



DAYLIGHT & SUNLIGHT REPORT

for

PROPOSED DEVELOPMENT

at

HIGHGATE SCHOOL

SCIENCE BLOCK

N6

REF: SH/GI/ROL00068

REV:-

3 November 2022

expertise
applied

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Figure 1: Oblique aerial photograph of the site looking south (Source: Google Earth)

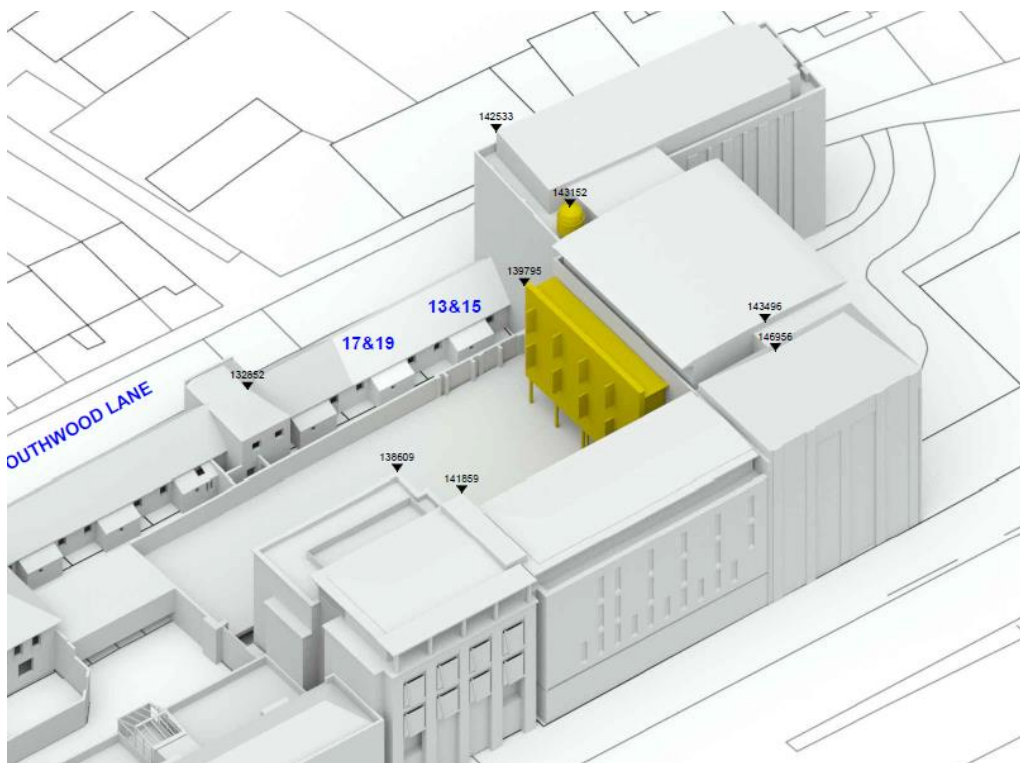


Figure 1: 3D view of computer model in the proposed condition

1. INTRODUCTION

- 1.1 Highgate School is proposing an extension to the science block at Southwood Lane, Highgate, London.
- 1.2 The application is situated on the site of the existing science block within the Garner Quad and is bounded by school buildings to the west and residential properties to the east at 15-37 Southwood Lane.
- 1.3 Highgate School is conscious of the need to minimise impact on the light to neighbouring residential properties and therefore instructed Anstey Horne to work with the project architect, Ed Toovey Architects, so that the effects of the proposed development could be properly understood and, wherever possible, minimised.
- 1.4 Anstey Horne has been commissioned to undertake a formal technical assessment of the effect of the proposed development upon the existing surrounding properties, having regard to the recommendations in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022).
- 1.5 Our study has been carried out using 3D computer modelling and our specialist computer simulation software. Our 3D model is shown in Figure 2 on page ii.
- 1.6 This report summarises the basic principles of daylighting and sunlighting, planning policy guidance, the methods used to assess the potential impact of the development, the information used in compiling our 3D computer model and the results of our technical assessment. Drawings and full tables of results of our technical assessment are attached in the appendices.

2. PLANNING POLICY AND GUIDANCE

National Planning Policy and Guidance

2.1 The Revised National Planning Policy Framework (July 2021) sets out the Government's planning policies and how these are expected to be applied. It provides a framework within which councils can produce their own local plans that reflect the needs and priorities of their communities.

2.2 Chapter 11 'Making effective use of land' states in paragraph 125 (c) that:

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

2.3 The Building Research Establishment, whose aims include achieving a higher quality built environment, publish BRE guidelines 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) by PJ Littlefair. This guide gives advice on site layout planning to retain good daylighting and sunlighting in existing surrounding buildings and achieve to it in new buildings. The guide is intended for use by designers, consultants and planning officials and notes that:

"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."

Regional Planning Policy and Guidance

Mayor's London Plan

2.4 The Mayor of London's '*London Plan – The Spatial Development Strategy for Greater London* (March 2021) 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.

2.5 Policy D6 (Housing quality and standards) states that:

"... D 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..."

Local Planning Policy and Guidance

- 2.6 The development site is located within the London Borough of Haringey.

Haringey Development Management DPD

- 2.7 The Haringey DPD was adopted in July 2017. Policy DM1 'Delivering High Quality Design' states under 'privacy and amenity' that:

"Development proposals must ensure a high standard of privacy and amenity for the development's users and neighbours. The Council will support proposals that:

a Provide appropriate sunlight, daylight and open aspects (including private amenity space where required) to all parts of the development and adjacent buildings and land;

b Provide an appropriate amount of privacy to their residents and neighbouring properties to avoid overlooking and loss of privacy detrimental to the amenity of neighbouring residents and the residents of the development; and

c Address issues of vibration, noise, fumes, odour, light pollution and microclimatic conditions likely to arise from the use and activities of the development".

- 2.8 This document also states in paragraph 2.10 that:

"The design and layout of buildings must enable sufficient sunlight and daylight to penetrate into and between buildings, and ensure that adjoining land or properties are protected from unacceptable overshadowing. The Building Research Establishment (BRE) provides guidance on site layout planning to achieve good sun-lighting and day-lighting (BRE Site Layout Planning for Daylight and Sunlight: a guide to good practice)."

- 2.9 We confirm that we have undertaken our daylight and sunlight study in accordance with BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022).

3. BRE METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES

Daylight to existing surrounding buildings

- 3.1 Section 2.2 of the BRE Report makes recommendations concerning the impact 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. This will be the case if either:

- the VSC [vertical sky component] measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; [or]*
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.”*

- 3.2 So, where the angle to the horizontal subtended by the new development measured at the centre of the lowest window in an existing surrounding building (the angle of obstruction) is less than 25° (see Figure 2 below), the diffuse daylight to that building is unlikely to be significantly affected and need not be tested.

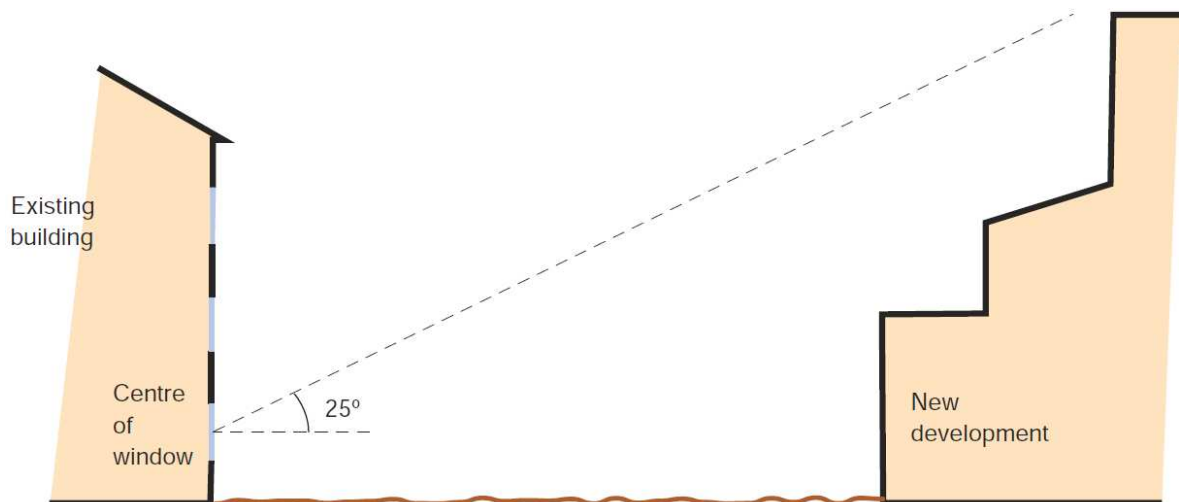


Figure 2 - Section perpendicular to a main window wall of an existing building showing a new development subtending an angle of less than 25° to the horizontal from the centre of the lowest window. (© BRE Report 209)

- 3.3 Where the obstruction angle is greater than 25°, both of the more detailed daylight tests should be undertaken, namely vertical sky component ('VSC') at the window and daylight distribution on the working plane. For each test the guidelines operate on the general principle that if the amount of daylight is reduced to less than 0.8 times its former value (i.e. there will be more than a 20% loss) the reduction will be noticeable to the building's occupants.
- 3.4 'Noticeable' does not necessarily equate to 'unacceptable' and the BRE's standard target values should not be considered as pass/fail criteria. Ultimately the local planning authority will need to make a judgement as to whether any impacts are acceptable when weighed against the many other planning considerations.
- 3.5 The VSC test measures the amount of skylight available 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. If a room has two or more windows of equal size, the mean of their VSCs may be taken. As the VSC calculation takes no account of the size of the window being tested, the size of the room it lights or multiple windows of unequal size, it does not measure light inside the room. It merely measures the potential conditions in the room. The VSC results can therefore be potentially misleading if considered in isolation and should be read in conjunction with those of the second test - daylight distribution.
- 3.6 The daylight distribution test calculates the area of the working plane inside a room that will have a direct view of the sky. This is done by plotting the no-sky line, i.e. the line on the working plane that divides those areas that receive direct skylight from those that do not, as shown in Figure 3 below.

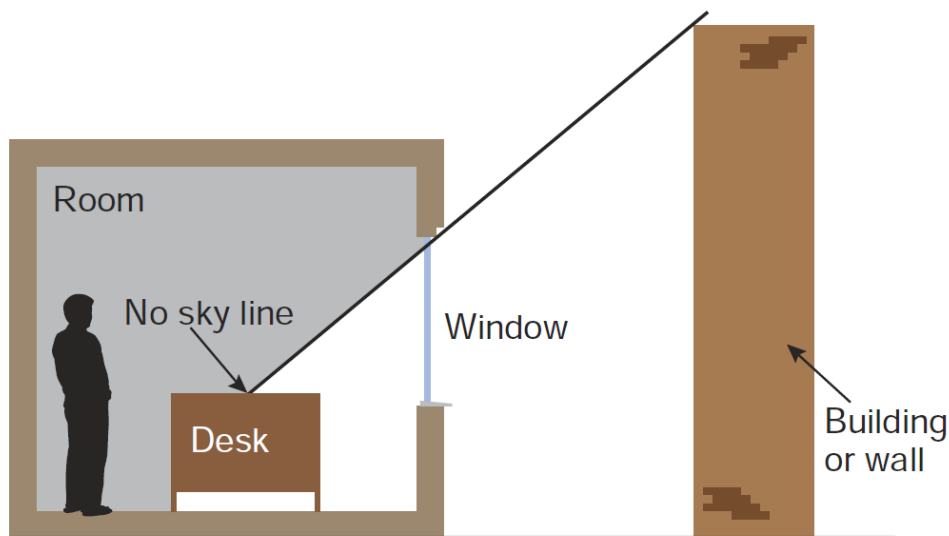


Figure 3 - The no-sky line divides areas of the working plan which can and cannot receive direct skylight.
(© BRE Report 209)

- 3.7 One benefit of the daylight distribution test is that the resulting contour plans show where the light falls within a room, both in the existing and proposed conditions, and a judgement may be made as to whether the room will retain light to a reasonable depth.
- 3.8 The BRE guidelines are intended for use for rooms in adjoining dwellings. They may also be applied to any existing non-domestic buildings where the occupants have a reasonable expectation of daylight, which could include schools, hospitals, hotels and offices. For dwellings it states that living rooms, dining rooms and kitchens should be assessed. Bedrooms should also be checked, although it states that they are less important. Other rooms, such as bathrooms, toilets, storerooms, circulation areas and garages need not be assessed.

Sunlight to existing surrounding buildings

- 3.9 Section 3.2 of the BRE Report makes recommendations concerning the impact on sunlight to existing dwellings or non-domestic buildings where there is a particular requirement for sunlight. The guide notes at paragraph 3.2.2 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 the centre of the lowest window to a main living room.”*

- 3.10 If these angle criteria are not met, the guide recommends a more detailed check to calculate the impact of the proposed development on the available sunlight.
- 3.11 The guide suggests:

“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. Normally loss of sunlight need not be analysed to kitchens and bedrooms, except for bedrooms that also comprise a living space, for example a bed sitting room in an old people’s home. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked; they will normally face within 90° of due south anyway.” (BRE paragraph 3.2.3)

- 3.12 The available sunlight is measured in terms of the percentage of annual probable sunlight hours (‘APSH’) at the centre point of the window. ‘Probable sunlight hours’ is defined as:

“the total number 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.”

3.13 Paragraph 3.2.13 of the BRE Report summarises its sunlight guidance as follows:

“If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- receives less than 25% of annual probable sunlight hours and less than 0.80 times its former annual value; or less than 5% of annual probable sunlight hours between 21 September and 21 March and less than 0.80 times its former value during that period;*
- and also has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.”*

Sunlight to existing surrounding gardens and open spaces

3.14 Section 3.3 of the BRE Report makes recommendations concerning the impact of proposed development on sunlight to open spaces 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).

3.15 The BRE Report recognises that each of these 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 area should receive at least two hours of sunlight on the equinox on 21 March.

3.16 When assessing the impact of a proposed development on the level of overshadowing of an existing open amenity, the BRE guide 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”.

3.17 Sunlight at an altitude of 10° or less does not count, because it is likely to be blocked by planting anyway. Driveways and hard standing for cars is usually left out of the area calculation. Around housing, front gardens which are relatively small and visible from public footpaths can be omitted with only main back gardens needing to be analysed.

3.18 Fences or walls less than 1.5 metres high can be ignored. The guide notes that:

“normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than a deep shadow of a building”.

This is especially the case for deciduous trees, which provide welcome shade in the summer whilst allowing sunlight to penetrate during the winter months.

3.19 Paragraph 3.3.13 of the BRE guide notes that:

“where a large building is proposed that may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year”.

3.20 It can be helpful to produce ‘before’ and ‘after’ shadow plots to show the difference that the proposed building will make. The guide notes that:

“In interpreting the impact of such differences, it must be borne in mind that nearly all structures will create areas of shadow, and some degree of transient overshadowing is to be expected.”

3.21 The BRE guide advises that 21 March (equinox) is the best date for which to prepare transient shadow plots as it gives an average level of shadowing. It notes that as an optional addition, plots for 21 June (summer solstice) may be helpful as they show the reduced shadowing then, although this represents the best case. Conversely, if shadows on 21 December (winter solstice) are plotted *“even low buildings will cast long shadows. In a built up area, it is common for large areas of the ground to be in shadow in December.”*

Computer simulation

3.22 Appendix A of the BRE guide describes a method for calculating VSC and APSH using various indicator templates and Appendix D shows how the no-sky line may be plotted inside a room. Where the obstructions on the skyline are complex these manual methods can be difficult to apply and the results can be crude. We therefore prefer to use computer simulation and our specialist software, which is based on the more accurate Waldram method, which is described in Appendix B of the BRE guide.

3.23 The information upon which our computer model was based is explained in the section 5 of this report.

4. APPLICATION OF BRE GUIDELINES

Flexible application of the guidelines

4.1 In its introduction the BRE Report 209 (third edition, 2022) states:

- *(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."* (BRE paragraph 1.5)
- *"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."* (BRE paragraph 1.6)
- *"Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."* (BRE paragraph 1.6)

4.2 Clearly, the BRE guide is an advisory document, not a rigid set of rules. Care must therefore be taken to apply its recommendations in a manner fitting to the location of the proposed development.

Alternative target values

4.3 In theory the BRE report's numerical guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, it 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... The calculation methods ... are entirely flexible in this respect." (BRE paragraph 1.6)

4.4 At paragraph 2.2.3 the guide states:

"Note 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."

- 4.5 Appendix F of the BRE Guide gives advice on setting alternative target values for skylight access. At page 85 it states:

“different targets may be used, based on the special requirements of the proposed development or its location”.

- 4.6 Clearly, rigid application of the numerical guidelines could well give rise to an inappropriate answer and form of development for city centre sites, in which case it may be appropriate to adopt lower target values that are more appropriate to the location concerned.

Proximity of neighbouring building to the boundary

- 4.7 The BRE guide permits the reasonableness or otherwise of the distance of the neighbouring building from the boundary to be taken into account. At paragraph 2.2.3 it states:

“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”.

Interpretation of relative impacts

- 4.8 Except where the BRE guide’s specified minimum values will be retained in the proposed condition (see paragraphs 3.1, 3.13 and 3.15 above), the guide advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value. (We refer to this as the ‘BRE 0.8 guideline’.) Care must be taken when interpreting the ‘relative impact’ figures (in the columns marked “factor of former value” in the tables of results), because where an existing value is low even a small reduction in real terms can manifest itself as a large relative impact. For example a reduction from 6% VSC to 3% VSC will appear as a reduction to 0.5 times its former value, and is therefore a transgression of the guidelines in theory, but in reality a loss of 3% VSC is very small and would be barely perceptible.
- 4.9 When the previous edition of the BRE guidelines was launched in 2011, the BRE cited the above logic as the reason for introducing the third tier to their sunlight criteria, as referred to in paragraph 3.13 above, namely that sunlight will be adversely affected where it is reduced below 25% APSH annually or 5% APSH and to less than 0.8 times its former value and where the reduction annually is greater than 4% APSH criteria.

Balconies, projecting wings and other self-obstructing projections

- 4.10 The BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and sunlight and, as a consequence, larger relative reductions in light may be unavoidable. More specifically it states:

“Existing windows with balconies above them typically receive less daylight. Because the balcony cuts out light from the top part of the sky, even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct skylight. One way to demonstrate this would be to carry out an additional calculation of the VSC and area receiving direct skylight, for both the existing and proposed situations, without the balcony in place. For example, if the proposed VSC with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of light.” (BRE paragraph 2.2.13)

“A larger relative reduction in VSC may also be unavoidable if the existing window has projecting wings on one or both sides of it, or is recessed into the building so that it is obstructed on both sides as well as above.” (BRE paragraph 2.2.14)

“Balconies and overhangs above an existing window tend to block sunlight, especially in summer above south-facing windows. Even a modest obstruction opposite may result in a large relative impact on the sunlight received. One way to demonstrate this would be to carry out an additional calculation of the APSH, for both the existing and proposed situations, without the balcony in place. For example, if the proposed APSH with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of sunlight.” (BRE paragraph 3.2.11)

- 4.11 Clearly, where windows are inset or self-obstructed by balconies or other projections they will be unusually sensitive to changes in massing opposite and transgressions of the BRE’s default numerical guidelines are more likely to arise. In such circumstances flexible application of the guidelines is very important.

Deep rooms

- 4.12 The BRE guide advises that light penetration into deep rooms lit from one side only may be unavoidably affected. At paragraph 2.2.12 it states

“The guidelines ... need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5m deep, then a greater movement of the no sky line may be unavoidable.”

5. INFORMATION USED IN THE TECHNICAL STUDY

- 5.1 In order to carry out the tests recommended in the BRE Report, we commenced by building a 3D computer model of the existing buildings on the site, the existing surrounding buildings to be studied, other relevant background massing and the proposed scheme. The computer model is illustrated on the drawings at Appendix A and is based on the information listed below.

Proposed scheme:

- Ed Toovey Architect's drawings of the proposed scheme received 5 September 2019.

Existing building on the site and existing surrounding buildings:

- Randall Surveys LLP's measured survey received 22 February 2010
- OS map
- Aerial photography from Microsoft Bing
- Site photographs

6. SCOPE OF TECHNICAL STUDY

- 6.1 In our experience local planning authorities are usually only concerned with the impact on dwellings and, perhaps, schools, hospitals and nursing homes. This is the basis on which we have scoped our technical study.
- 6.2 Having regard to the preliminary 25°-line test and orientation test recommended in the BRE Report, as explained above in paragraphs 3.1 and 3.9, we have calculated the impact of the proposed development on the daylight and sunlight levels to relevant rooms in the following existing surrounding buildings:

Table 1 - Scope of assessments

Properties	Daylight	Sunlight
13-15 Southwood Lane	Yes	No
17-19 Southwood Lane	Yes	No

- 6.3 We have only tested the impact on the main rooms in each property, as advised in the BRE guidelines. It is not necessary to test staircases, hallways, bathrooms, toilets etc.
- 6.4 Each of the existing surrounding buildings tested is shown labelled on the plan views of the computer model on our drawings at Appendix A of this report.
- 6.5 The daylight distribution contour plans at Appendix D show the window positions and room layouts that have been tested in each of the buildings concerned.
- 6.6 The windows of 13-15 and 17-19 Southwood Lane which face the proposed scheme are orientated within 90 degrees of due north and therefore have not been tested for sunlight, in accordance with the BRE guidelines.

7. IMPACT UPON SURROUNDING PROPERTIES

- 7.1 In this section of the report, we set out our analysis of the results of our impact study under the headings of daylight and sunlight. For each element we will provide commentary on the results taking each property, or groups of properties, in turn.
- 7.2 To re-cap briefly on the assessment criteria explained in section 3, each of the tests is run in the existing and proposed condition so that the daylight and sunlight levels before and after development are quantified and the relative change is determined. Except where the BRE guide's specified minimum values will be retained in the proposed condition, it advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value (the "BRE 0.8 guideline").

Daylight to existing surrounding buildings

- 7.3 The numerical results of the vertical sky component ('VSC') test are tabulated at Appendix B. For the daylight distribution test, numerical results are tabulated at Appendix C and no-sky contour plans are shown on our drawings at Appendix D. On the plans, the area of the room with a view of sky in the proposed condition is enclosed by the red contour and in the existing condition by the green contour. Where there will be no effect on the no-sky contour the red contour sits on top of the green one and only the red contour is visible. Where there will be a change, the areas of the room that will either lose or gain a view of sky are cross-hatched black.

13-15 Southwood Lane:

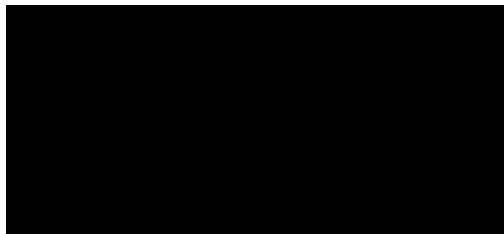
- 7.4 This is a single storey residential property located to the east of the site, which forms part of a terraced block. The layouts of this property have been based floorplans obtained from council records under application number OLD/1982/1385.
- 7.5 Our assessments show that one of the two windows tested for this property will satisfy the BRE guidelines for VSC by retaining greater than 0.8 times former value. The remaining window serving the living room achieves a factor of former value of 0.69 and is therefore slightly below the guideline value.
- 7.6 In terms of daylight distribution, one of the two rooms tested achieves the BRE guideline values by retaining greater than 0.8 times former value. The remaining room achieves a factor of former value of 0.77 and is therefore marginally below the guideline value.
- 7.7 This window is blinkered on both sides by the existing science block and the projecting portion of its own building and therefore achieves a low VSC value in the existing condition. As a consequence of this, even a small reduction in absolute VSC value manifests as a disproportionately large percentage reduction.

17-19 Southwood Lane:

- 7.8 This is a single storey residential property to the east of the proposed development. The layouts of this property have been based floorplans obtained from council records under application number OLD/1982/1385.
- 7.9 The results indicate that all of the windows tested for this property will satisfy the BRE guidelines for VSC by retaining greater than 0.8 times former value. In terms of daylight distribution, all rooms achieve the BRE guideline values by retaining greater than 0.8 times former value.

8. SUMMARY AND CONCLUSION

- 8.1 Haringey Council London Borough's planning policy seeks to safeguard daylight and sunlight to existing buildings and points to the guidance published in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice*.
- 8.2 We have undertaken a study of the impact of the proposed development on the relevant rooms in the surrounding dwellings. The tests were undertaken in accordance with the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022). The BRE guide gives useful advice and recommends various numerical guidelines by which to assess the impact of development on daylight and sunlight to existing surrounding properties.
- 8.3 The results have shown that the majority of the neighbouring windows and rooms assessed achieve full adherence to the BRE daylight guidelines under the proposed condition. There is a single window/room which falls marginally short of the guideline values, but this is as a result of the design of its own building, which causes the window to be blinkered on both sides, as opposed to the proposed development.
- 8.4 In conclusion, the layout of the proposed development follows the BRE guidelines and will not significantly reduce sunlight or daylight to existing surrounding properties. Therefore, Haringey's planning policy on daylight and sunlight to neighbouring will be satisfied.



.....

ANSTEY HORNE

3 November 2022

APPENDIX A

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PLAN AND 3D VIEWS OF THE COMPUTER MODEL

DRAWING NOS. ROL00068_R02_V02_001 TO 006



SITE PLAN VIEW

A

AnsteyHorne

CHARTERED SURVEYORS

London020 7065 2770Bristol0117 911 3061Birmingham0121 667 9902www.ansteyhorne.co.uk

LEGEND:

Existing

Proposed

12120

Consented

Cutback

AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

RANDALL SURVEYS

Received on 22/02/10

Site and aerial photos.

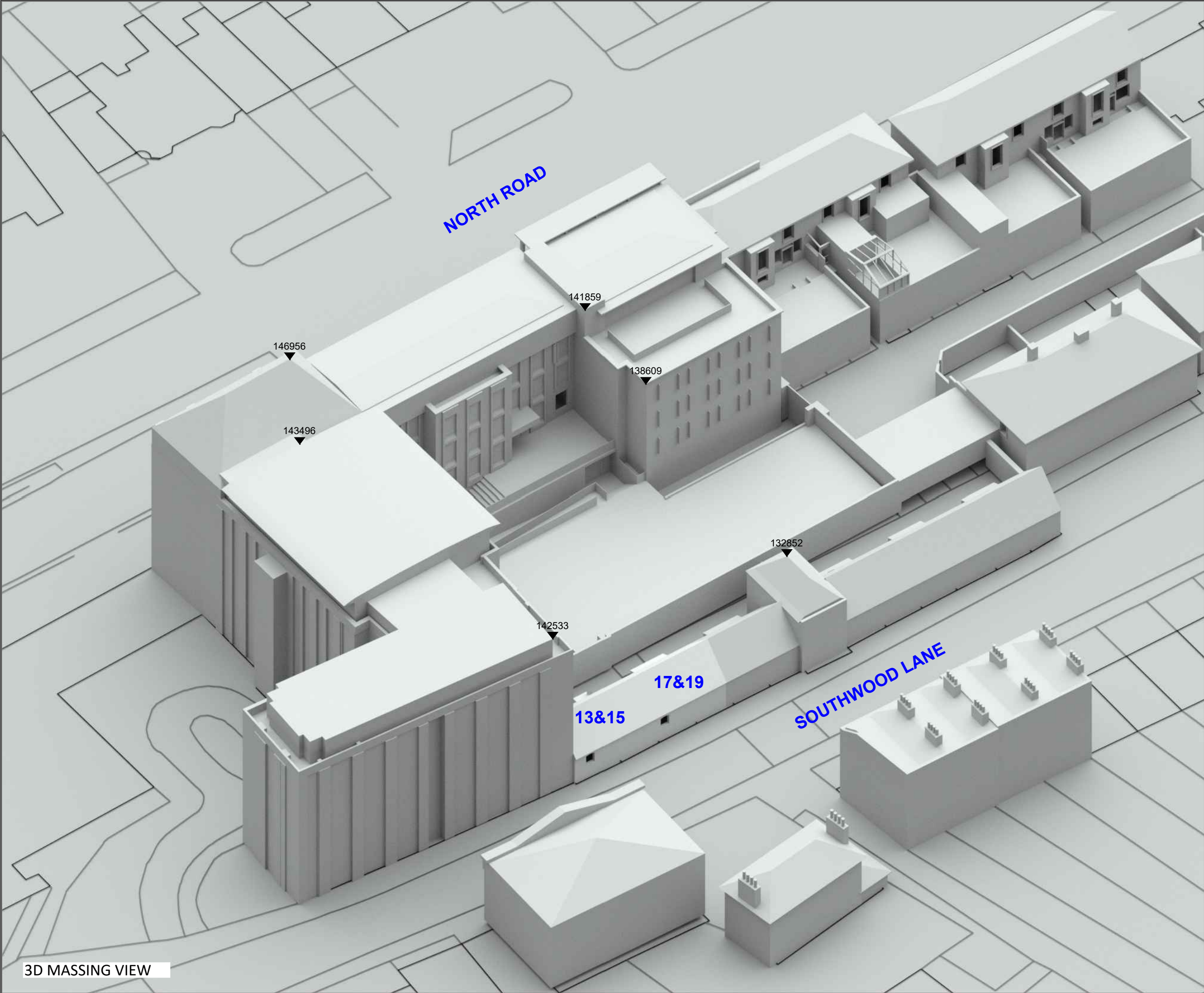
PROPOSED BUILDINGS

ED TOOVEY ARCHITECTS

Received on 05/09/19

0m5m10m15m20m25m

REV	DESCRIPTION	DATE
© Copyright Anstey Horne & Co. Ltd This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved. This drawing should not be reproduced without permission. Do not scale from this drawing.		
CLIENT:	SENIOR CAPITAL PROJECT MANAGERS	
PROJECT TITLE:	HIGHGATE SCHOOL SCIENCE BLOCK	
SCHEME REF:	SCHEME RECEIVED: 05/09/19	
DRAWING TITLE:	SITE PLAN VIEW EXISTING CONDITION	
MODELLED BY: / DRAWN BY	DATE:	SCALE: 1:500
xx	NOV.2019	A3
PROJECT No:	RELEASE No:	VERSION No:
ROL00068_R02_V02_		
DRAWING No:		001
Site Plan		



3D MASSING VIEW

LEGEND:

- Existing
- Proposed
- Consented
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
RANDALL SURVEYS
Received on 22/02/10
Site and aerial photos.
PROPOSED BUILDINGS
ED TOOVEY ARCHITECTS
Received on 05/09/19

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CLIENT:	SENIOR CAPITAL PROJECT MANAGERS	
PROJECT TITLE:	HIGHGATE SCHOOL SCIENCE BLOCK	
SCHEME REF:	SCHEME RECEIVED: 05/09/19	
DRAWING TITLE:	3D MASSING MODEL VIEW EXISTING CONDITION	
MODELLED BY: / DRAWN BY: xx	DATE: NOV.2019	SCALE: N.T.S.
PROJECT No: ROL00068_R02_V02	RELEASE No:	VERSION No: 002
3D Massing Model		



 Existing
 Consented

 Proposed
 Cutback

PROPOSED BUILDINGS
ED TOOVEY ARCHITECTS
Received on 05/09/19

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CLIENT: SENIOR CAPITAL PROJECT MANAGERS

PROJECT TITLE:	HIGHGATE SCHOOL SCIENCE BLOCK
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SCHEME REF: SCHEME RECEIVED: 05/09/19

DRAWING TITLE: 3D MASSING MODEL VIEW
EXISTING CONDITION

MODELLED BY: / DRAWN BY xx	DATE: NOV.2019	SCALE: N.T.S.	A3
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PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00068 R02 V02			003

3D Massing Model

3D MASSING VIEW



NORTH ROAD

SOUTHWOOD LANE

17&19

13&15

SITE PLAN VIEW

LEGEND:

█ Existing	█ Consented
█ Proposed	█ Cutback
12120	AOD Height (mm)

SOURCES OF INFORMATION:

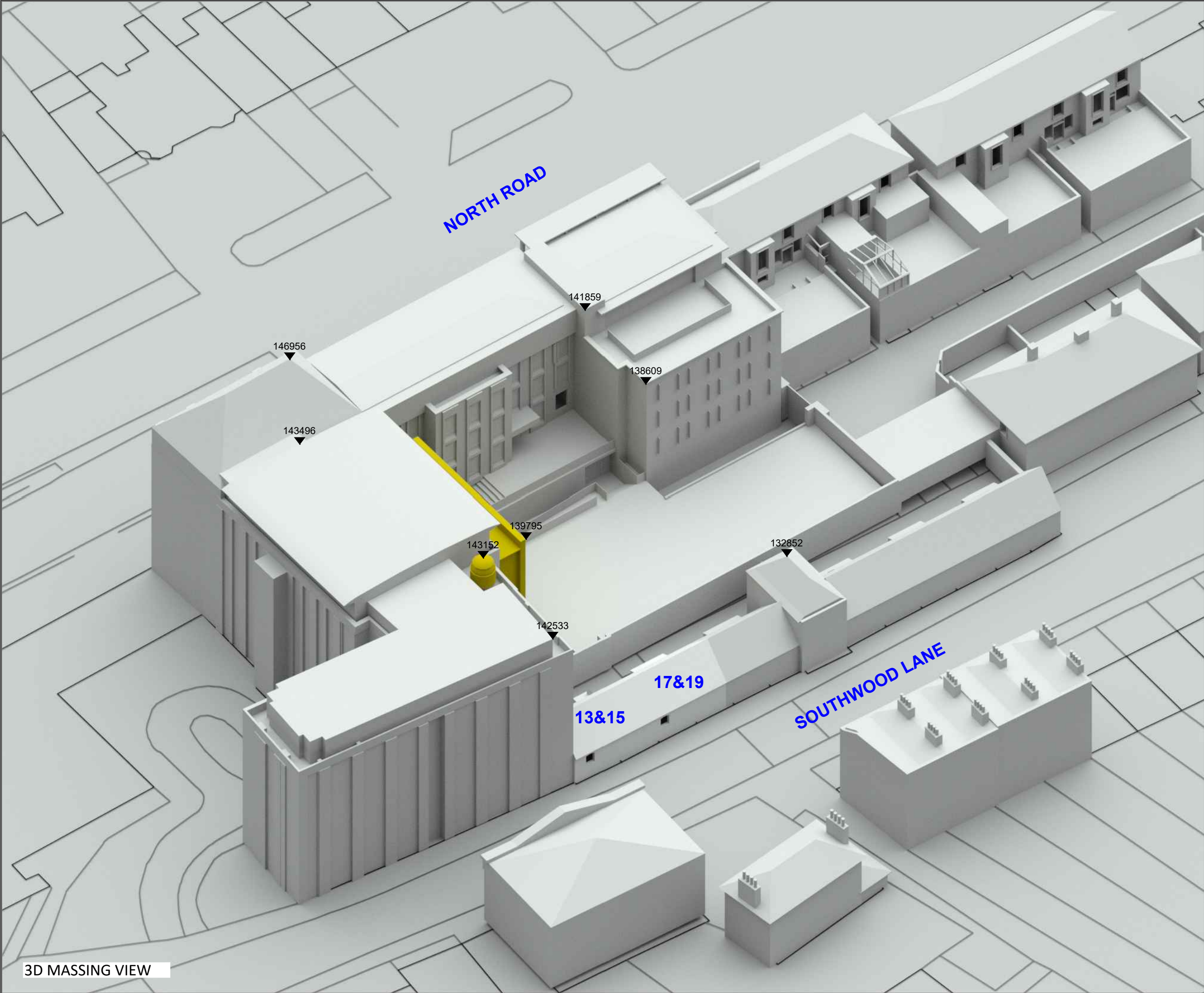
EXISTING, SURROUNDING & ANALYSED BUILDINGS
RANDALL SURVEYS
Received on 22/02/10

Site and aerial photos.

PROPOSED BUILDINGS
ED TOOVEY ARCHITECTS
Received on 05/09/19



REV	DESCRIPTION	DATE
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CLIENT:	SENIOR CAPITAL PROJECT MANAGERS	
PROJECT TITLE:	HIGHGATE SCHOOL SCIENCE BLOCK	
SCHEME REF:	SCHEME RECEIVED: 05/09/19	
DRAWING TITLE:	SITE PLAN VIEW PROPOSED SCHEME	
MODELLED BY: / DRAWN BY	DATE:	SCALE: 1:500
xx	NOV.2019	A3
PROJECT No:	RELEASE No:	VERSION No:
ROL00068_R02_V02_		004
Site Plan		



A

AnsteyHorne

CHARTERED SURVEYORS

London020 7065 2770Bristol0117 911 3061Birmingham0121 667 9902www.ansteyhorne.co.uk

LEGEND:

Existing

Proposed

12120

Consented

Cutback

AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

RANDALL SURVEYS
Received on 22/02/10

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PROPOSED BUILDINGS

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CLIENT:

SENIOR CAPITAL PROJECT MANAGERS

PROJECT TITLE:

HIGHGATE SCHOOL SCIENCE BLOCK

SCHEME REF:

SCHEME RECEIVED: 05/09/19

DRAWING TITLE:

3D MASSING MODEL VIEW
PROPOSED SCHEME

MODELLED BY: / DRAWN BY: xx

DATE: NOV.2019

SCALE: N.T.S.

A3

PROJECT No:

RELEASE No:

VERSION No:

DRAWING No:

ROL00068_R02_V02_

005

3D Massing Model



 Existing
 Consented

 Proposed
 Cutback

PROPOSED BUILDINGS
ED TOOVEY ARCHITECTS
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PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00068_R02_V02_			006

3D Massing Model

3D MASSING VIEW

APPENDIX B

-

VERTICAL SKY COMPONENT ('VSC') TABLE

Ed Toovey Architect's Scheme 05/09/19						
Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
13&15 Southwood Lane						
R22/20		BEDROOM	W25/20	13.49	12.41	0.92
R23/20		LD	W27/20	7.75	5.32	0.69
R23/20		LD	W28/20	27.96	27.96	N/A
17&19 Southwood Lane						
R18/20		BEDROOM	W20/20	16.98	16.86	0.99
R21/20		LD	W23/20	12.86	12.25	0.95
R21/20		LD	W29/20	31.13	31.13	N/A

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC.
A factor greater than 1 indicates an increase in daylight.
A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

APPENDIX C

-

DAYLIGHT DISTRIBUTION TABLE

Ed Toovey Architect's Scheme 05/09/19

Property / room ref.	Property type	Room Usage	Room area (m ²)	Existing lit area (m ²)	Proposed lit area (m ²)	*Factor of former value
13&15 Southwood Lane						
R22/20		BEDROOM	6.31	4.38	4.19	0.96
R23/20		LD	14.74	12.03	12.03	1.00
17&19 Southwood Lane						
R18/20		BEDROOM	5.97	4.45	4.45	1.00
R21/20		LD	14.77	13.63	13.63	1.00

APPENDIX D

-

DAYLIGHT DISTRIBUTION CONTOUR PLANS

DRAWING NOS. ROL00068_R02_V02_101_01



LEGEND:

Room Layout - Plan/ Inspection

Room Layout - Notional/ Cellular

Room Layout - Assumed

Proposed Contour

Existing Contour

Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

RANDALL SURVEYS

Received on 22/02/10

Site and aerial photos.

PROPOSED BUILDINGS

ED TOOVEY ARCHITECTS

Received on 05/09/19

REV	DESCRIPTION	DATE
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CLIENT:	SENIOR CAPITAL PROJECT MANAGERS	
PROJECT TITLE:	HIGHGATE SCHOOL SCIENCE BLOCK	
SCHEME REF:	SCHEME RECEIVED: 05/09/19	
DRAWING TITLE:	DAYLIGHT DISTRIBUTION CONTOURS 13&15 AND 17&19 SOUTHWOOD LANE	
MODELLED BY:/ DRAWN BY	DATE: NOV.2019	SCALE: 1:100
xx		A3
PROJECT No:	RELEASE No:	VERSION No:
ROL00068_R02_V02		101-01
Daylight & Sunlight		

APPENDIX E

-

ANNUAL PROBABLE SUNLIGHT HOURS ('APSH') TABLE

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS



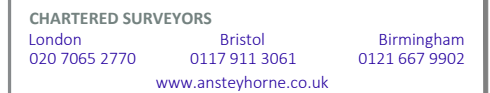
Ed Toovey Architect's Scheme 05/09/19

PROPERTY					WINDOW						ROOM					
					ANNUAL SUNLIGHT (% APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (% APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Property type	Flat no.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
13&15 Southwood Lane																
R23/20			W27/20	LD	0	0	-	0	0	-						
R23/20			W28/20	LD	39	39	N/A	8	8	N/A	39	39	N/A	8	8	N/A
17&19 Southwood Lane																
R21/20			W23/20	LD	2	1	0.50	0	0	-						
R21/20			W29/20	LD	44	44	N/A	11	11	N/A	46	45	N/A	11	11	N/A

APPENDIX F

-

AMENITY CONTOUR PLANS



- - Area receiving ≥ 2 hr Sunlight on 21st March
- - Area receiving < 2 hr Sunlight on 21st March
- X% - Percentage of Amenity Space receiving ≥ 2 hr Sunlight on 21st March

PROPOSED BUILDINGS
ED TOOVEY ARCHITECTS
Received on 05/09/19



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CLIENT: SENIOR CAPITAL PROJECT MANAGERS

PROJECT TITLE: HIGHGATE SCHOOL SCIENCE BLOCK

SCHEME REF: SCHEME RECEIVED: 05/09/19

DRAWING TITLE: TWO-HOUR SUNLIGHT TEST
EXISTING Vs PROPOSED
21ST MARCH (GMT)
13,15,17,19 SOUTHWOOD LANE

MODELLED BY: / DRAWN BY **	DATE: NOV.2019	SCALE: 1:100	A3
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PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00068	R02	V02	301-01

2Hr Sun-On-Ground



Ed Toovey Architects - Scheme dated 05/09/19

Property Ref.	Area Ref.	Proportion in sun for >= 2 hrs on 21st March		*Factor of former value
		Existing	Proposed	
13&15 SOUTHWOOD LANE	R1/1000	0.0%	0.0%	N/A
17&19 SOUTHWOOD LANE	R2/1000	0.0%	0.0%	N/A

*NOTES: 'Factor of former value' = Proposed Sunlit Area / Existing Sunlit Area.
A factor greater than 1 indicates an increase in sunlight.
A proposed area of 50% or more satisfies the BRE criteria and the ratio is N/A.



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