
Daylight and Sunlight Review

9,11 & 19 Osiers Road
Wandsworth
SW18 1NL



Title

Daylight & Sunlight Review

Address

9,11 & 19 Osiers Road
Wandsworth
SW18 1NL

Client

Greater London Authority

Agents For

N/A

Date of inspection

16 September 2019

Prepared by

Tuffin Ferraby Taylor
18 Holborn
London
EC1N 2LE
0203 479 7777
www.tftconsultants.com

Report Preface



Issue/Revision	00	Date of issue	16 September 2019
----------------	----	---------------	-------------------

Report Production	Chris Harris BSc (Hons)
-------------------	-------------------------



Checked & Authorised by	Monika Polnik
-------------------------	---------------



Version 00

Contents

1.0	Introduction	5
2.0	Daylight and Sunlight Methodology	5
3.0	Planning Policy and Guidance	7
4.0	Adopting Appropriate Alternative Values	7
5.0	Development Site and Scheme Proposal	8
6.0	Assessment Results	9
7.0	Conclusions	15

1.0 Introduction

TFT Consultants have been appointed by the Greater London Authority to undertake a review of the daylight and sunlight impacts that will be caused as a result of developing 9, 11 & 19 Osiers Road, Wandsworth.

Point 2 Consultants have been appointed by the developer to provide a daylight and sunlight assessment to support the planning application. It is understood that the London Borough of Wandsworth did not appoint an external specialist consultant. Therefore, the findings documented in this report have been based on the Point 2 report dated January 2019.

TFT have not undertaken a full technical assessment to verify the findings reported, but have assumed that results documented in Appendices D, E and F are correct.

2.0 Daylight and Sunlight Methodology

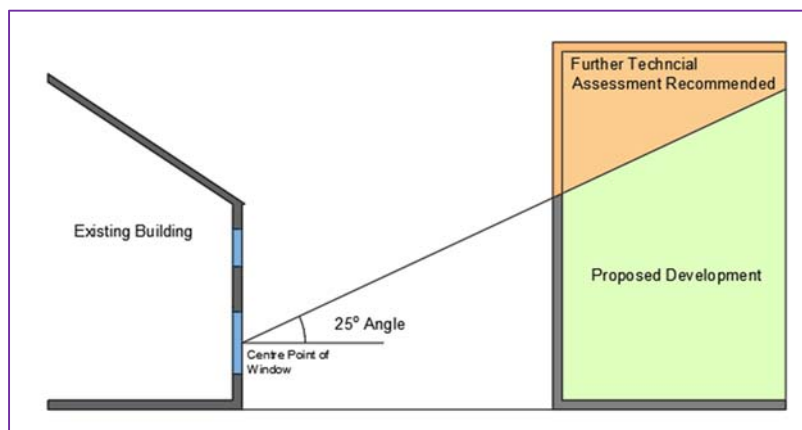
The Point 2 analysis has been undertaken in accordance with the methodology outlined in The Building Research Establishment Report “*Site Layout for Daylight and Sunlight 2011*” (BRE 209). The BRE document is the principle guidance when considering daylight, sunlight and overshadowing and appropriate document to use when considering the daylight and sunlight implications of a proposed development.

The aim of the guide is to ensure good conditions in the local environment. It is intended for buildings designers and their clients, consultants and planning officials. The advice given is not mandatory, although it provides numerical guidelines, these should be interpreted flexibly as natural lighting is only one of many factors in site layout design. In special circumstances, the developer or planning authority may wish to use different target values.

Daylight to Neighbouring Buildings

When considering the impact on neighbouring buildings, the BRE report recommends that if any new development exceeds an angle of more than 25° from the centre point of the neighbouring window as shown in the diagram below, a more detailed check is needed to find the loss of skylight to the existing building.

25 Degree Angle Drawing



Where a proposed development exceeds the 25° angle, the BRE proposes two main methods for calculating daylight levels to neighbouring residential properties. These are the Vertical Sky Component (VSC), the No Sky Line (NSL) and both methods have been considered for the purpose of this report.

Vertical Sky Component (VSC)

The VSC quantifies that amount of skylight available at a reference point on the external face of the window (usually the centre point), it does not account for the size and shape of the room the window serves. The Standard CIE (Commission Internationale de L'Eclairage – International Commission on Illumination) overcast sky is used, and the ratio is expressed as a percentage.

The maximum potential VSC if unobstructed is marginally under 40%. The BRE suggests that if the VSC is less than 27%, and is less than 0.8% its former value, then the neighbouring buildings will experience a noticeable reduction in the amount of skylight they receive.

No Sky Line (NSL)

The NSL calculates the daylight distribution within a room by plotting the NSL. The NSL divides points on working plane (0.85m above FFL) which can or cannot see visible sky.

If following construction of a new development, a room is likely to experience a noticeable reduction if a significant area of the room is beyond the NSL or is less than 0.8 times its former value. It should be noted that consideration will need to be given to the depths of single aspect rooms. If the room is greater than 5m deep, then an adverse infringement may be unavoidable.

Both the VSC and NSL assessment methods have been used to evaluate the effect the proposed development may have on the neighbouring residential properties.

Average Daylight Factor (ADF)

The ADF measures the overall amount of daylight in a space. The calculation considers the VSC value, the size and number of windows serving the space, the overall size of the room and its intended use to give an overall percentage value. BS 8206-2 *Code of practice for daylighting* recommends ADF values of 2% in kitchens, 1.5% in living rooms and 1% in bedrooms.

The BRE guidance suggests that the ADF method is used to show whether habitable rooms within proposed developments will benefit from adequate levels of light. It is also common for this method to be used to show that neighbouring properties will maintain sufficient levels of light in the proposed condition.

The Point 2 report does not mention the factors used within the ADF calculations but for the purposes of this report we have assumed they have adopted reasonable assumptions.

Sunlight

When considering the impact on the amount of sunlight to neighbouring buildings, the BRE report recommends that all main living rooms should be considered if they have a window facing within 90° of due south. Direct sunlight to kitchens and bedrooms is considered less important. To calculate this the BRE has produced sunlight templates for London, Manchester and Edinburgh establishing the Annual Probable Sunlight Hours (APSH) unobstructed light for these areas.

For this assessment, we have used the London template where the maximum APSH is 1,486 hours.

If following the construction of a new development, a living room window facing within 90° due south will experience a noticeable reduction in direct sunlight if:

- It receives less than 20% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March, and receives less than 0.8 times its former sunlight hours during either period,
- And has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

3.0 Planning Policy and Guidance

National Planning Policy Framework: February 2019

The National Planning Policy Framework (NPPF) adopted in February 2019, sets out the Government's planning policies and how these are expected to be applied. It provides a framework that can be used by councils to produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

Section 4 of the NPPF relates to Decision-making setting out the principle to consider when determining applications. Paragraph 38 states that *"Local planning authorities should approach decisions on proposed development in a positive and creative way"*.

Paragraph 123 (c) mentions daylight and sunlight stating that local planning authorities *"when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight"*.

London Plan 2016: Housing Supplementary Planning Guidance – Updated August 2017

The Housing Supplementary Planning Guidance (SPG) provides advice on the implementation of housing policies and the following sections referenced below suggest that a more flexible approach should be considering when considering the daylight and sunlight implications of a proposed development.

Paragraph 1.3.45 Policy 7.6Bd suggests *"An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight impacts of new development on surrounding properties, as well as within new developments themselves."*

Paragraph 1.3.46 also suggest that *"Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from these presently experienced but will still achieve satisfactory levels of residential amenity..."*

Paragraph 2.3.47 *"Quantitative standards on daylight and sunlight should not be applied rigidly, without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London."*

Local Plan: Site Specific Allocations Document – Adopted March 2016

The site is located within the Mixed Use Former Industrial Area identified in the Core Strategy and within the Thames Policy Area and is located in the Wandsworth Riverside/Wandle Delta Focal Point.

The London Plan Density Matrix classifies that site as Urban and the site has been allocated for mixed use development including residential.

4.0 Adopting Appropriate Alternative Values

When dealing with a development site that contains low level buildings the numerical guideline outlined in the BRE are often considered inappropriate, especially in a dense urban location where the daylight and sunlight levels are already compromised. The BRE guide acknowledges this, stating that in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the heights and proportions of the neighbouring buildings. Therefore, in certain circumstances the local authority may wish to use alternative target values to evaluate the daylight and sunlight implications of developing an adjacent site.

Section 8 of the Point2 report considers the setting of appropriate target values based on the VSC levels in the immediate surrounding area, with paragraph 8.7 indicating that the first floor of 1 Eastfields Avenue currently has a development angle of 48° equating to a potential VSC of 13-14%.

Point 2 have also undertaken a set of analysis which considers the impacts of the scheme on the neighbouring residential properties without the balconies included. The BRE recognises that windows with balconies typically receive less daylight because the balconies cut out light that can be received from the top part of the sky. Therefore, even a modest obstruction opposite may result in a large relative impact on the VSC value. Furthermore, the BRE states that this would show that the presence of the balcony, rather than the size of the new obstruction is the main factor in the relative loss of light.

Having regard to the flexible approach outlined in the NPPF and the SPG the following target values have been used to assess the daylight and sunlight implications of the proposed scheme. This is also the standard generally adopted in regeneration areas in urban locations and is considered a reasonable approach to evaluating the daylight and sunlight implications based on the location of this scheme:

- Vertical Sky Component: 15% VSC or within 20% of the existing baseline condition
- No-Sky Line: 50% of the room area or within 20% of the existing baseline condition
- APSH: 15% annually and no target for the winter months

5.0 Development Site and Scheme Proposal

Development Site

The image below shows the development site and surrounding area. The site is currently occupied by a single storey warehouse and commercial buildings comprising of approximately 3,740 m² of employment floor space. There are several recently constructed residential properties to the north, east and west, with three new residential blocks currently under construction to the south.



The following properties have been considered for assessment.

- **No 1:** 1-5 Knightley Walk
- **No 2:** 6 Knightley Walk
- **No 3:** 1 Eastfields Avenue
- **No 4:** 3 Eastfields Avenue
- **No 5:** 5 Eastfields Avenue
- **No 6:** 27 Enterprise Way
- **No 7:** 1-33 Avon House
- **No 8:** 1-62 Clyde House
- **No 9:** Consented Development Blocks A, B & C

Scheme Proposal

The proposed scheme by Rolfe Judd Architects is shown in the image below. The development will consist of the construction of three buildings of up to 14 storeys to provide 168 residential units and 3,805 m² of flexible commercial accommodation, in addition to highway and public realm improvements, basement car and cycle parking.

Rolfe Judd Architects:



6.0 Assessment Results

As discussed in Section 3 of this report, it is often considered appropriate in regeneration areas where the existing buildings are low level to consider not how much light will be removed but whether an appropriate level of light will remain in the proposed condition. Therefore, based on the nature of the development site and immediate surrounding area, we have established how many windows either will not remain within 20% of the existing condition or will have a VSC below 15% in the existing and proposed condition. We have also only considered rooms that do not maintain an NSL of at least 50% in the proposed condition or are within 20% of the existing condition.

No 1: 1-5 Knightley Walk

This is the ground plus 7 storey residential building located directly to the west of the development site with commercial buildings on the ground floor. Several of the rooms have their ability to see visible sky hindered by balconies and the self-obstructing L-shaped design of the building.

The report states that 261 windows serving 111 site facing rooms have been considered for assessment.

Daylight

Vertical Sky Component

The VSC results indicate that 97 windows directly facing the development site do not currently receive a VSC of at least 15% in the existing condition. 108 windows either do not comply with the suggested BRE guidance or maintain a VSC of at least 15% in the proposed condition. With some windows located under balconies experiencing more than an 80% reduction in sky visibility.

Point 2 have undertaken an assessment showing the VSC levels with the balconies removed, which indicates that without the obstructions in place, the windows would generally maintain adequate levels of sky visibility in the proposed condition.

No Sky Line

The NSL results indicate that all but 2 rooms will maintain a NSL coverage of at least 50% in the proposed condition. The 2 rooms that fall below the revised target value are R8/101 which is a Living/Kitchen/Dining area with a recessed balcony. The other is R2/105 which is located on the fifth floor and is believed to be a bedroom.

Average Daylight Factor

The ADF results indicate that 27 of the rooms do not currently meet the BRE target values, increasing to 31 in the proposed condition.

Sunlight

None of the potentially impacted windows/room are orientated within 90° of due south and are not required to be assessed for sunlight.

No 2: 6 Knightley Walk

This is the ground plus 7 storey residential building directly to the north of the development site, with commercial units at ground floor level.

Vertical Sky Component

The VSC results indicate that 85 windows directly facing the development site do not currently receive a VSC of at least 15% in the existing condition. 145 windows either do not comply with the suggested BRE guidance or maintain a VSC of at least 15% in the proposed condition.

Point 2 have undertaken an assessment showing the VSC levels with the balconies removed, which indicates that without the obstructions in place, the windows would generally maintain adequate levels of sky visibility in the proposed condition.

No Sky Line

The results indicate that all rooms will remain within 20% of the existing condition or maintain an NSL coverage of at least 50% in the proposed condition.

Average Daylight Factor

The ADF results indicate that 25 do not currently meet the BRE target values and this will increase to 49 in the proposed condition.

Sunlight

The results indicate that 43 of the windows that qualify for assessment will not meet the revised target values adopted for the analysis. It should be noted, that several of the windows only marginally fall below revised benchmark.

No 3: 1 Eastfields Avenue

This is the ground plus 9 storey residential building to the north of the development site, with commercial units at ground floor level.

Vertical Sky Component

The VSC results indicate that only 3 of the windows considered will experience a reduction in light that exceeds the BRE target values.

No Sky Line

The results indicate that only room R5/131 does not have an NSL coverage of at least 50% in the proposed condition. This room is believed to be a living/dining area.

Average Daylight Factor

The ADF results indicate that 5 rooms do not meet the BRE target values in the existing and proposed condition.

Sunlight

The results indicate that 2 of the windows that qualify for assessment will not meet the revised target values adopted for the analysis. It should be noted, that several of the windows only marginally fall below revised benchmark.

No 4: 3 Eastfields Avenue

This is the ground plus 12 storey residential building to the north of the development site, with commercial units at ground floor level located to the north of the development site.

Vertical Sky Component

The VSC results indicate that 38 of the windows considered for assessment will experience a reduction in light that exceeds the BRE target values in the proposed condition. The failures are generally isolated to windows that have their ability to see visible sky hindered by the recessed balconies.

No Sky Line

The NSL results indicate that only rooms R/151 and R3/151 do not maintain a NSL coverage of at least 50% in the proposed condition. The report indicates that both these rooms are bedrooms, which generally have a lesser requirement for good levels of daylight.

Average Daylight Factor

The ADF results indicate that 2 of the rooms do not currently comply with the BRE target values, this increases to 7 in the proposed condition.

Sunlight

The results indicate that 7 of the windows that qualify for assessment will not meet the revised target values adopted for the assessment. It should be noted, that several of the windows only marginally fall below revised benchmark.

No 5: 5 Eastfields Avenue

This is the ground plus 15 storey residential building to the north of the development site, with commercial units at ground floor level located to the north east of the development site.

Vertical Sky Component

The VSC results indicate that 11 of the windows considered for assessment will experience a reduction in light that exceeds the BRE guidelines or maintain a VSC of less than 15% in the proposed condition. The failures are generally isolated to windows that have their ability to see visible sky hindered by the recessed balconies.

No Sky Line

The NSL results indicate that only rooms R6/181 and R7/181 do not maintain an NSL coverage of at least 50% in the proposed condition. The report indicates that both these rooms are bedrooms.

Average Daylight Factor

The ADF results indicate that 9 of the rooms do not currently comply with the BRE target values, this increases to 11 in the proposed condition.

Sunlight

The results indicate that 4 of the windows that qualify for assessment will not meet the revised target values adopted for the assessment. It should be noted, that several of the windows only marginally fall below revised benchmark.

No's 6 & 7: 27 Enterprise Way & 1-33 Avon House

These are the ground plus 8 and 6 storey residential blocks located to the west of the development site. The analysis has considered the daylight levels to 140 windows and rooms. There has been no information obtained at this stage to confirm the rooms layouts for these properties.

Vertical Sky Component

The VSC results indicate that 18 of the windows considered for assessment across both blocks will experience a reduction in light that exceeds the BRE guidelines or maintain a VSC of less than 15% in the proposed condition.

No Sky Line

The NSL results indicate that only 3 rooms in 27 Enterprise Way either will not remain within 20% of the existing condition or maintain an NSL coverage of at least 50% in the proposed condition. All rooms within 1-33 Avon House will meet the revised target values in the proposed condition. It is understood that notional 4m room depths have been used.

Average Daylight Factor

Due to the unknown nature of the rooms within 27 Enterprise Way & 1-33 Avon House the ADF method of assessment is not considered appropriate to comment on daylight levels within these two properties.

Sunlight

The results indicate that 9 of the windows that qualify for assessment will not meet the revised target values adopted for the assessment. It should be noted, that several of the windows only marginally fall below revised benchmark.

No 8: 1-62 Clyde House

This is the ground plus 8 storey commercial property located directly to the east of the development site.

Vertical Sky Component

The VSC results indicate that 74 windows directly facing the development site do not currently receive a VSC of at least 15% in the existing condition. 65 windows either do not comply with the suggested BRE guidance or maintain a VSC of at least 15% in the proposed condition. Some of the rooms on the first floor will have almost all the light they currently receive removed by the proposed scheme, although this is due to the large recessed first floor balcony area.

Point 2 have also undertaken an assessment with the balconies and external frame removed, which indicates that the majority of the windows will maintain a VSC of at least 15% in the proposed condition.

No Sky Line

The NSL results indicate that 22 rooms either will not remain within 20% of the existing condition or maintain an NSL coverage of at least 50% in the proposed condition.

Average Daylight Factor

The ADF results indicate that 46 of the rooms do not currently comply with the BRE target values, this increases to 68 in the proposed condition.

Sunlight

The results indicate that 14 of the windows that qualify for assessment will not meet the revised target values adopted for the analysis. It should be noted, that several of the windows only marginally fall below revised benchmark.

No 9: Consented Scheme

These are the three residential blocks, currently under construction, to the south of the development site.

Vertical Sky Component

The VSC results indicate that 74 windows directly facing the development site do not currently receive a VSC of at least 15% in the existing condition. 49 windows either will not comply with the suggested BRE guidance or maintain a VSC of at least 15% in the proposed condition.

No Sky Line

The NSL results indicate that only 3 rooms across all blocks either will not remain within 20% of the existing condition or maintain an NSL coverage of at least 50% in the proposed condition.

Average Daylight Factor

The ADF results indicate that all rooms considered will comply with the BRE target values.

Sunlight

None of the potentially impacted windows/room are orientated within 90° of due south and are not required to be assessed for sunlight

Daylight and Sunlight Summary

A summary of the potential daylight and sunlight impacts to the relevant neighbouring properties is listed below:

- **No 1: 1-5 Knightley Walk:** There are several windows/rooms situated under balconies which will experience a significant reduction in light in the proposed condition. This is generally causing by the layout of the property and design on the recessed balconies that limited the potential for light to be received from the upper parts of the sky. However, the NSL results indicate that an adequate amount of sky will be seen from the buildings and the ADF results show that only 4 additional rooms will fail to comply with the BRE target values in the proposed condition.

Overall, there will be a large reduction in light to some of the rooms which are already poorly lit, however due to the design of the property a loss of light exceeding the BRE guidelines would be unavoidable if the development potential of the site is to be maximised.

- **No 2: 6 Knightley Walk:** This property has several windows/rooms located under recessed balconies which hinder their ability to see visible sky in the proposed condition. Currently the property has a relatively open outlook across the development site but still has 25 rooms that do not meet the BRE target values and this will almost double in the proposed condition. Although, the NSL results show that an adequate proportion of sky will be seen from within the room.

Overall, this property will experience a significant reduction in light as a result of the development proposals, although this is mainly due to the large recessed balconies hindering the windows/rooms ability to see sky. This property is expected to be left with light levels which are low but not uncommon in a regeneration area.

- **No's 3, 4 & 5: 1, 3 & 5 Eastfields Avenue:** Due to the relatively open outlook these properties currently enjoy, there will be a noticeable reduction in VSC to some windows. However, overall these properties will be left with sufficient levels of light in the proposed condition.
- **No's 6 & 7: 27 Enterprise Way & 1-33 Avon House:** With the exception of a few isolated areas, these properties will maintain sufficient levels of daylight and sunlight for an urban regeneration location.
- **No 8: 1-62 Clyde House:** This building has several windows directly facing the development site that are located under either balconies or a very large recess hindering their ability to see visible sky. This is shown in the ADF results where 46 rooms do not currently comply with the BRE target values even though the site has a relatively open outlook across the development site.

Overall, there will be a noticeable reduction in light to this property and some of the will be poorly lit in the proposed condition. The design of this building restricts the buildings ability to see sky and as a result any additional massing being added to the site will result in daylight and sunlight losses that exceed the BRE guidelines.

- **No 9: Consented Development Blocks A, B & C:** Due to the location of this properties in relation to the development site, there will be VSC reductions that exceed that BRE target values. However, all rooms meet the ADF requirements and therefore these blocks are expected to benefit from adequate levels of light in the proposed condition.

Overall, when developing a low-level site in a regeneration area such as this, it is inevitable that a significant reduction in daylight and sunlight will occur, especially as all the neighbouring properties have recessed balconies hindering their ability to benefit from good levels of daylight. The daylight and sunlight implications of the proposed scheme should be considered in conjunction with the following:

- Both the NPPF and SPG both state that a flexible approach should be applied when using the BRE guidelines to assess the daylight and sunlight impacts to new developments in regeneration areas and urban locations. This was further evidenced in the Whitechapel Estate case where it was concluded that where a neighbour has taken more than its fair share of light or has windows that are self-obstructed by balconies or other projections a greater reduction in light is unavoidable if one site is not to be prejudiced by how another has been developed.
- The development potential of the site is constrained by the design and configuration on the surroundings properties. TFT understand that there is a need to provide individual private amenity areas, but this is generally to the detriment of daylight and sunlight levels. This is shown by the low levels of light currently experienced within 1-5 Knightley Walk, 6 Knightley Walk and 1-62 Clyde House, which all directly face the low-level existing site and have balconies and, in some cases, very large recessed balconies. When the existing light levels are low a small reduction in the VSC often results in a disproportionate percentage difference.

- As with the NPPF and SPG, the BRE also suggested that alternative target values should be used when assessing the daylight and sunlight implications of a proposed scheme in a dense urban environment. The BRE guidelines
- There is of course the potential to reduce the impact the proposed scheme could have on the neighbouring properties through further detailed design. However, there would have to be a significant reduction in height and massing and minor amendments to the scheme are not expected to make any material difference to the daylight and sunlight implications of developing the site.

7.0 Conclusions

TFT Consultants have been appointed by the Greater London Authority to undertake a review of the daylight and sunlight impact the proposed scheme at 9,11 & 19 Osiers Road, Wandsworth will have on the relevant neighbouring properties.

Point 2 Consultants have been appointed by the developer to provide a daylight and sunlight assessment to support the planning application and the findings documented in our report have been based on the Point 2 report dated January 2019. The assessment has been undertaken in accordance with the methodology outlined in The Building Research Establishment Report “Site Layout for Daylight and Sunlight 2011” (BRE 209).

The BRE states that it is often considered appropriate in high density regeneration area to consider alternative target values. Therefore, based on the nature of the development site and immediate surrounding area, we have established how many windows will have a VSC below 15% in the existing and are either below 15% VSC or experience more than a 20% reduction in the proposed condition. We have also only considered rooms that do not maintain an NSL of at least 50% or experience more than a 20% reduction in the proposed condition.

The report considers the daylight and sunlight levels to 9 of the neighbouring properties, with 1-5 Knightley Walk, 6 Knightley Walk and 1-62 Clyde Walk experiencing a severe reduction in light as a result of the scheme proposals. These buildings have all been designed with either recessed balconies or with external framework that hinder the windows/rooms ability to see visible sky, which is evidenced by the low levels of light several rooms currently experience over the low-level existing buildings. As a result of this, adding massing to the site will cause a disproportionate reduction in light to rooms that are already poorly lit.

The NPPF and SPG suggest that a greater degree of flexibility should be adopted when considering the daylight and sunlight implications of developing sites in dense urban locations or regeneration areas. With recent cases for large developments in regeneration areas in London concluding that when developing close to several neighbouring properties that are directly facing a low level site with external obstructions such as balconies, a significant reduction in daylight and sunlight is often unavoidable.

Due to the proximity and design of the neighbouring properties, there will be several residual impacts in daylight and sunlight terms which will need to be considered against the wider benefits of delivering such a scheme. TFT are of the view that minor amendments to the scheme will not materially improve the potential impacts to the neighbouring properties and a significant reduction and change of the design will be required to limit the impacts the neighbouring properties will experience.

We trust this report is sufficient for current purposes, but if you have any queries or questions please do not hesitate to contact Chris Harris, Technical Partner in our London office.



Development



Built Assets



Sustainability

tftconsultants.com