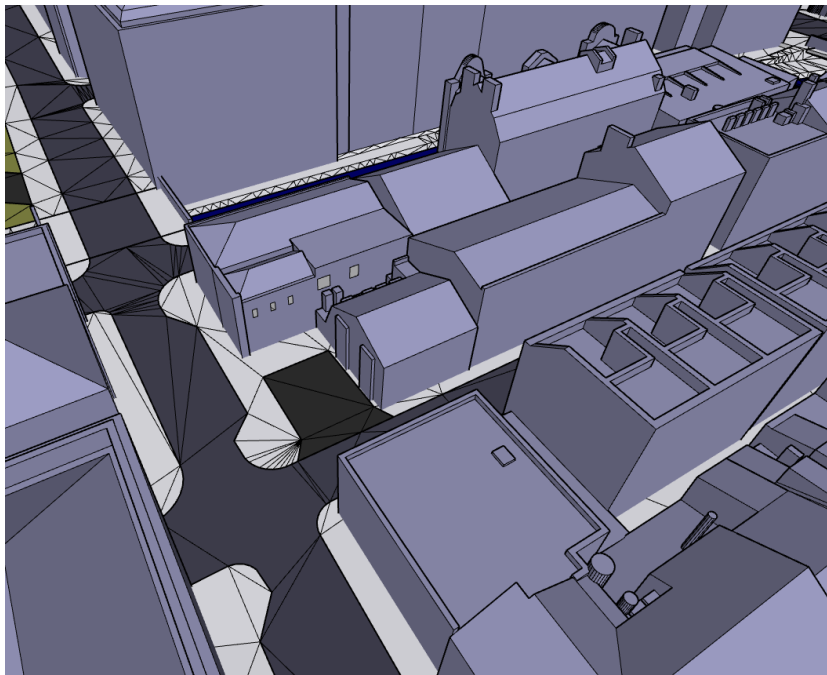

39-41 Richmond Street, Manchester, M1 3WB

Daylight and Sunlight Impact Report

Daylight and Sunlight Impact Report
May 2023



Revision Schedule

Daylight and Sunlight statement
May 2023

Rev	Date	Details	Prepared by	Reviewed by	Approved by
01	May 2023	Final	P Giesberg	S. Bamford	P Giesberg

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1 Introduction

It is proposed to demolish an existing building and erect a new building containing four flats over four floors, including the ground floor. This report was prepared to support the determination of the application for prior approval for the proposed development.

Site and development

The proposed development is situated on the land of the property at 39-41 Richmond Street in Manchester M1 3WB, which is currently in use as the Vanilla Bar.

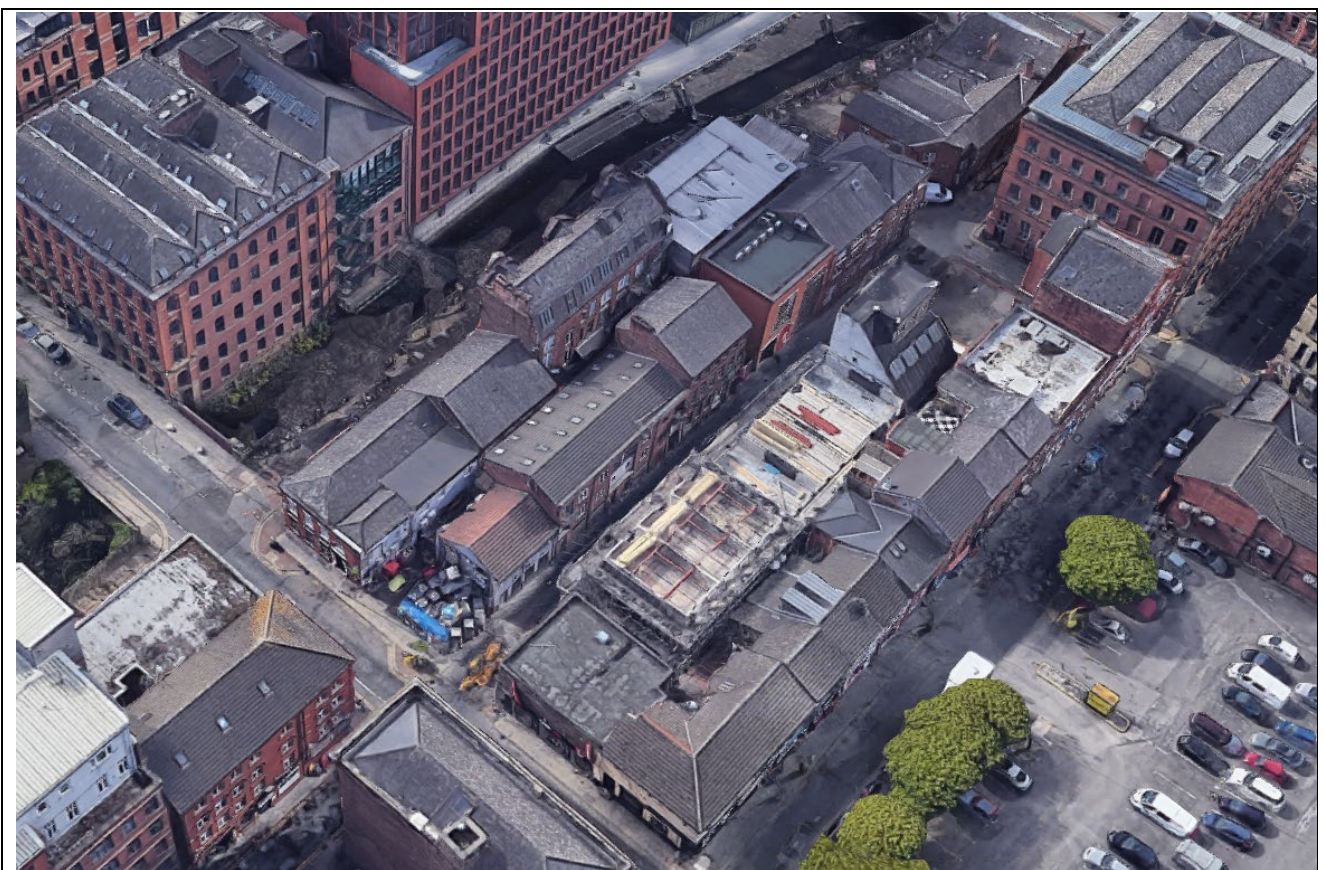


Figure 1. Site Location overview

The application site is in a narrow street in a densely built-up inner-city location. Recently new flats were constructed opposite the proposed development site. To the rear is a hotel with bedrooms looking onto the development site.

2 Methodology and assessment criteria

2.1 Input data

Drawings of the proposed development and the neighbouring properties were made available by the architect. 3D data for surrounding buildings based areal lidar surveillance were acquired and window locations in neighbouring properties were identified through the examination of previous planning applications that were publicly available on the council's planning portal.

Drawings of the proposed development are shown in Appendix 3.

2.2 Effects on existing buildings

The effects of the proposed buildings on the availability of daylight on the existing buildings have been considered. The appraisal has been carried out using the methodology set out by Paul Littlefair and co-authors in BR209 "*Site layout planning for daylight and sunlight: a guide to good practice*" (2022) (BRE Trust)

Diffuse light from the sky

It is important to safeguard the daylight that is available for nearby buildings in living rooms, kitchens and bedrooms. The Vertical Sky Component (VSC) is a measure of available daylight on a particular surface or window. The guidelines in the BRE209 document state that where a window has a VSC of 27 % or more daylighting is unlikely to be affected. In cases where the VSC is less than 27%, it is unlikely that a change in daylighting will be noticeable if a reduction in VSC is not less than 0.8 times the original value. Where information about internal layout is available a further test is the reduction in the area with a view of the sky is not more than 20%.

Where a room has more than 1 window the average weighted VSC should be used.

The VSC has been determined using the MBS Waltham module for SketchUp.

Sunlight Availability

If a living room of an existing dwelling has a window facing with 90 degrees of due south and any part of a new development subtends an angle of more than 25 degrees to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sun lighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window meets all of the following three criteria:

- It receives less than 25% of annual probable sunlight hours (ASHP) or less than 5% of the annual probable sunlight hours between 21 September and 21 March
- It receives less than 0.8 times its former sunlight hours during either period
- It has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours

The APSH has been determined using the MBS Sunlight Exposure module for SketchUp.

Alternative targets

The BRE guidance document recognises that the numerical values provided are not always appropriate different targets may be used based on special requirements of the proposed development or its location. There are a number of examples provided where deviations of the numeral values are appropriate and suggestions to determine alternatives are described.

One of these examples relates to cases where an existing building has windows that are unusually close to the site boundary and taking more than their fair share of light. In these cases, it is suggested that a target is set by using a “mirror-image” of the building of the same height and size, an equal distance away on the other side of the boundary. Another example relates to new buildings in densely built-up inner city areas such as mews. In these instances the guidelines suggest that a VSC that is typical for these mews should be used to set the benchmark.

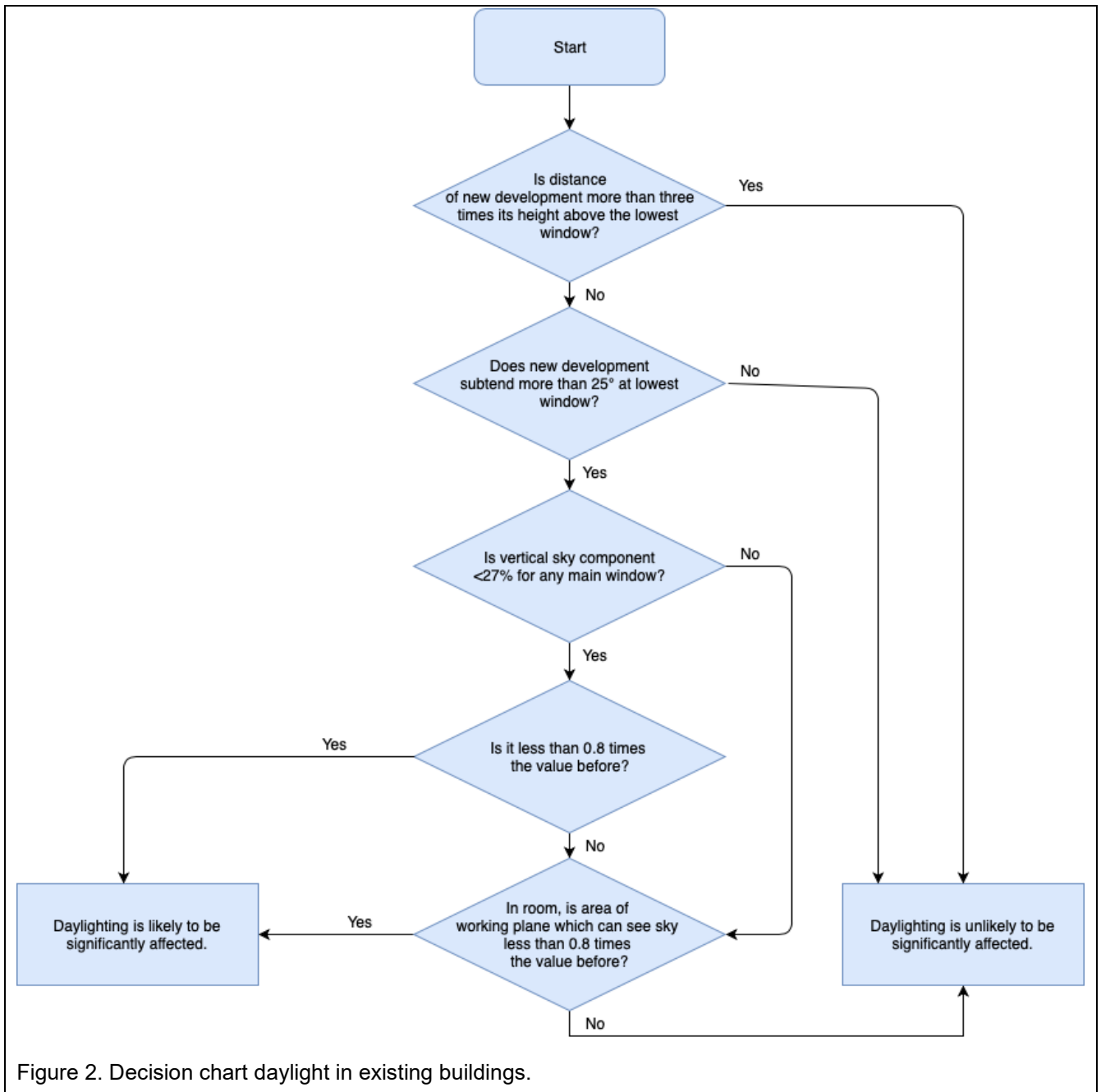
This approach was also used for the development across the road at 40-52 Richmond Street, which received planning consent and has been constructed.

2.3 Scope of assessment

This purpose of this report is to demonstrate compliance with the UK wide accepted guidance criteria on daylight and sunlight. For this reason, not all windows and rooms have been analysed. Where room layout are identical on various floors only the lowest floor where compliance was demonstrated was analysed and reported here. Similarly with neighbouring windows: if a window is shown to comply than windows further away or on higher floors will also comply and no further analysis is needed.

The guidelines mainly address daylight impact on neighbouring residential properties, although it also states that certain non-domestic buildings can have a reasonable expectation of good levels of daylight. These buildings may include schools, hospitals, hotels and hostels, small workshop and some offices.

Garden space was not present and not considered. The analysis was aimed at the rear of the building, where windows are in close proximity.



Appendix 1 provides an overview of the windows to habitable rooms within the proposed development and the numbering used to refer to these windows throughout this report.

3 Results

3.1 Vertical Sky Component Neighbouring Properties

Standard test

There are a number of windows around the proposed development that are potentially affected by the proposed development regarding daylight. The windows are shown in Appendix 2 and the results for the standard test with regards to Vertical Sky Component are shown in table 2.

Table 2. VSC on windows in neighbouring properties

Window	Room Use	VSC Existing	VSC Proposed	Fraction	Standard test
W1	Hotel room	26.68	21.01	0.79	NO
W2	Hotel room	26.90	19.50	0.72	NO
W3	Bathroom	26.84	17.42	0.65	NO
W4	Hotel room	27.10	8.37	0.31	NO
W5	Hotel Room	25.61	1.23	0.05	NO
W6	Living Room	26.55	25.27	0.95	YES
W7	Living Room	27.05	24.18	0.89	YES
W8	Living Room	28.15	21.70	0.77	NO
W9	Bed Room	11.80	11.80	1.00	YES
W10	Bed Room	12.01	11.59	0.97	YES
W11	Bed Room	14.40	10.13	0.70	NO
W12	Unknown	28.50	22.18	0.78	NO
W13	Unknown	28.00	26.04	0.93	YES
W14	Unknown	24.78	21.67	0.87	YES

Using the standard test the four windows to habitable rooms in the hotel are affected: two of these (W1 and W2) only suffer a minor (between 0.70 and 0.80) negative affect. Both the bedroom and the living room to 40 Richmond Street are affected, although the effect is only minor.

Of the unknown windows only W12 suffers a minor negative effect in terms of daylight loss.

Alternative target

To address the special circumstances of the site being located in a densely build-up inner city area, an alternative set of targets was developed by treating the development site and the neighbouring open area as part of the existing streetscape by creating a building as 43-49 Richmond Street on the site.

The results of the alternative analysis are shown in table 3.

Table 3. VSC on windows in neighbouring properties alternative test

Window	Room Use	VSC Existing	VSC Proposed	Fraction	Alternative test
W1	Hotel room	2.46	21.01	8.54	YES
W2	Hotel room	2.30	19.50	8.48	YES
W3	Bathroom	2.31	17.42	7.54	YES
W4	Hotel room	3.47	8.37	2.41	YES
W5	Hotel Room	3.48	1.23	0.35	NO
W6	Living Room	26.55	25.27	0.95	YES
W7	Living Room	27.01	24.18	0.90	YES
W8	Living Room	27.27	21.70	0.80	YES
W9	Bed Room	11.80	11.80	1.00	YES
W10	Bed Room	12.01	11.59	0.97	YES
W11	Bed Room	12.16	10.13	0.83	YES
W12	Unknown	22.91	22.18	0.97	YES
W13	Unknown	24.59	26.04	1.06	YES
W14	Unknown	16.42	21.67	1.32	YES

With the exception of Window 5, all windows now pass the BRE test. According to a planning drawing (1061/11/05 by Holborow and Ormesher Limited) this window is to a bedroom in the hotel.

3.2 Sunlight on Windows

Some of the main windows to living rooms of the surrounding properties could be located to the rear façade of the respective buildings and therefore all the window were also tested for sunlight availability.

Table 4 show the results of the analysis.

Window Name	Room use	Annual Ex	Annual Pr	Pr/Ex	Meets BRE Criteria	Winter Ex	Winter Pr	Pr/Ex	Meets BRE Criteria
W6	Living	57.00	53.00	0.93	YES	10.00	10.00	1.00	YES
W7	Living	59.00	49.00	0.83	YES	11.00	11.00	1.00	YES
W8	Living	62.00	43.00	0.69	YES	14.00	12.00	0.86	YES
W9	Bedroom	26.00	26.00	1.00	YES	2.00	2.00	1.00	YES
W10	Bedroom	28.00	26.00	0.93	YES	3.00	3.00	1.00	YES
W11	Bedroom	34.00	22.00	0.65	NO	4.00	3.00	0.75	NO
W12	Unknown	59.00	46.00	0.78	YES	15.00	9.00	0.60	YES
W13	Unknown	60.00	56.00	0.93	YES	16.00	12.00	0.75	YES
W14	Unknown	49.00	44.00	0.90	YES	10.00	8.00	0.80	YES

All of the windows to a living room or unspecified room receive sufficient sunlight after the proposed development would have been build.

4 Discussion and conclusion

A daylight and sunlight assessment to identify any potential impacts of the proposed vertical extension was carried out.

There were 14 windows in the vicinity of the building identified that could potentially be affected by the proposed development with regard to daylight. Of these 14 windows, one was identified as a window to a non-habitable room (W3), four others to hotel rooms (W1, W2, W4 and W5), 3 to bedrooms of flats (W9 - W11), 3 to living rooms (W6-W8) and three where we were not able to establish its use (W12-W14).

With regard to sunlight windows W1-W5 were not facing within 90 degrees of due south and are therefore excluded from the assessment. In addition, the bedroom windows are also excluded from consideration for sunlight.

An alternative test in accordance with the BRE guidelines was developed to reflect the narrow streets in the area and the closeness of the hotel to the boundary.

The four windows to the hotel are subject to a reduction in daylight under the standard test. Two of these suffer a minor loss and two a major loss. In Richmond Street there are also three windows that are subject to a reduction in daylight (W8, W11 and W12). The reductions are classified as minor reductions (a reduction to between 0.70 and 0.80 of the original value).

Using the alternative targets, only one of the hotel windows is subject to a loss in daylight (W5).

None of the windows to living rooms are subject to a material loss in sunlight availability.

The guidelines emphasise the importance of avoiding rigid interpretation of the numeric values that are provided. To address the flexibility that is advocated a two-stage approach is often used. The two-stage approach is where both technical impacts and wider contextual considerations are considered together. It stems from a piece of case law: the High Court decision on the application of *Melanie Rainbird and the London Borough of Tower Hamlets Council (Rainbird, R (on the application of) v The Council of the London Borough of Tower Hamlets [2018] EWHC 657*), commonly referred to in the industry as “the Rainbird judgement”.

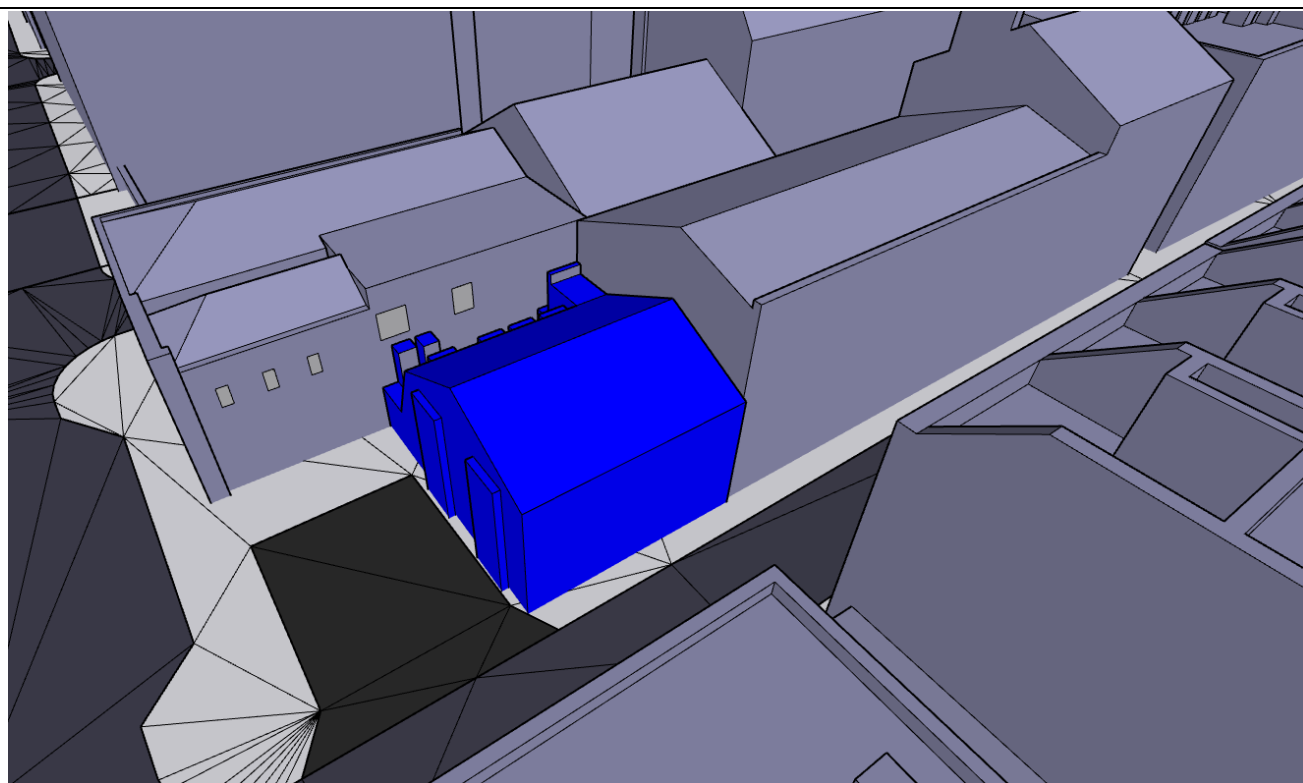
From here the two stages can be identified as:

1. whether or not it would result in the material deterioration of those conditions
2. whether or not any such deterioration would be unacceptable.

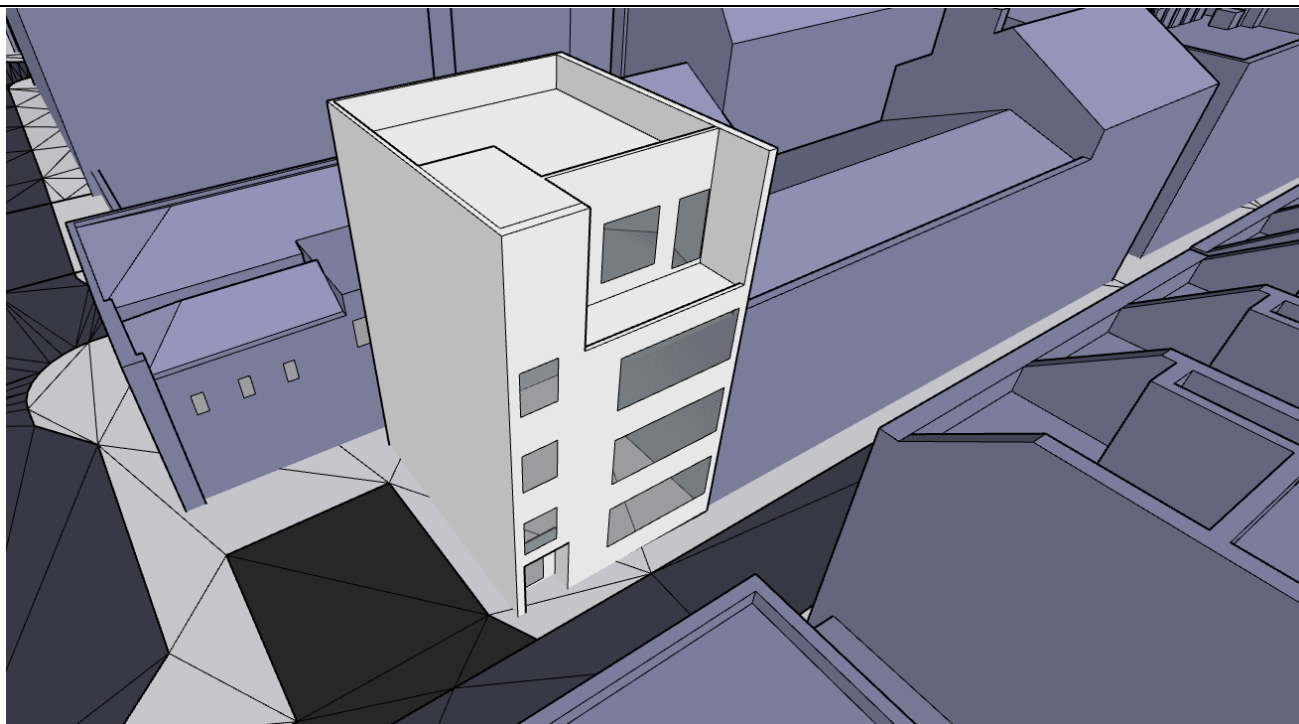
With regard to the one window in the hotel that is affected (W5) by the development, consideration should be given to the fact that the hotel already operates with a number of rooms to the rear of the hotel that are subject to the same restrictions as W5. This indicates that the hotel is able to operate and rent out these rooms.

Therefore, it is concluded that the proposed development is consistent with the BRE guideline published in “*Site layout planning for daylight and sunlight: a guide to good practice*” (2022) (BRE Trust).

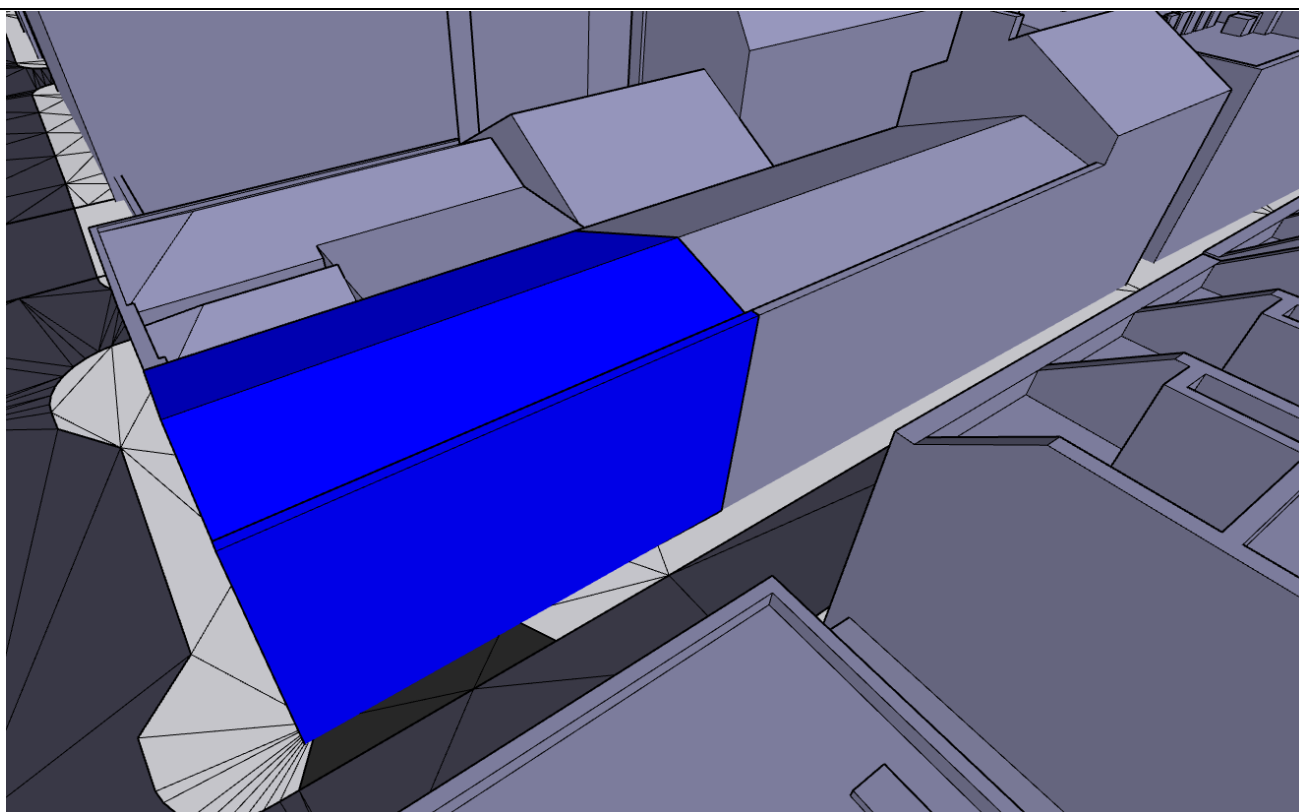
Appendix 1 Model overview



Model overview, baseline situation

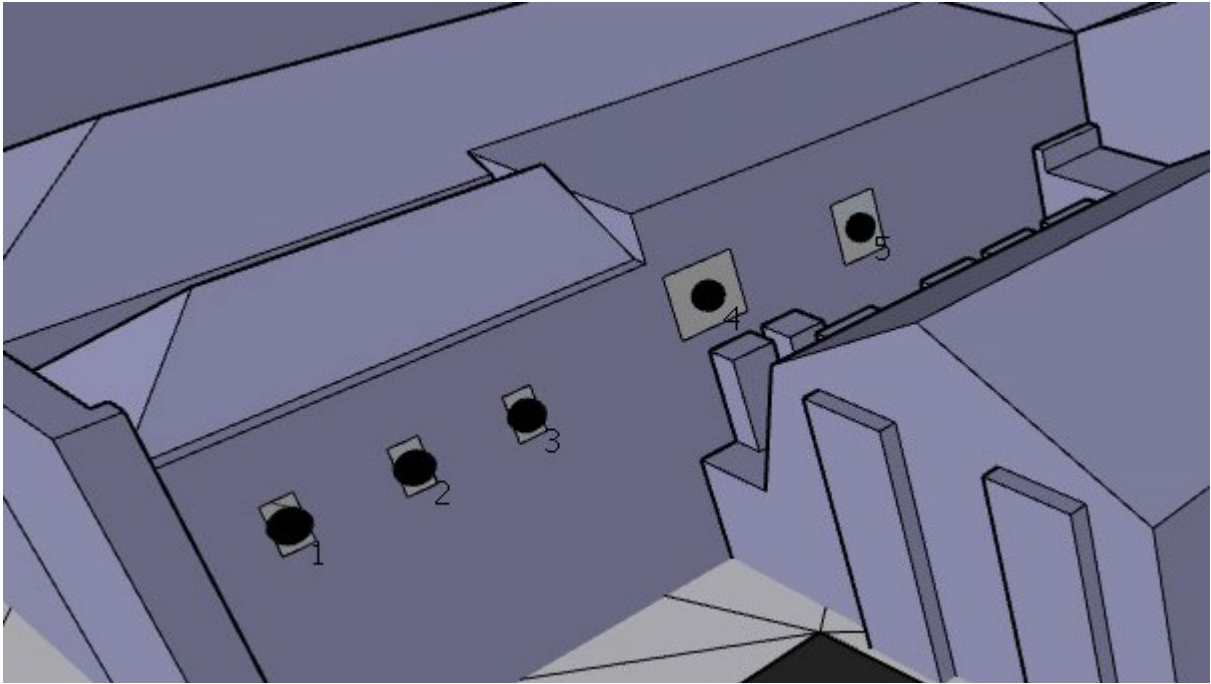


Proposed situation

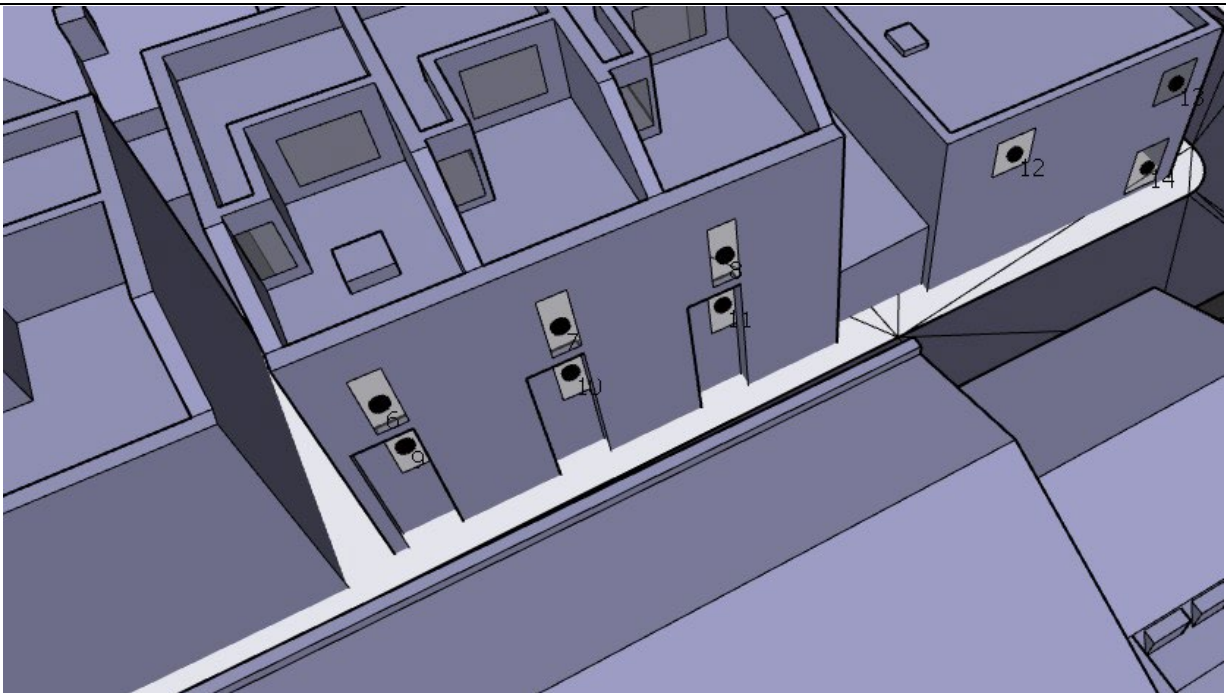


Alternative target

Appendix 2 Window labelling



Windows to the rear of Canal Street



Windows across the road in Richmond Street

Appendix 3 Plans and Elevations Proposed Development



General Notes

No.	Revision/Issue	Date

Firm Name and Address

 **Mason and Marlowe**
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Salford Quays, M5 3NT

Project Name and Address

Vanilla,
39-41 Richmond St,
Manchester M1 3WB

Project	Sheet
Date 19/07/2022	A3
Scale 1/100	



FRONT ELEVATION

LEFT SIDE ELEVATION

General Notes

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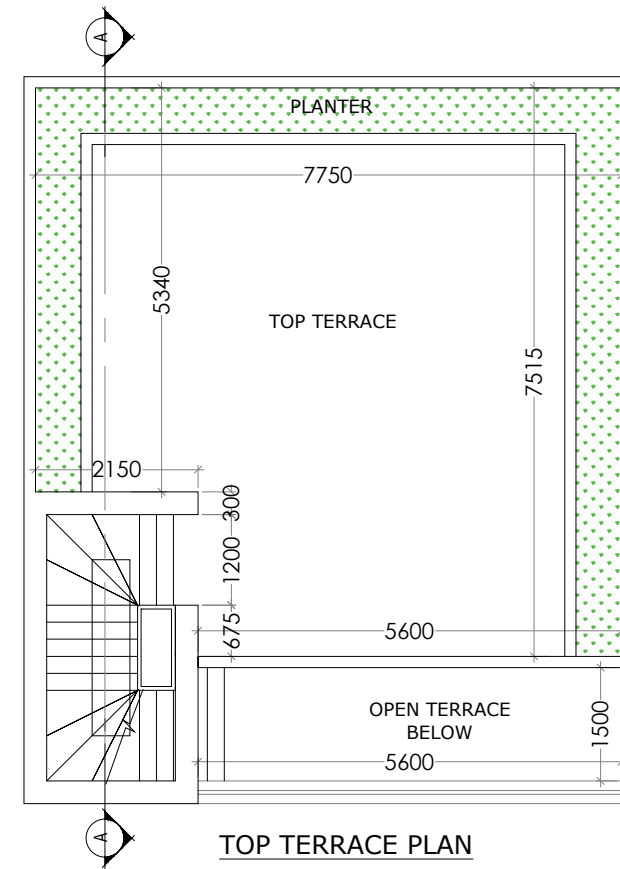
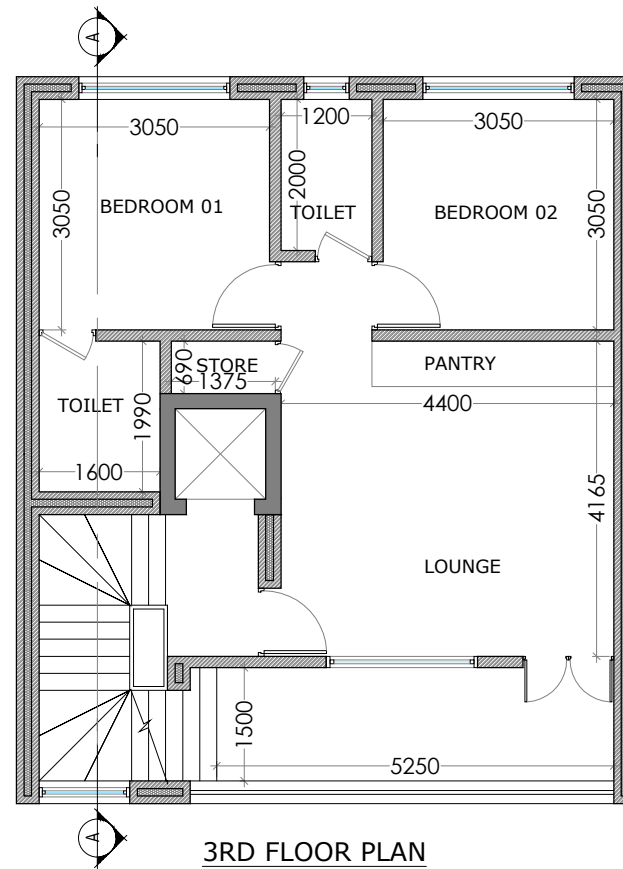
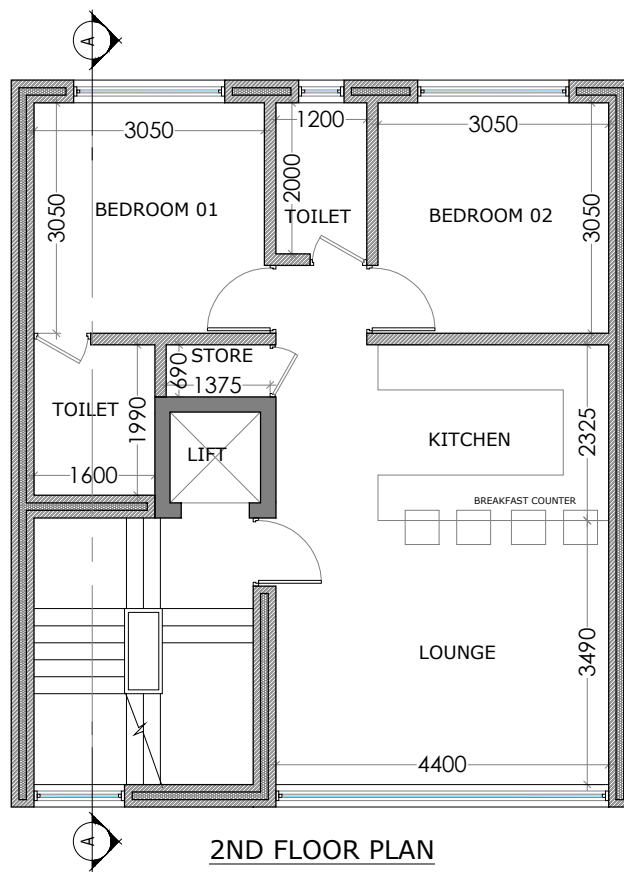
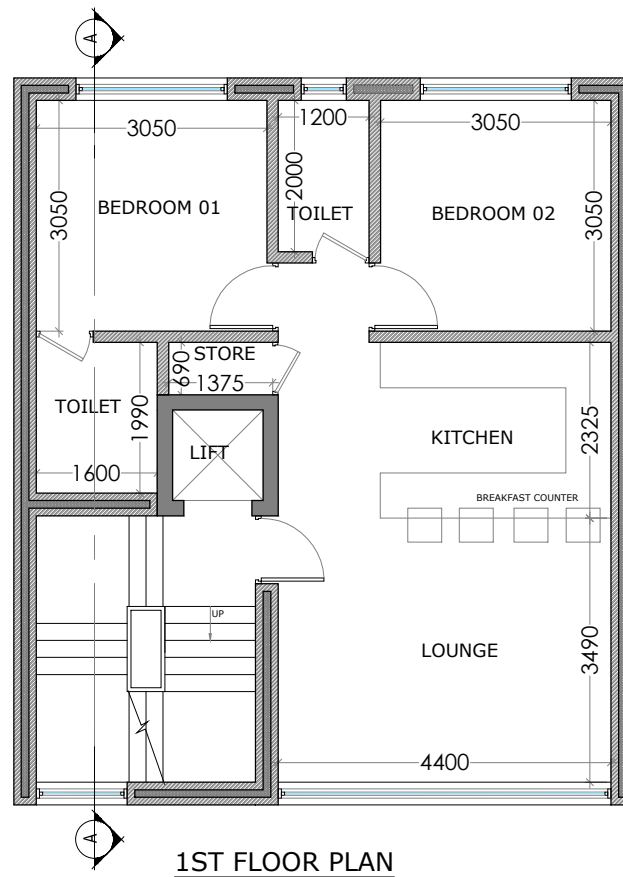
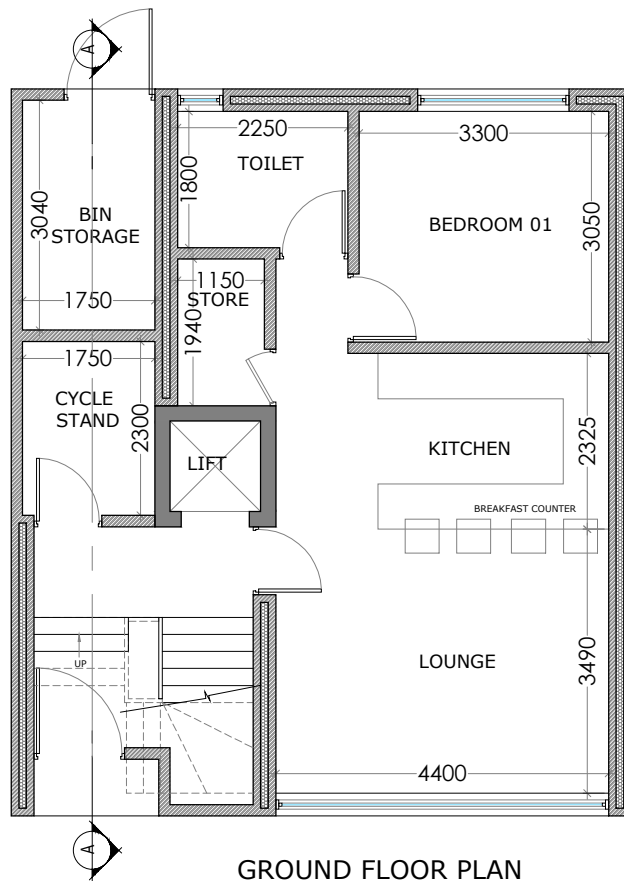
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