitable, it should be directly linked to a well daylight living room.”*
- 15.3.43 Internal kitchens are not uncommon, and the design of open plan living/dining/kitchens can normally be re-configured to create a separately enclosed kitchen, which would then be excluded from the ADF assessment. However, it is generally better to include the kitchen in the open plan area as this reflects the current trends of urban living accommodation, which is the approach adopted in this assessment.

Sunlight to Surrounding Buildings

- 15.3.44 Section 3.2 of BRE Report 209 makes recommendations concerning the effect of development on levels of sunlight. The guide notes that “obstruction to sunlight may become an issue if:
- some part of a new development is situated within 90° of due south of a main window wall of an existing building; and,
 - in the section drawn perpendicular to the existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from a point 2m above the ground.”
- 15.3.45 If these criteria are not met, the guide recommends a more detailed check to calculate the effect of new development on the available sunlight. Paragraph 3.2.3 of The BRE Guidelines suggest:
- “all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun.”

Annual Probable Sunlight Hours

15.3.46 The available sunlight is measured in terms of the percentage of annual probable sunlight hours (APSH) at the same reference point as the VSC. Probable sunlight hours are defined at **paragraph 3.1.10** of the BRE Guidelines as:

“the total amount of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloudiness for the location in question.”

15.3.47 As noted in the Scoping Report, most of the potentially affected windows in the Properties do not face within 90 degrees of due south and the Application Site lies to their north. Therefore, in accordance with the BRE Guidelines, it would not be necessary to undertake an assessment of the impact of the 2018 Application Scheme on sunlight using the BRE APSH methodology in relation to these properties.

15.3.48 Space Studios at 90 Haymerle Road does however have several windows at first and second floor that face within 90 degrees due south and so therefore has been assessed using the BRE APSH methodology.

Sun on Ground in Amenity Areas

15.3.49 Section 3.3 of BRE Report 209 makes recommendations concerning the effect of new development on sunlight to open spaces situated between buildings, such as 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). The guide recommends that the level of overshadowing on such areas should be checked on the equinox (21 March). The BRE guidelines notes that sunlight into these open spaces is valuable for a number of reasons, to:

“provide attractive sunlit views (all year); make outdoor activities like sitting out and children's play more pleasant (mainly warmer months); encourage plant growth (mainly spring and summer); dry out the ground, reducing moss and slime (mainly in colder months); melt frost, ice and snow (in winter); dry clothes (all year).”

15.3.50 The BRE guidelines recognises that each of the above open spaces has different sunlighting requirements and that it is difficult to suggest a hard and fast rule. It recommends that:

“...at least half of the amenity areas listed above should receive at least two hours of sunlight on 21 March.”

15.3.51 When assessing the impact of a 2018 Application Scheme on the level of overshadowing of an existing open amenity, the BRE guidelines recommends that:

“if, as a result of new development the area which can receive two hours of direct sunlight on 21 March is reduced to less than 0.8 times its former size, this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed.”

15.3.52 The BRE method of assessment takes no account of fences or walls less than 1.5 metres high or trees or shrubs. The BRE guidelines note that:

"Normally trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly the dappled shade of a tree is more pleasant than a deep shadow of a building (this applies to deciduous trees)".

15.3.53 As indicated, deciduous trees provide welcome shade in the summer whilst allowing sunlight to penetrate during the winter months.

- 15.3.54 As noted in the EIA Scoping Report (2018), no amenity areas have been identified in the vicinity of the Application Site which would require testing for overshadowing as per the description in the BRE guide above.
- 15.3.55 However, the light conditions on the proposed amenity area of the future receptor, Nye's Wharf, has been scoped into the assessment and this has been undertaken in accordance with the above BRE guidelines.

Application of the Guidance in BRE Report 209

- 15.3.56 BRE Report 209 is an advisory document and does not constitute a rigid set of rules. As mentioned at **paragraph 14.5.16**, in its introduction it is stated:

(Its) "main aim is ... to help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions.

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document 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 because natural lighting is only one of many factors in site layout design."

- 15.3.57 In theory the BRE Guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, the document notes:

"In special circumstances the developer or planning authority may wish to use different target values. For example, 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."

- 15.3.58 At page 7 it is stated that:

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

- 15.3.59 Care must therefore be taken in applying the recommendations of BRE Report 209 because rigid application of the numerical guidelines could well give rise to under-utilisation of land in city-centre sites such as that of the 2018 Application Scheme.

- 15.3.60 The need for flexibility is emphasised in the Mayor of London's March 2016 Housing Supplementary Planning Guidance in order to fully optimise housing potential on large city-centre sites, as noted above at **paragraph 14.5.2**, as well as stipulated in the NPPF (2018) as noted at **paragraph 14.2.3**

- 15.3.61 Assessments have been undertaken separately of the potential daylight conditions within the proposed residential accommodation and of the potential sunlight to the proposed amenity spaces within the Application Site. The findings of these assessments are reported separately in a stand-alone report, submitted in support of the planning application (Report on Daylight & Sunlight within the Proposed Dwellings at Malt Street Regeneration Site London SE15).

Significance Criteria

BRE Daylight/Sunlight Criteria Numerical Guidelines

15.3.62 To determine the significance level attributable to each test, it is necessary to consider both the magnitude of the daylight impacts and the sunlight analysis against the criteria set out within the sensitivity of the receptors.

15.3.63 In relation to the magnitude of impact, the BRE Report gives a set of numerical guidelines for each type of assessment below as to when the impact will be noticeable to the occupiers. Essentially, they work on the general principle that a reduction in daylight or sunlight to less than 0.8 times its former value will be noticeable, unless the quantity retained will be above a certain level or the amount of loss in real terms is small. The numerical guidelines are summarised within **Table 15.2** below.

Table 15.2: BRE daylight/sunlight and overshadowing criteria numerical guidelines for assessing impacts on existing receptors

BRE Test	BRE Criteria
VSC	The loss of daylight to a window will be noticeable if the VSC will be reduced to less than 27% and less than 0.8 times its former value
Daylight Distribution	The loss of daylight to a room will be noticeable if the area of the working plane which can receive direct skylight will be reduced to less than 0.8 times its former value.
APSH	A window should still receive enough sunlight if it receives at least 25% APSH for the whole year including 5% during the winter months. If the available sunlight hours will be less than this and less than 0.8 times their former value, either during the winter or over the whole year, it will be noticeable except where the reduction annually is no greater than 4% APSH

15.3.64 It is necessary to develop criteria to categorise the magnitude of any impacts that exceed those preliminary numerical guidelines and then assess the level of significance of the effects in each case. **Table 15.3** shows margins of 20% deviation.

Table 15.3: Scale of Magnitude for Change in Daylight

Magnitude of Impact	Vertical Sky Component test (VSC)	Daylight Distribution test (DD)
Negligible	Proposed VSC $\geq 27\%$ OR Proposed VSC $<27\%$ and ≥ 0.8 times former value	Proposed lit area is ≥ 0.8 times former value
Low	Proposed VSC $<27\%$ and between 0.6-0.79 times former value	Proposed lit area is between 0.6-0.79 times former value
Medium	Proposed VSC $<27\%$ and between 0.4-0.59 times former value	Proposed lit area is between 0.4-0.59 times former value
High	Proposed VSC $<27\%$ and <0.4 times former value	Proposed lit area is <0.4 times former value

Table 15.4: Scale of Magnitude for Change in Sunlight

Magnitude of Impact	APSH test	APSH in winter test
Negligible	Proposed APSH $\geq 25\%$ OR Proposed APSH $< 25\%$ and ≥ 0.8 times former value OR $< 4\%$ APSH loss over the whole year	Proposed APSH in winter $\geq 5\%$ OR Proposed APSH $< 5\%$ and ≥ 0.8 times former value OR $< 4\%$ APSH loss over the whole year
Low	Proposed APSH $< 25\%$ and between 0.6-0.79 times former value	Proposed APSH in winter $< 5\%$ and between 0.6-0.79 times former value
Medium	Proposed APSH $< 25\%$ and between 0.4-0.59 times former value	Proposed APSH in winter $< 5\%$ between 0.4-0.59 times former value
High	Proposed APSH $< 25\%$ and < 0.4 times former value	Proposed area is < 0.4 times former value

15.3.65 All effects are considered permanent unless otherwise stated in the text. The BRE Guidelines works on the general principle that a reduction in daylight or sunlight to less than 0.8 times its former value will be noticeable, unless the quantity retained will be above a certain level.

15.3.66 Beyond these numerical guidelines and the provisions within Appendix I of the BRE Guidelines, however, positive effects (i.e. gains in light) are described as beneficial and negative effects (i.e. reductions in light) are described as adverse, except where the impacts are within the BRE numerical guidelines, in which case they are described as negligible.

15.3.67 The ADF analysis looks at the absolute values and not the reduction. Therefore, the magnitude is set against the BRE target values, not the reduction against baseline, as future occupants are unlikely have experienced the light loss.

Table 15.5: Scale of Magnitude for Average Daylight Factor (ADF) Assessment

Magnitude	Room Type		
	Kitchen	Living Room	Bedroom
Negligible	At least 2%	At least 1.5%	At least 1%
Low	1.99% to 1.6%	1.49% to 1.2%	0.99% to 0.8%
Medium	1.59% to 1.2%	1.19% to 0.9%	0.79% to 0.6%
High	1.2% to 0.0%	0.9% to 0%	0.6% to 0.0%

15.3.68 Having categorised the magnitude of impacts it is left to professional judgement where necessary to assess the significance of the magnitude effects. Professional judgment has been used in each case, but Appendix I of the BRE guidelines helpfully gives advice on the application of change.

Numerical Significance Criteria adopted in this ES Chapter

15.3.69 Appendix I of the BRE Report 209 explains how to apply the daylight and sunlight criteria in **Table 15.2** to Environmental Impact Assessments.

15.3.70 Appendix I, paragraph I3 of the BRE Guidelines states:

“Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is it required, or in the amount of sunlight reaching an open space”

15.3.71 Paragraph I5 states:

“Where the loss of skylight or sunlight fully meets the guidelines in this book, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines, and a larger number of windows or open space area are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.”

15.3.72 Paragraphs I6 and I7 continue:

“Where the loss of skylight or sunlight does not meet the guidelines in this book, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- only a small number of windows or limited area of open space are affected
- the loss of light is only marginally outside the guidelines
- an affected room has other sources of skylight or sunlight
- the affected building or open space only has a low-level requirement for skylight or sunlight
- there are particular reasons why an alternative, less stringent, guideline should be applied.”.

“Factors tending towards a major adverse impact include:

- a large number of windows or large area of open space are affected
- the loss of light is substantially outside the guidelines
- all the windows in a particular property are affected
- the affected indoor or outdoor spaces have a particularly strong requirement for skylight or sunlight, e.g. a living room in a dwelling or a children’s playground.”

Sensitivity of Receptors

15.3.73 When considering the sensitivity of the receptors the BRE guide also offers advice. It considers living rooms, dining rooms and kitchens to be more important than bedrooms in terms of daylight, while living rooms are clearly of principal importance in terms of sunlight. It also states that “windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed”. Consequently, for the purposes of this assessment: for daylight, living

rooms, dining rooms and kitchens have been attributed high sensitivity, bedrooms low sensitivity. Bathrooms, toilets, store rooms and circulation areas are attributed as negligible sensitivity and therefore, in accordance with BRE guidelines, have not been tested.

15.3.74 The sensitivity of the receptor together with the magnitude of the impact determine the significance as set out in **Table 15.6** below

Table 15.6: Significance Matrix

		Sensitivity of Receptor		
		High	Medium	Low
Magnitude of Impact	High	Severe/Major	Major/Moderate	Moderate/Minor
	Medium	Moderate	Moderate	Minor
	Low	Minor	Minor	Minor
	Negligible	Not Significant	Not Significant	Not Significant

15.4 Baseline Conditions

15.4.1 The Baseline Conditions for daylight around the 2018 Application Site have been quantified and compared against the BRE criteria summarised in **Table 15.2** and detailed below.

Daylight to Existing Surrounding Properties

15.4.2 The existing levels of daylight received by the Properties have been quantified using the VSC test at the window face and the daylight distribution calculated at the working plane within each room. The initial BRE target for each test is 27% VSC and 80% daylit area. Detailed results of the baseline daylight conditions are set out in the following tables (columns marked “Existing”) and contour drawings (existing contour coloured green) within **Appendix 15.2 Volume 3**.

- Table 1 – vertical sky component (VSC) results;
- Table 2 – daylight distribution (DD) results; and
- Anstey Horne drawing nos. [ROL7034_12_101 to 123] - daylight distribution contour plans.

15.4.3 The baseline results are summarised in **Tables 15.7** and **15.8** in terms of the level of adherence to the BRE preliminary recommendations of 27% VSC and 80% daylit area.

Table 15.7: Summary of baseline VSC results

Property	Number of windows tested	Number of Windows			
		≥ 27% VSC		<27% VSC	
		Number	%	Number	%
54, 56, 90 and 92 Latona Road	24	20	83	4	17
Denstone House	12	5	42	7	58
Ednam House	96	24	25	72	75
Greystoke House	34	12	35	22	65
Northfield House	127	49	39	78	61
18 - 24 Peckham Park Road	11	5	45	6	55
Space Studios, 90 Haymerle Road	91	76	84	15	16

Table 15.8: Summary of baseline DD results

Property	Number of rooms tested	Number of Rooms			
		≥ 80% daylit area		<80% daylit area	
		Number	%	Number	%
54, 56, 90 and 92 Latona Road	12	12	100	0	0
Denstone House	12	12	100	0	0
Ednam House	84	84	100	0	0
Greystoke House	12	12	100	0	0
Northfield House	124	104	84	20	16
18 - 24 Peckham Park Road	10	4	40	6	60
Space Studios, 90 Haymerle Road	48	46	96	2	4

15.4.4 Out of the 395 windows tested, 191 (48%) currently receive more than the BRE recommended 27% VSC in the Baseline Condition.

- 15.4.5 Out of the 302 rooms tested, 274 (91%) currently receive daylight over at least 80% of the area of the working plane in the Baseline Condition.
- 15.4.6 The VSC results show for approximately half the windows tested the potential for good daylight is constrained. However as will be described below, most of these windows have overhanging balconies, and this impacts the potential for good daylight to be received at the vertical window plane. Of those windows that do currently receive more than 27% VSC, a large proportion of them significantly surpass the BRE guideline, achieving VSC results in the region of 35 – 39%.
- 15.4.7 The daylight distribution results show that the vast majority of surrounding residential properties enjoy good light penetration based upon the no-skyline methodology. These high levels of daylight penetration are considered relatively unusual for an urban setting.

Sunlight to Existing Surrounding Properties

- 15.4.8 The existing levels of sunlight received by the Properties have been quantified using the APSH in both the annual and winter conditions. The initial BRE target for each test is 25% APSH for annual sunlight of which 5% for winter APSH. Detailed results of the baseline daylight conditions are set out in the following tables (columns marked “Existing”) and contour drawings (existing contour coloured green) within **Appendix 15.3**.
- 15.4.9 The baseline results are summarised in **Table 15.9** in terms of the level of adherence to the BRE preliminary recommendations of 25% APSH for annual sunlight and of which 5% for winter APSH.

Table 15.9: Summary of baseline VSC results

Property	Number of windows tested	Number of Windows				Number of Windows			
		≥ 25% APSH		<25% APSH		≥ 5% APSH		<5% APSH	
		Number	%	Number	%	Number	%	Number	%
22 Peckham Park Road	4	4	100	0	0	4	100	0	0
Northfield House	10	10	100	0	0	7	70	3	30
Greystoke House	27	7	26	20	74	16	59	11	41
Space Studios, 90 Haymerle Road	49	42	86	7	14	42	86	7	14

- 15.4.10 Out of the 90 windows tested, 63 (70%) currently receive more than the BRE recommended 25% annual APSH and 69 (77%) receive more than the BRE recommended 5% winter APSH in the Baseline Condition.

15.5 Embedded Mitigation

- 15.5.1 The 2018 Application Scheme has considered mitigation throughout the design process, balancing the townscape considerations with the advice and recommendations provided in the

BRE guidelines. The general layout of the 2018 Application Scheme aims to maximise the daylight and sunlight availability to the proposed residential dwellings and future occupiers, whilst seeking to minimise the effect on the existing neighbouring buildings wherever possible.

15.6 Potential Effects

Effects during Demolition and Construction

- 15.6.1 During the demolition phase there will be short term/temporary minor beneficial daylight and sunlight impacts to the Properties as the Application Site is cleared. The availability of daylight and sunlight would gradually change during the construction period until the massing of the 2018 Application Scheme is complete (2027).
- 15.6.2 The phased construction programme will also mean that there will be differing impacts on the daylight and sunlight to the neighbouring residential receptors through time, and the adverse effects will gradually increase until the 2018 Application Scheme is complete.
- 15.6.3 For this ES chapter, the assessments have been undertaken for the completed 2018 Application Scheme, as this presents the worst-case scenario and any impact experienced by the surrounding residential properties during the phased construction will, therefore, be less significant.
- 15.6.4 Due to the levels of daylight and sunlight evolving throughout the construction phase (which is related to the construction activity / stage), it is not possible to determine what the effect is on the surrounding sensitive receptors at any given time. The use of scaffolding, hoardings and, to a lesser extent, cranes, will temporarily increase the obstruction to daylight, sunlight and overshadowing very slightly beyond that caused by the buildings themselves.
- 15.6.5 Overall, during the demolition phase there will be short term/temporary minor beneficial daylight and sunlight impacts to the surrounding residential properties as the Application Site is cleared. The effects experienced in the completed development condition are set out in the following section of this ES chapter on 'Effects Once the Proposed Development is Completed and Occupied'.

Effects Once the Proposed Development is Complete and Occupied

Daylight to Existing Surrounding Properties

- 15.6.6 Detailed results of the daylight analysis for the Development Scenario are set out on drawings ROL7034_12_101 to 123 within **Appendix 15.2, Volume 3** and Tables 1 (VSC) and 2 (Daylight Distribution) within **Appendix 15.3, Volume 3**.
- 15.6.7 A summary of the effects on VSC and Daylight Distribution is provided below in **Table 15.10** (VSC) and **Table 15.11** (Daylight Distribution) in terms of the level of adherence to the BRE numerical guidelines and margins of deviation therefrom in 0.2 times former value banding.

Table 15.10: Summary of VSC impacts

Property	Total number of windows tested	Windows satisfying BRE		Number of windows not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
54, 56, 90 and 92 Latona Road	24	19	79	5	0	0
Denstone House	12	1	8	5	6	0
Ednam House	96	6	6	11	11	68
Greystoke House	34	19	56	6	5	4
Northfield House	127	52	41	24	19	32
18 - 24 Peckham Park Road	11	6	54	5	0	0
Space Studios, 90 Haymerle Road	91	29	32	18	10	34

Table 15.11: Summary of DD impacts

Property	Total number of rooms tested	Rooms satisfying BRE		Number of rooms not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
54, 56, 90 and 92 Latona Road	12	12	100	0	0	0
Denstone House	12	12	100	0	0	0
Ednam House	84	51	61	24	9	0
Greystoke House	12	12	100	0	0	0
Northfield House	124	96	77	21	7	0

Property	Total number of rooms tested	Rooms satisfying BRE		Number of rooms not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
18 - 24 Peckham Park Road	10	8	80	2	0	0
Space Studios, 90 Haymerle Road	48	25	52	3	7	12

- 15.6.8 Out of the 395 windows tested, 132 (33%) will satisfy the BRE Guidelines and either retain a VSC of at least 27% or at least 0.8 times their former value and a further 73 (18%) are within the first 20% banding of the BRE Guidelines.
- 15.6.9 As illustrated in **Table 15.11**, of the 302 rooms considered, 216 (72%) will satisfy the BRE Guidelines and retain at least 0.8 times their former daylight area and a further 50 (17%) are within the first 20% banding of the BRE Guidelines.
- 15.6.10 Overall, the impacts on 52% of windows for VSC and 88% of rooms for DD tested around the Application Site will be either BRE adherent or within a 0.2 margin thereof. The impacts on the Properties are discussed in more detail below.
- 15.6.11 All the windows and rooms within the following properties will meet the BRE guidelines for both VSC and DD. Therefore, the potential effects of the 2018 Application Scheme on daylight amenity to these properties will be of negligible significance:
- 54 Latona Road
 - 56 Latona Road
- 15.6.12 Within the remaining properties tested, not all the windows/rooms would meet the BRE Guidelines for both VSC and DD and therefore these properties are discussed in further detail as follows.

90 and 92 Latona Road

- 15.6.13 These properties are located south-west of the Application Site. These properties are two of the four properties tested in this four-storey residential block. The properties are duplex flats; 54 and 56 occupy rooms at ground and first, and 90 and 92 occupy rooms at second and third. The four flats have been modelled internally using estimated room layouts from external inspection. There are a total of 24 windows serving 12 rooms which have been considered for daylight.
- 15.6.14 There are 19 out of 24 windows tested which satisfy the BRE criteria for VSC. Four of the windows that do not adhere are located at second floor level and range from between 0.6 and 0.68 times their existing VSC values. The other window is located at third floor in 92 Latona Road and narrowly misses the 0.8 guideline with 0.79 times its existing value. These windows are recessed and below over hanging balconies. Paragraphs 2.2.11 and 2.2.12 of the BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and, consequently, larger relative reductions in light may be unavoidable. As mentioned above, the windows tested for VSC to 54 and 56 Latona Road

at ground and first floor all satisfy the BRE guidelines.

15.6.15 All rooms tested for daylight distribution comfortably reach and exceed the BRE Guidelines.

15.6.16 The adverse impact on this property is therefore of **Minor Significance**.

Denstone House

15.6.17 This three-storey block of residential flats is located south of the Application Site and has been modelled internally using example estate agent plans and it has been assumed that each floor has the same room configurations.

15.6.18 For VSC, 1 of the 12 windows tested satisfies the BRE Guidelines. This window lights a second-floor bedroom. Seven of the 11 windows that do not reach the BRE Guidelines are beneath deep eaves or overhanging balconies and retain between 0.55 and 0.70 times their former value. From external inspection, these rooms are likely to be kitchens and perhaps second bedrooms. The other four windows light two ground floor bedrooms and two first floor bedrooms narrowly missing the VSC guidelines, retaining 0.70 - 0.73 times their former VSC value.

15.6.19 All rooms tested for daylight distribution comfortably reach and exceed the BRE Guidelines. Four of the 12 rooms do not receive any loss in their day lit area.

15.6.20 The adverse impact on this property is therefore of **Minor Significance**.

Ednam House

15.6.21 This seven-storey block is located south of the Application Site and has residential rooms from first to sixth floor. It has been modelled internally using estimated flat layouts based on the pattern of windows from external inspection.

15.6.22 For VSC, of the 96 windows tested six windows satisfy the BRE Guidelines. These six windows are located at the west end of the building, and they do not have balconies above them. There are another 11 windows at the west and east ends of the building without overhanging balconies above them, which retain between 0.60 and 0.76 times their former VSC value.

15.6.23 The VSC results for the windows at the far east and west ends of the building contrast with those for the windows beneath balconies to the majority of the central part of the elevation, which further illustrates the impact the balconies have on the retained values.

15.6.24 An assessment of these windows has been undertaken without the balconies in place as suggested by the BRE Guidelines. Once the balconies are removed, the analysis shows a further 6 windows would satisfy the BRE VSC Guidelines, with the other windows retaining between 0.54 and 0.69 times their former value. This serves to illustrate the large impact the overhanging balconies have on the VSC results. Furthermore, all these windows retain actual VSC values of above 20% which are good VSC levels for an urban area.

15.6.25 For daylight distribution 51 out of the 84 rooms tested satisfy the BRE Guidelines. These rooms tend to be at the east and west end of Ednam House, with those that do not meet the BRE Guidelines located in the central section of the elevation, beneath the overhanging balconies and on the lower four floors. The rooms on the elevation analysed consist of hallways, bathrooms, kitchens and some second bedrooms, with the key habitable rooms on the south elevation.

15.6.26 Again, an assessment has been run without the balconies in place and the daylight distribution results show that 69 of the 84 rooms now adhere to the BRE Guidelines. The 15 rooms that do not are located in the central part of the building and range between 0.59 and 0.79 times

their former value. On this basis, the overall adverse effect on this property is considered to be of **Minor to Moderate Significance**.

Greystoke House

- 15.6.27 This property is in residential use and is six storeys in height. The property is located south of the Application Site. The plan for the ground floor was obtained so this has been copied up through the rest of the floors.
- 15.6.28 For VSC, 19 of the 34 windows tested satisfy the BRE Guidelines. The window transgressions are spread over the six floors; but the majority retain 0.59 times their former value and above.
- 15.6.29 Four of those that do not reach the BRE Guidelines are very small windows that are recessed, below balconies, and light the living rooms at first to fourth floor. However, each of these four living rooms is multi-aspect and lit by at least three other windows that meet the BRE Guidelines for VSC. These living rooms retain very good daylight distribution (see paragraph 14.9.31) so the VSC results to the small recessed windows are an anomaly.
- 15.6.30 The other 11 windows are located on the north elevation of the building and would retain between 0.56 and 0.62 times their former value. These factors of former VSC values are due to the majority of these windows achieving such high VSC values in their existing condition, as they currently look out over low level light industrial buildings. Therefore, any substantial development on this Application Site would have a larger relative impact on the retained percentage figures. The majority of windows actually retain VSCs of over 21%, which is good for an urban setting.
- 15.6.31 Again, all rooms tested for daylight distribution comfortably reach and exceed the BRE guidelines.
- 15.6.32 Due to the reasoning above, the adverse impact on this property is therefore of **Minor Significance**.

Northfield House

- 15.6.33 This block of residential flats is five storeys in height and was modelled internally using plans from the council website and supplemented by estate agent plans as example flats. Therefore, the information obtained has been used as a precedent.
- 15.6.34 This property is located east of the Application Site and the three elevations facing the Application Site have been tested.
- 15.6.35 For VSC, 52 of the 127 windows tested achieve the BRE Guidelines. These VSC transgressions predominantly occur to the ground to third floor. All the windows tested, which fail to meet the BRE Guidelines, are again under projecting balconies. In addition, some of the worst affected windows, which drop into the lower bands of deviation from the 0.8 BRE target, sit alongside the projecting stair cores or are in the corners of the elevations. As mentioned at paragraph 14.9.14, the BRE Guidelines acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and sunlight and, therefore, larger relative reductions in light may be unavoidable.
- 15.6.36 The VSC analysis has also been run for this building without balconies as suggested in the BRE Guidelines. This shows that 56 windows would satisfy the BRE Guidelines if they did not have the balconies above them. Moreover, all apart from two windows that do not meet the BRE Guidelines are then all within the 0.2 banding of the Guidelines. This serves to illustrate the impact the balconies have on the VSC results.
- 15.6.37 For daylight distribution 96 out of 124 rooms satisfy the BRE Guidelines. Those that do not are located on the most northern elevation analysed, at ground to second floor. Again, these

rooms are all beneath balconies, and as such analysis has been undertaken with the balconies removed. When tested absent of the balconies, all rooms apart from four bedrooms are BRE adherent and exceed the Guidelines.

15.6.38 Due to the above data, with and without the balconies in place, the adverse impact on this property is therefore of **Minor** to **Moderate Significance**.

18-24 Peckham Park Road

15.6.39 18-20 Peckham Park Road are two properties in commercial use at ground floor and residential at first. Floor plans for these properties were not obtained and therefore room configurations were assumed from external inspection. We have assumed R1/25 is a landing in 18-20 Peckham Park Road and therefore has been scoped out of our assessment.

15.6.40 22-24 Peckham Park Road has commercial use at ground floor and residential at first and second. Plans were obtained online for most of this building but one room at ground floor had to be assumed.

15.6.41 All ten rooms tested comfortably satisfy the BRE guidelines for daylight distribution apart from two rooms in 22-24 Peckham Park Road, which narrowly misses the guidelines at 0.73 and 0.79 times their former values.

15.6.42 For VSC, six out of the eleven windows tested satisfy the VSC BRE guidelines. Of the other five windows, four windows sit alongside projecting rear extensions, which is likely to be a contributing factor. The five windows range from 0.69 and 0.76 times their former value, but nevertheless receive actual VSC value of between 16% and 24%, which are good for an urban setting.

15.6.43 Due to the reasoning above, the adverse impact on this property is therefore **Minor Significance**.

90 Haymerle Road, 'Space Studios'

15.6.44 This large commercial building is three storeys in height and is currently used as artist studios. The planning consent for this building was granted for open B1 use in 2010 and the layout plans show open plan layouts. However, it is known that the building is currently used as artists' studios and has been compartmentalised for this use. The internals have therefore been modelled using plans obtained by the studio's surveyor.

15.6.45 For VSC, 29 out of 91 windows analysed satisfy the BRE guidelines. Of the windows that do not, 20 windows are located on the northern elevation of the building and show the largest percentage reductions due to their existing VSCs being very high at 38% and 39%, which are just below the maximum value of 40% for a completely unobstructed vertical window wall. Therefore, any meaningful obstruction is likely to result in a large percentage change.

15.6.46 There are five windows at ground floor that face west and narrowly miss the BRE Guidelines. The other 37 remaining windows that do not meet the BRE Guidelines are predominantly located at the first and second floor on the elevations that look out over the flat roof over ground floor. Retained values are between 0.28 and 0.59 times their former value on the east facing elevation and 0.61 and 0.77 times their former value for the south facing elevation.

15.6.47 For daylight distribution, the results based on the compartmentalised layouts show 25 out of the 48 rooms tested satisfy the BRE guidelines. Those that do not adhere appear on the northern elevation of the building and also on the east elevation at first and second, which look out over the flat roof. Again, the majority of these rooms are all very well-lit in the existing condition; many of those with 100% day lit areas, and so any meaningful redevelopment of the Application Site is likely to cause a significant percentage reduction in the day lit area.

15.6.48 As mentioned above, the daylight distribution analysis has been run with the internals compartmentalised, however if the analysis were to be run with the consented open plan layouts, we would expect the adherence rate to increase as areas would have the benefit of light from more than one window.

15.6.49 Based on the compartmentalised layouts and considering of the above information, the adverse impact on this commercial property is therefore of **Moderate Significance**.

Sunlight to Existing Surrounding Buildings

15.6.50 Detailed results of the sunlight analysis for the existing surrounding properties are set out on Table 3 within **Appendix 15.3** and are summarised in **Table 15.12** below.

Table 15.12: Summary of APSH impacts

Property	Total no. of windows tested	Annual Sunlight					Winter Sunlight				
		Windows satisfying BRE		No. of windows not satisfying BRE			Windows satisfying BRE		No. of windows not satisfying BRE		
		No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value	No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value
22 – 24 Peckham Park Road	4	4	100	0	0	0	4	100	0	0	0
Northfield House	10	10	100	0	0	0	10	100	0	0	0
Greystoke House	27	27	100	0	0	0	27	100	0	0	0



Property	Total no. of windows tested	Annual Sunlight					Winter Sunlight				
		Windows satisfying BRE		No. of windows not satisfying BRE			Windows satisfying BRE		No. of windows not satisfying BRE		
		No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value	No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value
Space Studios, 90 Haymerle Road	49	41	91	0	4	4	39	80	0	0	10

15.6.51 22-24 Peckham Park Road, Northfield House and Greystoke House all adhere to the BRE APSH guidelines.

15.6.52 For 90 Haymerle Road, 41 of the 49 windows tested adhere to the annual APSH target and 39 of the 49 windows tested adhere to the winter APSH target.

15.6.53 Where rooms are lit by more than one window it is sensible to consider the aggregate amount of sunlight reaching the room. The BRE guide advises as follows: “If a room has multiple windows on the same wall or adjacent walls, the highest value APSH should be taken. If a room has two windows on opposite walls, the APSH due to each can be added together.” In this case only one room does not achieve the target for annual APSH and only 4 rooms do not achieve the winter APSH target.

15.6.54 Overall, the adverse impacts on sunlight to this building will be of **Minor Significance**.

15.7 Cumulative Effects

15.7.1 There are currently two schemes in the immediate vicinity such that a cumulative daylight and sunlight is considered necessary. All other schemes are considered to be located sufficiently far away or will not be visible from the receptors.

15.7.1 As noted at Section 15.3 the footprint and massing Block 5 has been amended since the assessment in this ES Chapter, but no impact of any materiality is expected on the existing receptors and we can confirm that the changes shown do not alter the assessment of significant impacts.

Daylight to Existing Surrounding Properties

15.7.2 Detailed results of the daylight analysis for the Cumulative Scenario are set out on drawings ROL7034_13_101 to 123 within **Appendix 15.4, Volume 3** and Tables 1 (VSC) and 2 (Daylight Distribution) within **Appendix 15.5, Volume 3**.

15.7.3 A summary of the Cumulative effects on VSC and Daylight Distribution is provided below in **Table 15.13** (VSC) and **Table 15.14** (Daylight Distribution) in terms of the level of adherence to the BRE numerical guidelines and margins of deviation therefrom in 0.2 times former value banding.

Table 15.13: Summary of Cumulative VSC impacts

Property	Total number of windows tested	Windows satisfying BRE		Number of windows not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
54, 56, 90 and 92 Latona Road	24	4	17	16	2	2
Denstone House	12	0	0	6	6	0
Ednam House	96	4	4	8	15	69

Property	Total number of windows tested	Windows satisfying BRE		Number of windows not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
Greystoke House	34	17	50	0	13	4
Northfield House	127	46	36	29	11	41
18 - 24 Peckham Park Road	11	5	45	6	0	0
Space Studios, 90 Haymerle Road	91	20	22	23	9	37

Table 15.14: Summary of Cumulative DD impacts

Property	Total number of rooms tested	Rooms satisfying BRE		Number of rooms not satisfying BRE		
		Number	%	0.79 - 0.60 x former value	0.59 - 0.40 x former value	<40 x former value
54, 56, 90 and 92 Latona Road	12	12	100	0	0	0
Denstone House	12	12	100	0	0	0
Ednam House	84	20	24	27	25	12
Greystoke House	12	7	58	5	0	0
Northfield House	124	92	74	25	7	0
18 - 24 Peckham Park Road	10	8	80	2	0	0
Space Studios, 90 Haymerle Road	48	25	52	3	8	12

- 15.7.4 Out of the 395 windows tested, 96 (24%) will satisfy the BRE Guidelines and either retain a VSC of at least 27% or at least 0.8 times their former value and a further 88 (22%) are within the first 20% banding of the BRE Guidelines.
- 15.7.5 As illustrated in **Table 15.14**, of the 302 rooms considered, 176 (58%) will satisfy the BRE Guidelines and retain at least 0.8 times their former daylight area and a further 62 (21%) are within the first 20% banding of the BRE Guidelines.
- 15.7.6 Overall, the impacts on 47% of windows and 79% of rooms tested around the Application Site will be either BRE adherent or within a 0.2 margin thereof. The impacts on the Properties are discussed in more detail below.
- 15.7.7 With the addition of the two consented schemes, the impacts on the surrounding properties unsurprisingly increase. The cumulative impact on the surrounding properties are discussed in further detail as follows.

54, 56, 90 and 92 Latona Road

- 15.7.8 These properties are located south west of the Application Site and are within a four-storey residential block. The properties are duplex flats; 54 and 56 occupy rooms at ground and first, and 90 and 92 occupy rooms at second and third. The four flats have been modelled internally using estimated room layouts from external inspection. There is a total of 24 windows serving 12 rooms which have been considered for daylight, six windows serving three rooms for each duplex flat.
- 15.7.9 In total there are four out of the 24 windows tested which satisfy the BRE criteria for VSC.
- 15.7.10 For 54 and 56 Latona Road, all windows narrowly miss the guideline with results of 0.74 and 0.75 times their former value. However, all six rooms tested for daylight distribution still comfortably reach and exceed the BRE Guidelines.
- 15.7.11 For 90 and 92 Latona Road, two windows in each property surpass the BRE 27% VSC guideline. Of the remaining windows, there are four at second floor that range between 0.37 and 0.50 times their former values. The other four windows at third floor range have results of 0.71 and 0.72 times their former values. These windows are recessed and below over hanging balconies. Paragraphs 2.2.11 and 2.2.12 of the BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and, therefore, larger relative reductions in light may be unavoidable. All six rooms tested for daylight distribution still comfortably reach and exceed the BRE Guidelines.
- 15.7.12 The adverse impact on this property is therefore of **Minor Significance**.

Denstone House

- 15.7.13 This three-storey block of residential flats is located south of the Application Site and has been modelled internally using example estate agent plans and it has been assumed that each floor has the same room configurations.
- 15.7.14 For VSC, none of the windows satisfy the BRE Guidelines. There are two windows on each floor which from external inspection appear to be secondary bedrooms. These six windows range from 0.68 to 0.72 times their former VSC value. The other six windows are beneath deep eaves or overhanging balconies and appear from external inspection appear to be kitchens. As stated above paragraph 2.2.11 and 2.2.12 of the BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and, therefore, larger relative reductions in light may be unavoidable. These windows range from 0.54 to 0.58 times their former VSC value.

15.7.15 All rooms tested for daylight distribution comfortably reach and exceed the BRE Guidelines. Four of the 12 rooms do not receive any loss in their day lit area.

15.7.16 The adverse impact on this property is therefore of **Minor Significance**.

Ednam House

15.7.17 This seven-storey block is located south of the Application Site and has residential rooms from first to sixth floor. The east end of this block sits directly adjacent the committed scheme at Nye's Wharf. This property has been modelled internally using estimated flat layouts based on the pattern of windows from external inspection.

15.7.18 For VSC, of the 96 windows tested four windows satisfy the BRE Guidelines. These four windows are located at the west end of the building at fifth and sixth floor, and they do not have balconies above them. There are another eight windows at the west end of the building without overhanging balconies above them, which retain between 0.63 and 0.68 times their former VSC value.

15.7.19 The VSC results for the windows at the west end of the building contrast with those for the windows beneath balconies to much of the central part of the elevation, and the east end of the property which sits adjacent the committed Nye's Wharf scheme.

15.7.20 As illustrated above at paragraph 14.9.24, an assessment of these windows without the balconies in the proposed scenario found the results to materially improve. This serves to illustrate the large impact the overhanging balconies have on the VSC results and a similar conclusion is likely to occur if the same analysis were undertaken in the cumulative scenario.

15.7.21 For daylight distribution 20 out of the 84 rooms tested satisfy the BRE Guidelines. These rooms again tend to be at the west end of Ednam House, with those that do not meet the BRE Guidelines located in the central section of the elevation, beneath the overhanging balconies and on the lower three floors, and the east end adjacent the Nye's Wharf scheme. The rooms on the elevation analysed consist of hallways, bathrooms, kitchens and some second bedrooms, with the key habitable rooms on the south elevation.

15.7.22 Again, if an assessment is run without the balconies in place in the cumulative scenario, judging by the results reported in the proposed scenario a material increase in the results would be expected.

15.7.23 On this basis, the overall effect on this property is considered to be of **Moderate Significance**.

Greystoke House

15.7.24 This property is in residential use and is six storeys in height. The property is located south of the Application Site. The plan for the ground floor was obtained so this has been copied up through the rest of the floors.

15.7.25 For VSC, 17 of the 34 windows tested satisfy the BRE Guidelines. The window transgressions are spread over the six floors, and the majority retain between 0.53 and 0.58 times their former values.

15.7.26 Four of those that do not reach the BRE Guidelines are very small windows that are recessed, below balconies, and light the living rooms at first to fourth floor. However, each of these four living rooms is multi-aspect and lit by at least three other windows that meet the BRE Guidelines for VSC. These living rooms retain very good daylight distribution (see paragraph 14.9.31) so the VSC results to the small recessed windows are an anomaly.

15.7.27 There are another 12 windows that are located on the north elevation of the building and would retain between 0.53 and 0.58 times their former value. These factors of former VSC values are due to most of these windows achieving such high VSC values in their existing condition, as they currently look out over low level light industrial buildings. Therefore, any substantial development on this Application Site would have a larger relative impact on the retained percentage figures. The majority of windows will retain VSCs of over 20%, which is good for an urban setting.

15.7.28 Seven of the 12 rooms tested for daylight distribution comfortably reach and exceed the BRE guidelines. The five that do not are bedrooms at first to fifth floor and range from 0.6 to 0.79 times their former values.

15.7.29 Due to the reasoning above, the adverse impact on this property is therefore of **Minor Significance**.

Northfield House

15.7.30 This block of residential flats is five storeys in height and was modelled internally using plans from the council website and supplemented by estate agent plans as example flats. Therefore, the information obtained has been used as a precedent.

15.7.31 This property is located east of the Application Site and the three elevations facing the Application Site have been tested.

15.7.32 For VSC, 46 of the 127 windows tested achieve the BRE Guidelines. These VSC transgressions predominantly occur to the ground to third floor. All the windows tested, which fail to meet the BRE Guidelines, are again under projecting balconies. In addition, some of the worst affected windows, which drop into the lower bands of deviation from the 0.8 BRE target, sit alongside the projecting stair cores or are in the corners of the elevations and, therefore, larger relative reductions in light may be unavoidable.

15.7.33 As in the proposed scenario, if the VSC analysis is run for this building without balconies as suggested in the BRE Guidelines, it is expected that the results will show a material increase in the adherence rate, as in illustrated above at paragraph 14.9.36.

15.7.34 For daylight distribution 92 out of 124 rooms satisfy the BRE Guidelines. Those that do not are located on the most northern elevation analysed, at ground to second floor. Again, these rooms are all beneath balconies, and as such analysis can be undertaken with the balconies removed and it is expected that this analysis would show improved BRE guideline adherence.

15.7.35 In considering the above points, the adverse impact on this property is therefore of **Moderate Significance**.

18-24 Peckham Park Road

15.7.36 18-20 Peckham Park Road are two properties in commercial use at ground floor and residential at first. Floor plans for these properties were not obtained and therefore room configurations were assumed from external inspection. We have assumed R1/25 is a landing in 18-20 Peckham Park Road and therefore has been scoped out of our assessment.

15.7.37 22-24 Peckham Park Road has commercial use at ground floor and residential at first and second. Plans were obtained online for the majority of this building but one room at ground floor had to be assumed.

15.7.38 The results remain the same as the proposed condition in that all ten rooms tested comfortably satisfy the BRE guidelines for daylight distribution apart from two rooms at first floor in 22-24 Peckham Park Road, which narrowly misses the guidelines at 0.73 and 0.79 times their former value.

15.7.39 For VSC, seven out of the eleven windows tested satisfy the VSC BRE guidelines. The other four windows sit alongside projecting rear extensions, which is likely to be a contributing factor. They range from 0.72 and 0.79 times their former value, but nevertheless receive actual VSC value of between 18% and 25%, which are good for an urban setting.

15.7.40 Due to the reasoning above, the adverse impact on this property is therefore **Minor Significance**.

90 Haymerle Road, 'Space Studios'

15.7.41 This large commercial building is three storeys in height and is currently used as artist studios. The planning consent for this building was granted for open B1 use in 2010 and the layout plans show open plan layouts. However, it is known that the building is currently used as artists' studios and has been compartmentalised for this use. The internals have therefore been modelled using plans obtained by the studio's surveyor.

15.7.42 For VSC, 20 out of 91 windows analysed satisfy the BRE guidelines. Of the windows that do not, 20 windows are located on the northern elevation of the building and show the largest percentage reductions due to their existing VSCs being very high at 38% and 39%, which are just below the maximum value of 40% for a completely unobstructed vertical window wall. Therefore, any meaningful obstruction is likely to result in a large percentage change.

15.7.43 There are three windows at ground floor that face west and narrowly miss the BRE Guidelines. The other 48 remaining windows that do not meet the BRE Guidelines are predominantly located at the first and second floor on the elevations that look out over the flat roof over ground floor. Retained values are between 0.26 and 0.53 times their former value on the east facing elevation and 0.59 and 0.75 times their former value for the south facing elevation.

15.7.44 For daylight distribution, the results based on the compartmentalised layouts show 25 out of the 48 rooms tested satisfy the BRE guidelines. Those that do not appear on the northern elevation of the building and also on the east elevation at first and second which look out over the flat roof. Again, the majority of these rooms are all very well-lit in the existing condition; many of those with 100% day lit areas, and so any meaningful redevelopment of the Application Site is likely to cause a significant percentage reduction in the day lit area.

15.7.45 As mentioned at 14.9.48 the daylight distribution analysis has been run with the internals compartmentalised, however if the analysis were to be run with the consented open plan layouts, it is expected that the adherence rate to increase as areas would have the benefit of light from more than one window.

15.7.46 Based on the compartmentalised layouts and considering of the above information, the adverse impact on this commercial property is therefore of **Moderate Significance**.

Sunlight to Existing Surrounding Buildings

15.7.47 Detailed results of the sunlight analysis for the existing surrounding properties are set out on Table 3 within **Appendix 15.5** and are summarised in **Table 15.15** below

15.7.48 Space Studios is the only property considered for APSH analysis due to its windows facing within 90 degrees due south.

Table 15.15: Summary of APSH impacts

Property	Total no. of windows tested	Annual Sunlight					Winter Sunlight				
		Windows satisfying BRE		No. of windows not satisfying BRE			Windows satisfying BRE		No. of windows not satisfying BRE		
		No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value	No.	%	0.79 - 0.6 x former value	0.59 - 0.4 x former value	<0.4 x former value
22 – 24 Peckham Park Road	4	4	100	0	0	0	4	100	0	0	0
Northfield House	10	10	100	0	0	0	10	100	0	0	0
Greystoke House	27	27	100	0	0	0	27	100	0	0	0
Space Studios, 90 Haymerle Road	49	40	82	0	4	5	37	76	0	0	12

15.7.49 22-24 Peckham Park Road, Northfield House and Greystoke House all adhere to the BRE APSPH guidelines.

15.7.50 For 90 Haymerle Road, 40 of the 49 windows tested adhere to the annual APSPH target and 37 of the 49 windows tested adhere to the winter APSPH target.

15.7.51 Where rooms are lit by more than one window it is sensible to consider the aggregate amount of sunlight reaching the room. The BRE guide advises as follows: “If a room has multiple windows on the same wall or adjacent walls, the highest value APSPH should be taken. If a room has two windows on opposite walls, the APSPH due to each can be added together.” In this case only one room does not achieve the target for annual APSPH and only five rooms do not achieve the winter APSPH target.

15.7.52 Overall, the adverse impacts on sunlight to this building will be of **Minor Significance**.

Daylight within Future Surrounding Properties

15.7.53 As noted above, Nye’s Wharf and 49-53 Glengall Road have been identified as committed schemes to be considered as part of the cumulative scenarios and also as future receptors to the 2018 Application Scheme. Detailed results of the ADF and APSPH analysis are set out on drawings ROL7034_13_401_01-_08 and ROL7034_13_402_01-_12 and Tables within **Appendix 15.6, Volume 3**.

Table 15.16: Summary of ADF within 49-53 Glengall Road

Room Usage	ADF Target (%)	Total number of rooms tested	Rooms satisfying BRE			Number of rooms not satisfying BRE		
			Number	%	0.99– 0.8 x target	0.79-0.6 x target	0.59-0.4 x target	<0.4 x target
Bedroom	1	169	141	83	6	10	12	0
Kitchen	2	6	0	0	0	3	3	0
Living/Dining Room	1.5	26	2	8	9	14	1	0
Living Room	1.5	41	13	32	18	4	6	0
Living/Kitchen/ Dining Room	2	26	16	62	8	2	0	0
TOTAL		268	172	64	41	33	22	0

Table 15.17: Summary of ADF within Nye's Wharf

Room Usage	ADF Target (%)	Total number of rooms tested	Rooms satisfying BRE			Number of rooms not satisfying BRE		
			Number	%	0.99– 0.8 x target	0.79-0.6 x target	0.59-0.4 x target	<0.4 x target
Bedroom	1	266	131	49	48	11	24	52
Dining Room	1.5	1	1	100	0	0	0	0
Kitchen	2	6	0	0	0	0	1	5
Living/Dining Room	1.5	13	6	46	0	3	1	3
Living Room	1.5	69	61	88	1	0	4	3
Living/Kitchen/ Dining Room	2	71	33	46	9	5	6	18
TOTAL		426	232	54	58	19	36	81

Table 15.18: Summary of APSH within future receptors

Property	Total no. of southerly orientated windows tested	Annual Sunlight						Winter Sunlight					
		Windows satisfying BRE		No. of windows not satisfying BRE				Windows satisfying BRE		No. of windows not satisfying BRE			
		No.	%	0.99–0.8 x target	0.79–0.6 x target	0.59–0.4 x target	<0.4 x target	No.	%	0.99–0.8 x target	0.79–0.6 x target	0.59–0.4 x target	<0.4 x target
49-53 Glengall Road	45	15	33	11	0	2	17	26	58	0	0	8	11
Nye's Wharf	321	184	57	22	41	30	44	258	80	5	8	4	46

49 – 53 Glengall Road

- 15.7.54 For ADF, of the 268 rooms tested, 172 (64%) rooms satisfy the BRE recommendations. To run the ADF analysis, an assumption must be made in terms of the internal finishes, and in this case the default value from the guidance for fairly light-coloured rooms has been used. It is common in new developments that thought has gone into the design of units to enhance the light levels and the rooms usually have white ceilings, pale cream walls and light wood flooring. If the analysis was re-run using this information from the developer's architects on internal reflectance, it is likely that the results throughout would materially improve.
- 15.7.55 For APSH, 33% of windows tested achieve the 25% annual APSH guideline, and 58% of windows tested achieve the 5% winter APSH guideline.
- 15.7.56 As with all new developments coming forward, there is the requirement for private amenity space for occupants. Inevitably this means most units are beneath over hanging balconies and therefore there is always a trade-off with daylight and sunlight because the balconies necessarily limit the available light. In 49-53 Glengall Road, most of the units tested have either projecting balconies above windows or have window set back beneath recessed balconies and this means the light levels within are impacted.
- 15.7.57 In considering the above points, the adverse impact on this property is therefore of **Moderate Significance**.

Nye's Wharf

- 15.7.58 For ADF, of the 426 rooms tested, 232 (54%) rooms satisfy the BRE recommendations. The same assumptions about the internal finishes and therefore reflectance have been made regarding Nye's Wharf and it is likely that the light levels are in fact enhanced by the design of the internal finishes. This report can but present the default values when the finishes are unknown.
- 15.7.59 For APSH, 57% of windows tested achieve the 25% annual APSH guideline, and 80% of windows tested achieve the 5% winter APSH guideline.
- 15.7.60 We have only tested the elevations which are in closest proximity to the 2018 Application Scheme. The elevations tested in the main form part of Nye's Wharf courtyard area and therefore the elevations are also in close proximity to each other restricting the availability of light. This floor plan is combined with the necessity for private amenity space and as such projecting balconies further hamper the opportunity for high levels of daylight and sunlight in these areas.
- 15.7.61 The relationship between the outline Block 7 and Nye's wharf will be further considered as a condition of planning addressed during RMAs. Detailed design of the outline Block 7 will concentrate on the relationship between the two massing's elevations to maximise the availability of daylight and sunlight.
- 15.7.62 In considering the above points, the adverse impact on this property is therefore of **Moderate to Major Significance**.
- 15.7.63 The overshadowing results on the Nye's Wharf proposed amenity area are included in **Appendix 15.6** and show that 22% of the area will receive sun on ground for 2 hours on the 21st March. This sits below the BRE guidance of 50%. This amenity area sits to north of the Nye's Wharf development and as such is self-hampered by the orientation and positioning on the committed scheme.

15.8 Further Mitigation & Enhancement

- 15.8.1 In terms of the construction phase, scaffolding, hoardings and cranes will only be in use for as long as is necessary to facilitate demolition and construction, which will therefore mitigate the effects on daylight, sunlight and overshadowing during construction. Any adverse impacts will remain negligible and temporary (short term), at a local scale and therefore no mitigation is required during this phase.
- 15.8.2 For the Completed Development, mitigation strategies were embedded during the design process by creating gaps between the blocks on the Application Site, as opposed to buildings of a more expansive footprint, which has allowed for daylight and sunlight to pass between the blocks. It is therefore considered that mitigation has been embedded through the scheme design and no further mitigation is required.
- 15.8.3 As the outline blocks are progressed through to detailed proposed blocks, careful thought will be put into the design, including building to building separation to maximise the daylight and sunlight available to existing and future receptors.

15.9 Residual Effects

- 15.9.1 During the demolition phase there will be short term/temporary minor beneficial daylight and sunlight impacts to the surrounding residential properties as the Application Site is cleared. The availability of daylight and sunlight would gradually change to a likely significance of **Negligible** to **Moderate Adverse** during the construction period until the massing of the 2018 Application Scheme is complete.
- 15.9.2 Daylight and sunlight impact on the existing sensitive receptors as a result of the 2018 Application Scheme once completed and occupied have been considered, with the results ranging from likely significance of **Negligible to Moderate Adverse**, which will be permanent (long term) and at a local scale.
- 15.9.3 For 54 and 56 Latona Road, the residual effects will be likely significance of **Negligible Adverse**. For the remaining sensitive receptors, bar Ednam House, Northfield House and 90 Haymerle Road, the overall effect will be of likely **Minor Adverse** significance. The minor adverse effects are as a result of the existing balconies to the effected properties limiting the light levels, even in the baseline condition.
- 15.9.4 Regarding Ednam House and Northfield House, the residual effects will be of likely **Minor to Moderate Adverse** significance. As a result of the blinkered design and overhead balconies within Ednam and Northfield House, the effect from the 2018 Application Scheme is heightened. When tested without the overhead balconies, all the daylight results improve, with nearly all the daylight results meeting or exceeding the BRE guideline recommendations for Northfield House. The guidelines suggest flexibility should be applied in such circumstances.
- 15.9.5 There will be likely effects of **Moderate Adverse** significance to the commercial building at 90 Haymerle Road, 'Space Studios'. The baseline conditions for Space Studios show high levels of daylight and sunlight as a result of the low-level existing buildings on the Development Site, which is uncharacteristic for an inner-city context. Inevitably there will be some reduction as a result of the 2018 Application Scheme and it is considered that the residual daylight and sunlight levels are consistent with an urban location and an area designated for redevelopment.
- 15.9.6 It should be remembered that the maximum parameter massing for the Outline Component of the 2018 Application scheme presents a worst-case scenario and it is expected that the light potential to existing and future adjacent receptors will be maximised through iterative detailed design development, taking into particular consideration the BRE Report 209 and Southwark's policy guidance.

- 15.9.7 In the cumulative scenario, the residual effects for all properties are considered a likely significance of **Minor Adverse**, apart from Ednam House, Northfield House and Space Studios. The impacts on Ednam House are increased due to the close proximity of the committed Nye's Wharf Scheme.
- 15.9.8 The light levels within the committed schemes, Nye's Wharf and 49-53 Glengall Road have been considered. It is inevitable in an area designated for development, that the need for new homes will mean increasingly dense tall buildings are proposed in close proximity and there will necessarily be an impact on the light. As noted above under section 15.2, planning policy encourages the optimisation of sites to meet the housing shortage needs and thus states that flexibility should be applied by local planning authorities when applying policies or guidance relating to daylight and sunlight. Additionally, as mentioned above, the relationship between the outline Blocks and Nye's wharf will be further considered as a condition of planning addressed during RMAs. Detailed design of the outline Blocks will concentrate on the relationship between the development schemes coming forward to maximise the availability of daylight and sunlight.
- 15.9.9 As noted at Section 15.3 the footprint and massing Block 5 has been amended since the assessment in this ES Chapter, but no impact of any materiality is expected on the existing receptors and we can confirm that the changes shown do not alter the assessment of significant impacts.

15.10 Monitoring

- 15.10.1 Analysis has been considered in line with the BRE guidelines and British Standards to forecast the likely effects of the 2018 Application Scheme. Further monitoring of the likely effects on the existing and future neighbours is not technically feasible or appropriate. A revised analysis will be deemed necessary if the 2018 Application Scheme were to materially change to an extent that the likely effects on daylight and sunlight to the neighbouring receptors will change.

15.11 Summary Table of Effects

Receptor	Sensitivity	Effect	Magnitude /Spatial extent	Likelihood of Occurrence	Embedded Mitigation	Significance of Effect	Further Mitigation (if required)	Residual Significance of Effect
Operational Development								
54, 56, 90 and 92 Latona Road	High	Daylight Sunlight	Low	Long Term, Permanent	Mitigation has been incorporated into scheme design and further points raised at paragraph 15.11.	Negligible to Minor Adverse	Further Mitigation will be incorporated as the outline buildings enter the detailed design phase	Negligible to Minor Adverse
Denstone House	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse
Ednam House	High	Daylight Sunlight	Low to Medium	Long Term, Permanent	As above	Minor to Moderate Adverse	As above	Minor to Moderate Adverse
Greystoke House	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse
Northfield House	High	Daylight Sunlight	Low to Medium	Long Term, Permanent	As above	Moderate Adverse	As above	Minor to Moderate Adverse
18 - 24 Peckham Park Road	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse

Receptor	Sensitivity	Effect	Magnitude /Spatial extent	Likelihood of Occurrence	Embedded Mitigation	Significance of Effect	Further Mitigation (if required)	Residual Significance of Effect
Space Studios, 90 Haymerle Road	Medium	Daylight Sunlight	Medium	Long Term, Permanent	As above	Moderate Adverse	As above	Moderate Adverse
Cumulative Effects								
54, 56, 90 and 92 Latona Road	High	Daylight Sunlight	Low	Long Term, Permanent	Mitigation has been incorporated into scheme design and further points raised at paragraph 15.11.	Minor Adverse	Further Mitigation will be incorporated as the outline buildings enter the detailed design phase	Minor Adverse
Denstone House	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse
Ednam House	High	Daylight Sunlight	Medium	Long Term, Permanent	As above	Minor to Moderate Adverse	As above	Moderate Adverse
Greystoke House	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse
Northfield House	High	Daylight Sunlight	Medium	Long Term, Permanent	As above	Moderate Adverse	As above	Moderate Adverse

Receptor	Sensitivity	Effect	Magnitude /Spatial extent	Likelihood of Occurrence	Embedded Mitigation	Significance of Effect	Further Mitigation (if required)	Residual Significance of Effect
18 - 24 Peckham Park Road	High	Daylight Sunlight	Low	Long Term, Permanent	As above	Minor Adverse	As above	Minor Adverse
Space Studios, 90 Haymerle Road	Medium	Daylight Sunlight	Medium	Long Term, Permanent	As above	Moderate Adverse	As above	Moderate Adverse

15.12 Summary (in non-technical terms)

14.1.1 This chapter of the ES assesses the likely environmental effects of the 2018 Application Scheme with respect to daylight and sunlight and overshadowing, on the existing receptor and committed schemes in the following scenarios.

- Current sensitive receptors in the baseline condition;
- Current sensitive receptors in the proposed condition;
- Current and future sensitive receptors in the Cumulative Scenario including 49-53 Haymerle and Nye's Wharf

15.12.1 The assessment has been undertaken in accordance with the relevant local policies and industry best practice guidance to assess the significance of the 2018 Application Scheme in terms of daylight, sunlight and overshadowing.

15.12.2 The methodology for the assessment of daylight, sunlight and overshadowing is set out in the BRE Guidance (Building Research Establishment (BRE) Handbook 'Site Layout Planning for Daylight and Sunlight 2011: A Guide to Good Practice). The guidance is designed to be primarily referenced against residential accommodation.

15.12.3 The 2018 Application Scheme has been designed to limit the effects on the neighbouring properties. The Application Site is currently un-developed at present, so the baseline conditions show unnaturally high levels of daylight and sunlight. Therefore, any meaningful redevelopment of the Application Site is going to reduce daylight and sunlight levels beyond the BRE guideline recommendations in some instances. The likely effects on the neighbouring residential properties range from Negligible to Moderate Adverse significance and to the commercial building at 90 Haymerle Road of Moderate significance. The cumulative condition with the committed developments included in the analysis, has a very small impact on the results but does not change the above summary. The likely impacts on the committed schemes is of Moderate Adverse significance.

15.12.4 The residual effects of the 2018 Application Scheme are considered acceptable given the location of the site within an urban inner-city environment, designated for high-rise residential development, where rigid application of the BRE guidelines would be inappropriate. A more flexible approach is required when determining the overall effects of 2018 Application Scheme on the level of daylight, sunlight and overshadowing to existing receptors and future committed schemes.