

FORMER GAMECOCK PUBLIC HOUSE, BOOTH STREET WEST

DAYLIGHT, SUNLIGHT AND OVERSHADOWING REPORT

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1 Executive Summary

- 1.1 The scope of this report is to consider the potential daylight and sunlight effects that may occur to the surrounding residential properties as a result of the proposed development of The Former Gamecock Public House on Booth Street West in Manchester.
- 1.2 The assessment has been undertaken with regard to Manchester's planning policy and, the advice and recommendations set out in the Building Research Establishment (BRE) report entitled 'Site layout planning for daylight and sunlight: A guide to good practice' (Referred to in this report as the "BRE guidelines").
- 1.3 In accordance with the BRE guidelines, detailed daylight and sunlight assessments have been carried out to the surrounding residential habitable room windows.
- 1.4 In accordance with the BRE guidelines detailed assessments have not been carried out to the surrounding commercial or non-habitable room windows as they are not considered to have a reasonable expectation of daylight or sunlight.
- 1.5 Overall, the results show that any daylight or sunlight reductions to the surrounding residential properties are generally within the BRE guidelines and therefore un-noticeable to the occupants. Where the BRE guidelines are not met good levels of daylight and sunlight for an urban area are generally retained.
- 1.6 The windows/rooms within Cooper House which experience the most notable reductions beyond the BRE guidelines, are considered secondary use rooms (i.e. 2nd bedrooms or small kitchen) which are predominantly located beneath a balcony/access walkway.
- 1.7 The assessments show that there is likely to be a notable reduction in daylight to some of the rear windows of Cooper House. However, it has been shown that the retained values, when based on our opinion of what is reasonable for an urban area, and when compared to the mirror massing tests, can be considered acceptable. In addition, we know that each flat is dual aspect with the main habitable rooms facing away from the proposed development. These rooms currently enjoy very good levels of daylight and sunlight and will continue to do so once the proposals are built. The overall effect on each flat can again therefore be considered acceptable.
- 1.8 The results of our assessments of the surrounding properties are noticeably better in comparison with the previous scheme submitted in 2021. The results are summarised in the table below. The effects have particularly improved to 2 properties: Hopton Court located to the north of the Site and Cooper House located to the south of the Site. In addition, the property at 2 Freeman Square will now be fully compliant with the BRE guidelines criteria, whilst it was short of 3 windows with the previous scheme.
- 1.9 As a result of the revised scheme, the number of windows that fully meet the BRE guidelines criteria increases from 390 to 434 windows.

	Total Windows that meet BRE Guidelines	
	Scheme consented in 2008	Revised Scheme
Hopton Court	160	175
28 Higher Cambridge Street	16	16
57-63 Booth Street	18	19
Trinity Court Apartments	82	82
Cooper House	65	83
94 Boundary Lane	8	9
104-110 Boundary Lane	16	22
2 Freeman Square	25	28

- 1.10 The overshadowing results to the surrounding gardens show a very slight reduction on the Spring Equinox (21 March (which is the suggested assessment date)). However, the space will continue to enjoy 2 hours of sun on ground to well over 50% of the area, which is in accordance with the BRE guidelines.
- 1.11 In conclusion we are of the opinion that the proposed development will not have a materially adverse effect on the daylight and sunlight amenity enjoyed by the neighbouring residential use buildings.

2 Introduction

- 2.1 Point 2 Surveyors Ltd has been appointed by Curlew Alternatives Eighth Properties LP to undertake a daylight and sunlight study with regard to the proposed development of The Former Gamecock Public House on Booth Street West in Manchester.
- 2.2 This report is based on a revised, reduced massing for the Site compared with that originally assessed under planning application 130387/FO/2021. The revised scheme is very similar in massing to that which has already been consented for the Site in 2008 (application 085071/FO/2007/S1).
- 2.3 The scope of this report is to consider the potential daylight and sunlight and overshadowing effects that may occur to the existing surrounding residential properties as a result of the proposed development.
- 2.4 We have not sought access to any of the adjoining properties but we have obtained floor layouts of the buildings most likely to be affected from Manchester's online planning portal and the land registry. Where we have been unable to find any information, we have made reasonable assumptions as to the internal configuration of the rooms. This is normal practice where access to adjoining properties is not available. Unless the building form dictates otherwise, we have assumed a standard 4.2m deep room for residential properties.
- 2.5 A Site Plan and 3D Views of the scheme, detailed results tables and Contour plots are given at Appendices 1 to 8.

Sources of Information

- 2.6 In the process of compiling this report, the following sources of information have been used:

Point 2 Surveyors
Site Photography

Simpson Haugh Architects
Proposed Scheme Information (received 4th August 2022)

3 Planning Policy

- 3.1 The Site is located within Manchester City Council's boundary and the potential daylight and sunlight effects have therefore been considered against the adopted planning policies of Manchester City Council.

National Planning Policy

National Planning Policy Framework (NPPF), July 2021¹

- 3.2 There are no national planning policies directly relating to daylight, sunlight and overshadowing. However, Chapter 11 of the NPPF deals with "Making effective use of land." Under the sub-heading "Achieving appropriate densities" it states at paragraph 124:

124. Planning policies and decisions should support development that makes efficient use of land, taking into account; ...

(a) the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it;

Furthermore, Chapter 11 of NPPF states at paragraph 125:

125. Area-based character assessments, design guides and codes and masterplans can be used to help ensure that land is used efficiently while also creating beautiful and sustainable places. 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.

(a) plans should contain policies to optimise the use of land in their area and meet as much of the identified need for housing as possible. This will be tested robustly at examination, and should include the use of minimum density standards for city and town centres and other locations that are well served by public transport. These standards should seek a significant uplift in the average density of residential development within these areas, unless it can be shown that there are strong reasons why this would be inappropriate.

¹ National Planning Policy Framework (NPPF), 2021

(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 the site (as long as the resulting scheme would provide acceptable living standards).

National Planning Practice Guidance, 2016

- 3.3 The National Planning Practice Guidance (NPPG)² is an online resource for planning practitioners. In respect to daylight and sunlight, the document states at paragraph 25 (Reference ID 26-025-20140306) in respect to building form that: -

“Some forms pose specific design challenges, for example how taller buildings meet the ground and how they affect local wind and sunlight patterns should be carefully considered.”

- 3.4 In respect to building scale it states at paragraph 26 (Reference ID 26-026-20140306) that: -

“Account should be taken of local climatic conditions, including daylight and sunlight, wind, temperature and frost pockets.”

Local Planning Policy

Manchester Core Strategy Development Plan (Adopted 11th July 2012)

- 3.5 Policy DM 1 ‘Development Management’ states:

All development should have regard to the following specific issues for which more detailed guidance may be given within a supplementary planning document: -

- *[...] Impact on the surrounding areas in terms of the design, scale and appearance of the proposed development. Development should have regard to the character of the surrounding area.*
- *Effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation. [...]*
- *Adequacy of internal accommodation and external amenity space.*

² National Planning Practice Guidance, 2016

3.6 Policy H 1 'Overall Housing Provision' states:

Proposals for new residential development [...] should take account of the need to:

- *[...] Contribute to the design principles of Manchester's Local Development Framework, including in environmental terms. The design and density of a scheme should contribute to the character of the local area. All proposals should make provision for appropriate usable amenity space, including in high density development (in which this could be in the form of balconies, as well as shared open spaces such as green roofs).*

Manchester's Citywide Development Control Policies

3.7 Section 1 'Residential Extensions' under paragraph DC 1.2 states:

Extensions to residential properties will be allowed subject to compliance with other relevant policies of the Plan and the following criteria:

- a. they are not excessively large or bulky (for example, resulting in structures which are not subservient to original houses or project out too far in front of the original buildings);*
- b. they do not create an undue loss of sunlight, daylight or privacy.*

Supplementary Planning Guidance/Documents

- 3.8 To consider the effects on the existing and proposed surrounding residential properties in relation to the above policy, we have utilised the standards and recommendations set out in the Building Research Establishment (BRE) report: P J Littlefair (2022) "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice", Building Research Establishment Report 209. (Referred to in this report as the "BRE guidelines").

4 Daylight and Sunlight Calculation Methodology

- 4.1 When assessing any potential likely effects on the surrounding properties, the BRE guidelines suggest that only those windows that have a 'reasonable expectation' of daylight or sunlight need to be assessed. In particular, the BRE guidelines state at paragraph 2.2.2:

"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. The guidelines may also be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and some offices."

- 4.2 Commercial properties are generally not treated as having a reasonable expectation of daylight or sunlight. This is because they are usually designed to rely on electric lighting to provide sufficient light by which to work rather than natural daylight or sunlight. In addition to commercial buildings, windows to residential properties which serve non-habitable rooms, such as entrance ways, garages, bathrooms or store rooms, are also considered not to have a reasonable expectation of daylight or sunlight and are therefore not assessed.
- 4.3 It is also important to note that in urban locations, where townscape issues and urban design dictate the design considerations, a planning balance having regard to daylight and sunlight effects needs to be found. It is, therefore, sometimes necessary to apply the BRE guideline criteria flexibly, having regard to a site's location and/or the density of development in the surrounding area. This is supported by the BRE guidelines which state:

BRE Guidelines

"This report is a comprehensive revision of the 2011 edition of Site layout planning for daylight and sunlight: a guide to good practice. It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location. "

- 4.4 Where a property is considered to have a reasonable expectation of daylight or sunlight the following methodology and target criteria to assess the impacts has been initially used.

Daylighting

- 4.5 Where the internal arrangements are not known, the BRE guidelines set out three methods for assessing the daylight impacts on neighbouring properties. These methods are summarised as follows:
- 4.6 Method 1: the first method is to strike a line at an angle of 25° from the centre of the lowest existing windows. If the profile of the proposed development sits beneath the 25° angle line, then the development is unlikely to have a substantial effect on the daylight enjoyed by the existing building. This test is known as the 25° angle test. If the proposed development protrudes past the 25° angle line, then the second test (outlined below) needs to be applied.
- 4.7 Method 2: this method calculates the VSC at the centre point of each affected window on the outside face of the wall in question. The VSC is an external daylighting calculation that measures the amount of direct daylight to a specific window point on the outside of a property. The calculations fundamentally assess the amount of blue sky that can be seen, converting results into a percentage. A window looking into an empty field will achieve a maximum value of 40%. However, the BRE suggests that 27% VSC is a good level of daylight. If a window does not achieve 27% VSC in the 'proposed development' scenario, then the third test is used.
- 4.8 Method 3: this method involves calculating the VSC at the window in the existing situation, i.e. before redevelopment. If the reduction of VSC is less than 0.8 times its former value, then the occupants of the adjoining building are likely to notice the reduction in daylight.
- 4.9 The first method set out above (the 25° angle test) is only normally applicable where the proposed development is a single obstruction of the same height opposite the affected window. This method does not therefore properly reflect the differing heights of the Development and has not been used.
- 4.10 In conjunction with the VSC tests (methods 2 and 3 above), and where the internal arrangements are known, the BRE guidelines suggest that the distribution of daylight is assessed using the No Sky Line (NSL) test. This test separates those areas of the working plane that can receive direct skylight and those that cannot.
- 4.11 To assess the effect of any reduction, the BRE guidelines suggest:
- "If, following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value this will be noticeable to the occupants, and more of the room will appear poorly lit."*
- 4.12 The BRE guidelines suggest that a room should enjoy good levels of daylight distribution if 80% of the working plane is in front of the No-Sky Line. However, for urban areas, and in our experience, this is often not achieved. It is our view that for urban or built-up areas that a target of 50% is more appropriate.

- 4.13 In addition to the above, it is important to note that as set out within the BRE guidelines:

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 [NSL]. 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. [...] 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.

- 4.14 The purposes of the above secondary tests are to show that the proposed development is not taking more than is fair share of light away from a neighbour, and, that the affected neighbour is not unfairly burdening the development potential of a neighbouring Site.
- 4.15 For this site there are some surrounding residential buildings with either projecting balconies or external walkways. However, in our experience with planning submissions, we have found that councils sometimes query this calculation, as the adjoining owners are not going to remove their balconies, they will always be there in reality.
- 4.16 When undertaking the balcony assessment therefore, we have simply moved our calculation point from the window positioned beneath the balcony/walkway and placed it on the outer façade of the balcony itself. This way, we present a scenario that will be experienced in reality.
- 4.17 If the proposed VSC with the balcony in place was under 0.8 times the existing value with the balcony, but the same ratio for the values with the calculation point moved forward was well over 0.8, then we can state that the presence of the balcony, rather than the size of the new obstruction is the main factor in the relative loss of light and good levels of daylight will continue to be enjoyed.

Sunlighting

- 4.18 The amount of direct sunlight a window can enjoy is dependent on its orientation and the extent of any external obstructions. For example, a window that faces directly north, no matter what external obstructions are present, will not be able to receive good levels of sunlight throughout the year. However, a window that faces directly south with no obstructions will enjoy very high levels of sunlight throughout the year. As the potential to receive sunlight is dependent on a window's orientation, the BRE guidelines state:

"To assess loss of sunlight to an existing building, it is suggested that 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."

- 4.19 To consider any sunlight effect to the surrounding properties the BRE guidelines suggest calculating the Annual Probable Sunlight Hours (APSH) at the centre of each window on the outside face of the window wall. The BRE guidelines suggest that:

“If a room can receive more than one quarter of APSH (see section 3.1), including at least 5% of APSH in the winter months between 21st September and 21st March, then the room should still receive enough sunlight.”

- 4.20 If the above criteria are not met, the BRE guidelines suggest calculating the APSH at the window in the existing situation, i.e. before redevelopment. If the reduction of APSH between the existing and proposed situations is less than 0.8 times its former value for either the total APSH or in the winter months; and greater than 4% for the total APSH, then the occupants of the adjoining building are likely to notice the reduction in sunlight.
- 4.21 If the reduction of APSH between the existing and proposed situations is greater than the criteria above, we have looked at whether the Living/Dining/Kitchen areas alone, achieve a desirable level of direct sunlight.

Overshadowing

- 4.22 The methodology for the assessment of overshadowing is set out in the 2022 BRE Guidance and is summarised below. The 2022 BRE Guidelines acknowledges that:

“Good Site layout planning for daylight and sunlight should not limit itself to providing good natural light inside buildings. Sunlight in the space between buildings has an important effect on the overall appearance and ambience of a development.”

- 4.23 The BRE guidelines suggest that the availability of sunlight should be checked for all open spaces where it is required. This would normally include:
- Gardens; usually the main back garden of a house;
 - Parks and playing fields;
 - Children’s playgrounds
 - Outdoor swimming pools and paddling pools;
 - Sitting out areas such as those between non-domestic buildings and in public squares;
 - Focal points for views such as a group of monuments or fountains.
- 4.24 The 2022 BRE Guidelines suggests that the Spring Equinox (21st March) is a good date for assessment as the sun is at its midpoint in the sky. Using specialist software, the path of the sun is tracked which maps obstructions and compares them to the known sun paths to determine where the sun would reach the ground and where it would not.

- 4.25 The BRE suggests that for a garden or amenity area to appear adequately sunlit throughout the year, no more than half (50%) of the area should be prevented by buildings from receiving two hours of sunlight on the 21st March.
- 4.26 The 2022 BRE Guidelines then go on to suggest that if, as a result of new development, an existing garden or amenity area (external receptor) does not meet the guidance, or the area which can receive some sun on the 21st March is less than 0.8 times its former value then the loss of sunlight is likely to be noticeable.

5 Target Values of Daylight & Sunlight for the Site's Location

- 5.1 In urban locations where the proposed site is either currently undeveloped or contains relatively low-rise structures, reductions of daylight and sunlight beyond the BRE guidelines as a result of redevelopments such as this are considered likely. This is because the existing levels of daylight and sunlight can be unusually high for an urban location such as this and applying the BRE guidelines 20% reduction rule can still result in a retained light level above what is considered a good level of daylight or sunlight for an urban or even suburban area.
- 5.2 The above view is recognised by the BRE guidelines which suggests that it may not be appropriate to apply the general guidance to all development locations but set alternative target values based on the locality of the proposed site. This is also supported by the National Planning Policy Framework (see paragraph 123) which addresses the need for the flexible application of daylight and sunlight guidance to ensure the effective use of development land. The need to apply the guidance flexibly has been previously recognised and applied by Manchester City Council in applications such as the Former Church In (application number 125654/FO/2019).
- 5.3 Further to the above, where the likely reductions are beyond the general BRE guidelines criteria, this report has considered whether the likely retained levels of daylight and sunlight are commensurate with the urban context of the Proposed Development and proposed density of the scheme.
- 5.4 When considering that would be an appropriate target value it is recognised that the Site is in an urban environment and close to the inner-city area of Manchester. Whilst it is accepted that each planning application Site is different and has a different set of positive and negative aspects to balance, planning bodies such as the Greater London Authority generally regard that in such locations “*VSC values in excess of 20% should be considered as reasonably good, and that VSC in the mid-teens should be acceptable*”. (see the GLA representation hearing report D&P/3067/03 – Appendix 1).
- 5.5 Further to the above, and in our experience of advising on daylight and sunlight matters, we consider that in an urban context such as this, a retained VSC of 15% (i.e. ‘*mid-teens*’) can be considered an acceptable level of daylight. However, to help support this view for this specific site, and where appropriate, other measures such as the mirror massing test, have also been used to help justify the retained values.
- 5.6 With regards to daylight distribution, we find that it is very difficult to retain direct daylight to at least 80% of the working plane in urban locations without having to compromise on other factors, such as, ensuring the development potential of the site is fully utilised. In addition, it is often found that this level is not achieved in the existing condition. For urban locations, and tying in with the 15% VSC opinion given above, we are generally of the view that if more than 50% of the working plane can continue to receive some direct daylight, then the room can be considered to retain an adequate level of daylight distribution.

- 5.7 In terms of sunlight, we would generally consider that a total APSH above 17% is good for an urban environment. Winter sunlight is often much more difficult to achieve in urban areas and we would therefore generally consider that anything above 3% good for an urban context.

6 The Scope of Assessment

6.1 The following image (Figure 1) shows the Existing Site and the surrounding properties.

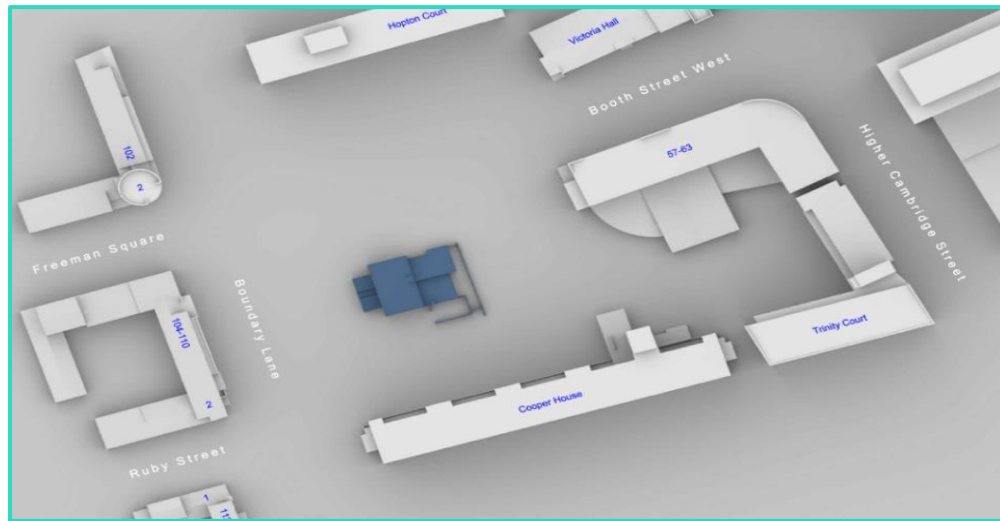


Figure 1 - The Existing Site and the Surrounding Properties Considered for Assessment

6.2 To understand the likely effects Vertical Sky Component (VSC), No-Sky Line (NSL) and Annual Probable Sunlight Hours (APSH) assessments have been undertaken to the surrounding residential properties, which are shown below:



	Building Name
1	Hopton Court
2	28 Higher Cambridge Street
3	57-63 Booth Street
4	Trinity Court Apartments

	Building Name
5	Cooper House
6	94 Boundary Lane
7	104-110 Boundary Lane
8	2 Freeman Square

6.3 Overshadowing assessments have also been undertaken to the amenity space surrounding Hopton Court.

7 Assessment Results

Hopton Court

- 7.1 Located to the north of the Proposed Development this property contains residential accommodation.
- 7.2 We have managed to obtain some typical floor plan layouts, from a historical planning application which seemed to suggest the building was made up of a series of 1 or 2-bedroom flats.



- 7.3 From external observation we were also able to determine that each assumed living/dining room (if a 1-bedroom flat) or living/kitchen dining room (if a 2-bedroom flat) had side access on to the winter garden/balcony through a glazed door.
- 7.4 The living/dining rooms are therefore served by one main window on the main elevation, with 2 small secondary windows in the door opening onto the balcony. The bedrooms on the other hand, are set back behind the winter garden/balcony and are served by 1 window.

Daylight

- 7.5 There are 265 windows serving what we have assumed are 136 site facing rooms.
- 7.6 The VSC results show that 175 of the 265 windows assessed will experience a small loss of light, which is in accordance with the BRE guidelines. The remaining 90 windows experience a reduction in their VSC which is beyond the BRE guidelines 20% reduction criteria.

- 7.7 89 of the 90 windows are either the small secondary windows within the door opening which lead onto the winter garden/balcony area from the living room or are the windows which serve a bedroom behind the winter garden/balcony. The remaining window is a main window which serves a living/dining room on the 1st floor (Room label R4/51). The actual light loss to this window is marginal at 0.12%, therefore, the overall effect is considered non-material and acceptable.
- 7.8 As set out above, 89 windows are positioned beneath the recessed winter gardens/balconies, and therefore receive low levels of VSC even for an urban area in the existing condition (with VSCs of less than 10%). This is because the presence of the winter gardens/balconies, cuts out light from the top part of the sky, and therefore, even a modest obstruction opposite may result in a large relative impact on the VSC.
- 7.9 As set out in the methodology above, the BRE recommends that a way to demonstrate that the balcony/winter garden is the reason for the larger relative percentage reduction is to carry out an additional calculation of the VSC without the balcony in place for both the existing and proposed scenarios. In this case, we have moved the assessment point forward so that it is flush with the winter garden glazing rather than the window behind as illustrated below.

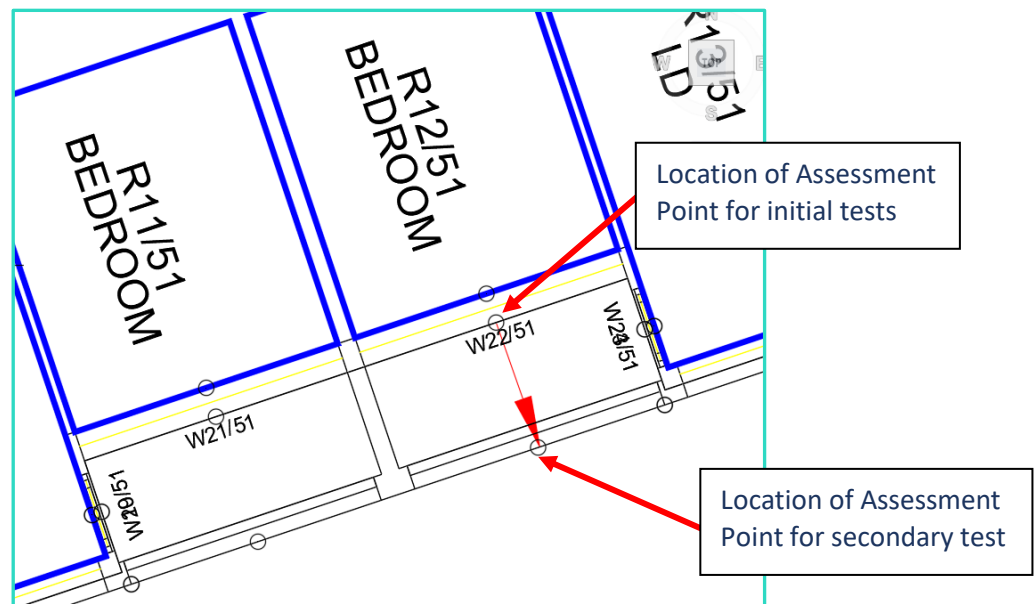


Figure 2: Assessment point location for secondary daylight test

- 7.10 The additional show that if the winter gardens/balconies were to not be present, all windows would experience small reductions which are well within the BRE guidelines recommended target criteria. This shows that it is the presence of the balcony /winter garden rather than the size of the new obstruction, for the larger relative loss of light and the effects can therefore be considered to be acceptable.
- 7.11 To support the view that the VSC tests results are not likely to result in a material effect, the daylight distribution results (NSL test) show that all rooms will experience only very small reductions which are well within the BRE guidelines criteria.

Sunlight

- 7.12 Of the 136 rooms all have at least 1 site facing window which is orientated within 90 degrees due south. Our results show that 104 rooms experience reductions that are within the BRE guidelines.
- 7.13 The remaining 32 rooms are all bedrooms, which are located behind the winter gardens/balconies. The level of sunlight is therefore restricted due to the presence of the overhang above the window and the BRE guidelines also suggest sunlight to bedrooms is less important.
- 7.14 If alternative calculations ignoring the effect of the balconies were undertaken it is clear from the living room window results that very good levels of sunlight would be retained, above that recommended by the BRE guidelines.
- 7.15 Overall, as each living/dining room will continue to enjoy levels of sunlight which are in accordance with the BRE guidelines, the effects are considered acceptable.

Overshadowing

- 7.16 The results show that a small amount of additional overshadowing will occur to the garden area to the south of Hopton Court. However, it will continue to enjoy 2 hours of sun on ground to over 50% of the area, which is in accordance with the BRE guidelines. The effect is therefore considered negligible.

28 Higher Cambridge Street (also known as Victoria Hall)

- 7.17 This building is located to the north east of the proposed site and is understood to contain student accommodation.
- 7.18 We have not been able to obtain floor plans for this property and so have applied our reasonable assumptions as discussed within our Introduction section of this report. We have assessed the windows closest to the site as they are the windows most likely to be affected.

Daylight

- 7.19 The results of our daylight assessments (VSC and NSL) indicate that any reductions to this building should be within the BRE guidelines and therefore any reduction is unlikely to be noticeable to the occupants.

Sunlight

- 7.20 Of the 16 rooms assessed all have at least 1 site facing window which is orientated within 90 degrees due south.
- 7.21 Our results show that 15 rooms experience reductions that are within the BRE guidelines. The remaining room is located on the ground floor of the property and experiences a reduction beyond the BRE guidelines in the winter months only yet retains a winter APSH of 4%. This exceeds our alternative target criteria of 3% for an urban area. In addition, it also exceeds the BRE guidelines for the annual APSH criteria of 25% with a sunlight level of 48%. The effect on this room is therefore not considered material.

Overshadowing

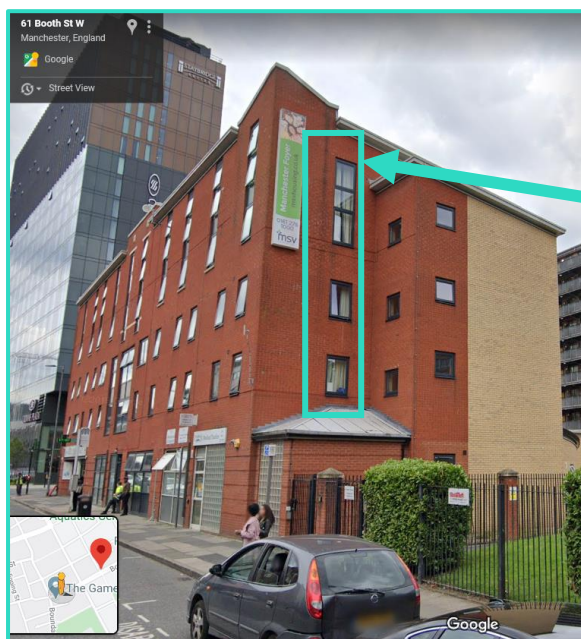
- 7.22 This property does not appear to have any amenity spaces which requires assessment.

57-63 Booth Street

- 7.23 This property is not listed as one that pays Council Tax and therefore not considered to be in permanent residential occupation. However, it is understood that it is a hostel. We therefore have consider it from a Daylight and Sunlight perspective.

Daylight

- 7.24 The results of our VSC assessments indicate that all windows except for 2, will experience reductions which are within the BRE guidelines.
- 7.25 The 2 windows which experience a loss of light beyond the BRE guidelines only do so to a minor extent (i.e., within 30% of the baseline), and are considered to be serve bedrooms (which have a lesser requirement of daylight in accordance with the BRE guidelines). These windows are highlighted within the image below:



Windows assumed to serve a habitable bedroom.

- 7.26 Whilst the percentage reductions are beyond the BRE guidelines, each of these windows will retain a VSC which we consider to be a good for an urban area, with a minimum of 17.09%. It can therefore be concluded that these bedrooms will continue to enjoy adequate/good levels of daylight with the Proposed Development in place.
- 7.27 To support the view that the VSC tests results are not likely to result in a material effect, the daylight distribution results (NSL test) show that all rooms will experience only very small reductions which are well within the BRE guidelines criteria.

Sunlight

- 7.28 Of the 17 rooms assessed all have at least 1 site facing window which is orientated within 90 degrees due south. Our results show that 14 rooms experience reductions that are within the BRE guidelines.

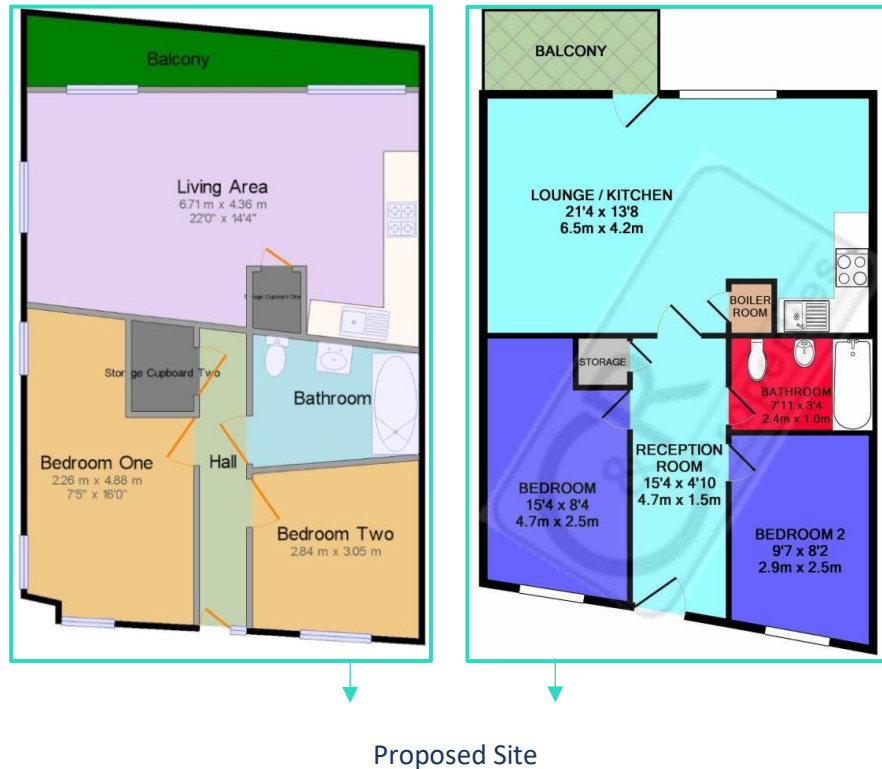
- 7.29 The remaining 3 rooms are the bedrooms which are discussed above for daylight. Due to their room use, and in accordance with the BRE guidelines, bedrooms have a lesser requirement for sunlight. However, when looking at the retained levels, the 2 bedrooms on the lower levels will retain an annual APSH of 17%, which is marginally below our alternative target criteria and the other bedroom will retain an annual APSH of 45% which exceeds the BRE guidelines annual APSH criteria of 25%.
- 7.30 We can therefore conclude that each of these 3 bedrooms will continue to enjoy adequate levels of sunlight for an urban area.

Overshadowing

- 7.31 This property does not appear to have any amenity spaces which require assessment.

Trinity Court Apartments

- 7.32 This is understood to be a fairly recently built residential block. The flats appear to be dual aspect with access decks on the north and western elevation facing the proposed site.
- 7.33 We have managed to obtain some flat layouts of this property online through past sales particulars, which suggest all the site-facing rooms are bedrooms. As shown below:



Daylight

- 7.34 There are 100 windows serving what we have assumed are 96 site facing bedrooms.
- 7.35 The VSC test results show that 82 of the 100 windows assessed will experience a small loss of light, which in accordance with the BRE guidelines, will not result in a material adverse effect.
- 7.36 The remaining 18 windows experience a reduction in their VSC which is beyond the BRE guidelines, as they experience over a 20% reduction. However, each of these 18 windows are positioned behind the access walkways. Therefore, in the existing scenario these windows experience low levels of VSC even for an urban area, with VSCs of less than 6%. In these circumstances, and as set out above, the BRE guidelines recommend carrying out an additional calculation of the VSC without the access walkway in place for both the existing and proposed scenarios.
- 7.37 We have carried out this additional assessment, which shows that all the windows would experience small reductions which are well within the BRE guidelines recommended target criteria. The effects are therefore considered to be within the BRE guidelines.

- 7.38 To support the view that the VSC tests results are not likely to result in a material effect, the daylight distribution results (NSL test) show that all rooms will experience only very small reductions which are well within the BRE guidelines criteria.

Sunlight

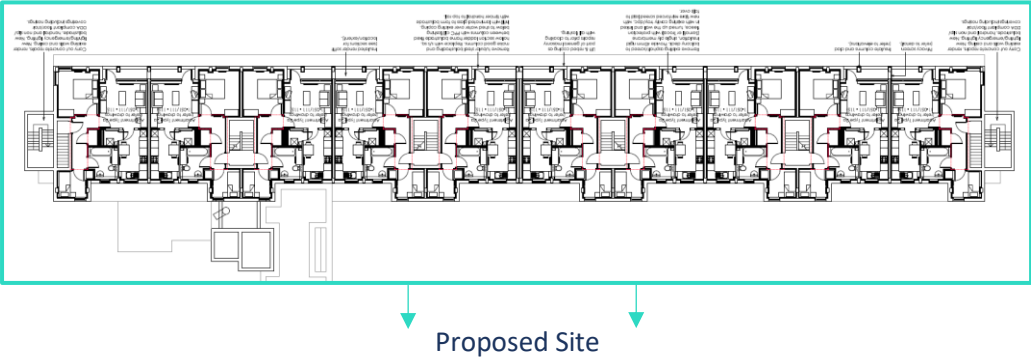
- 7.39 Of the 24 rooms that have a site facing window which is orientated within 90 degrees due south. Our results show that each room will experience a reduction which is within the BRE guidelines. The effects are therefore not considered to be material.

Overshadowing

- 7.40 This property does not appear to have a private amenity space which requires assessment.

Cooper House

7.41 This property is located directly to the south of the proposed site. Simpson Haugh Architects have kindly sent us floor plans for this building which shows the flats are all dual aspect with the northern facing windows serving small kitchens, bathrooms or secondary bedrooms. The main living rooms and primary bedrooms are on the southern elevation and are therefore unaffected by the Proposed Development.



7.42 An annotated view of the elevation facing the proposed Site is below. A larger annotated elevation is also given at Appendix 2.



- 7.43 In accordance with the BRE guidelines we have assessed the small kitchens and bedroom windows. We have not assessed the bathroom windows as they are not classified as a habitable room.

Daylight

- 7.44 There are 138 windows serving what we understand are 130 site-facing habitable rooms. These can be split down as follows:

Bedroom Windows = 48

Kitchen Windows = 90

Livingroom Windows = 0

Total = 138

- 7.45 Our assessments for the scheme indicate that notable reductions of VSC will occur to approximately one third of the elevation to this building (55 of the 138 assessed). The remaining 83 windows will therefore experience reductions within the BRE guidelines. This is a notable improvement on the originally submitted scheme which saw reductions beyond the BRE guidelines to around half of the windows.
- 7.46 For the windows which do not meet the BRE guidelines, the vast majority already receive a very low level of daylight because they are positioned behind/beneath an access walkway. The BRE guidelines suggest that in this scenario, alternative tests, removing the effect of the balcony can be undertaken which we have done.
- 7.47 The results of the alternative assessments show that 97 of the 138 windows (70%) meet the BRE guidelines. Therefore for 14 windows it can be concluded that it is the presence of the balcony, rather than the scale and bulk of the massing which is causing the relative reduction in VSC.
- 7.48 The remaining 41 windows will experience reductions beyond the BRE guidelines and should therefore be considered to experience an adverse effect. However, whilst the effect to these rooms, when considering the percentage reductions, may be adverse, it is important to consider the retained levels of daylight and the impact to each flat as a whole before overall conclusions are drawn. It is also considered reasonable to consider the mirror test as set out in the BRE guidelines given the proximity of the Cooper House to its boundary with the Site.

Retained Daylight Levels

- 7.49 When considering the retained daylight levels, it is considered reasonable to assess the windows without the effect of the access walkways. This is because what we are trying to conclude is whether the proposals block more than their fair share of daylight, and this conclusion would be distorted if we included the access walkways.
- 7.50 When considering the 41 windows that do not meet the BRE guidelines (whether with or without the access walkways), 35 windows retain a VSC above 20%, 4 windows retain a VSC above 15% and only 2 windows retain a VSC below 15%.

- 7.51 The 2 windows that retain a VSC below 15% are all considered anomalies as whilst the calculations have ignored the effect of the access walkways, the daylight levels to these windows are also already obstructed by the lift core structure that projects out from the back of the building.
- 7.52 The 4 windows that retain a VSC above 15% are on the ground only. The lowest value is 18.73% VSC. The remaining 35 windows all retain a VSC of at least 20% VSC.
- 7.53 With regard to the Daylight Distribution (No-Sky Line (NSL)) assessment, of the 130 site facing rooms assessed, 100 experience only a small reduction that is within the BRE guidelines. Of the 30 rooms that do not meet the BRE guidelines, 21 will continue to enjoy a daylight distribution to over 50% of the room's area which is considered a good level for an urban area.
- 7.54 Overall, the above alternative tests enable us to conclude that whilst there is likely to be some notable reductions in daylight distribution to some rooms, the various VSC tests discussed above show that adequate levels of daylight, for the Site's urban location can be considered acceptable.

Mirror Massing Assessment

- 7.55 The mirror massing test, as set out at Appendix F of the BRE guidelines is another way to establish alternative target figures for a particular building. The BRE guidelines suggest running an assessment that mirrors the existing building along its boundary and the resultant values can be established as the target figures. An image illustrating this for Cooper House (within the confines of the application red line boundary) is given below.



Mirror Massing of Cooper House

- 7.56 The results of assessing the existing VSC values against a mirror massing of Cooper House are given in the appendices. These show, like the proposed development, that notable effects are likely to occur (these results have been run with the balconies/walkways in place).
- 7.57 When comparing the retained VSC values for the mirror massing against the proposed development retained values on a window-by-window basis, some are lower and some are higher but the values are not significantly apart. If we average the VSCs across each floor level the following results are achieved:

	Mirror Massing Retained Average VSC	Proposed Massing Retained Average VSC
Ground Floor	2.82	2.65
First Floor	22.43	21.12
Second Floor	1.35	1.28
Third Floor	4.59	4.36
Fourth Floor	26.61	24.79
Fifth Floor	6.25	5.24
Sixth Floor	29.53	27.36
Seventh Floor	8.29	6.31
Eighth Floor	33.21	30.86

- 7.58 On all floors the retained VSC values are considered to be very similar as a result of the Proposed Massing. On the sixth, seventh and eighth floors the Mirror Massing Retained values are slightly higher but the figures for the sixth and eighth floors (which are not affected by walkways above) retain levels of daylight beyond the BRE guidelines recommendations. Overall, the proposed massing is considered to cause the same effect as the mirror massing which therefore supports the opinion that the effects can be considered acceptable.

The effect to each flat as a whole

- 7.59 As shown on the floor plans, all of the affected flats within Cooper House are dual aspect and the principle habitable rooms (the main living room, dining areas and main bedrooms) are on the opposite side of the building which are not affected. These rooms on the opposite elevation enjoy very good levels of daylight and sunlight and will continue to do so once the proposals are built. The overall effect on each flat, when accepting there will be some reduction of daylight to the rear facing windows, is therefore not considered significant.

Summary of daylight effects to Cooper House

- 7.60 The assessments have shown that there is likely to be a notable reduction in daylight to some of the rear windows of Cooper House. However, it has been shown that the retained values, when based on our opinion of what is reasonable for an urban area, and when compared to the mirror massing tests, can be considered acceptable. In addition, we know that each flat is dual aspect with the main habitable rooms facing away from the proposed development. These rooms currently enjoy very good levels of daylight and sunlight and will continue to do so once the proposals are built. The overall effect on each flat can again therefore be considered acceptable.

Sunlight

- 7.61 The elevation facing the proposed site faces north, but of the 4 rooms which have site facing windows orientated within 90 degrees due south, 1 experiences sunlight reductions that are beyond the BRE guidelines. These results are however considered to be anomalies as the sunlight levels to these rooms were already obstructed by the lift core structure that projects out from the back of the building.

Overshadowing

- 7.62 This property does not appear to have a private amenity space which requires assessment.

Previous Consent for the Site

- 7.63 In addition to the above analysis and conclusions, we are aware that a previous consent for the Site was obtained in 2008 for an 8-storey building. The elevation drawing below shows the relationship of the consented scheme with Cooper House.
- 7.64 The elevation below indicates that 2008 consented massing was slightly bigger than a mirror massing of Cooper House. We can therefore deduce from the above assessments that this consented scheme would have resulted in reductions beyond the BRE guidelines and is likely to have had a similar effect as the proposed scheme. This is considered to support the opinion that the proposed scheme is not causing any significant effects beyond what has already been considered to be acceptable for this Site.

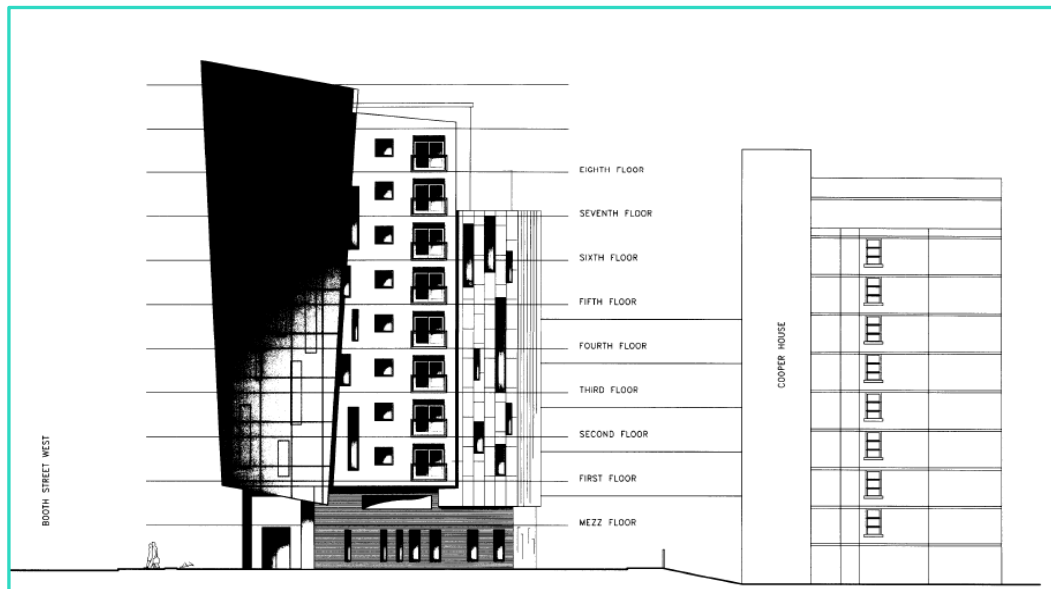


Figure 3: Elevation of 2008 Consented Scheme and Cooper House

94 Boundary Lane (also known as 1 Ruby Street)

- 7.65 This building is situated to the south western side of the proposed site and is understood to be of residential use.
- 7.66 We have not been able to obtain floor plans for this property and so have applied our reasonable assumptions as discussed within our Introduction section of this report.

Daylight

- 7.67 The results of our VSC assessments show that all windows will experience reductions which are within the BRE guidelines reduction criteria. The effects on these rooms is therefore not considered to be noticeable to the occupants.
- 7.68 To support the view that the VSC tests results are not likely to result in a material effect, the daylight distribution results (NSL test) show that all rooms will experience only very small reductions which are well within the BRE guidelines criteria.

Sunlight

- 7.69 This property does not have any site facing rooms which have site facing windows that are orientated within 90 degrees of due south. Sunlight assessments have therefore not been undertaken.

Overshadowing

- 7.70 This property does not appear to have a private amenity space which requires assessment.

104-110 Boundary Lane (also known as 2 Ruby Street)

- 7.71 This property is understood to be of residential use and is located directly to the western side of the proposed site.
- 7.72 We have not been able to obtain floor plans for this property and so have applied our reasonable assumptions as discussed within our Introduction section of this report.

Daylight

- 7.73 There are 45 windows serving what we have assumed are 26 site facing rooms.
- 7.74 The VSC results show that 22 of the 45 windows assessed will experience a small loss of light, which in accordance with the BRE guidelines, will not result in a material adverse effect.
- 7.75 The remaining 23 windows experience a reduction in their VSC which is considered noticeable by the BRE guidelines, as they experience over a 20% reduction. However, whilst they may experience a notable reduction from the existing condition each window will continue to enjoy a VSC in excess of 20% which is considered a good level of daylight for an urban area.
- 7.76 With regard to the Daylight Distribution (No-Sky Line (NSL)) assessment, of the 26 site facing rooms assessed, 21 experience only a small reduction that is within the BRE guidelines. Of the 5 rooms that do not meet the BRE guidelines, each will continue to enjoy a daylight distribution to over 50% of the room's area which is considered a good level for an urban area. The results show that the minimum is 72% (only 8% short of the BRE guidelines).
- 7.77 Overall, whilst some notable reductions may be experienced it has been shown that good levels of retained daylight will be enjoyed. It is therefore our opinion that the effects can be considered acceptable.

Sunlight

- 7.78 Of the 5 rooms that have a site facing window which is orientated within 90 degrees of due south, our results show that each room will experience a reduction which is within the BRE guidelines.

Overshadowing

- 7.79 This property does not appear to have a private amenity space which requires assessment.

2 Freeman Square

- 7.80 This building is located to the north-western side of the proposed site.
- 7.81 We have not been able to obtain floor plans for this property and so have applied our reasonable assumptions as discussed within our Introduction section of this report.

Daylight

- 7.82 There are 28 windows serving what we have assumed are 10 site-facing rooms.
- 7.83 The VSC assessments show that all of the 28 windows assessed will experience a small loss of light, which in accordance with the BRE guidelines, will not result in a material adverse effect.
- 7.84 The daylight distribution results show all rooms will not experience a significant reduction in the amount of sky that can be seen, due to the tall slim nature of the Proposed Development. The effects are therefore considered to be within the BRE guidelines.

Sunlight

- 7.85 Of the 7 rooms that have a site facing window which is orientated within 90 degrees due south. Our results show that each room will experience a reduction which is within the BRE guidelines.

Overshadowing

- 7.86 This property does not appear to have a private amenity space which requires assessment.

8 Conclusions

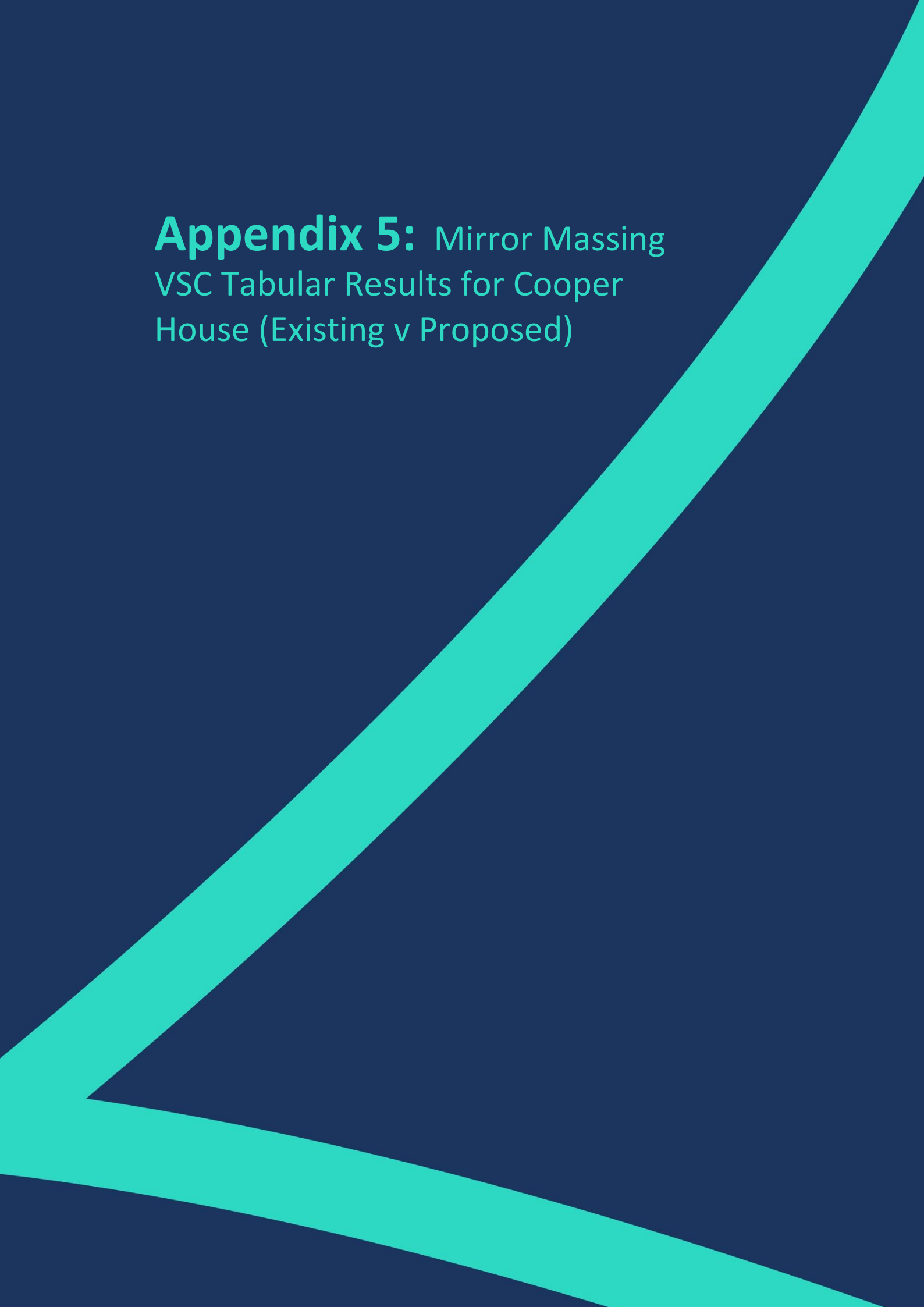
- 8.1 Overall, the results show that any daylight or sunlight reductions to the surrounding residential properties are generally within the BRE guidelines and therefore un-noticeable to the occupants. Where the BRE guidelines are not met good levels of daylight and sunlight for an urban area are generally retained.
- 8.2 The windows/rooms within Cooper House which experience the most notable reductions beyond the BRE guidelines, are considered secondary use rooms (i.e. 2nd bedrooms or small kitchen) which are predominantly located beneath a balcony/access walkway.
- 8.3 The assessments show that there is likely to be a notable reduction in daylight to some of the rear windows of Cooper House. However, it has been shown that the retained values, when based on our opinion of what is reasonable for an urban area, and when compared to the mirror massing tests, can be considered acceptable. In addition, we know that each flat is dual aspect with the main habitable rooms facing away from the proposed development. These rooms currently enjoy very good levels of daylight and sunlight and will continue to do so once the proposals are built. The overall effect on each flat can again therefore be considered acceptable.
- 8.4 The results of our assessments of the surrounding properties are noticeably better in comparison with the previous scheme submitted in 2021. The effects have particularly improved to 2 properties: Hopton Court located to the north of the Site and Cooper House located to the south of the Site. In addition, the property at 2 Freeman Square will now be fully compliant with the BRE guidelines criteria.
- 8.5 The overshadowing results to the surrounding gardens show a very slight reduction on the Spring Equinox (21 March (which is the suggested assessment date)). However, the space will continue to enjoy 2 hours of sun on ground to well over 50% of the area, which is in accordance with the BRE guidelines.
- 8.6 In conclusion we are of the opinion that the proposed development will not have a materially adverse effect on the daylight and sunlight amenity enjoyed by the neighbouring residential use buildings.

Appendix 1: Site Plan and 3D Views

Appendix 2: Window Maps

Appendix 3: VSC Tabular Results

Appendix 4: VSC Tabular Results without Balconies



Appendix 5: Mirror Massing VSC Tabular Results for Cooper House (Existing v Proposed)

Appendix 6: NSL Tabular results

Appendix 7: APSH Tabular Results

Appendix 8: Sun on Ground Analysis Plot

