



4th Floor, Holborn Tower,  
137-144 High Holborn  
London  
WC1V 6PL

T: +44(0)20 7148 6290

E: [info@eb7.co.uk](mailto:info@eb7.co.uk)

W: [eb7.co.uk](http://eb7.co.uk)

# DAYLIGHT & SUNLIGHT REPORT

Lower Road, Surrey Quays  
Site Adjacent to No. 181 Lower Road, Surrey Quays

March 2021



## Contents

1. Introduction .....
2. Guidance .....
3. Application of the guidance .....
4. Planning Policy Context.....
5. Sources of information & assumptions .....
6. The site and proposal.....
7. Assessment results.....
8. Conclusions .....

# 1. Introduction

- 1.1. eb7 have been instructed to assess the effect of proposed development at the site adjacent to No. 181 Lower Road, Surrey Quays on daylight and sunlight to the existing surrounding properties. These assessments consider the latest TfL scheme proposals dated October 2020.
- 1.2. The methodology and criteria used for these assessments is provided by Building Research Establishment's (BRE) guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (BRE 209 2nd edition, 2011).
- 1.3. In order to carry out an assessment, we have generated a 3D computer model (Test Environment) of the existing site, the key surrounding properties and the proposed scheme. Using this model and our specialist software, we have calculated the daylight and sunlight levels in both the existing and proposed conditions for the relevant neighbouring buildings.
- 1.4. The numerical criteria suggested within the BRE guidelines has been applied to each of the assessments mentioned above. It is important to note that these guidelines are not a rigid set of rules, but are advisory and need to be applied flexibly according to the specific context of a site.

## 2. Guidance

### **Daylight & sunlight for planning**

*'Site layout planning for daylight and sunlight: A guide to good practice', BRE 2011*

- 2.1. The Building Research Establishment (BRE) Report 209, *'Site layout planning for daylight and sunlight: A guide to good practice'*, is the reference document used by most local authorities for assessing daylight and sunlight in relation to new developments. Commonly referred to as 'the BRE guidelines', it provides various testing methodologies to calculate the potential light levels received by neighbours of a development site and provided within proposed new development.

#### Detailed daylight assessments

- 2.2. The guidance outline three detailed methods for calculating daylight: The Vertical Sky Component (VSC), the No-Sky Line (NSL) and the Average Daylight Factor (ADF).
- 2.3. The VSC and NSL are primarily used for the assessment of existing buildings, while the ADF test is generally recommended for proposed rather than existing dwellings. The ADF may sometimes be useful as a supplementary analysis for existing buildings, particularly newer ones, and a number of local authorities request this as a standard measurement for impact assessments. It can help in judging whether an impact on daylight, which might otherwise be deemed 'noticeable', is nonetheless acceptable, when considered in the broader town planning context.
- 2.4. The VSC test measures the amount of sky that is visible to a specific point on the outside of a property, which is directly related to the amount of daylight that can be received. It is measured on the outside face of the external walls, usually at the centre point of a window.
- 2.5. Here, the forward-facing living room window will remain unaffected and given that this room is dual aspect it is appropriate to apply the mean figure of the two windows when assessing this space. The room will retain a mean VSC of 20.5 which is below the BRE target of 27%.
- 2.6. The NSL test calculates the distribution of daylight within rooms by determining the area of the room at desk / work surface height (the 'working plane') which can and cannot receive a direct view of the sky and hence 'sky light'. The working plane height is set at 850mm above floor level within residential property.
- 2.7. The room in question here will also retain good levels of sky visibility with in the room and sunlight in excess of the BRE criteria. Whilst there is a small deviation from the VSC target, the retained level of overall amenity means the effects are considered acceptable by reference to the guidance as a whole.
- 2.8. Where rooms are greater than 5m in depth and lit from only one side, the guidance recognises that *"a greater movement of the no sky line may be unavoidable"* (page 8, paragraph 2.2.10).

## 3. Application of the guidance

### Scope of assessment

#### *Impact analysis for neighbouring buildings*

- 3.1. The BRE guidelines advise that, when assessing any potential effects on surrounding properties, only those windows and rooms that have a 'reasonable expectation' of daylight and sunlight need to be considered. At paragraph 2.2.2 it states: -

*"The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed."*

- 3.2. Our assessments therefore consider the neighbouring residential properties only, which the BRE recognises have the highest expectation for natural light. We have tested the impact on the main rooms in each residential property and ignored non-habitable space (e.g. staircases, hallways, bathrooms, toilets, stores etc.) as per BRE guidance.

### Application of the numerical criteria

- 3.3. The opening paragraphs of the BRE guidelines state:

*"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."*

*Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design... In special circumstances the developer or planning authority may wish to use different target values. 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".*

- 3.4. It is therefore very important to apply the BRE guidance sensibly and flexibly, with careful consideration of the specific site context. Its numerical targets theoretically apply to any built environment, from city centres to rural villages. However, in more tightly constrained environments, achieving the default BRE targets can be very challenging and conflict with other beneficial factors of site layout design.
- 3.5. With the above in mind, rigid adherence to the BRE in certain situations could easily result in an inappropriate form of development. In which case it may be appropriate to adopt lower target values more appropriate to the location concerned. This is acknowledged in the BRE guidance at paragraph 2.2.3 (page 7):

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

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

- 3.6. Suggested approaches for setting appropriate alternative target values are provided within Appendix F of the BRE guidelines.

## 4. Planning Policy Context

- 4.1. We have considered local, regional and national planning policy relating to daylight and sunlight. In general terms, planning policy advises that new development will only be permitted where it is shown not to cause unacceptable loss of daylight or sunlight amenity to neighbouring properties.
- 4.2. The need to protect the amenity of neighbours is echoed within recent publications from the Mayor of London and the Secretary of State for Housing, Communities and Local Government. Although, these documents also stress that current guidance needs to be used flexibly where developments are located in urban areas and intend to achieve higher densities. Specifically, these documents suggest that the nationally applicable criteria given within the BRE guidance needs to be applied carefully and in consideration of the development's context.

### ***The Housing SPG – The Mayor of London (March 2016)***

#### **Standards for privacy, daylight and sunlight**

*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*

## 5. Sources of information & assumptions

- 5.1. Architectural drawings and site photography have been used to create a 3D computer model of the proposed development in the context of the existing site and surrounding buildings.
- 5.2. Where survey or planning information was unavailable, the position of the neighbouring property elevations has been estimated based upon brick counts from site photographs. Window positions and dimensions used directly affect the results of all assessment methods.
- 5.3. We have not sought access to the surrounding properties and have been issued with a floorplan via the client which we assume to be accurate. Room layouts used directly affect the results of the NSL and ADF assessments.
- 5.4. The full list of sources of information used in this assessment is as follows:

### ***Scheme drawings of the proposed development***

LSCI-E029-EAR-DCS-AEC-00101

LSCI-E029-EAR-DCS-AEC-00107

LSCI-E029-EAR-DCS-AEC-00108

LSCI-E029-EAR-DCS-AEC-00101\_A02\_Surrey Quays - Proposed Sections Option 6A (Draft)

MG-SRQS-CP-1 of 2-R0

Option 6A WIP Layout

Received October 2020

LR23-WSP-PRM-E029\_XX-DR-TP-0004

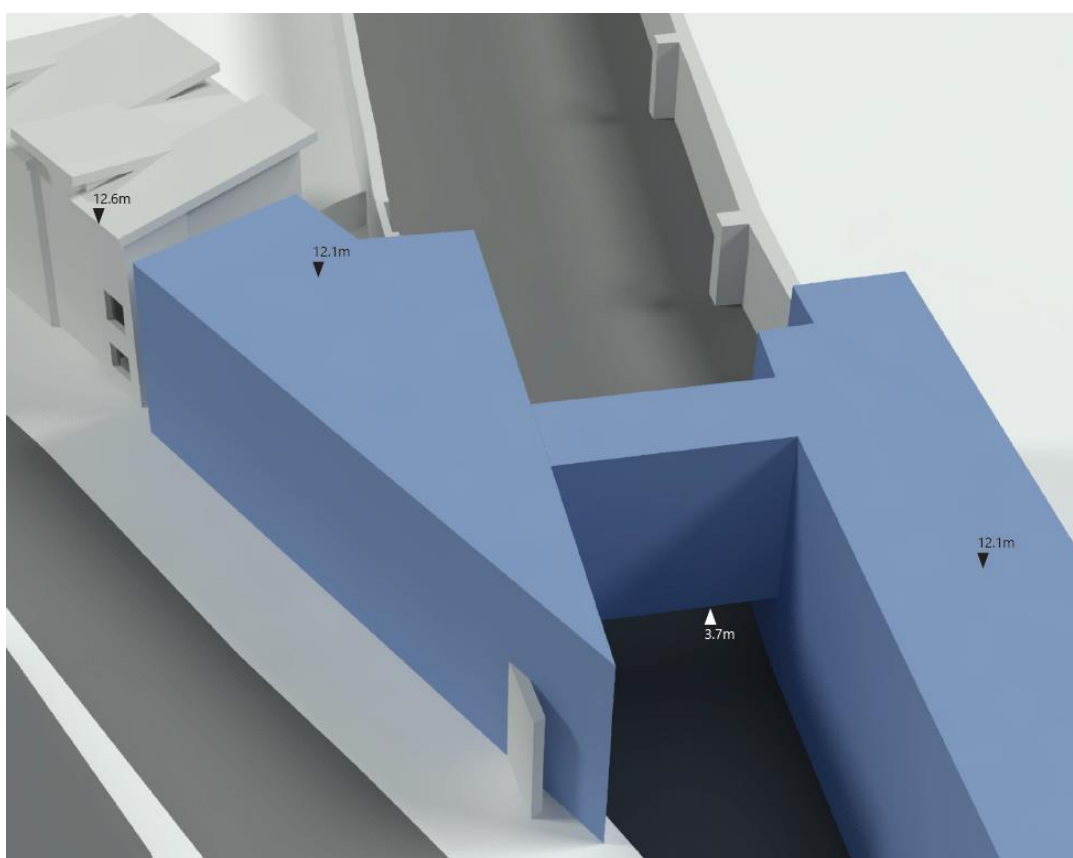
Surrey Quays - Drawings submitted to the Council (December 2020) - Daylight-Sunlight Assessment on this layout-arrangement

Received February 2021



## 6. The site and proposal

- 6.1. The development site is situated adjacent to No. 181 Lower Road, Surrey Quays. It is currently vacant and serves as a parking area for the neighbouring properties.
- 6.2. The proposed upgrade to Surrey Quays Station comprises of a new station concourse (over Platform 2) which is linked to Platform 1 via a new footbridge with access to the proposed back of house facility (located to back of platform 1). Both platforms will be served by new staircases and lifts (providing step-free access from Street to Platform). Our computer modelling of the proposed scheme is shown in the image below and in more detail within our drawings at Appendix 1.



*Image 1 – Isometric view of the proposed development*

## 7. Assessment results

- 7.1. Full results of the daylight and sunlight assessments are attached within Appendix 2. Drawings to show the existing and proposed buildings in the context of the neighbouring property.

### **Daylight and sunlight to neighbouring buildings**

- 7.2. Our assessment has considered the closest neighbouring residential property, No. 181 Lower Road, with windows overlooking the proposed development. This is shown in the following image: -



*Image 2 – site and neighbouring properties assessed*

### **181 Lower Road**



*181 Lower Road*

- 7.3. This is a three-storey end of terrace house which is located immediately adjacent to the scheme. It has a single window at ground floor level in its flank elevation which looks directly over the parking area.
- 7.4. This small secondary window serves the main living space at ground floor. This is a dual aspect room with the principle windows fronting onto to Lower Road. The secondary nature of this window is reinforced by the fact that the other windows to this elevation are blocked up and rendered over.

#### **Daylight**

- 7.5. The flank window currently has an open view over the parking area such that development of the land will inevitably result in a reduction in light to this window. The results of the VSC assessment shown that the flank facing window will see a reduction in retained absolute VSC levels to under 5%. The dual aspect nature of this room however means that the living space will continue to enjoy light from the primary front windows of the property such that the retained mean VSC will remain above 20% with just a marginal change to the No Sky Line.
- 7.6. Whilst the overall retained VSC level is slightly below the BRE target 27% it is well above the mid-teens level considered relatively typical of urban locations in the Whitechapel Estate appeal. Given the overall high VSC levels and only a very marginal change in daylight penetration to the space the effects to the flank window are considered to be acceptable.
- 7.7. The remaining windows to the front of the property will be unaffected by the proposed scheme.

### Sunlight

- 7.8. The BRE guidance suggests that sunlight is most important in main living rooms and that kitchens and bedrooms are less important. Furthermore, only windows which face within 90 degrees of due south are relevant for consideration as part of an APSH assessment. The living room does benefit from a south facing window in its forward elevation which contributes to the retained good levels of sunlight in excess of the target levels and is therefore fully complies with BRE guidance.

## 8. Conclusions

- 8.1. This practice has undertaken a detailed assessment of the potential daylight and sunlight effects of the proposed development of the site adjacent to 181 Lower Road on the key neighbouring property.
- 8.2. Our assessments have been undertaken using the VSC, NSL, ADF (daylight) and APSH (sunlight) tests set out within the BRE guidance '*Site layout planning for daylight and sunlight: A guide to good practice*' (2011).
- 8.3. The neighbour at 181 Lower Road has only a single flank window facing the site of the proposal. This is a secondary window to the living space with the room being principally lit from main windows overlooking lower road.
- 8.4. The results of our tests have shown that, whilst there will be some reductions to one individual window, the amount of daylight received within the neighbouring habitable room will remain very high and the normal use of this space should not be adversely affected. The assessment of sunlight to neighbouring windows has also shown full compliance with the BRE criteria.
- 8.5. Overall, the effects of the scheme to the secondary flank window are considered to be acceptable given the high levels of retained daylight and sunlight amenity to the space as a whole.



# Appendix 1

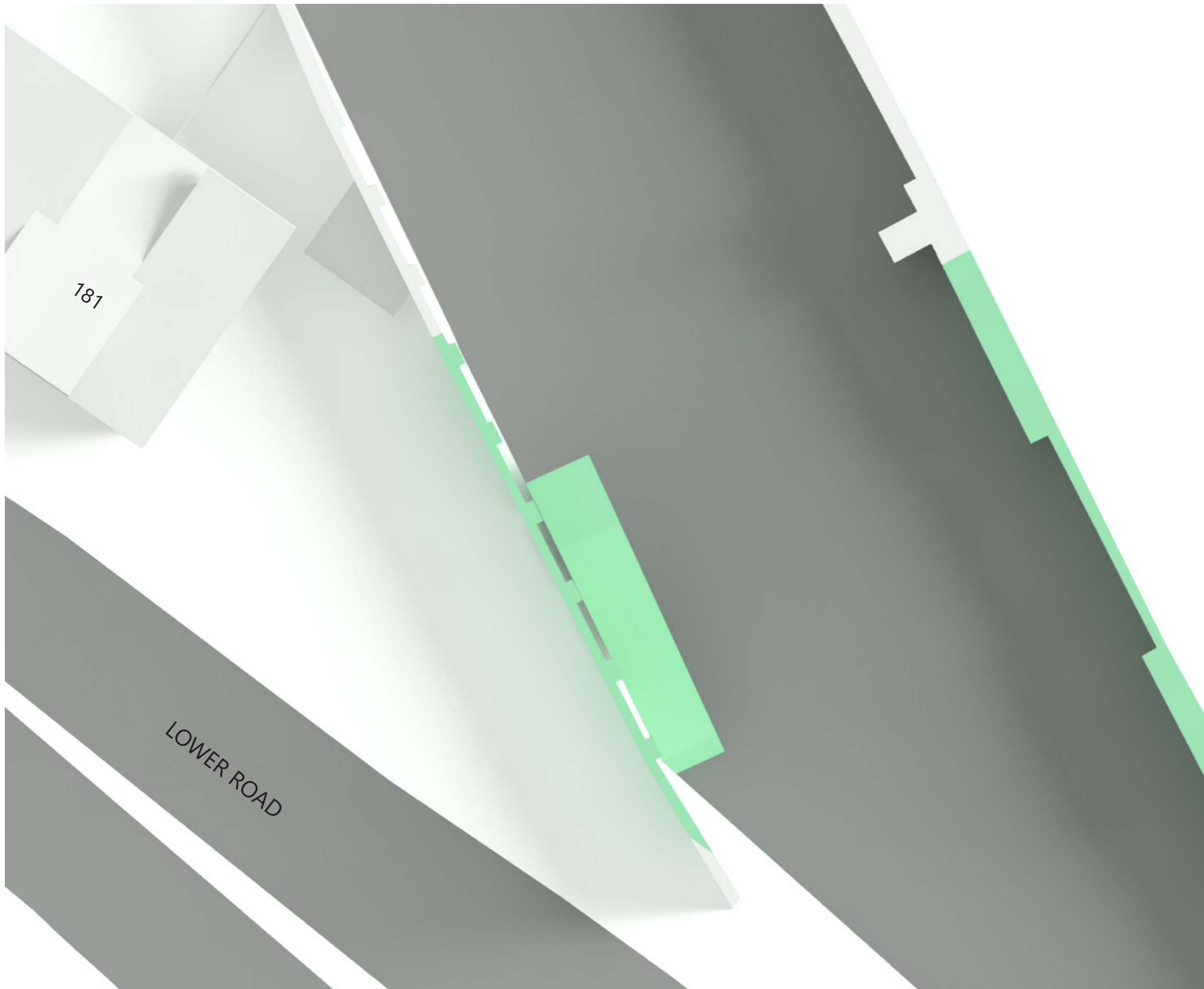
Drawings of the existing, proposed and surrounding buildings

Sources of information

**TFL**  
LSCI-E029-EAR-DCS-AEC-00101  
Received 07/01/2020

LR23-WSP-PRM-E029\_XX-DR-TP-0004.dwg  
Received 15/03/2021

**EB7 Ltd**  
Site Photographs  
Ordnance Survey



Key:



Existing

NORTH



Project Lower Road  
Surrey Quays  
SE16 2XL

Title Existing Condition  
Plan View

Drawn MZ Checked --

Date 16/03/2021 Project 4542

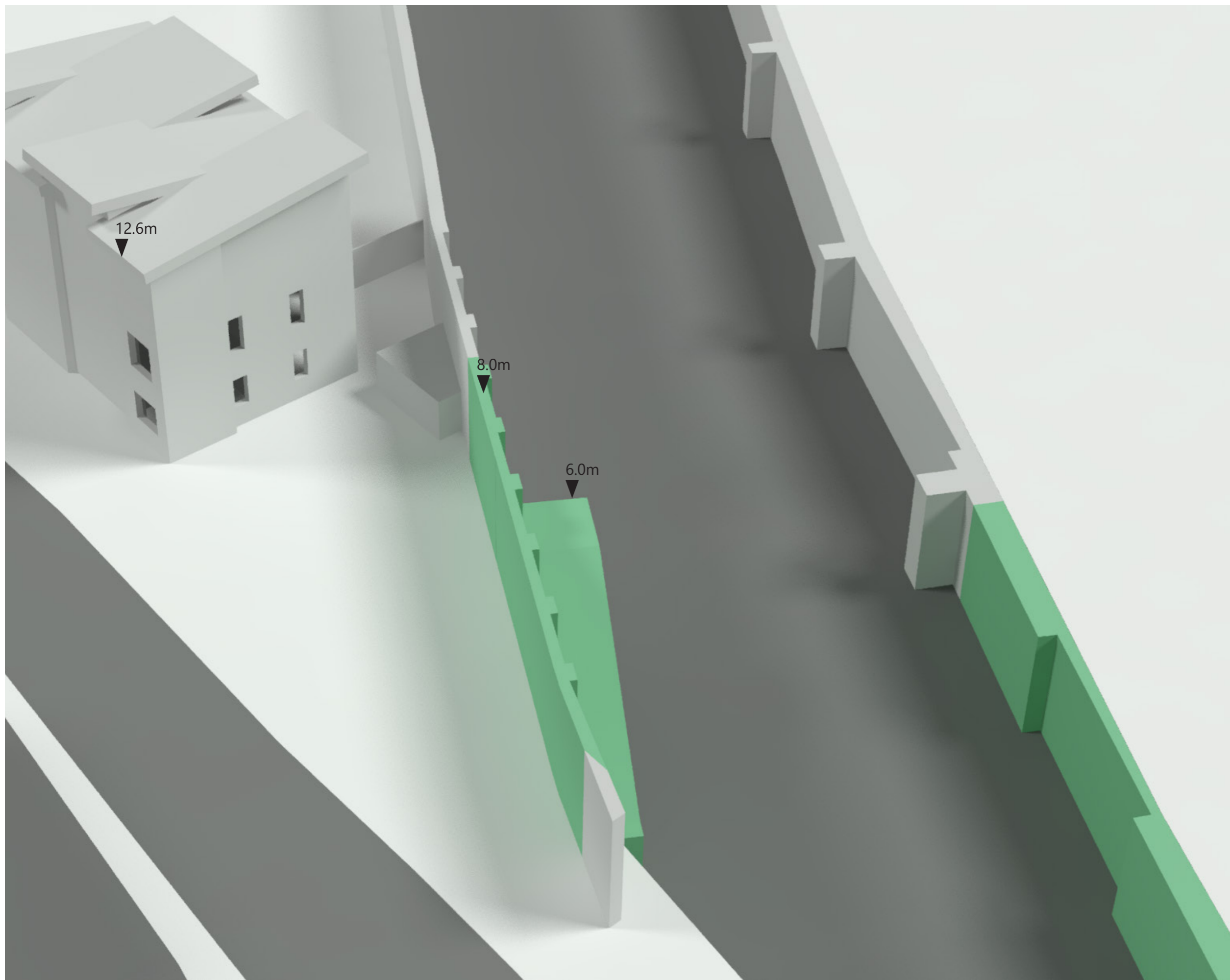
Rel no. 02 Prefix DS01 Page no. 01

Sources of information


**TFL**  
LSCI-E029-EAR-DCS-AEC-00101  
Received 07/01/2020

LR23-WSP-PRM-E029\_XX-DR-TP-0004.dwg  
Received 15/03/2021

**EB7 Ltd**  
Site Photographs  
Ordnance Survey



Key:

 Existing

Project Lower Road  
Surrey Quays  
SE16 2XL

Title Existing Condition  
3D View

Drawn MZ Checked --

Date 16/03/2021 Project 4542

Rel no. 02 Prefix DS01 Page no. 02



Sources of information

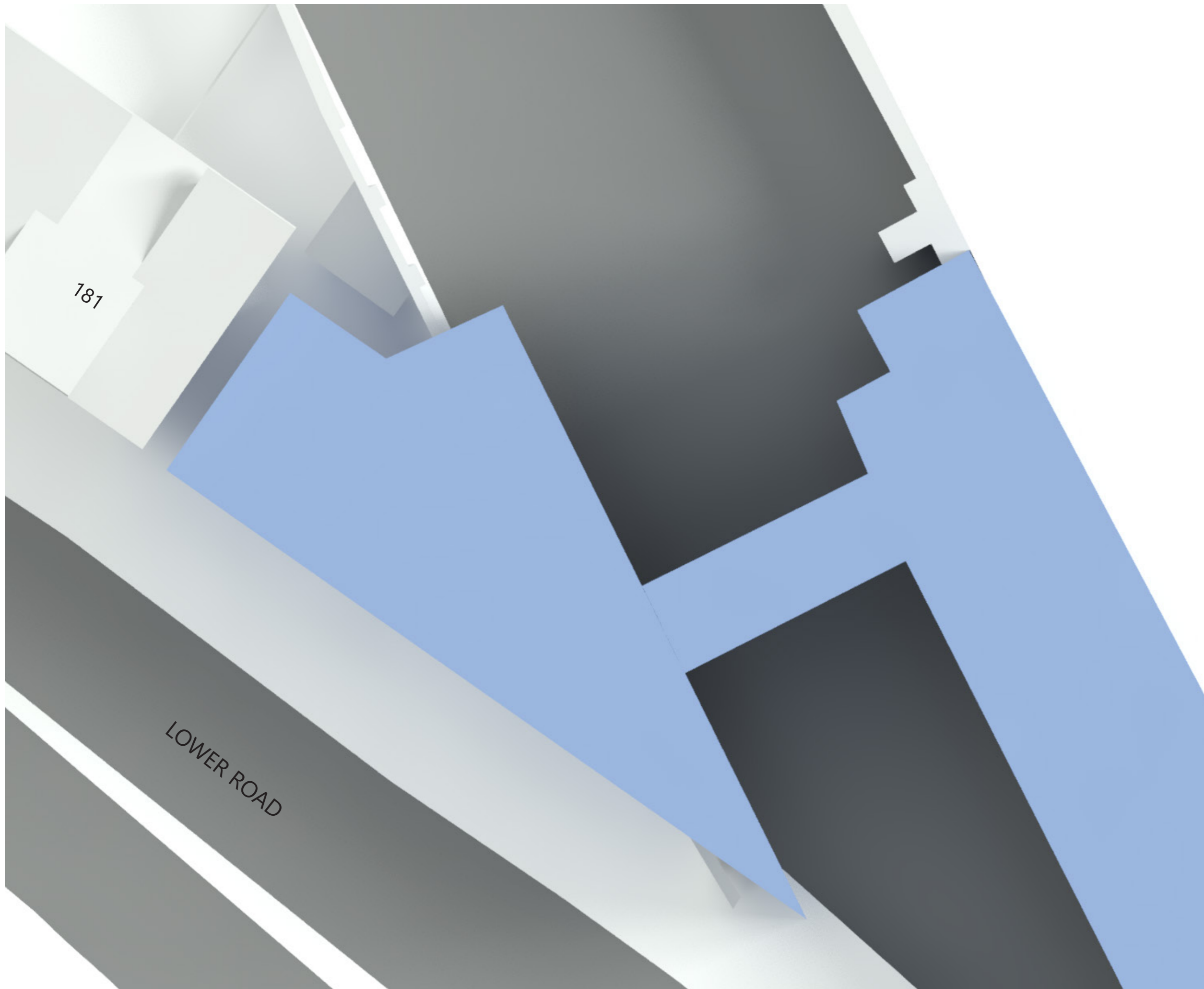
**TFL**

LSCI-E029-EAR-DCS-AEC-00101  
Received 07/01/2020

LR23-WSP-PRM-E029\_XX-DR-TP-0004.dwg  
Received 15/03/2021

**EB7 Ltd**

Site Photographs  
Ordnance Survey



187

LOWER ROAD

Key:



Proposed

NORTH



Project Lower Road  
Surrey Quays  
SE16 2XL

Title Proposed Development  
Plan View

Drawn MZ Checked --

Date 16/03/2021 Project 4542

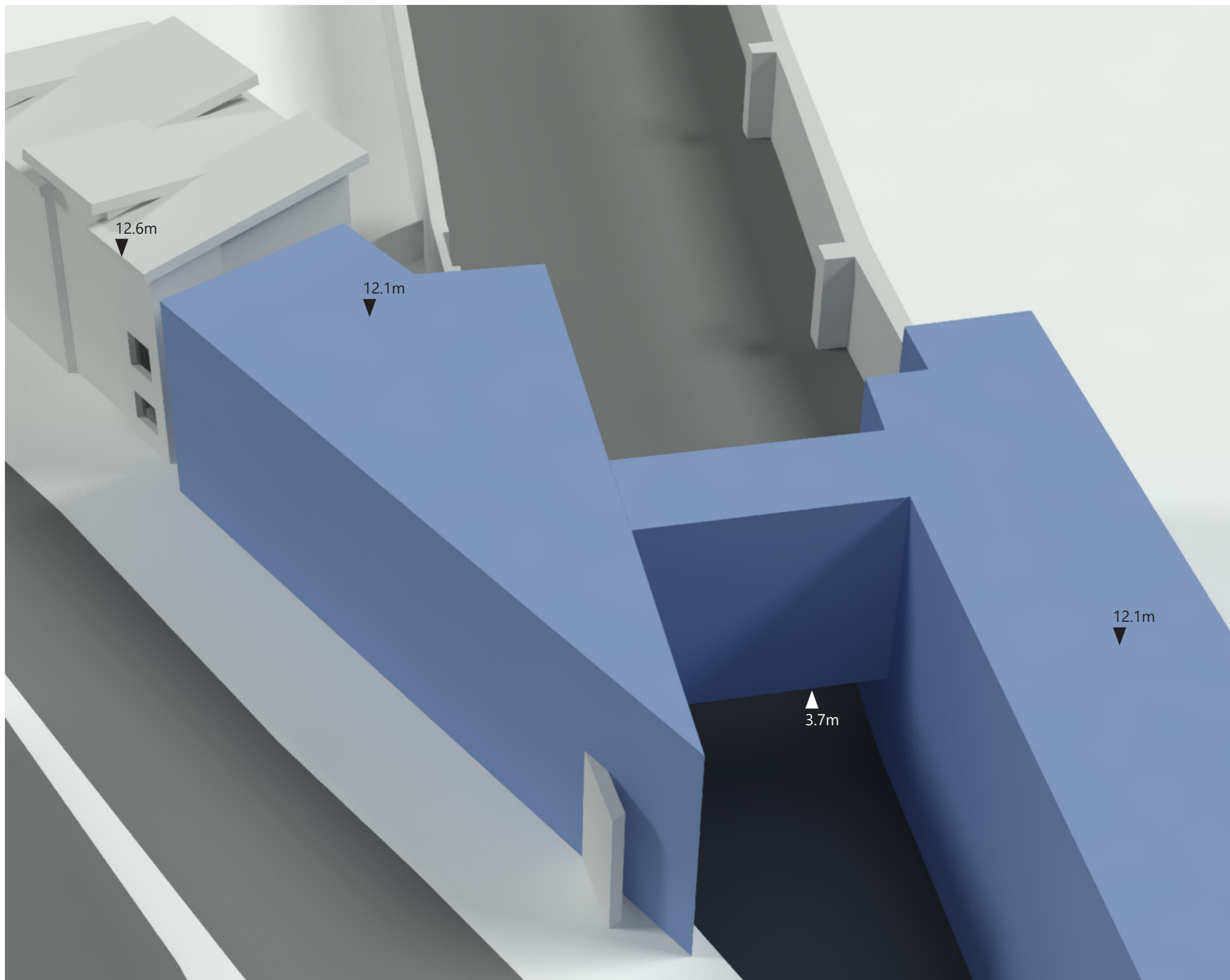
Rel no. 02 Prefix DS01 Page no. 03

Sources of information


**TFL**  
LSCI-E029-EAR-DCS-AEC-00101  
Received 07/01/2020

LR23-WSP-PRM-E029\_XX-DR-TP-0004.dwg  
Received 15/03/2021

**EB7 Ltd**  
Site Photographs  
Ordnance Survey



Key:

 Proposed

Project Lower Road  
Surrey Quays  
SE16 2XL

Title Proposed Development  
3D View

Drawn MZ Checked --

Date 16/03/2021 Project 4542

Rel no. 02 Prefix DS01 Page no. 04



## Appendix 2

Results of the daylight and sunlight assessments  
within neighbouring properties

