waldrams

Hyde Park 3, Hayes

Daylight and Sunlight Report

03 March 2023

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Hyde Park 3, Hayes

DAYLIGHT AND SUNLIGHT REPORT

Client: Shaviram Hyde Ltd

Prepared by: Luke Wilson

Reviewed by: James Bowman

Reference: 2789

DOCUMENT HISTORY

First Issued: 03 March 2023

CONTENTS

EXECUTIVE SUMMARY

- This is a report into the impact of the proposed development at Hyde Park 3, Hayes on the daylight and sunlight to surrounding residential properties and internally to the scheme itself. This analysis has been based upon scheme drawings provided by Front, a photogrammetric survey, and site imagery.
- The analysis has been carried out in accordance with the methodologies contained in the Building Research Establishment's *Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice* (2022) (known as the "BRE Guidelines"), which is used by the local authority to determine the acceptability of a proposal in terms of its effect on neighbouring daylight and sunlight amenity.
- The results show that the majority of rooms and windows in the neighbouring consented development meet the BRE target values for daylight and sunlight. Where this is not the case, either the window is significantly recessed into the building thereby limiting access to daylight, or the impact is considered minor adverse at worst and therefore not significant.
- Internally, the analysis shows that all rooms meet their target daylight value and that all units containing at least one south-facing window meet their target sunlight value. Given the similar results for the residential units below the proposed extension, these results are also considered acceptable.

1 INTRODUCTION

Waldrams have been instructed to provide daylight and sunlight analysis for the proposed development of the site at Hyde Park 3, Hayes. This analysis is based upon scheme drawings by Front, a photogrammetric survey of the site and surrounding context and site imagery.

The analysis has been carried out in accordance with the methodologies contained in the BRE Guidelines which is used by the local authority to determine the acceptability of a proposal in terms of its effect on neighbouring daylight and sunlight amenity.

The existing site and proposed scheme can be seen in Appendix 1. The numerical results of the quantitative daylight and sunlight analysis can be found in Appendix 2. The numerical results of the quantitative internal daylight and sunlight analysis can be found in Appendix 3. Window maps showing the locations of the windows analysed in the neighbouring property can be found in Appendix 4.

2 SUMMARY OF HOW DAYLIGHT AND SUNLIGHT ARE CONSIDERED FOR PLANNING

2.1 INTRODUCTION TO THE BRE GUIDELINES

Daylight and sunlight are planning considerations. The main reference used by local planning authorities to determine the acceptability of proposals in terms of their internal daylight and sunlight and the impact on daylight and sunlight to the surrounding properties is the BRE Guidelines, used in conjunction with British Standard *Daylight in Buildings,* BS EN 17037. The BRE Guidelines provide scientific, objective methods for establishing the acceptability of daylight and sunlight internal to the scheme and the surrounding properties and overshadowing.

2.2 DAYLIGHT AND SUNLIGHT CRITERIA TO SURROUNDING PROPERTIES

Daylight

According to the BRE Guidelines, a surrounding existing building to a proposed scheme will retain the potential for good interior daylighting if the scheme subtends less than 25 degrees from the horizontal as measured from the lowest habitable windows in the neighbouring windows. If this is not achieved, then good daylighting to the neighbouring properties is still achieved if the Vertical Sky Component (VSC) is in excess of 27% or is reduced by less than 20% from its existing level and if the area of the room that can see the sky at desk height (known as the daylight distribution or no sky contour) is reduced by less than 20% of its existing area. The BRE Guidelines state this in paragraph 2.2.23 as:

> *"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 measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value*
- *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."*

The BRE Guidelines state in 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."

Sunlight

The test for sunlight to the neighbouring properties is calculated for each living room with a main window facing within 90° of due south. Bedrooms and kitchens are considered by the BRE Guidelines as less important for sunlight. The BRE Guidelines state that any south facing window may potentially receive up to 1486 hours of sunlight per year on average, representing 100% of the annual probable sunlight hours (APSH).

The BRE Guidelines state in paragraph 3.2.13 that:

"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."*

Following the BRE Guidelines recommendations, VSC and APSH are measured from a point on the outer window wall.

2.3 ALTERNATIVE TARGET VALUES AND APPLYING A FLEXIBLE APPROACH

The BRE Guidelines specify that the daylight and sunlight results be considered flexibly and in the context of the site. Clearly, there would be a higher expectation for daylight and sunlight in a rural or suburban environment than in a dense city centre location. The important factor in all cases is that the levels of daylight and sunlight are appropriate, taking into account all the planning policy requirements of the site. The BRE Guidelines acknowledge this in the introduction where they state in paragraph 1.6:

> "The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly as natural lighting is only one of many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. "

The numerical figures set out in the BRE Guidelines should therefore not be rigidly applied, but instead used as part of the overall evaluation of the daylight and sunlight to the surroundings in context of the site, its existing massing, and the need for regeneration and local planning policy guidance for the site. In particular, existing local precedents or recent planning consents may provide a good indication as to appropriate levels in the vicinity.

The BRE recommend that, in urban development locations, alternative baselines or lower target values may be used (c.f. Appendix F of the BRE Guidelines for Daylight & Sunlight). Paragraph F1 states:

> *"These values [those set out in the BRE Guidelines] are purely advisory and different targets may used based on the special requirements of the proposed development or its location. Such alternative targets may be generated from the layout dimensions of existing development, or they may be derived from considering the internal layout and daylight needs of the proposed development itself."*

Indeed, in paragraph 2.2.3 of the BRE Guidelines it states:

> *"Note that numerical values given here are purely advisory. Different criteria may be used based on the requirements for daylighting in an area viewed against other site layout constraints. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking more than its fair share of light. Appendix F*

gives further guidance."

Applying flexibility when considering the BRE Guidelines in planning terms is also supported by the National Planning Policy Framework (NPPF) (July 2021) which states in paragraph 125:

> *"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. In these circumstances:*
>
> *…*
>
> *(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 a site (as long as the resulting scheme would provide acceptable living standards)."*

It is important to note that the BRE Guidelines merely state that occupants may "notice" reductions of more than 20% and do not talk about acceptability. Planning appeal decisions and investigations carried out by the Inspectorate in recent years (such as appeal ref. APP/E5900/W/17/3191757) have made it clear that, in assessing daylight and sunlight impacts, the context of the site is key in understanding whether occupants in surrounding properties will be left with appropriate levels of amenity and whether or not reductions are acceptable. For instance, where the resulting levels of daylight and sunlight are comparable to those of other local residents, changes (i.e. reductions) can be considered acceptable and contextually appropriate. It is also important to remember that residential amenity should be balanced against the advantages of living in such a location (such as close links to transport, amenities, employment, services etc.).

The Appeal (APP/E5900/W/17/3191757) decision states that, in considering daylight and sunlight impacts, the following process should be considered:

> *"15. ...In essence, first, as a matter of calculation, whether there would be a material deterioration in conditions and second, as a matter of judgement, whether that deterioration would be acceptable in the particular circumstances of the case.*
>
> *16. The Court held that the first question can be answered by applying the BRE Guidelines: for each window assessing the 'vertical sky*

component' (VSC) and the 'no sky line' (NSL) for daylight and the 'annual probable sunlight hours' (APSH) for sunlight. If the guidelines are exceeded the deterioration would be material. In answering the second question - whether that deterioration is acceptable – wider considerations come into play. This indicates to me that the acceptability of a material deterioration in living conditions must be judged in its local context."

In considering planning policy, it is important therefore to firstly establish whether the impact of a proposed development on the daylighting and sunlight conditions of surrounding property to the development would result in a noticeable impact, and secondly whether such an impact can be considered acceptable or not in view of the site context. A two-stage approach can therefore be adopted as follows:

1) Whether a proposed scheme would or would not result in a "material deterioration" in daylight and sunlight. This can be assessed against the BRE's target values with a 20% or more reduction in daylight and sunlight being considered as having a "noticeable" impact; and

2) whether such deterioration would be considered acceptable or not given the context of the site.

2.4 INTERNAL DAYLIGHT & SUNLIGHT CRITERIA FOR NEW BUILDS

The BRE Guidelines set out their interior daylight recommendations in Appendix C of their document. They refer to the British Standard *Daylight in Buildings* BS EN17037 and its UK National Annex which sets out two criteria for assessing interior daylight. Daylight provision in new rooms may be checked using either of the methods in BS EN 17037. 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. We have undertaken the assessment based on the illuminance method.

Illuminance Method

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 software) to calculate the illuminance from daylight at each point on an assessment grid on the reference plane at an at least hourly interval for a typical year.

The UK National Annex gives illuminance recommendations of:

- 100 lux in bedrooms
- 150 lux in living rooms

- 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.

The BRE Guidelines state in paragraph C17 that:

> "*Where a room has a shared use, the highest target should apply. For example in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design*."

Sunlight

For internal sunlight, the BRE Guidelines state in paragraph 3.1.15:

> "*In general a dwelling, or non-domestic building that has a particular requirement for sunlight, will appear reasonably sunlit provided:*
>
> - *at least one main window wall faces within 90° of due south and*
> - *a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted*."

2.5 METHOD USED FOR CALCULATING THE DAYLIGHT AND SUNLIGHT RESULTS

The analysis provided in this report utilizes state-of-the-art software to calculate in three dimensions the daylight and sunlight following the methods specified in the BRE Guidelines. A three dimensional accurate computer model has been created for the existing site in context of the immediate surrounding properties, based upon architect's drawings, a [photogrammetric] survey of the site and surrounding properties, site imagery and surrounding property information. The results generated are then reviewed against the BRE Guidelines' target values.

REFERENCES:

BRE Guidelines (BR 209): *Site layout planning for daylight and sunlight: a guide to good practice*(2022).

These Guidelines provide the basis of the analysis described in this report. Please refer to this document for a detailed description as to the approach, methodology, and implementation of the numerical analysis used in this report. A summary of the approach and methods recommended by the BRE Guidelines is included in Section 2 above of this report.

3 ASSUMPTIONS USED IN THE ANALYSIS

Uses of the surrounding properties have been based on external appearance to determine whether they are residential or commercial use. We have also researched the Council Tax records for the property, which if listed would indicate residential use.

It is important to note that, in some cases and where no additional information is available, the window positions in the surrounding property elevations have been estimated based on brick counts from site photographs. The floor levels for the surrounding buildings are assumed unless otherwise indicated.

We have obtained layouts for the following properties from the local planning portal and/ or estate agency listings:

- Hyde Park 4, Hayes

All property addresses are taken from the Land Registry MapSearch website and we advise that these are checked by your solicitor prior to any action being taken based on this report.

The following reflectance, transmittance, maintenance and framing values have been used in the internal daylight calculations:

- Transmittance (T): 0.68
- Reflectance (R): 0.4 for floors, 0.8 for ceilings, and 0.7 for walls
- Maintenance Factor: 0.92
- Framing Factor: 0.6

BS EN 17037 section B.3.1 states that, "the recommended values of reflectance for the major interior surfaces would be in the following ranges: ceiling 0.7 to 0.9; interior walls 0.5 to 0.8; floor 0.2 to 0.4." Paragraph C24 of the BRE Guidelines meanwhile states, "Where surface finishes have been specified or measured on site, they can be used in the calculations with appropriate factors for maintenance and furniture. To allow for these factors, maximum reflectances for white painted surfaces in the calculations should not exceed 0.8 indoors, and 0.6 outdoors. Maximum reflectances for light pastel walls should not exceed 0.7 in the calculations, and maximum reflectances for light wood floors should not exceed 0.4."

4 SOURCES OF INFORMATION USED IN THE REPORT

Front

FRNT_21.602_346_T6_Proposed Site Plan_A1

FRNT_22.614_200_P1_Proposed Seventh Floor Plans_A1

FRNT_22.614_201_P1_Proposed Eighth Floor Plans_A1

FRNT_22.614_202_P1_Proposed Roof Plan_A1

FRNT_22.614_203_P1_Proposed Front Elevation_A1

FRNT_22.614_204_P1_Proposed Side Elevation_A1

FRNT_22.614_205_P1_Proposed Rear Elevation_A1

FRNT_22.614_206_P1_Proposed Side Elevation_A1

FRNT_22.614_207_P1_Proposed Section_A1

FRNT_22.614_208_P1_Existing Section_A1

Received 13/2/22

Local Authority Planning Records/Rightmove

Hyde Park 4, Hayes

Consented scheme plans and elevations

Obtained November 2021

Waldrams Chartered Surveyors

Photogrammetry

Site Photographs

Image 1: Existing site

5 DAYLIGHT & SUNLIGHT ANALYSIS

The existing site and proposed scheme can be seen in Appendix 1. The existing site in its current condition is shown in image 1 above.

In terms of daylight and sunlight, the properties in the table on the following page were analysed due to their proximity to the development site given the height and massing of the proposal.

Property	Vertical Sky Component					No Sky Line					Annual Probable Sunlight Hours	
	Windows tested	Windows satisfying BRE criteria	Windows not satisfying BRE criteria (reduction)			Rooms tested	Rooms satisfying BRE criteria	Rooms not satisfying BRE criteria (reduction)			South facing windows tested	Windows satisfying BRE criteria
			20.1-30%	30.1-40%	>40.1%			20.1-30%	30.1-40%	>40.1%		
Hyde Park 4, Hayes	132	120	1	3	8	89	75	11	3		23	23

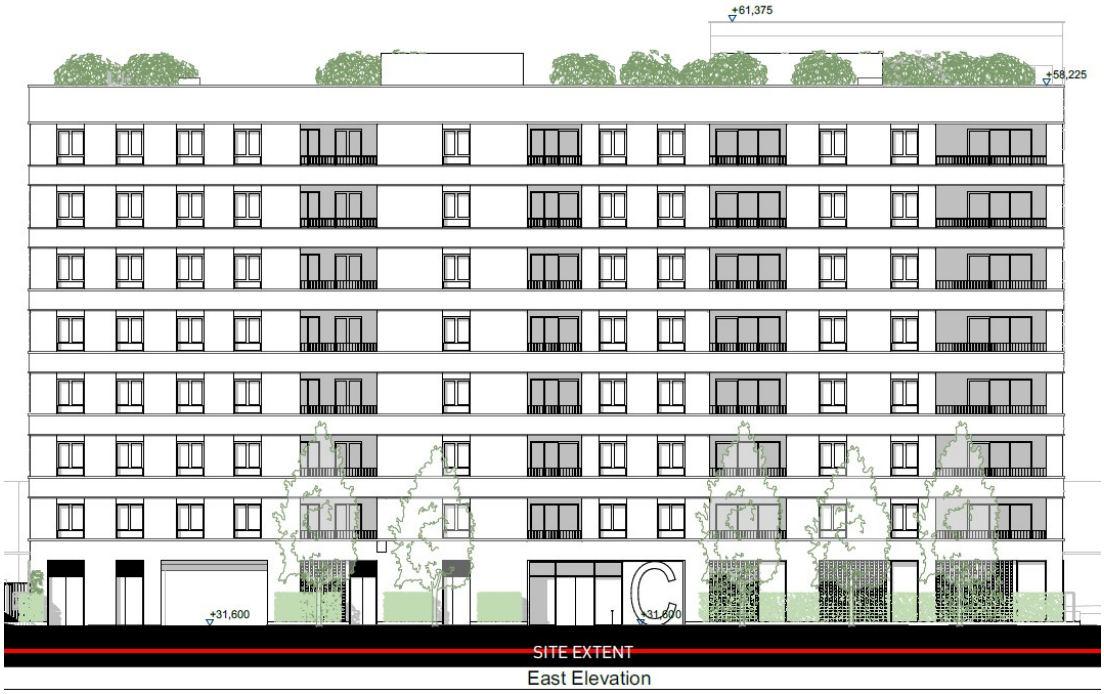


Image 2: Hyde Park 4 consented scheme

HYDE PARK 4, MILLINGTON ROAD

This consented scheme is located opposite the proposed development.

RESULTS

120 out of 132 windows tested meet the BRE target values for VSC. 75 out of 89 rooms meet the target daylight distribution value.

All windows that face within 90° of due south meet the target values for sunlight with the proposal in place.

COMMENTARY

The twelve windows that experience reductions in VSC of more than 20% are all recessed into the massing of the development and so are restricted in daylight terms by their design as they are obstructed from above and so the sky is blocked out from the top part of the window. These windows therefore receive low levels of daylight in the existing position and so a small absolute reduction to these levels inevitably results in a large relative reduction.

It is instructive to review the daylight impact to the adjacent windows facing Hyde Park 3 that are not overhung; in all cases, the adjacent window retains a high absolute level of VSC and experiences no greater than 12% reductions with the proposal in place. It is

clear, therefore, that it is the design of Hyde Park 4 itself rather than the proposed extension at Hyde Park 3 that is the primary factor in the larger relative reductions to these twelve windows.

Thirteen of the fourteen rooms that do not meet the target daylight distribution value are bedrooms. The BRE Guidelines' acknowledge in paragraph 2.2.10 that whilst bedrooms should be analysed for daylight distribution, they are "*less important*". In our view, therefore, the impact to these rooms is acceptable particularly given that all bedrooms meet the VSC target value. The one remaining room is a combined living/kitchen/dining room that experiences a reduction of less than 30% and so is considered a minor adverse impact. The unobstructed window serving this LKD retains in excess of 27% VSC i.e. a high level of daylight, and so in our view this isolated minor adverse impact is not significant.

6 INTERNAL DAYLIGHT & SUNLIGHT ANALYSIS

The results of the internal daylight and sunlight analysis are included in Appendix 3. We have assessed the internal daylight within the scheme using the illuminance method.

For internal daylight, the UK National Annex to BS EN 17037 gives the following median illuminances to be exceeded over at least 50% of the assessment points in the room for at least half of the daylight hours:

- 100 lux in bedrooms
- 150 lux in living rooms
- 200 lux in kitchens.

As per paragraph C17 of the BRE Guidelines, the target for a combined living/dining/ kitchen room has been set to that of a living room in cases where the kitchens have been added to the main living space in order to avoid small separate kitchens in the design. In these cases, the primary use of the room is as a living room and the kitchen area is there solely for food preparation etc.

For internal sunlight, the BRE Guidelines state that a dwelling will appear reasonably sunlit provided that at least one main window wall faces within 90° of due south and a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March.

RESULTS

All rooms meet their target daylight level and five out of nine units meet the target sunlight level.

COMMENTARY

As with the residential floors below, there are unavoidably some units that face predominantly north due to the orientation of the building. As with the floors below, all units with a south-facing window meet the target sunlight value and so, given the acceptability of the floors below in planning terms, it is reasonable to consider the sunlight position for the proposed extension similarly acceptable.

7 CONCLUSIONS

This is a report into the impact of the proposed development at Hyde Park 3, Hayes on the daylight and sunlight to surrounding residential properties, amenity spaces, and internally to the scheme itself. This analysis has been based upon scheme drawings provided by Front, a [photogrammetric] survey, and site imagery.

The analysis has been carried out in accordance with the methodologies contained in the BRE Guidelines, which is used by the local authority to determine the acceptability of a proposal in terms of its effect on neighbouring daylight and sunlight amenity.

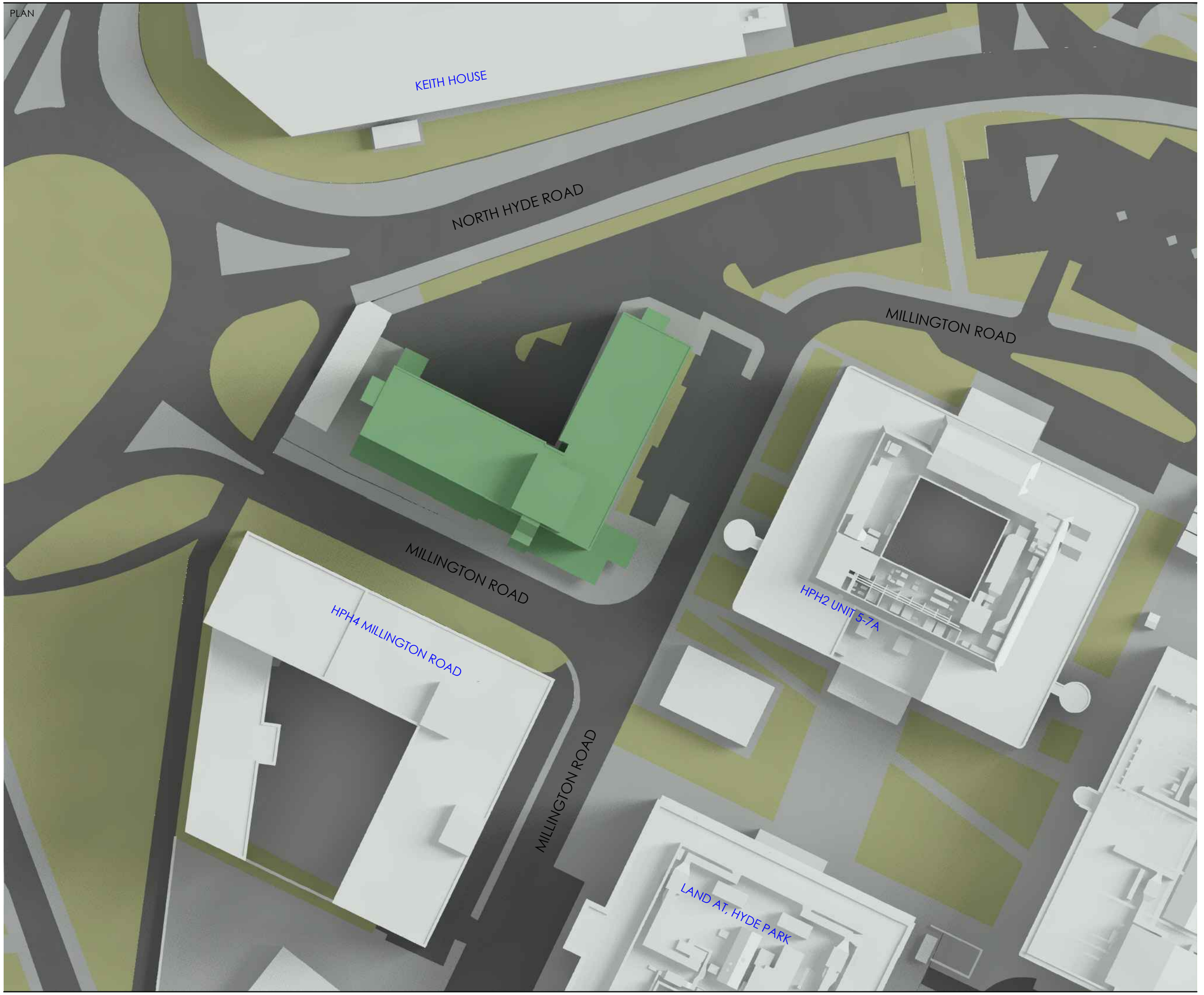
The results show that the majority of rooms and windows in the neighbouring consented development meet the BRE target values for daylight and sunlight. Where this is not the case, either the window is significantly recessed into the building thereby limiting access to daylight, or the impact is considered minor adverse at worst and therefore not significant.

Internally, the analysis shows that all rooms meet their target daylight value and that all units containing at least one south-facing window meet their target sunlight value. Given the similar results for the residential units below the proposed extension, these results are also considered acceptable.

APPENDIX 1

Drawings

PLAN



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SOURCES OF INFORMATION:

ELMSBROOK
IR06 (RECEIVED 14.02.23)

WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING SCENARIO SHOWN IN GREEN

N

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
PLAN VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
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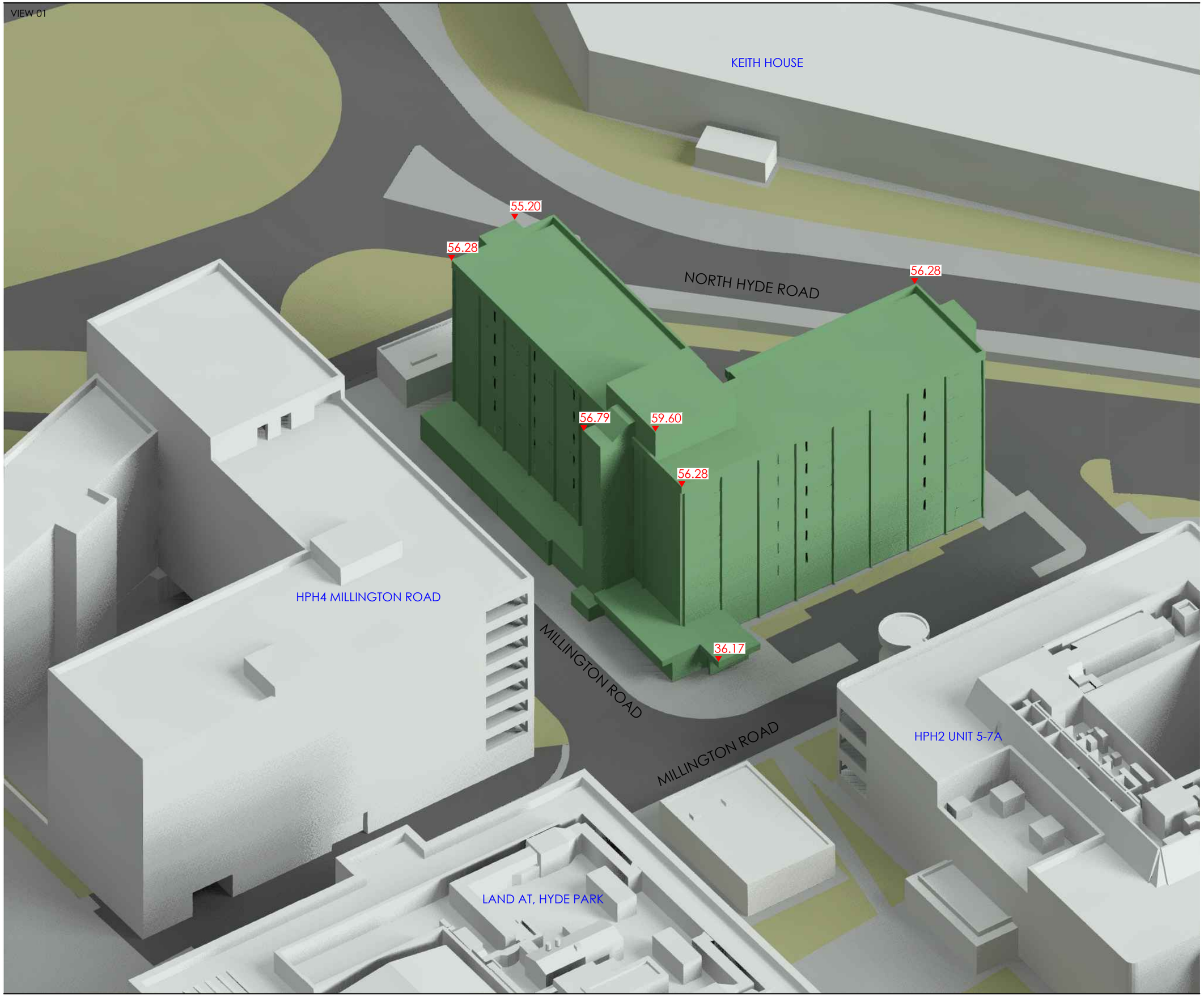
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-01

VIEW 01



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SOURCES OF INFORMATION:

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WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING BUILDING SHOWN IN GREEN

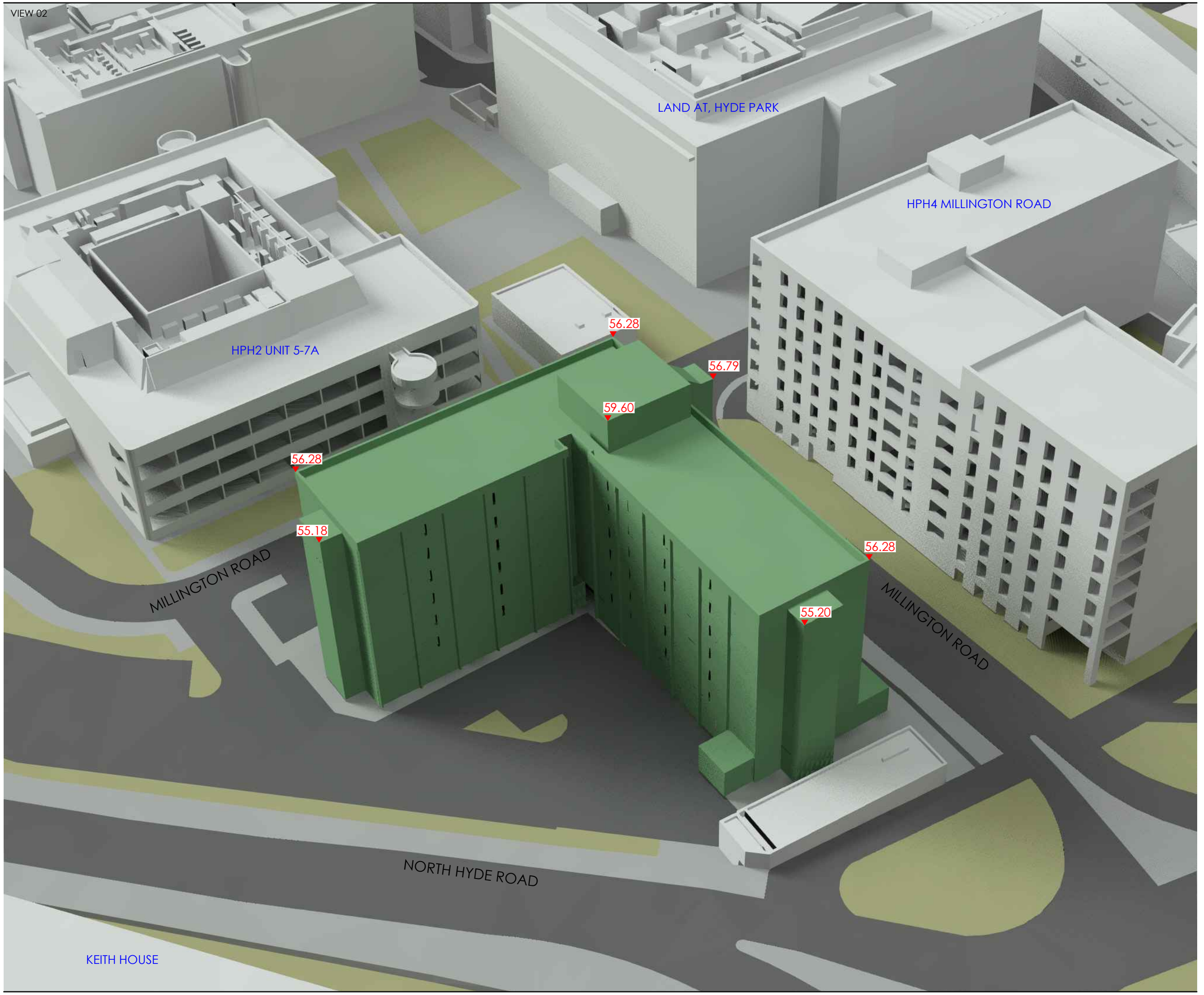
AOD HEIGHTS SHOWN IN METRES

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
3D VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
NTS	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-02

VIEW 02



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SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING BUILDING SHOWN IN GREEN

AOD HEIGHTS SHOWN IN METRES

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
3D VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
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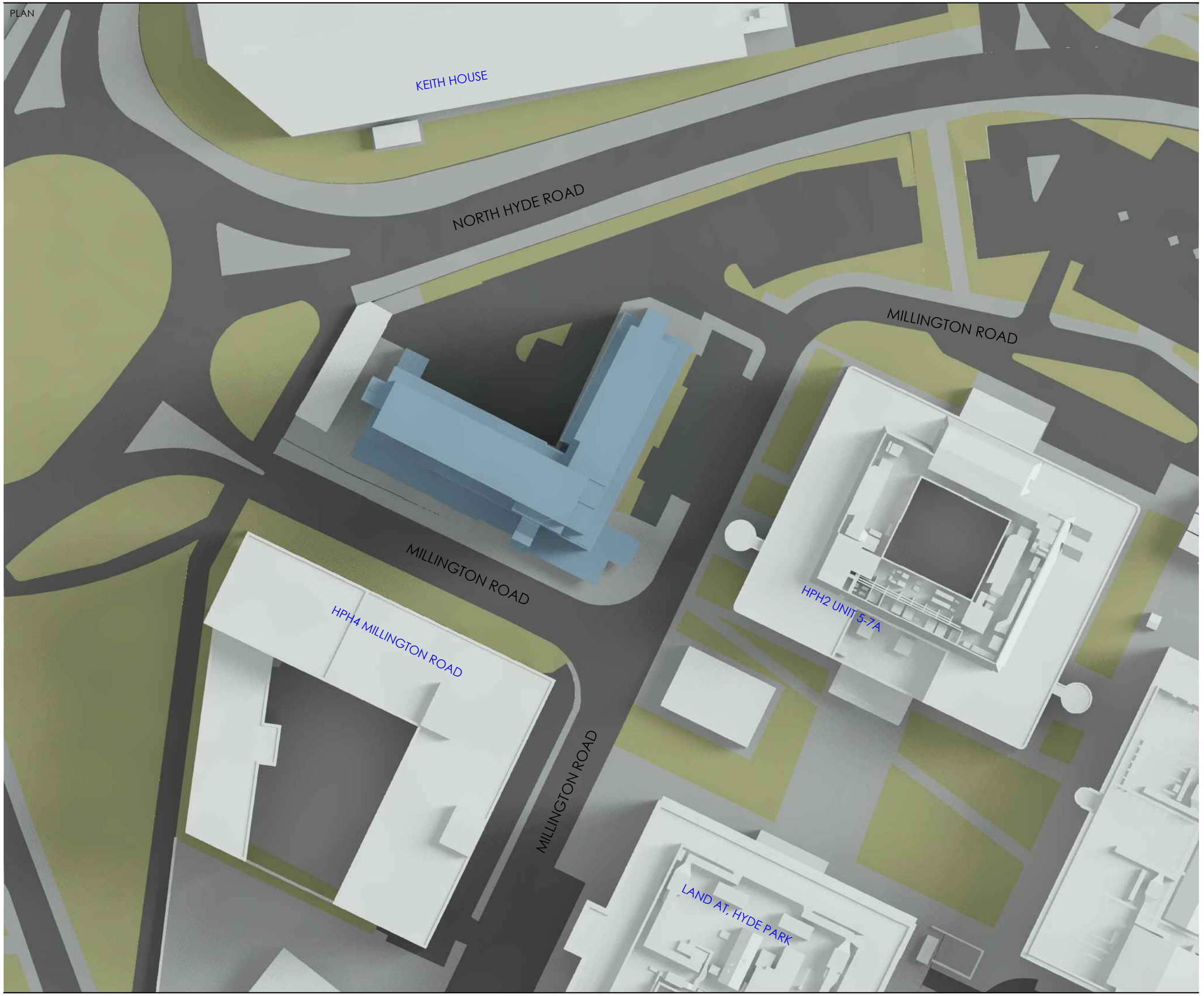
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-03

PLAN



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SOURCES OF INFORMATION:

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SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

PROPOSED BUILDING SHOWN IN BLUE

N

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
PLAN VIEW
PROPOSED SCHEME

SCALE @ A3	**DATE**
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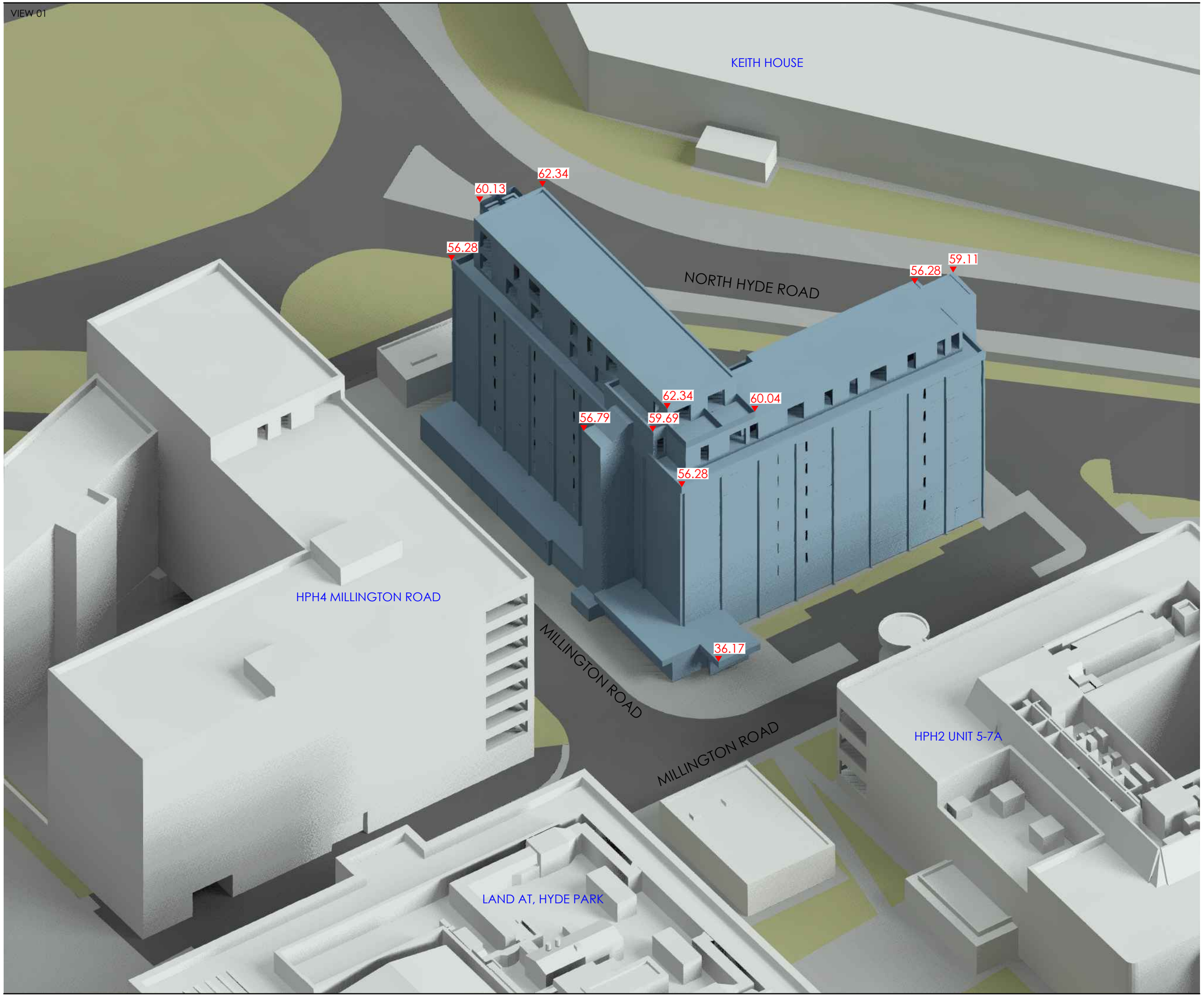
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-04

VIEW 01



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SOURCES OF INFORMATION:

ELMSBROOK
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2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

PROPOSED BUILDING SHOWN IN BLUE

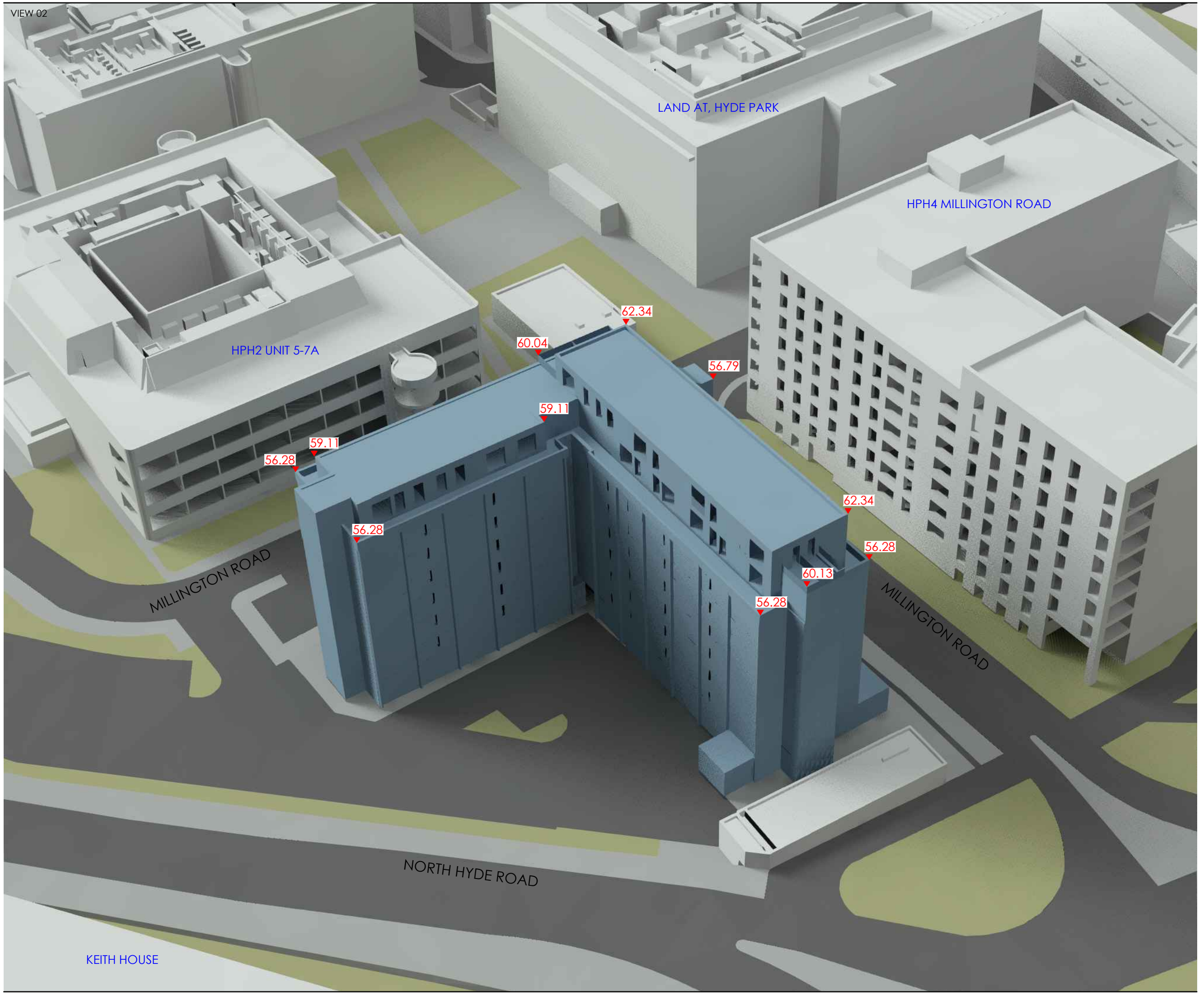
AOD HEIGHTS SHOWN IN METRES

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
3D VIEW
PROPOSED SCHEME

SCALE @ A3	**DATE**
NTS	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-05

VIEW 02



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WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

PROPOSED BUILDING SHOWN IN BLUE

AOD HEIGHTS SHOWN IN METRES

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
3D VIEW
PROPOSED SCHEME

SCALE @ A3	**DATE**
NTS	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789_	03-06

PROPOSED_SEVENTH FLOOR

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SOURCES OF INFORMATION:

ELMSBROOK
IR06 (RECEIVED 14.02.23)

WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

SDA % OF HOURS

LESS THAN 50

MORE THAN 50

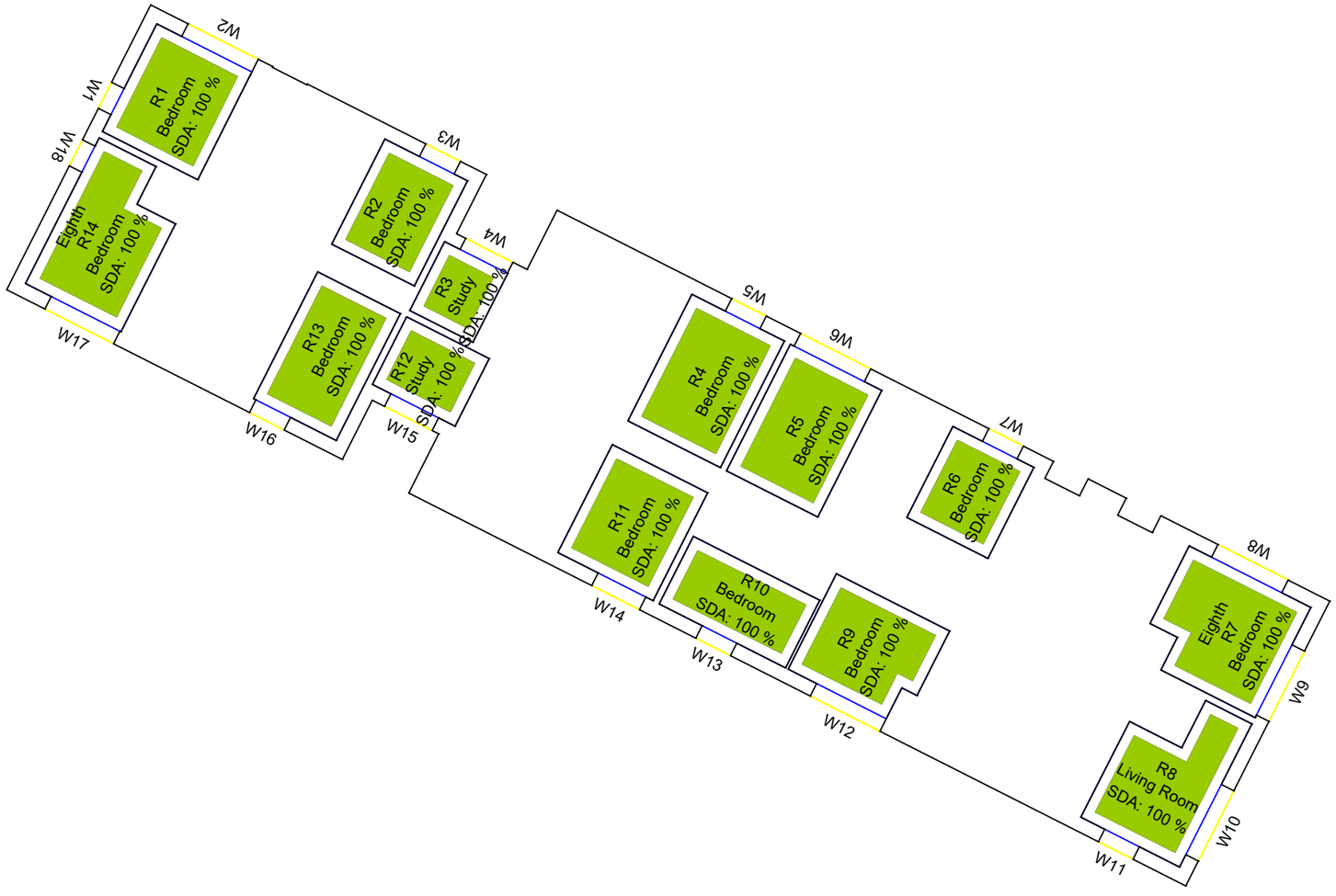
N

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
SPATIAL DAYLIGHT AUTONOMY

SCALE @ A3	**DATE**
1:160	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789	03-07

PROPOSED_EIGHTH FLOOR



SOURCES OF INFORMATION:

ELMSBROOK
IR06 (RECEIVED 14.02.23)

WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

SDA % OF HOURS

LESS THAN 50

MORE THAN 50

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
SPATIAL DAYLIGHT AUTONOMY

SCALE @ A3	DATE
1:160	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789	03-08

APPENDIX 2

Daylight & Sunlight Results

Daylight_Sunlight Analysis Table
Surroundings

waldrams

					Vertical Sky Component			No Skyline				Annual Probable Sunlight Hours					
Address/Floor	Room Ref	Property Type	Room Usage	Window Ref	Existing VSC %	Proposed VSC %	Ratio Proposed /Existing VSC	Room Area m^2	Existing NSC %	Proposed NSC %	Ratio Proposed /Existing NSC	Existing Sunlight Annual%	Proposed Sunlight Annual%	Ratio Proposed /Existing Annual	Existing Sunlight Winter%	Proposed Sunlight Winter%	Ratio Proposed /Existing Winter
HPH4 MILLINGTON ROAD																	
First	R1	Residential	LKD	W1	5.82	5.82	1.00	32.125609	95.012645	95.012645	1.00	10	10	1.00	2	2	1.00
First	R1	Residential	LKD	W2	25.78	25	0.97	32.125609	95.012645	95.012645	1.00	17	17	North	2	2	North
First	R2	Residential	Bedroom	W3	24.36	23.44	0.96	9.84864	68.582266	64.088115	0.93	17	17	North	2	2	North
First	R3	Residential	Bedroom	W4	23.11	22.04	0.95	12.367454	62.083324	56.283873	0.91	17	17	North	2	2	North
First	R4	Residential	Bedroom	W5	22.08	20.85	0.94	14.00638	46.031934	40.75816	0.89	17	17	North	2	2	North
First	R5	Residential	Bedroom	W6	21.42	20.04	0.94	12.822347	41.634681	34.776305	0.84	17	17	North	2	2	North
First	R6	Residential	Bedroom	W7	21.2	19.7	0.93	13.636019	41.585731	34.976772	0.84	17	17	North	2	2	North
First	R7	Residential	LKD	W8	0	0	1.00	31.476646	47.599952	47.599952	1.00	0	0	North	0	0	North
First	R7	Residential	LKD	W9	0.99	0.99	1.00	31.476646	47.599952	47.599952	1.00	4	4	1.00	0	0	1.00
First	R7	Residential	LKD	W10	21.47	19.81	0.92	31.476646	47.599952	47.599952	1.00	17	17	North	2	2	North
First	R8	Residential	LKD	W11	0	0	1.00	26.236602	3.349373	3.349373	1.00	0	0	North	0	0	North
First	R9	Residential	Bedroom	W12	0.8	0.8	1.00	8.510458	87.7874	83.190654	0.95	2	2	1.00	0	0	1.00
First	R9	Residential	Bedroom	W13	23.22	21.67	0.93	8.510458	87.7874	83.190654	0.95	14	14	North	2	2	North
First	R10	Residential	Bedroom	W14	24.3	22.79	0.94	11.800981	69.604002	66.27863	0.95	14	14	North	2	2	North
First	R11	Residential	Bedroom	W15	25.61	24.17	0.94	11.842641	79.672894	78.563714	0.99	14	14	North	2	2	North
Second	R1	Residential	LKD	W1	6.67	6.67	1.00	32.125609	96.15177	96.151769	1.00	10	10	1.00	2	2	1.00
Second	R1	Residential	LKD	W2	27.9	26.92	0.96	32.125609	96.15177	96.151769	1.00	18	18	North	2	2	North
Second	R2	Residential	Bedroom	W3	26.58	25.41	0.96	9.84864	74.698129	68.071727	0.91	18	18	North	2	2	North
Second	R3	Residential	Bedroom	W4	25.41	24.06	0.95	12.367454	69.610419	60.922827	0.88	19	19	North	2	2	North
Second	R4	Residential	Bedroom	W5	24.47	22.91	0.94	14.00638	53.648716	45.179678	0.84	19	19	North	2	2	North
Second	R5	Residential	Bedroom	W6	23.87	22.1	0.93	12.822347	51.801783	40.483455	0.78	18	18	North	2	2	North
Second	R6	Residential	Bedroom	W7	23.67	21.74	0.92	13.636019	51.879183	40.592846	0.78	18	18	North	2	2	North
Second	R7	Residential	LKD	W8	0	0	1.00	31.476646	56.741025	56.636677	1.00	0	0	North	0	0	North
Second	R7	Residential	LKD	W9	1.27	1.23	0.97	31.476646	56.741025	56.636677	1.00	4	4	1.00	0	0	1.00
Second	R7	Residential	LKD	W10	23.93	21.79	0.91	31.476646	56.741025	56.636677	1.00	18	18	North	2	2	North
Second	R8	Residential	LKD	W11	0	0	1.00	31.539001	85.24087	82.636223	0.97	0	0	North	0	0	North
Second	R8	Residential	LKD	W12	0.31	0.31	1.00	31.539001	85.24087	82.636223	0.97	2	2	1.00	0	0	1.00
Second	R8	Residential	LKD	W13	25.44	23.44	0.92	31.539001	85.24087	82.636223	0.97	14	14	North	2	2	North
Second	R9	Residential	Bedroom	W14	26.42	24.5	0.93	12.404064	46.265064	38.936507	0.84	14	14	North	2	2	North
Second	R10	Residential	Bedroom	W15	27.64	25.82	0.93	9.91131	80.003265	78.139277	0.98	14	14	North	2	2	North
Second	R11	Residential	Bedroom	W16	29.01	27.31	0.94	12.153419	88.83936	86.712725	0.98	14	14	North	2	2	North
Second	R12	Residential	LKD	W17	30.35	28.8	0.95	27.753757	99.431454	99.431454	1.00	14	14	North	2	2	North
Second	R12	Residential	LKD	W18	10.74	10.74	1.00	27.753757	99.431454	99.431454	1.00	6	6	North	0	0	North
Third	R1	Residential	LKD	W1	8.23	8.23	1.00	32.125609	97.817103	97.817072	1.00	11	11	1.00	3	3	1.00
Third	R1	Residential	LKD	W2	30.01	28.75	0.96	32.125609	97.817103	97.817072	1.00	19	19	North	2	2	North
Third	R2	Residential	Bedroom	W3	28.88	27.37	0.95	9.84864	84.470136	74.716856	0.88	19	19	North	2	2	North
Third	R3	Residential	Bedroom	W4	27.87	26.12	0.94	12.367454	82.213998	68.500295	0.83	19	19	North	2	2	North
Third	R4	Residential	Bedroom	W5	27.07	25.05	0.93	14.00638	66.167157	52.108369	0.79	19	19	North	2	2	North
Third	R5	Residential	Bedroom	W6	26.56	24.27	0.91	12.822347	67.619984	48.390756	0.72	18	18	North	2	2	North
Third	R6	Residential	Bedroom	W7	26.39	23.9	0.91	13.636019	67.743915	47.656093	0.70	18	18	North	2	2	North
Third	R7	Residential	LKD	W8	0	0	1.00	31.476646	58.155518	57.030242	0.98	0	0	North	0	0	North

Daylight_Sunlight Analysis Table
Surroundings

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					Vertical Sky Component			No Skyline				Annual Probable Sunlight Hours					
Address/Floor	Room Ref	Property Type	Room Usage	Window Ref	Existing VSC %	Proposed VSC %	Ratio Proposed /Existing VSC	Room Area m^2	Existing NSC %	Proposed NSC %	Ratio Proposed /Existing NSC	Existing Sunlight Annual%	Proposed Sunlight Annual%	Ratio Proposed /Existing Annual	Existing Sunlight Winter%	Proposed Sunlight Winter%	Ratio Proposed /Existing Winter
Third	R7	Residential	LKD	W9	1.7	1.5	0.88	31.476646	58.155518	57.030242	0.98	4	4	1.00	0	0	1.00
Third	R7	Residential	LKD	W10	26.64	23.91	0.90	31.476646	58.155518	57.030242	0.98	18	18	North	2	2	North
Third	R8	Residential	LKD	W11	0	0	1.00	31.539001	88.427689	84.769296	0.96	0	0	North	0	0	North
Third	R8	Residential	LKD	W12	0.64	0.41	0.64	31.539001	88.427689	84.769296	0.96	3	3	1.00	0	0	1.00
Third	R8	Residential	LKD	W13	27.88	25.36	0.91	31.539001	88.427689	84.769296	0.96	14	14	North	2	2	North
Third	R9	Residential	Bedroom	W14	28.75	26.35	0.92	12.404064	55.749751	43.817667	0.79	14	14	North	2	2	North
Third	R10	Residential	Bedroom	W15	29.83	27.58	0.92	9.91131	83.931339	79.771725	0.95	14	14	North	2	2	North
Third	R11	Residential	Bedroom	W16	31.04	28.97	0.93	12.153419	91.86672	88.376269	0.96	14	14	North	2	2	North
Third	R12	Residential	LKD	W17	32.21	30.37	0.94	27.753757	99.432082	99.432082	1.00	14	14	North	2	2	North
Third	R12	Residential	LKD	W18	10.87	10.87	1.00	27.753757	99.432082	99.432082	1.00	6	6	North	0	0	North
Fourth	R1	Residential	LKD	W1	9.82	9.82	1.00	32.125609	98.460773	98.45659	1.00	16	16	1.00	8	8	1.00
Fourth	R1	Residential	LKD	W2	32.27	30.73	0.95	32.125609	98.460773	98.45659	1.00	19	19	North	2	2	North
Fourth	R2	Residential	Bedroom	W3	31.37	29.51	0.94	9.84864	97.433801	84.541387	0.87	19	19	North	2	2	North
Fourth	R3	Residential	Bedroom	W4	30.56	28.4	0.93	12.367454	96.611503	79.465675	0.82	19	19	North	2	2	North
Fourth	R4	Residential	Bedroom	W5	29.92	27.43	0.92	14.00638	88.216847	63.548797	0.72	19	19	North	2	2	North
Fourth	R5	Residential	Bedroom	W6	29.51	26.7	0.90	12.822347	92.695117	59.633712	0.64	18	18	North	2	2	North
Fourth	R6	Residential	Bedroom	W7	29.37	26.33	0.90	13.636019	93.939028	58.691967	0.62	18	18	North	2	2	North
Fourth	R7	Residential	LKD	W8	1.4	0	0.00	31.476646	68.409469	58.467836	0.85	0	0	North	0	0	North
Fourth	R7	Residential	LKD	W9	2.32	2.02	0.87	31.476646	68.409469	58.467836	0.85	4	4	1.00	0	0	1.00
Fourth	R7	Residential	LKD	W10	29.58	26.28	0.89	31.476646	68.409469	58.467836	0.85	18	18	North	2	2	North
Fourth	R8	Residential	LKD	W11	0.78	0	0.00	31.539001	91.585738	87.687175	0.96	0	0	North	0	0	North
Fourth	R8	Residential	LKD	W12	1.29	0.73	0.57	31.539001	91.585738	87.687175	0.96	4	4	1.00	0	0	1.00
Fourth	R8	Residential	LKD	W13	30.52	27.47	0.90	31.539001	91.585738	87.687175	0.96	15	15	North	2	2	North
Fourth	R9	Residential	Bedroom	W14	31.24	28.35	0.91	12.404064	73.218305	51.043224	0.70	15	15	North	2	2	North
Fourth	R10	Residential	Bedroom	W15	32.14	29.46	0.92	9.91131	91.081911	82.457178	0.91	14	14	North	2	2	North
Fourth	R11	Residential	Bedroom	W16	33.14	30.71	0.93	12.153419	94.634609	90.574835	0.96	14	14	North	2	2	North
Fourth	R12	Residential	LKD	W17	34.1	31.95	0.94	27.753757	99.432375	99.432375	1.00	15	14	North	2	2	North
Fourth	R12	Residential	LKD	W18	10.93	10.93	1.00	27.753757	99.432375	99.432375	1.00	6	6	North	0	0	North
Fifth	R1	Residential	LKD	W1	11.25	11.25	1.00	32.125609	99.454212	98.467077	0.99	16	16	1.00	8	8	1.00
Fifth	R1	Residential	LKD	W2	34.51	32.76	0.95	32.125609	99.454212	98.467077	0.99	19	19	North	2	2	North
Fifth	R2	Residential	Bedroom	W3	33.86	31.75	0.94	9.84864	98.468572	94.931304	0.96	19	19	North	2	2	North
Fifth	R3	Residential	Bedroom	W4	33.28	30.81	0.93	12.367454	96.860191	91.329975	0.94	19	19	North	2	2	North
Fifth	R4	Residential	Bedroom	W5	32.82	29.97	0.91	14.00638	97.228469	79.659382	0.82	19	19	North	2	2	North
Fifth	R5	Residential	Bedroom	W6	32.55	29.33	0.90	12.822347	97.393198	77.006369	0.79	18	18	North	2	2	North
Fifth	R6	Residential	Bedroom	W7	32.46	28.99	0.89	13.636019	97.560394	76.311309	0.78	18	18	North	2	2	North
Fifth	R7	Residential	LKD	W8	3.46	0.74	0.21	31.476646	90.745171	64.630692	0.71	0	0	North	0	0	North
Fifth	R7	Residential	LKD	W9	2.95	2.61	0.88	31.476646	90.745171	64.630692	0.71	4	4	1.00	0	0	1.00
Fifth	R7	Residential	LKD	W10	32.65	28.88	0.88	31.476646	90.745171	64.630692	0.71	18	18	North	2	2	North
Fifth	R8	Residential	LKD	W11	2.61	0	0.00	31.539001	93.153329	90.663239	0.97	0	0	North	0	0	North
Fifth	R8	Residential	LKD	W12	2	1.38	0.69	31.539001	93.153329	90.663239	0.97	4	4	1.00	0	0	1.00
Fifth	R8	Residential	LKD	W13	33.2	29.69	0.89	31.539001	93.153329	90.663239	0.97	18	17	North	2	2	North
Fifth	R9	Residential	Bedroom	W14	33.73	30.42	0.90	12.404064	97.607749	63.198647	0.65	17	16	North	2	2	North
Fifth	R10	Residential	Bedroom	W15	34.37	31.35	0.91	9.91131	99.020783	87.867175	0.89	17	16	North	2	2	North
Fifth	R11	Residential	Bedroom	W16	35.09	32.38	0.92	12.153419	94.742143	93.544204	0.99	17	16	North	2	2	North

Daylight_Sunlight Analysis Table
Surroundings

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					Vertical Sky Component			No Skyline				Annual Probable Sunlight Hours					
Address/Floor	Room Ref	Property Type	Room Usage	Window Ref	Existing VSC %	Proposed VSC %	Ratio Proposed /Existing VSC	Room Area m^2	Existing NSC %	Proposed NSC %	Ratio Proposed /Existing NSC	Existing Sunlight Annual%	Proposed Sunlight Annual%	Ratio Proposed /Existing Annual	Existing Sunlight Winter%	Proposed Sunlight Winter%	Ratio Proposed /Existing Winter
Fifth	R12	Residential	LKD	W17	35.77	33.41	0.93	27.753757	99.589574	99.47245	1.00	17	16	North	2	2	North
Fifth	R12	Residential	LKD	W18	10.93	10.93	1.00	27.753757	99.589574	99.47245	1.00	6	6	North	0	0	North
Sixth	R1	Residential	LKD	W1	12.3	12.3	1.00	32.125609	99.749154	98.56423	0.99	17	17	1.00	9	9	1.00
Sixth	R1	Residential	LKD	W2	36.5	34.62	0.95	32.125609	99.749154	98.56423	0.99	19	19	North	2	2	North
Sixth	R2	Residential	Bedroom	W3	36.14	33.87	0.94	9.84864	98.468578	98.468576	1.00	19	19	North	2	2	North
Sixth	R3	Residential	Bedroom	W4	35.81	33.15	0.93	12.367454	96.860214	96.860216	1.00	19	19	North	2	2	North
Sixth	R4	Residential	Bedroom	W5	35.55	32.49	0.91	14.00638	97.860808	97.860808	1.00	19	19	North	2	2	North
Sixth	R5	Residential	Bedroom	W6	35.44	31.98	0.90	12.822347	97.637915	97.637914	1.00	18	18	North	2	2	North
Sixth	R6	Residential	Bedroom	W7	35.42	31.7	0.89	13.636019	97.562928	97.562926	1.00	18	18	North	2	2	North
Sixth	R7	Residential	LKD	W8	5.55	2.67	0.48	31.476646	94.923121	76.827967	0.81	0	0	North	0	0	North
Sixth	R7	Residential	LKD	W9	3.48	3.12	0.90	31.476646	94.923121	76.827967	0.81	4	4	1.00	0	0	1.00
Sixth	R7	Residential	LKD	W10	35.59	31.58	0.89	31.476646	94.923121	76.827967	0.81	18	18	North	2	2	North
Sixth	R8	Residential	LKD	W11	4.47	1.41	0.32	31.539001	95.951137	92.141369	0.96	0	0	North	0	0	North
Sixth	R8	Residential	LKD	W12	2.67	2.02	0.76	31.539001	95.951137	92.141369	0.96	4	4	1.00	0	0	1.00
Sixth	R8	Residential	LKD	W13	35.82	32.05	0.89	31.539001	95.951137	92.141369	0.96	18	18	North	2	2	North
Sixth	R9	Residential	Bedroom	W14	36.16	32.62	0.90	12.404064	97.607958	82.766471	0.85	18	18	North	2	2	North
Sixth	R10	Residential	Bedroom	W15	36.56	33.34	0.91	9.91131	99.020783	95.795102	0.97	18	18	North	2	2	North
Sixth	R11	Residential	Bedroom	W16	37	34.14	0.92	12.153419	94.742147	94.742147	1.00	18	17	North	2	2	North
Sixth	R12	Residential	LKD	W17	37.39	34.93	0.93	27.753757	99.589574	99.47245	1.00	18	17	North	2	2	North
Sixth	R12	Residential	LKD	W18	10.93	10.93	1.00	27.753757	99.589574	99.47245	1.00	6	6	North	0	0	North
Seventh	R1	Residential	LKD	W1	13.03	13.03	1.00	32.125609	99.751219	99.751219	1.00	17	17	1.00	9	9	1.00
Seventh	R1	Residential	LKD	W2	38.35	36.46	0.95	32.125609	99.751219	99.751219	1.00	19	19	North	2	2	North
Seventh	R2	Residential	Bedroom	W3	38.26	35.98	0.94	9.84864	98.468578	98.468578	1.00	19	19	North	2	2	North
Seventh	R3	Residential	Bedroom	W4	38.16	35.49	0.93	12.367454	96.859143	96.859139	1.00	19	19	North	2	2	North
Seventh	R4	Residential	Bedroom	W5	38.09	35.04	0.92	14.00638	97.860923	97.860921	1.00	19	19	North	2	2	North
Seventh	R5	Residential	Bedroom	W6	38.11	34.67	0.91	12.104296	97.458207	97.458207	1.00	19	19	North	2	2	North
Seventh	R6	Residential	Bedroom	W7	38.14	34.45	0.90	12.872402	97.276793	97.276792	1.00	19	18	North	2	2	North
Seventh	R7	Residential	LKD	W8	7.51	4.66	0.62	31.476646	94.926072	94.218557	0.99	1	0	North	0	0	North
Seventh	R7	Residential	LKD	W9	3.97	3.6	0.91	31.476646	94.926072	94.218557	0.99	4	4	1.00	0	0	1.00
Seventh	R7	Residential	LKD	W10	38.28	34.34	0.90	31.476646	94.926072	94.218557	0.99	18	18	North	2	2	North
Seventh	R8	Residential	LKD	W11	6.17	3.19	0.52	31.539001	73.777011	60.650426	0.82	0	0	North	0	0	North
Seventh	R8	Residential	LKD	W12	3.27	2.64	0.81	31.539001	73.777011	60.650426	0.82	4	4	1.00	0	0	1.00
Seventh	R8	Residential	LKD	W13	38.23	34.48	0.90	31.539001	73.777011	60.650426	0.82	18	18	North	2	2	North
Seventh	R9	Residential	Bedroom	W14	38.38	34.88	0.91	12.404064	97.607959	97.607959	1.00	19	18	North	2	2	North
Seventh	R10	Residential	Bedroom	W15	38.55	35.38	0.92	10.49345	99.138778	99.138777	1.00	19	18	North	2	2	North
Seventh	R11	Residential	Bedroom	W16	38.73	35.93	0.93	12.153419	94.742147	94.742147	1.00	19	18	North	2	2	North
Seventh	R12	Residential	LKD	W17	38.86	36.47	0.94	27.753757	99.589574	99.589574	1.00	19	18	North	2	2	North
Seventh	R12	Residential	LKD	W18	10.93	10.93	1.00	27.753757	99.589574	99.589574	1.00	6	6	North	0	0	North
Eighth	R1	Residential	LKD	W1	39.01	38.75	0.99	24.241804	87.429051	87.407279	1.00	64	64	1.00	21	21	1.00
Eighth	R2	Residential	LKD	W2	39.04	38.72	0.99	23.209879	96.107855	96.101272	1.00	64	63	0.98	21	21	1.00
Eighth	R2	Residential	LKD	W3	7.56	7	0.93	23.209879	96.107855	96.101272	1.00	18	17	North	2	2	North
Eighth	R2	Residential	LKD	W4	39.42	36.82	0.93	23.209879	96.107855	96.101272	1.00	19	18	North	2	2	North
Eighth	R3	Residential	Bedroom	W5	39.45	37.05	0.94	14.012167	97.974003	97.974002	1.00	19	18	North	2	2	North
Eighth	R4	Residential	Bedroom	W6	39.48	37.34	0.95	12.421381	97.934448	97.934448	1.00	19	18	North	2	2	North

Daylight_Sunlight Analysis Table
Surroundings

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					Vertical Sky Component			No Skyline				Annual Probable Sunlight Hours					
Address/Floor	Room Ref	Property Type	Room Usage	Window Ref	Existing VSC %	Proposed VSC %	Ratio Proposed /Existing VSC	Room Area m^2	Existing NSC %	Proposed NSC %	Ratio Proposed /Existing NSC	Existing Sunlight Annual%	Proposed Sunlight Annual%	Ratio Proposed /Existing Annual	Existing Sunlight Winter%	Proposed Sunlight Winter%	Ratio Proposed /Existing Winter
Eighth	R5	Residential	Bedroom	W7	39.51	37.65	0.95	12.107332	94.781648	94.781647	1.00	19	18	North	2	2	North
Eighth	R6	Residential	LKD	W8	39.53	37.93	0.96	27.745464	99.575722	99.575722	1.00	19	18	North	2	2	North
Eighth	R6	Residential	LKD	W9	10.93	10.93	1.00	27.745464	99.575722	99.575722	1.00	6	6	North	0	0	North

APPENDIX 3

Internal Daylight & Sunlight Results

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Room Area m2	Effective Area	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
					Proposed Daylight							
Seventh	R1	Flat 701	Residential	KD	11.72	7.49	6.50	87%	150	50%	50%	4380
	R2	Flat 701	Residential	Living Room	11.48	7.64	7.64	100%	150	50%	50%	4380
	R3	Flat 702	Residential	Kitchen	5.39	2.89	2.89	100%	200	50%	50%	4380
	R4	Flat 702	Residential	LD	17.04	12.33	12.33	100%	150	50%	50%	4380
	R5	Flat 703	Residential	LKD	24.58	18.14	17.74	98%	150	50%	50%	4380
	R6	Flat 704	Residential	Bedroom	12.82	8.67	8.67	100%	100	50%	50%	4380
	R7	Flat 704	Residential	Bedroom	8.37	5.14	5.14	100%	100	50%	50%	4380
	R8	Flat 704	Residential	Bedroom	8.59	5.30	5.30	100%	100	50%	50%	4380
	R9	Flat 704	Residential	LKD	23.96	18.02	18.02	100%	150	50%	50%	4380
	R10	Flat 705	Residential	Bedroom	12.30	8.44	8.44	100%	100	50%	50%	4380
	R11	Flat 705	Residential	LKD	32.55	23.69	23.69	100%	150	50%	50%	4380
	R12	Flat 705	Residential	Bedroom	10.65	7.09	7.09	100%	100	50%	50%	4380
	R13	Flat 706	Residential	Bedroom	13.62	9.16	9.16	100%	100	50%	50%	4380
	R14	Flat 706	Residential	LKD	29.44	21.04	21.04	100%	150	50%	50%	4380
	R15	Flat 706	Residential	Bedroom	11.10	7.46	7.46	100%	100	50%	50%	4380
	R16	Flat 707	Residential	KD	13.47	9.02	9.02	100%	150	50%	50%	4380
	R17	Flat 708	Residential	Living Room	10.08	6.63	6.63	100%	150	50%	50%	4380
	R18	Flat 708	Residential	KD	12.45	7.93	7.93	100%	150	50%	50%	4380
	R19	Flat 709	Residential	KD	12.45	7.92	7.92	100%	150	50%	50%	4380
	R20	Flat 709	Residential	Living Room	10.10	6.64	6.64	100%	150	50%	50%	4380
Eighth	R1	Flat 701	Residential	Bedroom	10.37	6.86	6.86	100%	100	50%	50%	4380
	R2	Flat 701	Residential	Bedroom	8.79	5.57	5.57	100%	100	50%	50%	4380
	R3	Flat 702	Residential	Study	4.40	2.24	2.24	100%	150	50%	50%	4380
	R4	Flat 702	Residential	Bedroom	11.84	8.02	8.02	100%	100	50%	50%	4380
	R5	Flat 703	Residential	Bedroom	11.69	7.89	7.89	100%	100	50%	50%	4380
	R6	Flat 703	Residential	Bedroom	7.46	4.54	4.54	100%	100	50%	50%	4380
	R7	Flat 703	Residential	Bedroom	12.65	8.59	8.59	100%	100	50%	50%	4380
	R8	Flat 707	Residential	Living Room	11.78	7.52	7.52	100%	150	50%	50%	4380
	R9	Flat 707	Residential	Bedroom	10.46	6.84	6.84	100%	100	50%	50%	4380
	R10	Flat 707	Residential	Bedroom	8.65	5.30	5.30	100%	100	50%	50%	4380
	R11	Flat 708	Residential	Bedroom	10.40	6.89	6.89	100%	100	50%	50%	4380
	R12	Flat 708	Residential	Study	5.65	3.14	3.14	100%	150	50%	50%	4380
	R13	Flat 709	Residential	Bedroom	10.60	6.97	6.97	100%	100	50%	50%	4380
	R14	Flat 709	Residential	Bedroom	12.59	8.35	8.35	100%	100	50%	50%	4380

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Proposed Sunlight Exposure (Hours)
Proposed Sunlight						
Seventh	R1	Flat 701	Residential	KD	W1	0
						0
Seventh	R2	Flat 701	Residential	Living Room	W2	0
					W3	0
						0
Seventh	R3	Flat 702	Residential	Kitchen	W4	0
						0
Seventh	R4	Flat 702	Residential	LD	W5	0
					W6	0
						0
Seventh	R5	Flat 703	Residential	LKD	W7	0
					W8	0
						0
Seventh	R6	Flat 704	Residential	Bedroom	W9	0
						0
Seventh	R7	Flat 704	Residential	Bedroom	W10	1
						1
Seventh	R8	Flat 704	Residential	Bedroom	W11	0.8
					W12	1
						1
Seventh	R9	Flat 704	Residential	LKD	W13	1
					W14	1
					W15	2.1
						2.1
Seventh	R10	Flat 705	Residential	Bedroom	W16	4.3
					W17	4.3
						4.3
Seventh	R11	Flat 705	Residential	LKD	W18	4.3
					W19	5.1
					W20	4.3
						5.1
Seventh	R12	Flat 705	Residential	Bedroom	W21	4.3
						4.3
Seventh	R13	Flat 706	Residential	Bedroom	W22	5.1
						5.1
Seventh	R14	Flat 706	Residential	LKD	W23	4.3
					W24	5.1
					W25	4.3
						5.1
Seventh	R15	Flat 706	Residential	Bedroom	W26	4
						4
Seventh	R16	Flat 707	Residential	KD	W27	6.4
						6.4
Seventh	R17	Flat 708	Residential	Living Room	W28	6.7
						6.7
Seventh	R18	Flat 708	Residential	KD	W29	7.2
						7.2
Seventh	R19	Flat 709	Residential	KD	W30	7.2
						7.2
Seventh	R20	Flat 709	Residential	Living Room	W31	7.2
						7.2

Floor Ref	Room Ref	Room Attribute	Property Type	Room Use	Window Ref	Proposed Sunlight Exposure (Hours)
Eighth	R1	Flat 701	Residential	Bedroom	W1	0.4
					W2	0
						0.4
Eighth	R2	Flat 701	Residential	Bedroom	W3	0
						0
Eighth	R3	Flat 702	Residential	Study	W4	0
						0
Eighth	R4	Flat 702	Residential	Bedroom	W5	0
						0
Eighth	R5	Flat 703	Residential	Bedroom	W6	0
						0
Eighth	R6	Flat 703	Residential	Bedroom	W7	0
						0
Eighth	R7	Flat 703	Residential	Bedroom	W8	0
					W9	5.1
						5.1
Eighth	R8	Flat 707	Residential	Living Room	W10	5.1
					W11	6.2
						9.5
Eighth	R9	Flat 707	Residential	Bedroom	W12	7.2
						7.2
Eighth	R10	Flat 707	Residential	Bedroom	W13	6.2
						6.2
Eighth	R11	Flat 708	Residential	Bedroom	W14	6.7
						6.7
Eighth	R12	Flat 708	Residential	Study	W15	0.1
						0.1
Eighth	R13	Flat 709	Residential	Bedroom	W16	6.2
						6.2
Eighth	R14	Flat 709	Residential	Bedroom	W17	7.2
					W18	0.4
						7.2

APPENDIX 4

Window Maps

VIEW 01

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SOURCES OF INFORMATION:

ELMSBROOK
IR06 (RECEIVED 14.02.23)

WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
WINDOW MAPS
HPH4 MILLINGTON ROAD

SCALE @ A3	**DATE**
NTS	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789	03-09

VIEW 02

waldrams

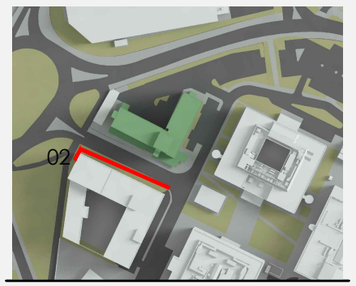
SOURCES OF INFORMATION:

ELMSBROOK
IR06 (RECEIVED 14.02.23)

WALDRAMS LTD
2789-02

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION



PROJECT
HYDE PARK 3, HAYES
UB3

DRAWING
WINDOW MAPS
HPH4 MILLINGTON ROAD

SCALE @ A3	**DATE**
NTS	03.03.2023
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2789	03-10

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