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RICS

PROPOSED ACCOMMODATION LIGHT ASSESSMENT

relating to the

PROPOSED DEVELOPMENT

Project Ref: 17YW (Rev -)

Date: July 2023

of

17 YORK WAY, LONDON, N7

on behalf of

MENDOZA LIMITED

17 York Way, London, N7 9QG

Author: Neil Cawood BSc (Hons), MSc, MAPM, MRICS

About CPMC Chartered Surveying Ltd

CPMC Chartered Surveying Ltd is a multi-disciplinary surveying practice, specialising in rights of light and BRE daylight and sunlight analysis for the planning process, the Party Wall etc Act 1996, access agreements, condition scheduling, crane oversail licences & Accurate Visual Representation (AVR) imagery.

We are an industry leading Chartered Surveying practice with considerable experience in relation to providing documentation to support the planning process and the resolution of 'neighbourly matters' issues in all parts of the UK. We have significant experience with regard to the provision of daylight and sunlight assessment criteria and regularly produce comprehensive assessments to aid planning authorities understand the impact of an applicant's site on its neighbours. We are also regularly asked to assess the likely light levels within a proposed developments, so that the likely light levels for future occupants can be better understood.

Our client base is broad, and we work with developers, authorities and private individuals in order to effectively manage their neighbourly matters concerns.

CONTENTS

Section 1: Overview

There is no national planning policy relating to daylight and sunlight and overshadowing. However, general guidance is given on the need to protect existing amenity and provide adequate new accommodation, as set out in the National Planning Policy Framework.

The 2022 (3rd Edition) Building Research Establishment's 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' (The BRE Guide) and BS EN 17037:2018 enable such assessments to be made.

When considering the BRE Guide's requirements, it is important to remember that the Guide is not a set of planning rules, which are either passed or failed. Numerical values are given and used, not as proscriptive or prescriptive values but as a way of comparing situations and arriving at a balanced judgement. The BRE Guide is conceived as an aid to planning officers and designers by giving objective means of making assessments. The target values in the BRE Guide may not be obtainable in dense urban areas where the grain of development is tight, while higher values might well be desirable in more open suburban or rural areas where the grain is contrastingly open. This is recognised by the BRE and made clear in the BRE Guide.

The need to apply daylight and sunlight advice *flexibly* was also reinforced in the recent National Planning Policy Framework (NPPF) revision (20th July 2021, at para 125 [c]) "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".

The need to apply the guidance flexibly was also reiterated in the NPPG 'Effective Use of Land' guidance (July 2019), and this is particularly relevant in London, where it is acknowledged in the Greater London Authority's Housing Supplementary Planning Guidance (SPG), March 2016 (para 1.3.46), which states:

"The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London."

Context is therefore of key importance when applying the standards contained in the BRE Guide.

Section 2: Executive Summary

The purpose of this report is to analyse the predicted natural daylight levels received by new residential accommodation at 17 York Way, London, N7. The proposed development has been reviewed against the recommended criteria in the BRE Guide.

The need to apply daylight and sunlight advice *flexibly* was reinforced in the recent National Planning Policy Framework (NPPF) revision (July 2021) and reiterated in the NPPG 'Effective Use of Land' guidance (July 2019).

When considering the BRE Guide's requirements, it is important to remember that the Guide is not a set of planning rules, which are either passed or failed. Numerical values are given and used, not as proscriptive or prescriptive values but as a way of comparing situations and arriving at a balanced judgement. The BRE Guide is conceived as an aid to planning officers and designers by giving such means of making balanced assessments.

In dense urban locations such as Camden, site constraints, including the number, height and proximity of other neighbouring buildings mean that windows, rooms and external amenity space will often fall short of the guidance figures.

In this case over 90 percent of the rooms comfortably comply with the Spatial Daylight Autonomy (SDA) test. The two living, kitchen, dining (LKD) rooms which fall short of the BRE guidance have a lux level comfortably above 150 and are therefore considered to be acceptable. Overall, the project demonstrates a high level of compliance for a project located in an urban area such as Camden.

Section 3: Introduction

The purpose of this report is to assess the natural daylight levels in 21 habitable rooms in the proposed redevelopment of 17 York Way.

This report considers the daylight issues against the criteria set out for national guidance in the following publications:

- Site Layout Planning for Daylight & Sunlight (BRE Guide), PJ Littlefair 2022 published by the BRE (Building Research Establishment).

  The BRE Guide is the culmination of research undertaken by the BRE to determine whether or not a new development will achieve acceptable levels of internal daylight. The BRE tests are approved by the Department of the Environment and are widely used by local authorities when deciding on development applications.

- BS EN 17037:2018 Daylight in buildings.

There are no minimum mandatory requirements for daylighting in Building Regulations for England & Wales but the guidance set out in the BRE Guide (2022) is widely accepted as the approved methodology when calculating light levels in habitable rooms.

Section 4: Description of the Development

The scheme comprises of the redevelopment of an existing public house to provide commercial space and residential accommodation.

The property is located at a crossroad and on the corner of York Way and Agar Grove in London N7.

Fig. 1 – Image of the CPMC model

Section 5: Assessment Process

The guidance states that the rooms within proposed residential accommodation that should be assessed are living rooms, kitchens and bedrooms.

As previously stated, it is important to note that the numerical values in the guidance are purely advisory and different criteria may be used based on the requirements for daylighting in an area viewed against other site layout constraints.

The assessment that has been undertaken involves the assessment of daylight within the proposed development using Spatial Daylight Assessment (SDA) analysis.

Section 6: The Amount of Daylight in the Proposed Development:

Daylight Factor (DF) & Spatial Daylight Autonomy (SDA)

The 2011 BRE guidance and BS8206-2 Code of Practice for Daylighting 'Average Daylight Factor' (ADF) has been removed from the 2022 BRE Guide and replaced with the 'Daylight Factor' analysis contained in BS EN 17037 Daylight in Buildings.

BS EN 17037 provides two methodologies. One is based on target illuminances from daylight to be achieved over specified fractions of the reference plane (a plane at table top height covering the room) for at least half of the daylight hours in a typical year. The other, alternative, method is based on calculating the daylight factors achieved over specified fractions of the reference plane.

BS EN 17037 gives three levels of recommendation for daylight provision in interior spaces: minimum, medium and high. For compliance with the standard, a daylit space should achieve the minimum level of recommendation.

There are two tests which can be applied to undertake this assessment. These are the Daylight Factor (DF) method and Spatial Daylight Autonomy (SDA). In this case SDA has been used to compute the daylight factor at each point on an assessment grid.

This method involves using climatic data for the location of the site (via the use of an appropriate, typical or average year, weather file within the analysis software). This is used to calculate the illuminance from daylight at each point on the assessment grid on the reference plane at an at least hourly interval for a typical year.

A target illuminance (E_T) should be achieved across at least half of the reference plane in a daylit space for at least half of the daylight hours. The UK National Annex gives illuminance recommendations of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens. These are the median illuminances, to be exceeded over at least 50% of the assessment points in the room for at least half of the daylight hours. The recommended levels over 95% of a reference plane need not apply to dwellings in the UK

Our assessment takes into account the following factors:

The calculation of the Daylight Factor takes into account the following variables:

- The diffuse visible transmittance of the glazing (we have used a figure of 0.68 for standard clear double glazing)
- An 8 percent maintenance factor, allowing for the effects of dirt
- The net glazed area of the window (0.7 for vertical windows and 0.8 for skylights)
- The total area of the room surfaces
- The reflectance of neighbouring immediate facades.
- The reflectance of surfaces within the applicant's development - in this case we have assumed light finishes.

The rooms that would be assessed include:

- Bedrooms – generally consider a lower importance receptor (100 lux target)
- Living rooms – generally of medium importance (150 lux target)
- Kitchens – generally given a greater weighting (200 lux target)

BRE guidelines confirm that the acceptable minimum average daylight factor target value depends on the room use. In cases where one room serves more than one purpose, the minimum SDA should be that for the room type with the higher value. Notwithstanding this, in practice, the principal use of rooms designed as a 'living room/kitchen/dining' (LKD) room is as a living room. Whilst a 200 lux standard is desirable, in an urban location such as Camden this is unlikely to be met in all cases. It is therefore reasonable to consider 150 lux level as an appropriate compliance target value for LKD rooms.

Results[1]

Calculations were undertaken in accordance with the procedures shown in the BRE Guide. Our results show that over 90 percent of the tested rooms comply with the BRE recommended daylight levels. The two rooms that fall short of the BRE guidance (Second R6 & Third R6) are living, kitchen, dining (LKD) rooms with median lux levels of over 170, which is considered to be acceptable for a project located in an urban area such as Camden. Overall, the project is considered to demonstrate a high level of compliance with the BRE guidance.

[1] Detailed results are found in Appendix 1.

Section 7: Notes:

This report has been prepared for the sole use of the client. No representation or warranty (expressed or implied) is given to any other parties. Therefore, this report should not be relied upon by any third party and we accept no liability from the use of this report by any other party.

Our calculations have been undertaken by using drawing numbers:

116_AP 3D
116_PL1_GA_00 Rev G
116_PL1_GA_-01 Rev A
116_PL1_GA_01 Rev E
116_PL1_GA_02 Rev E
116_PL1_GA_03 Rev E
116_PL1_GA_04 Rev E
116_PL1_GA_05 Rev B

We are not aware of any conflicts of interest between ourselves and any other party concerning this project.

Door swing and ancillary/circulation space has not been included in the assessment area on the basis that it is not part of the habitable area of the room.

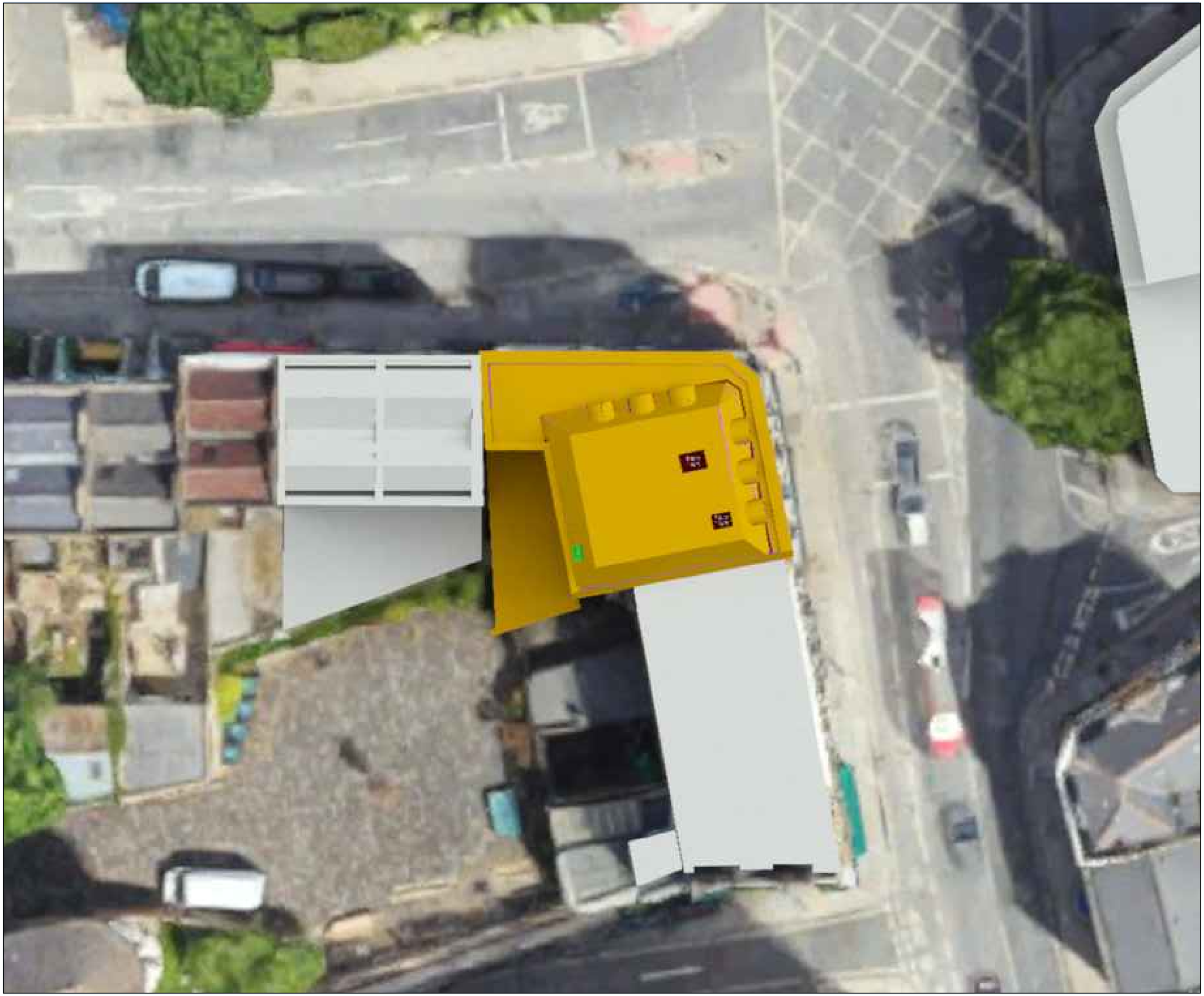
Appendix 1

Results

Spatial Daylight Autonomy (SDA):

Appendix 2

Model Views & Room Sections:



Notes:

LEGEND:

SOURCES OF INFORMATION:

Proposed Building File:

Date:

AOD Confirmation:

Date:

REV:	DESCRIPTION:	BY:	DATE:

STATUS:

CPMC CHARTERED SURVEYING

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CLIENT: Mendoza Ltd

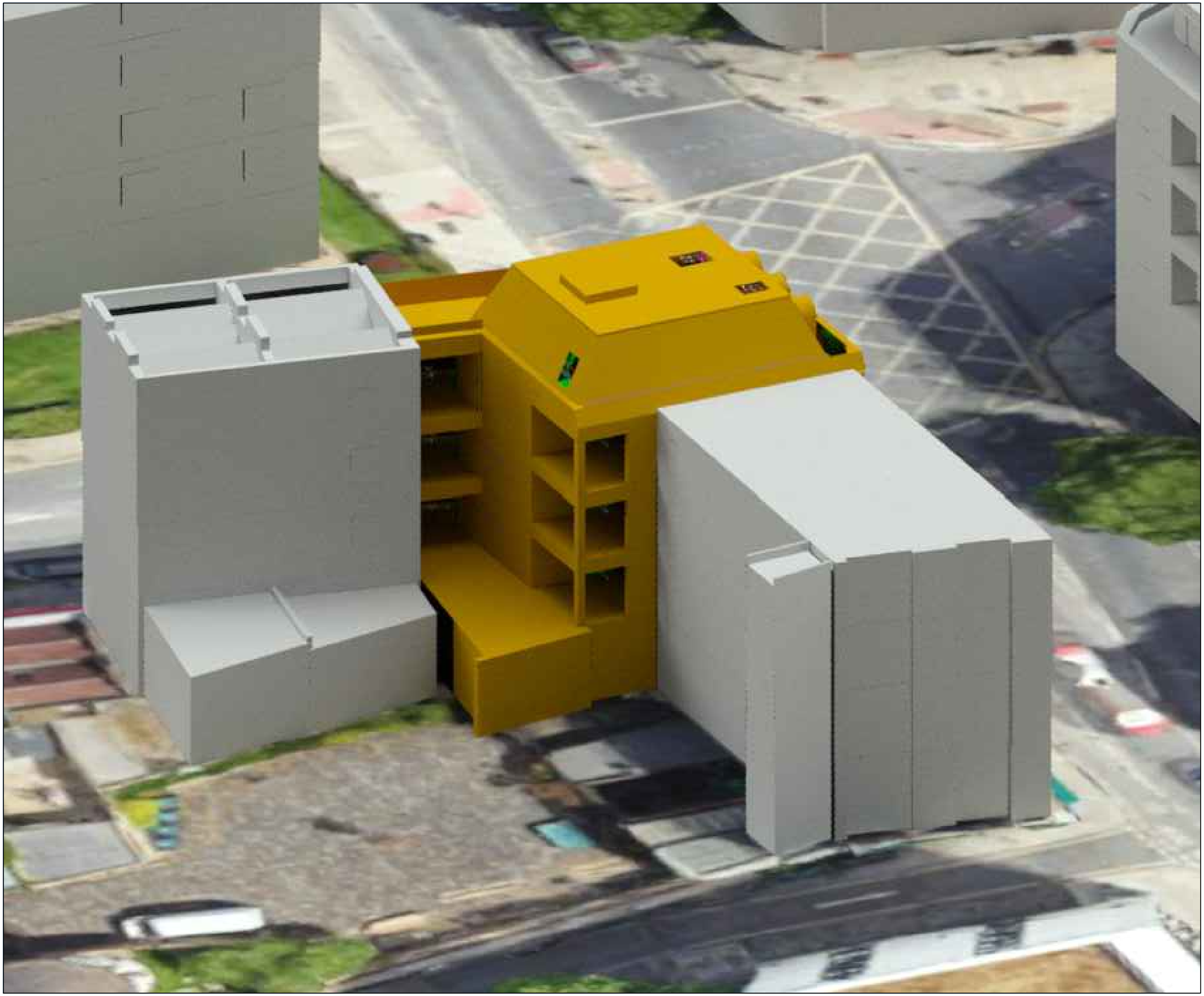
PROJECT: 17 York Way

ADDRESS: London, N7 9QG

TITLE: PROPOSED PLAN VIEW

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	Jun 2023	HP	NC

PROJECT NO:	DRAWING NO:	REVISION:
	01	A



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Do not scale from this drawing.

LEGEND:

SOURCES OF INFORMATION:

Proposed Building File:

Date:

AOD Confirmation:

Date:

REV:	DESCRIPTION:	BY:	DATE:

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CLIENT: Mendoza Ltd

PROJECT: 17 York Way

ADDRESS: London, N7 9QG

TITLE: PROPOSED 3D VIEW

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	Jun 2023	HP	NC

PROJECT NO:	DRAWING NO:	REVISION:
	02	A

Notes:

LEGEND:

SOURCES OF INFORMATION:

Proposed Building File:

Date:

AOD Confirmation:

Date:

REV:	DESCRIPTION:	BY:	DATE:

STATUS:

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TITLE: PROPOSED 3D VIEW

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	Jun 2023	HP	NC

PROJECT NO:	DRAWING NO:	REVISION:
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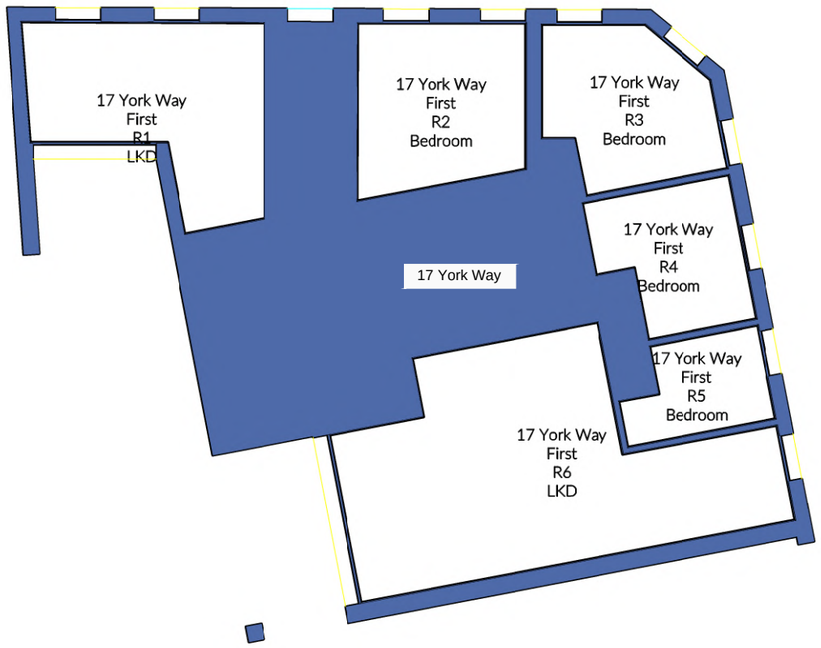

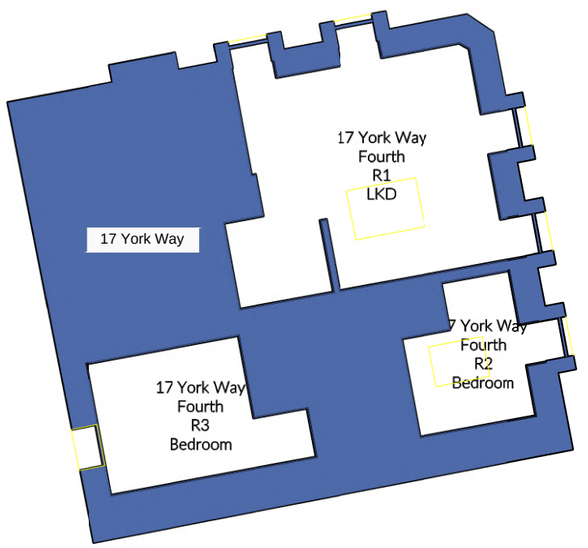

Notes:

116 Rushdene Cres.

LEGEND:

SOURCES OF INFORMATION:

Proposed Building File:

Date:

AOD Confirmation:

Date:

REV:	DESCRIPTION:	BY:	DATE:

STATUS:

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CLIENT: Mendoza Ltd

PROJECT: 17 York Way

ADDRESS: London, N7 9QG

TITLE: WINDOW & ROOM REF.

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	Jun 2023	HP	NC

PROJECT NO:	DRAWING NO:	REVISION:
	04	A