waldrams

Land Between 60 & 66 Alwyne Road, Wimbledon SW19 7AE

Daylight and Sunlight Report

30 November 2022

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Land Between 60 & 66 Alwyne Road, Wimbledon SW19 7AE

DAYLIGHT AND SUNLIGHT REPORT

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EXECUTIVE SUMMARY

- This is a report into the impact of the proposed development at Land Between 60 & 66 Alwyne Road, Wimbledon, SW19 7AE, 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 GBS Architectural, a photogrammetric survey, and site photography.
- 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) (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 analysis shows that the proposed scheme will have a negligible impact on the surrounding properties' daylight and sunlight.
- The proposed scheme will also not have a noticeable overshadowing impact on the surrounding gardens.
- Internally to the scheme, Flat 3 will be well daylit as all three rooms on the first floor will meet the required target illuminance. The two combined, living/kitchen/dining rooms on the ground floor will receive the recommended level of lux to between 33% and 34% of their areas, as compared to the 50% target. However, the main living portions of these rooms will be in the part of the room closest to the window and so will be well daylit. The level of daylight to these rooms is constrained by the privacy requirements for the site and the height of the external wall immediately opposite the windows. Neither bedroom at basement level will meet the target daylight value however, in our view, bedrooms have a lower requirement for daylight given that they are predominantly occupied at night, late in the evenings, and in the early mornings.
- In sunlight terms internally to the scheme, Flat 3 will meet the target values for sunlight. Given the orientation of the site, Flat 1 and 2 subsequently have north facing aspects and so will not meet for sunlight.
- Overall, in our view, the proposed scheme will receive reasonable levels of daylight and sunlight that are in keeping with expectations in an urban location such as this.

1 INTRODUCTION

Waldrams have been instructed to provide daylight and sunlight analysis for the proposed development of the site at Land Between 60 & 66 Alwyne Road, Wimbledon SW19 7AE. This analysis is based upon scheme drawings by GBS Architectural, a photogrammetric survey of the site and surrounding context and site photography.

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 can be seen on drawings 2947-01-01 to -01-03 with the proposal on drawings 2947-01-04 to -01-06, all 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. The sunlight amenity results can be found on drawing 2947-01-10 in Appendix 4. Window maps showing the locations of the windows analysed in the neighbouring property can be found on drawing 2947-01-09 in Appendix 5.

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 Building Research Establishment (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. In practice, it is principally the main habitable rooms internal to the scheme and within the surrounding residential properties that are sensitive in terms of daylight and sunlight. This report therefore predominantly focuses on the internal daylight and sunlight and the change in daylight and sunlight to habitable rooms in the surrounding residential properties.

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 guide is intended for building designers and their clients, consultants and planning officials. 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 because natural lighting is only one of the many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values."

The numerical figures should 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.

2.2 DAYLIGHT AND SUNLIGHT CRITERIA TO SURROUNDING RESIDENTIAL PROPERTY

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:

"Bathrooms, toilets, storerooms, circulation areas and garages need not be analysed."

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 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. 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.

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.

Daylight Factor Method

This method involves the computation of the daylight factor at each calculation point on

an assessment grid. The daylight factor is the illuminance at a point on the reference plane in a space, divided by the illuminance on an unobstructed horizontal surface outdoors. The CIE standard overcast sky is used, and the ratio is usually expressed as a percentage.

Since the calculation uses an overcast sky model, the daylight factor is independent of orientation and location. For spaces with side windows, equivalent daylight factor targets to achieve a target illuminance over at least half of the daylight hours in a year are based on the formula:

D = Target illuminance / Median external diffuse horizontal illuminance x 100 (%)

where the median external diffuse horizontal illuminance ($E_{v,d,med}$) is the illuminance from the sky on an unobstructed horizontal surface achieved for half of the yearly daylight hours at a particular location.

Residential Rooms in UK Dwellings

The UK National Annex gives specific minimum recommendations for habitable rooms in dwellings in the United Kingdom. The National Annex therefore provides the UK guidance on minimum daylight provision in all UK dwellings.

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*."

The table below shows the daylight factor targets to be achieved over at least 50% of the assessment grid in domestic habitable rooms with vertical and/or inclined daylight apertures. The UK National Annex gives alternative target values for rooms with diffusing

horizontal rooflights. The recommendations are met if the median of the daylight factors calculated in a room meets or exceeds the specific target for room type and location.

Target daylight factors (D_T) to achieve over at least 50% of the assessment grid in UK domestic habitable rooms with vertical and/or inclined daylight apertures			
Location	**D_T for 100 lx**	**D_T for 150 lx (Living**	**D_T for 200 lx**
St Peter (Jersey)	0.6%	0.9%	1.2%
London (Gatwick Airport)	0.7%	1.1%	1.4%
Birmingham	0.6%	0.9%	1.2%
Hemsby (Norfolk)	0.6%	0.9%	1.3%
Finningley (Yorkshire)	0.7%	1.0%	1.3%
Aughton (Lancashire)	0.7%	1.1%	1.4%
Belfast	0.7%	1.0%	1.4%
Leuchars (Fife)	0.7%	1.1%	1.4%
Oban	0.8%	1.1%	1.5%
Aberdeen	0.7%	1.1%	1.4%

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."*

2.4 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 a photogrammetric survey of the site and surrounding properties, site photographs and Ordnance Survey information.

Drawings of the existing and proposed building in context of the surrounding properties

are shown in Appendix 1.

2.4.1 SURROUNDING PROPERTIES

Daylight and sunlight levels comparing the existing and proposed daylight (VSC and daylight distribution) and sunlight (APSH) situation are then calculated for the surrounding properties. These results are provided in Appendix 2.

2.4.2 INTERNAL RESIDENTIAL ROOMS

Daylight and sunlight levels for the proposed daylight (Daylight Factor) and sunlight internally to the scheme are then calculated. These results are provided in Appendix 3.

2.5 METHOD FOR ANALYSING ACCEPTABLE SUNLIGHT AMENITY TO THE OPEN AMENITY SPACES WITHIN AND SURROUNDING THE PROPOSED SCHEME

The BRE Guidelines state that for an amenity space to appear adequately sunlit throughout the year, at least half of the amenity area should receive at least two hours of sunlight on 21st March. If as a result of new development an existing amenity area does not meet the above, it should retain at least 80% of its former value with the proposal in place. If a detailed calculation cannot be carried out and the area is a simple shape, the BRE Guidelines suggest that the centre area of each amenity space should receive at least 2 hours of sunlight on March 21st.

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. Where this is ambiguous, we have researched the Council Tax records for the property, which if listed would indicate residential use.

It is important to note that, in some cases, the window positions in the surrounding property elevations has 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:

- 66 and 67 Alwyne Road
- 67 Woodside
- 68 Woodside
- 69 Woodside

We have not been able to obtain layouts or gain access internally to any of the remaining surrounding properties and so details of the internal layouts and floor level heights have been assumed from the external appearance of the building, and the locations of windows. Unless known or otherwise, appropriate the depths of rooms have been assumed at 4.27m for residential properties and 6m for commercial properties, or half the building depth if this is less than these dimensions.

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

GBS Architectural

Land Rear of 69 Woodside London SW10 7AF-2022-026.dwg

Land Rear of 69 Woodside London SW10 7AF-2022-026-01.pdf
Land Rear of 69 Woodside London SW10 7AF-2022-026-02.pdf
Land Rear of 69 Woodside London SW10 7AF-2022-026-03.pdf
Land Rear of 69 Woodside London SW10 7AF-2022-026-04.pdf
Land Rear of 69 Woodside London SW10 7AF-2022-026-05.pdf

Received 4.7.22

Waldrams Chartered Surveyors

Photogrammetry

Site Photographs

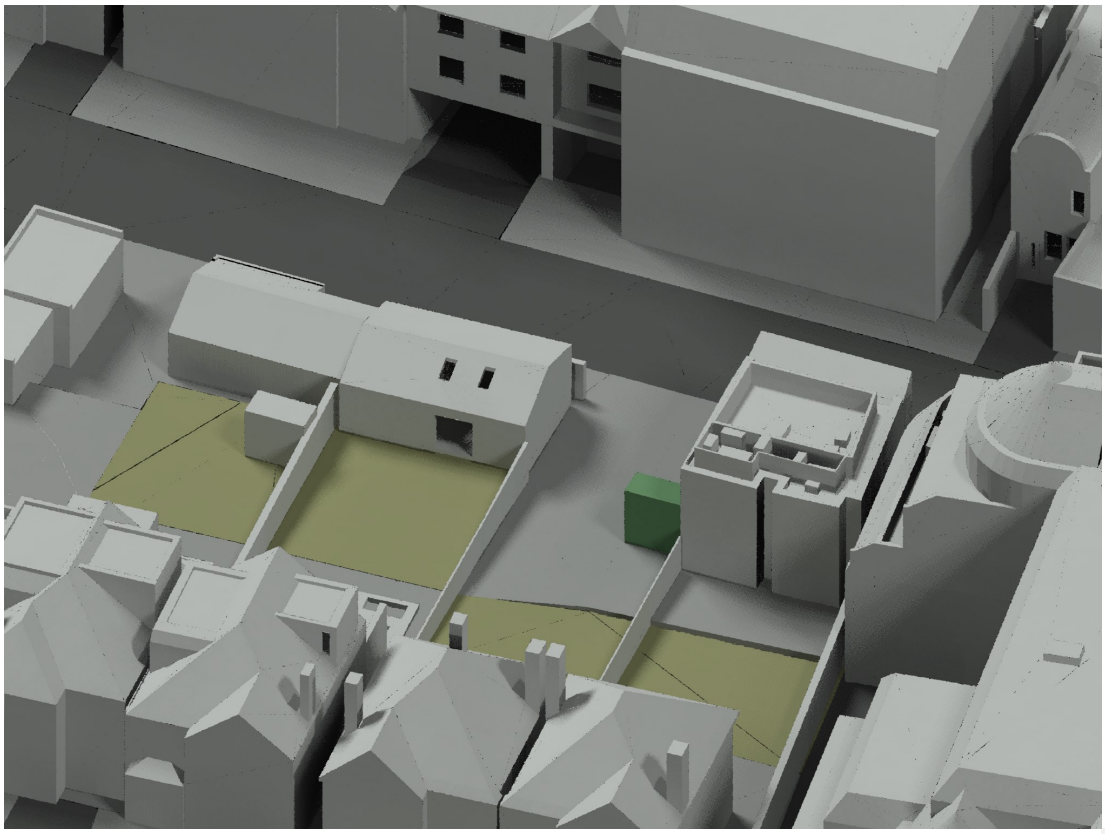


Image 1: Existing site

5 DAYLIGHT & SUNLIGHT ANALYSIS

The existing site is shown on drawings 2947-01-01 to -01-03 in Appendix 1 whilst the proposed scheme is shown on drawings 2947-01-04 to -01-06. The existing site in its current condition is shown in photo 1 above.

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

The table below demonstrates that the following properties meet the target values as set out in the BRE Guidelines for daylight (in terms of VSC and daylight distribution) and sunlight (in terms of APSH) and therefore, are not commented on further:

- 67 Woodside
- 68 Woodside
- 69 Woodside
- 70-71 Woodside
- 47 Wimbledon Hill Road
- 1 to 5 Alwyne Road

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
			20-29.9%	30-39.9%	>40%			20-29.9%	30-39.9%	>40%		
67 Woodside	18	18				2	2				10	10
68 Woodside	12	12				6	6				8	8
69 Woodside	7	7				4	4				6	6
70-71 Woodside	6	6				4	4				5	5
47 Wimbledon Hill Road	4	4				2	2					
1 to 5 Alwyne Road	6	6				6	6					

6 INTERNAL DAYLIGHT & SUNLIGHT ANALYSIS

The results of the internal daylight and sunlight analysis are included in Appendix 3.

For internal daylight, the UK National Annex to BS EN 17037 gives the following target illuminance recommendations:

- 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.

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

In daylight terms, the three rooms on the first floor (which make up Flat 3) will meet the target illuminance levels. On the ground floor, the two combined living/kitchen/dining rooms (Ground/R1 and Ground/R2) will receive at least 150 lux to 34% and 33% of their areas respectively for half of the daylight hours. Neither bedroom at basement level will meet for daylight.

In sunlight terms, Flat 3 will meet the target values for sunlight. Given the orientation of the site, Flat 1 and 2 subsequently have north facing aspects and so will not meet for sunlight.

COMMENTARY

Flat 3 will be well daylit with all three rooms exceeding the target illuminance levels.

Flats 1 and 2 will still receive what is, in our view, a reasonable level of daylight for an urban dwelling. Both LKDs have the main living portions of the room close to the windows in the areas receiving the most light while there is an expectation that the kitchen portion of the room, which is predominantly used for food preparation, will be supplemented by electric lighting at the working plane to help with such tasks. Furthermore, due to privacy

requirements, the external wall must be in place opposite these windows at the rear which subsequently constrains the available levels of daylight. Neither bedroom at basement level will meet the target daylight value however, in our view, bedrooms have a lower requirement for daylight given that they are predominantly occupied at night, late in the evenings, and in the early mornings.

Overall, in our view, the proposed scheme will receive reasonable levels of daylight and sunlight that are in keeping with expectations in an urban location such as this.

7 SUNLIGHT AMENITY (OVERSHADOWING)

We have assessed the level of sunlight to the outdoor amenity spaces (i.e. gardens) within the surrounding properties. The results of the analysis to surrounding amenity spaces can be found on drawing 2947-01-10 in Appendix 4.

The BRE Guidelines recommend that an outdoor amenity space receives at least 2 hours of sunlight on March 21st to at least 50% of its area in the proposed situation or retains at least 80% of its former value with the proposal in place.

RESULTS

The analysis demonstrates that both surrounding outdoor amenity spaces meet the BRE Guidelines target values. The outdoor amenity space at 68 Woodside receives at least 2 hours of sunlight on March 21st to 61% of its area with the proposal in place. 70-71 Woodside retains 86% of its former sunlight to it's outdoor amenity space with the proposal in place.

8 CONCLUSIONS

This is a report into the impact of the proposed development at Land Between 60 & 66 Alwyne Road, Wimbledon SW19 7AE 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 GBS Architectural, a photogrammetric survey, and site photography.

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 analysis shows that the proposed scheme will have a negligible impact on the surrounding properties' daylight and sunlight.

Internally to the scheme, Flat 3 will be well daylit as all three rooms on the first floor will meet the required target illuminance. The two combined, living/kitchen/dining rooms on the ground floor will receive the recommended level of lux to between 33% and 34% of their areas, as compared to the 50% target. However, the main living portions of these rooms will be in the part of the room closest to the window and so will be well daylit. The level of daylight to these rooms is constrained by the privacy requirements for the site and the height of the external wall immediately opposite the windows. Neither bedroom at basement level will meet the target daylight value however, in our view, bedrooms have a lower requirement for daylight given that they are predominantly occupied at night, late in the evenings, and in the early mornings.

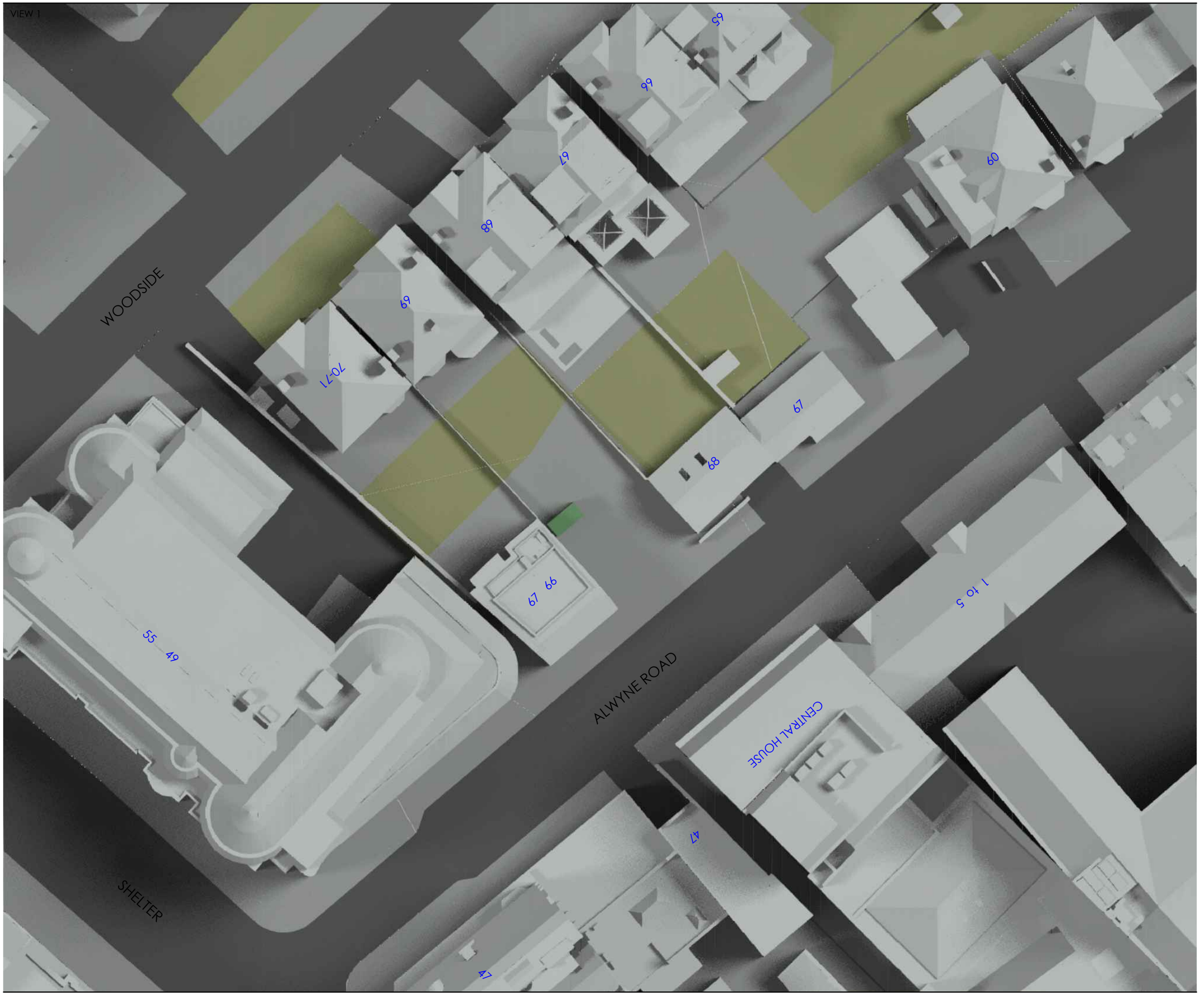
In sunlight terms internally to the scheme, Flat 3 will meet the target values for sunlight. Given the orientation of the site, Flat 1 and 2 subsequently have north facing aspects and so will not meet for sunlight.

Overall, in our view, the proposed scheme will receive reasonable levels of daylight and sunlight that are in keeping with expectations in an urban location such as this.

APPENDIX 1

Drawings

VIEW 1



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SOURCES OF INFORMATION:

GBS ARCHITECTURAL
IR01 (RECEIVED 04.07.22)

ACCUCITIES
IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING SCENARIO SHOWN IN GREEN

N

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
PLAN VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
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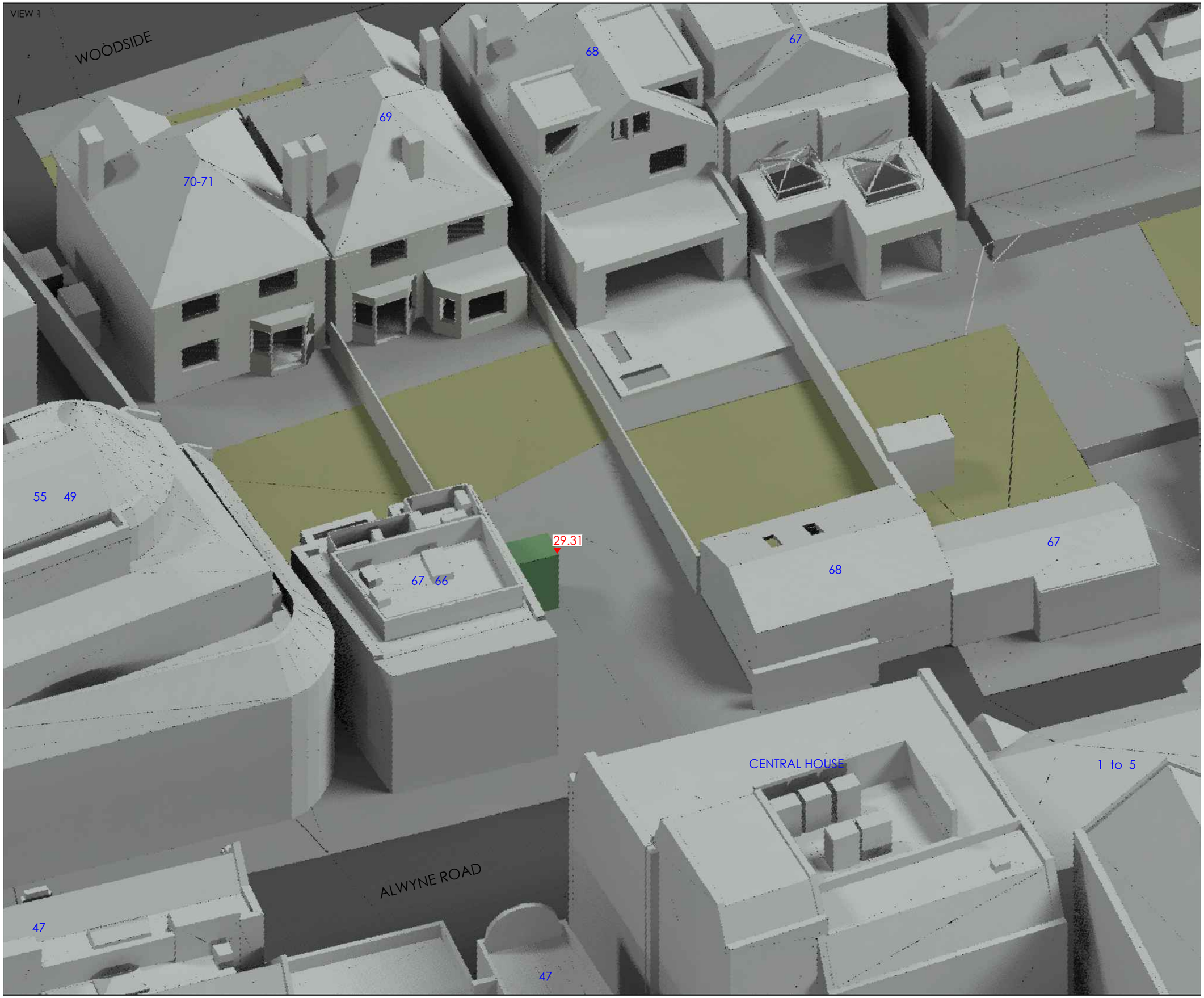
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-01



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ACCUCITIES
IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

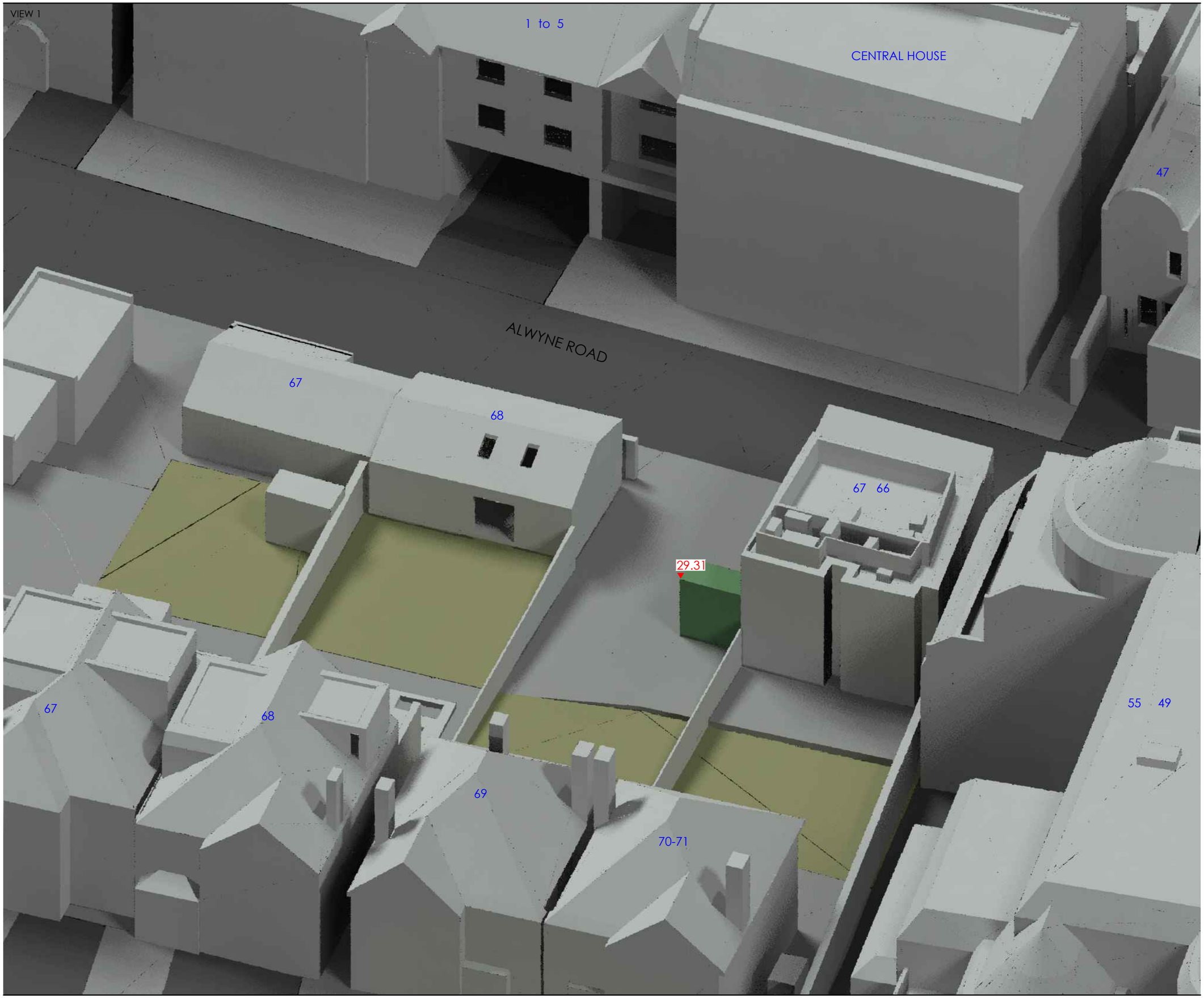
EXISTING BUILDING SHOWN IN GREEN

AOD HEIGHTS SHOWN IN METRES

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
3D VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
NTS	27.07.2022
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-02



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IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

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EXISTING BUILDING SHOWN IN GREEN

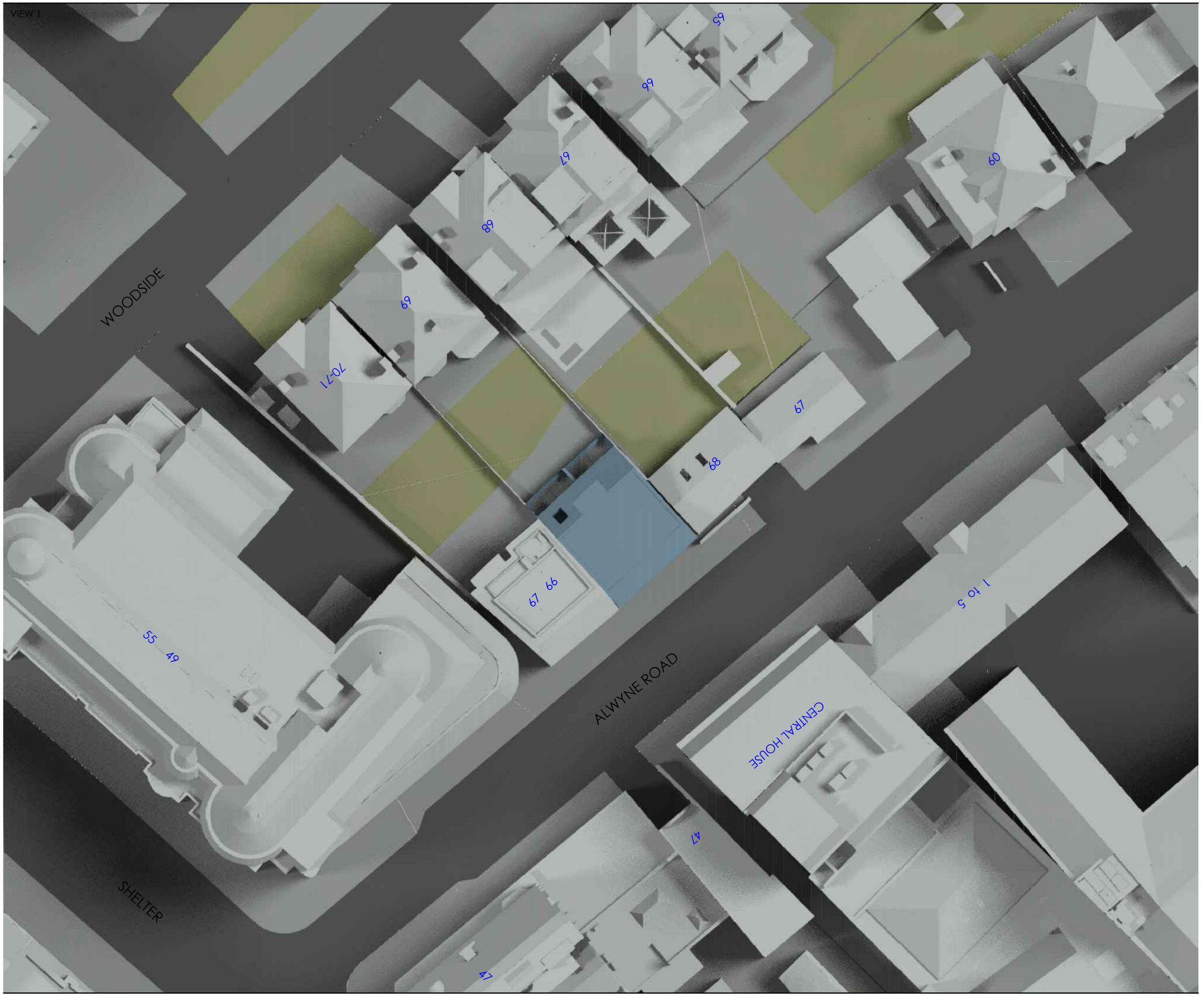
AOD HEIGHTS SHOWN IN METRES

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
3D VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
NTS	27.07.2022
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-03

VIEW 1



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ACCUCITIES
IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

PROPOSED BUILDING SHOWN IN BLUE

N

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
PLAN VIEW
PROPOSED SCHEME

SCALE @ A3	**DATE**
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MODELLED BY	**DRAWN BY**
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PROJECT No.	**REL No.- DWG No.**
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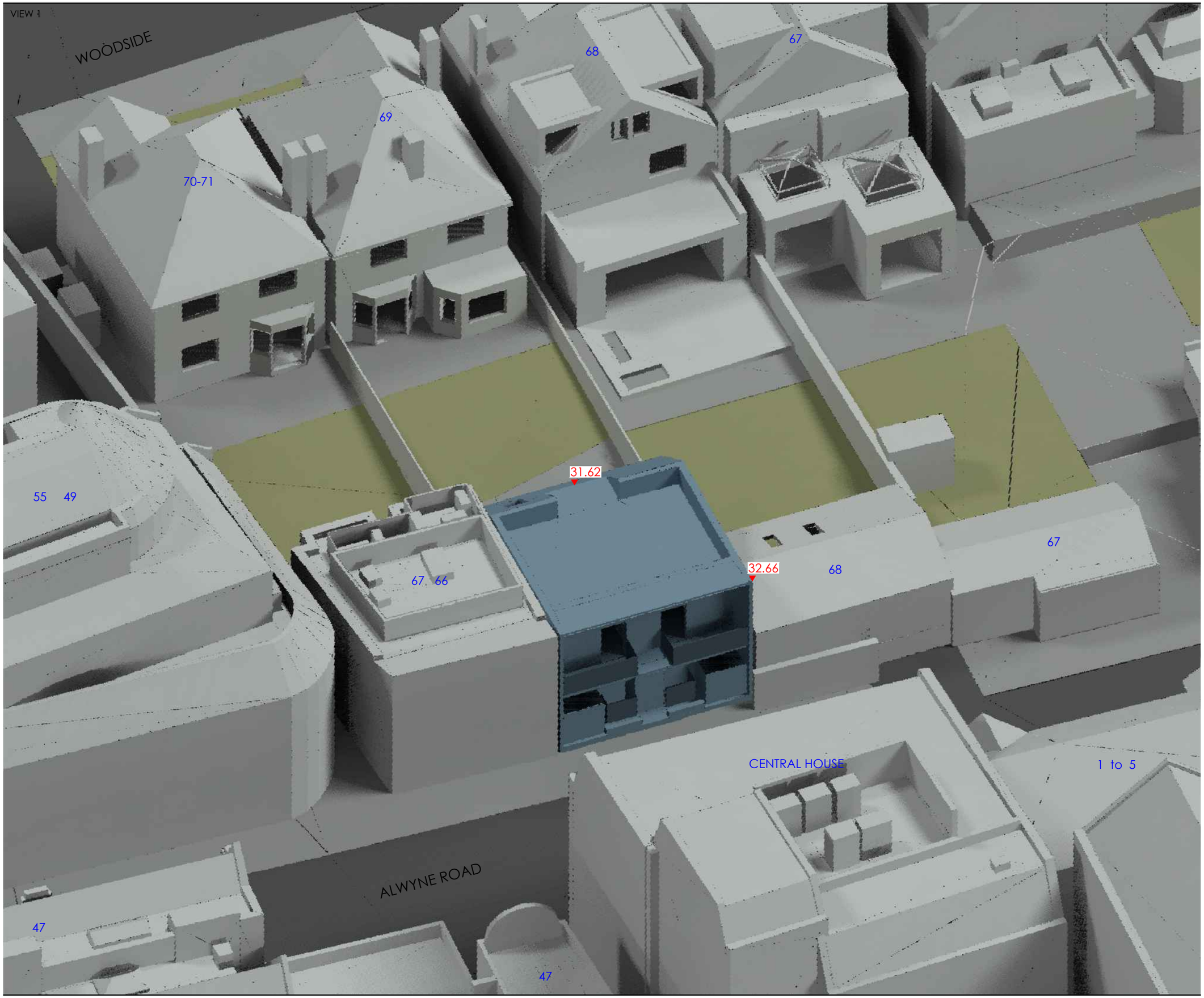

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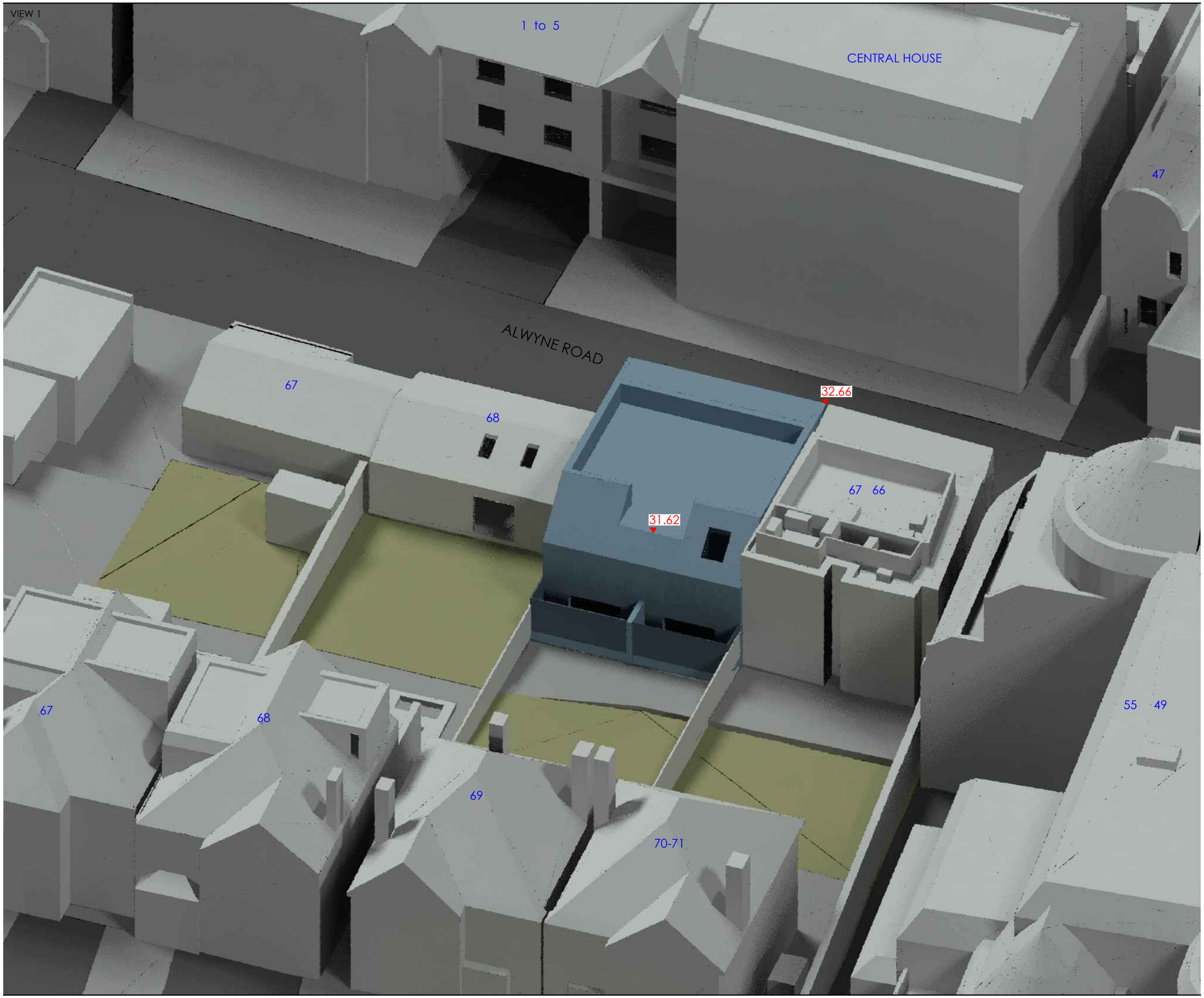
PROPOSED BUILDING SHOWN IN BLUE

AOD HEIGHTS SHOWN IN METRES

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
3D VIEW
PROPOSED SCHEME

SCALE @ A3	**DATE**
NTS	27.07.2022
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-05



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SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING BUILDING SHOWN IN GREEN

AOD HEIGHTS SHOWN IN METRES

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
3D VIEW
EXISTING CONDITION

SCALE @ A3	**DATE**
NTS	27.07.2022
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-06

APPENDIX 2

Daylight & Sunlight Results

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
67 Woodside															
Ground	R1	Residential	Unknown	W1	Existing	28.10	1.00	YES	137°						
					Proposed	28.01									
				W2	Existing	34.35	1.00	YES	137°						
					Proposed	34.35									
				W3	Existing	19.03	1.00	YES	47°N						
					Proposed	19.03									
				W4	Existing	0.15	1.00	YES	317°N						
					Proposed	0.15									
				W5	Existing	24.26	1.00	YES	227°						
					Proposed	24.26									
				W6	Existing	83.71	1.00	YES	137° Inc						
					Proposed	83.71									
				W7	Existing	65.41	1.00	YES	47°N Inc						
					Proposed	65.41									
				W8	Existing	36.42	1.00	YES	317°N Inc						
					Proposed	36.42									
				W9	Existing	68.53	1.00	YES	227° Inc						
					Proposed	68.53									
										85.00			25.00		
										85.00	1.00	YES	25.00	1.00	YES
	R2	Residential	Unknown	W10	Existing	32.59	1.00	YES	137°						
					Proposed	32.56									
				W11	Existing	34.74	1.00	YES	137°						
					Proposed	34.74									
				W12	Existing	29.29	1.00	YES	47°N						
					Proposed	29.29									
				W13	Existing	3.76	1.00	YES	317°N						
					Proposed	3.76									
				W14	Existing	27.66	1.00	YES	227°						
					Proposed	27.66									
				W15	Existing	89.79	1.00	YES	137° Inc						
					Proposed	89.79									
				W16	Existing	82.86	1.00	YES	47°N Inc						
					Proposed	82.86									
				W17	Existing	67.91	1.00	YES	317°N Inc						
					Proposed	67.91									
				W18	Existing	80.92	1.00	YES	227° Inc						
					Proposed	80.92									
										87.00			25.00		
										87.00	1.00	YES	25.00	1.00	YES
68 Woodside															
Basement	R1	Residential	Living Room	W1	Existing	76.52	1.00	YES	90° Hz						
					Proposed	76.29									
				W2	Existing	2.15	1.00	YES	135°						
					Proposed	2.15									
										91.00			26.00		
										91.00	1.00	YES	26.00	1.00	YES
Ground	R1	Residential	LKD	W1	Existing	32.38	1.00	YES	135°						
					Proposed	32.28									
										68.00			19.00		
										68.00	1.00	YES	19.00	1.00	YES
	R2	Residential	Study	W3	Existing	29.08	0.90	YES	317°N						
					Proposed	26.27									
				W4	Existing	91.67	0.91	YES	317°N Inc						
					Proposed	83.41									
				W5	Existing	91.78	0.97	YES	317°N Inc						
					Proposed	89.42									
											*North	*North		*North	*North

Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
First	R1	Residential	Bedroom	W1	Existing	34.64	1.00	YES	135°						
					Proposed	34.64									
										71.00			22.00		
										71.00	1.00	YES	22.00	1.00	YES
Second	R1	Residential	Bedroom	W1	Existing	31.37	1.00	YES	315°N						
					Proposed	31.37									
				W2	Existing	33.66	1.00	YES	135°						
					Proposed	33.66									
				W3	Existing	36.77	1.00	YES	135°						
					Proposed	36.77									
										94.00			26.00		
										94.00	1.00	YES	26.00	1.00	YES
	R2	Residential	Bedroom	W4	Existing	36.81	1.00	YES	135°						
					Proposed	36.81									
				W5	Existing	33.04	1.00	YES	135°						
					Proposed	33.04									
										74.00			24.00		
										74.00	1.00	YES	24.00	1.00	YES
69 Woodside															
Ground	R1	Residential	Dining Room	W1	Existing	30.59	1.00	YES	136°						
					Proposed	30.52									
				W2	Existing	26.01	1.00	YES	181°						
					Proposed	26.00									
										70.00			15.00		
										70.00	1.00	YES	15.00	1.00	YES
	R2	Residential	Living Room	W3	Existing	17.15	1.00	YES	90°N						
					Proposed	17.15									
				W4	Existing	29.26	1.00	YES	136°						
					Proposed	29.20									
				W5	Existing	23.04	1.00	YES	181°						
					Proposed	23.02									
										65.00			15.00		
										65.00	1.00	YES	15.00	1.00	YES
First	R1	Residential	Bedroom	W1	Existing	32.30	1.00	YES	136°						
					Proposed	32.30									
										63.00			19.00		
										63.00	1.00	YES	19.00	1.00	YES
	R2	Residential	Bedroom	W2	Existing	31.74	1.00	YES	136°						
					Proposed	31.74									
										63.00			19.00		
										63.00	1.00	YES	19.00	1.00	YES
70-71 Woodside															
Ground	R1	Residential	Bedroom	W1	Existing	27.04	1.00	YES	136°						
					Proposed	26.98									
										54.00			6.00		
										54.00	1.00	YES	6.00	1.00	YES
	R2	Residential	Bedroom	W2	Existing	20.06	1.00	YES	181°						
					Proposed	20.04									
				W3	Existing	28.31	1.00	YES	136°						
					Proposed	28.18									
				W4	Existing	27.33	1.00	YES	90°N						
					Proposed	27.25									
										61.00			11.00		
										61.00	1.00	YES	11.00	1.00	YES
First	R1	Residential	Bedroom	W1	Existing	27.83	1.00	YES	136°						
					Proposed	27.83									
										53.00			11.00		
										53.00	1.00	YES	11.00	1.00	YES
	R2	Residential	Bedroom	W2	Existing	29.26	1.00	YES	136°						
					Proposed	29.26									

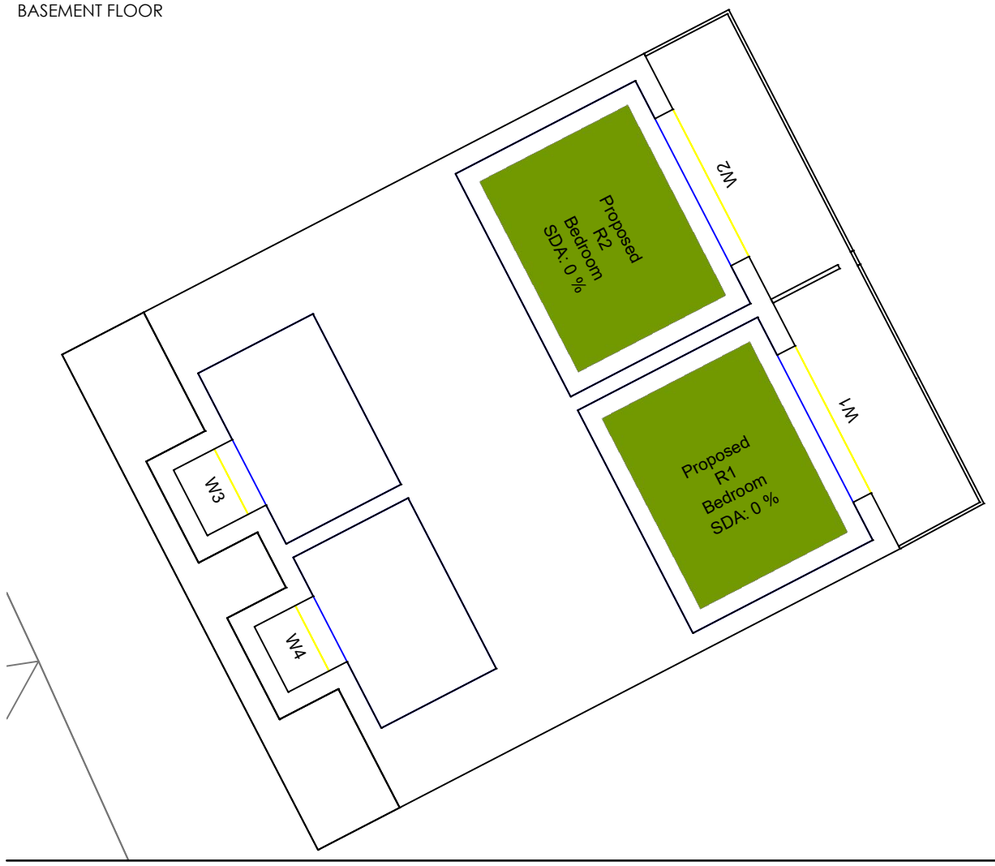
Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
										57.00			15.00		
										57.00	1.00	YES	15.00	1.00	YES
47 Wimbledon Hill Road															
Ground	R1	Residential	Unknown	W1	Existing	15.36	1.00	YES	320°N						
					Proposed	15.36									
				W2	Existing	19.72	0.98	YES	320°N						
					Proposed	19.33									
				W3	Existing	16.79	0.98	YES	320°N						
					Proposed	16.38									
											*North	*North		*North	*North
First	R1	Residential	Unknown	W1	Existing	27.88	1.00	YES	320°N						
					Proposed	27.87									
											*North	*North		*North	*North
1 to 5 Alwyne Road															
First	R1	Residential	Unknown	W1	Existing	33.92	1.00	YES	320°N						
					Proposed	33.88									
											*North	*North		*North	*North
	R2	Residential	Unknown	W2	Existing	33.79	1.00	YES	320°N						
					Proposed	33.73									
											*North	*North		*North	*North
	R3	Residential	Unknown	W3	Existing	24.54	1.00	YES	320°N						
					Proposed	24.43									
											*North	*North		*North	*North
Second	R1	Residential	Unknown	W1	Existing	28.29	1.00	YES	320°N						
					Proposed	28.29									
											*North	*North		*North	*North
	R2	Residential	Unknown	W2	Existing	28.41	1.00	YES	320°N						
					Proposed	28.41									
											*North	*North		*North	*North
	R3	Residential	Unknown	W3	Existing	14.58	1.00	YES	320°N						
					Proposed	14.58									
											*North	*North		*North	*North

Floor Ref.	Room Ref	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
67 Woodside									
Ground	R1	Residential	Unknown	Area m2	15.34	15.33	15.33		
				% of room		99.93%	99.93%	1.00	YES
	R2	Residential	Unknown	Area m2	15.59	15.58	15.58		
				% of room		99.88%	99.88%	1.00	YES
68 Woodside									
Basement	R1	Residential	Living Room	Area m2	42.13	24.55	24.54		
				% of room		58.26%	58.26%	1.00	YES
Ground	R1	Residential	LKD	Area m2	56.77	55.01	55.01		
				% of room		96.91%	96.91%	1.00	YES
	R2	Residential	Study	Area m2	25.38	25.33	25.33		
				% of room		99.79%	99.79%	1.00	YES
First	R1	Residential	Bedroom	Area m2	17.63	17.35	17.35		
				% of room		98.38%	98.38%	1.00	YES
Second	R1	Residential	Bedroom	Area m2	15.26	15.17	15.17		
				% of room		99.38%	99.38%	1.00	YES
	R2	Residential	Bedroom	Area m2	12.73	12.35	12.35		
				% of room		97.04%	97.04%	1.00	YES
69 Woodside									
Ground	R1	Residential	Dining Room	Area m2	16.46	15.92	15.92		
				% of room		96.72%	96.72%	1.00	YES
	R2	Residential	Living Room	Area m2	17.91	17.80	17.80		
				% of room		99.40%	99.40%	1.00	YES
First	R1	Residential	Bedroom	Area m2	8.59	8.28	8.28		
				% of room		96.39%	96.39%	1.00	YES
	R2	Residential	Bedroom	Area m2	13.14	12.84	12.84		
				% of room		97.76%	97.76%	1.00	YES
70-71 Woodside									
Ground	R1	Residential	Bedroom	Area m2	15.17	14.90	14.90		
				% of room		98.24%	98.24%	1.00	YES
	R2	Residential	Bedroom	Area m2	15.39	15.32	15.32		
				% of room		99.54%	99.54%	1.00	YES
First	R1	Residential	Bedroom	Area m2	15.93	15.54	15.54		
				% of room		97.55%	97.55%	1.00	YES
	R2	Residential	Bedroom	Area m2	15.93	15.55	15.55		
				% of room		97.63%	97.63%	1.00	YES
47 Wimbledon Hill Road									
Ground	R1	Residential	Unknown	Area m2	15.64	14.65	14.65		
				% of room		93.65%	93.65%	1.00	YES
First	R1	Residential	Unknown	Area m2	7.44	7.07	7.07		
				% of room		95.08%	95.08%	1.00	YES
1 to 5 Alwyne Road									
First	R1	Residential	Unknown	Area m2	13.72	13.29	13.29		
				% of room		96.86%	96.86%	1.00	YES
	R2	Residential	Unknown	Area m2	10.76	10.56	10.56		
				% of room		98.13%	98.13%	1.00	YES
	R3	Residential	Unknown	Area m2	9.81	8.50	8.50		
				% of room		86.59%	86.59%	1.00	YES
Second	R1	Residential	Unknown	Area m2	13.72	13.27	13.27		
				% of room		96.69%	96.69%	1.00	YES
	R2	Residential	Unknown	Area m2	10.76	10.49	10.49		
				% of room		97.52%	97.52%	1.00	YES
	R3	Residential	Unknown	Area m2	9.81	8.48	8.48		
				% of room		86.45%	86.45%	1.00	YES

APPENDIX 3

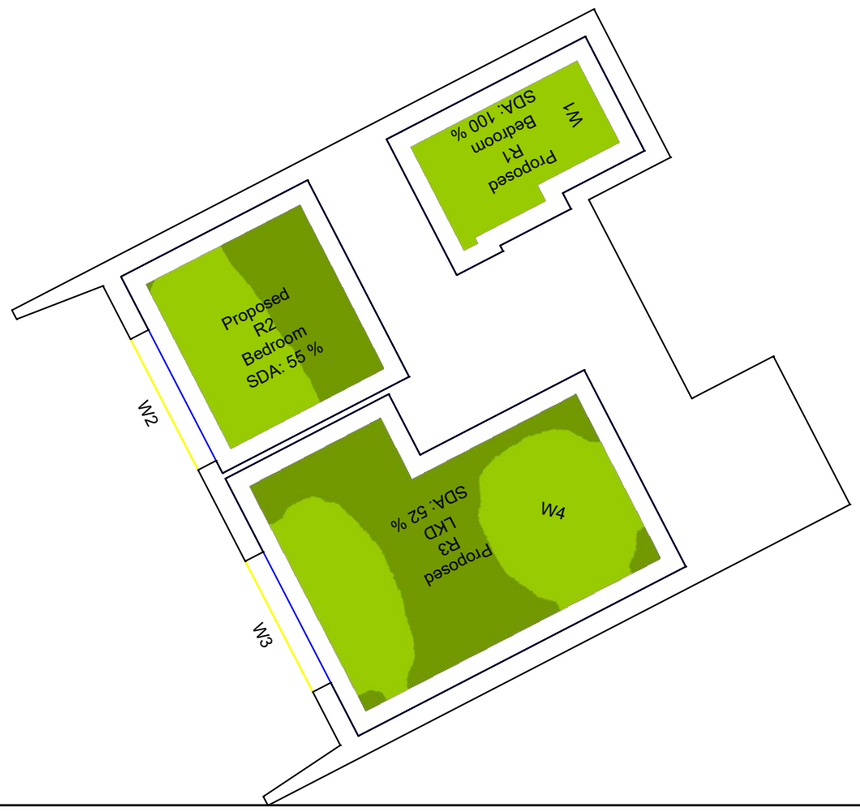
Internal Daylight & Sunlight Results

BASEMENT FLOOR



GROUND FLOOR

FIRST FLOOR



waldrams

SOURCES OF INFORMATION:

GBS ARCHITECTURAL
IR03 (RECEIVED 17.08.22)

WALDRAMS LTD
REL_01

NOTES:

SDA % OF HOURS

0

LESS THAN 50

N

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
SPATIAL DAYLIGHT AUTONOMY

SCALE @ A3	**DATE**
1:100	01.09.2022
MODELLED BY	**DRAWN BY**
FC	FC
PROJECT No.	**REL No.- DWG No.**
2947	02-02

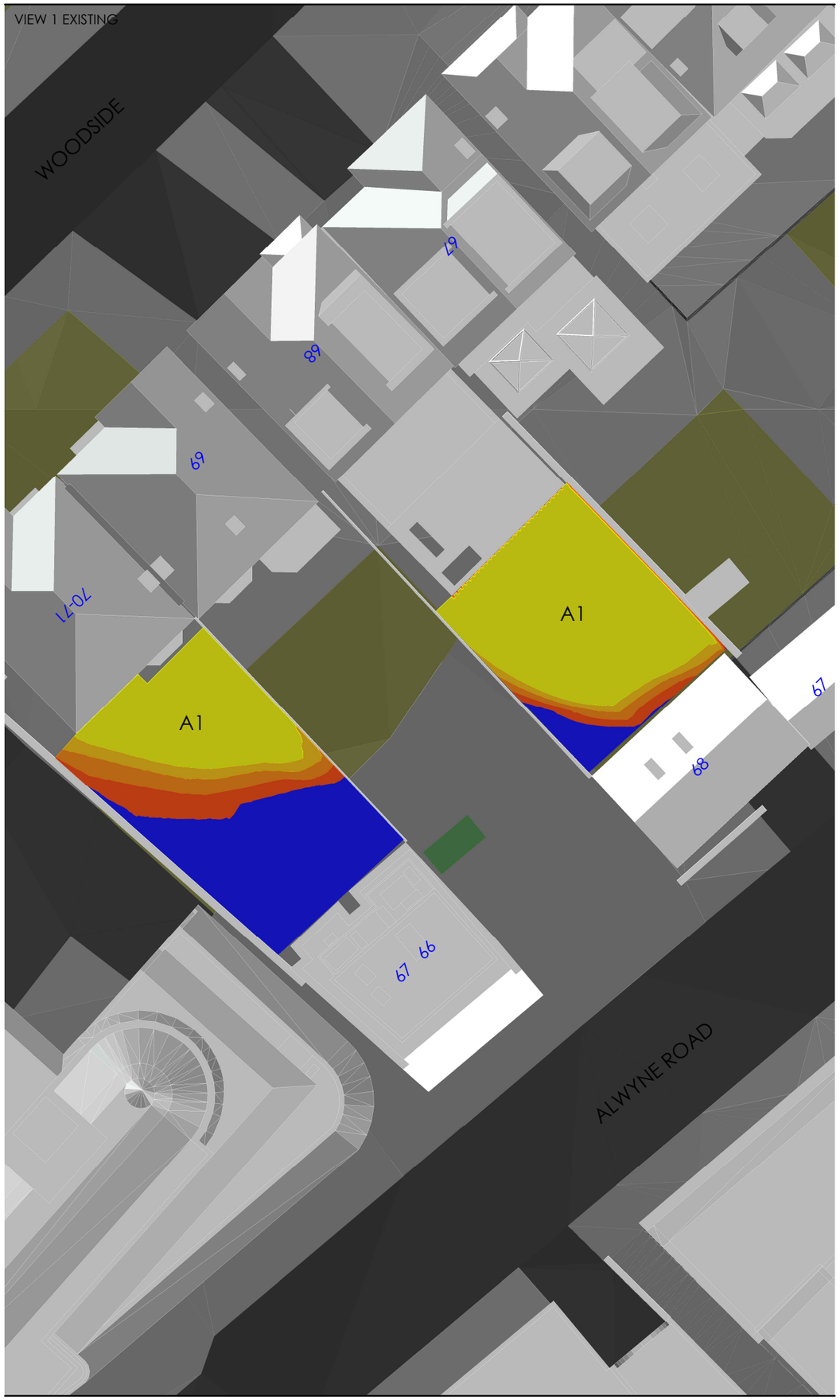
Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
Proposed Target Illuminance											
Basement	R1	Residential	Bedroom	13.50	9.43	0.00	0%	100	50%	50%	4380
	R2	Residential	Bedroom	13.50	9.43	0.00	0%	100	50%	50%	4380
Ground	R1	Residential	LKD	22.01	16.49	5.68	34%	150	50%	50%	4380
	R2	Residential	LKD	22.00	16.49	5.51	33%	150	50%	50%	4380
First	R1	Residential	Bedroom	8.38	5.05	5.05	100%	100	50%	50%	4380
	R2	Residential	Bedroom	12.36	8.50	4.71	55%	100	50%	50%	4380
	R3	Residential	LKD	25.03	18.95	9.84	52%	150	50%	50%	4380

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Proposed Sunlight Exposure (Hours)
Proposed Sunlight Exposure					
Basement	R1	Residential	Bedroom	W1	0
					0
Basement	R2	Residential	Bedroom	W2	0
					0
Ground	R1	Residential	LKD	W1	0
				W3	0
					0
Ground	R2	Residential	LKD	W2	0
				W4	0
					0
First	R1	Residential	Bedroom	W1	0
					0
First	R2	Residential	Bedroom	W2	3.2
					3.2
First	R3	Residential	LKD	W3	3.4
				W4	9.5
					9.5

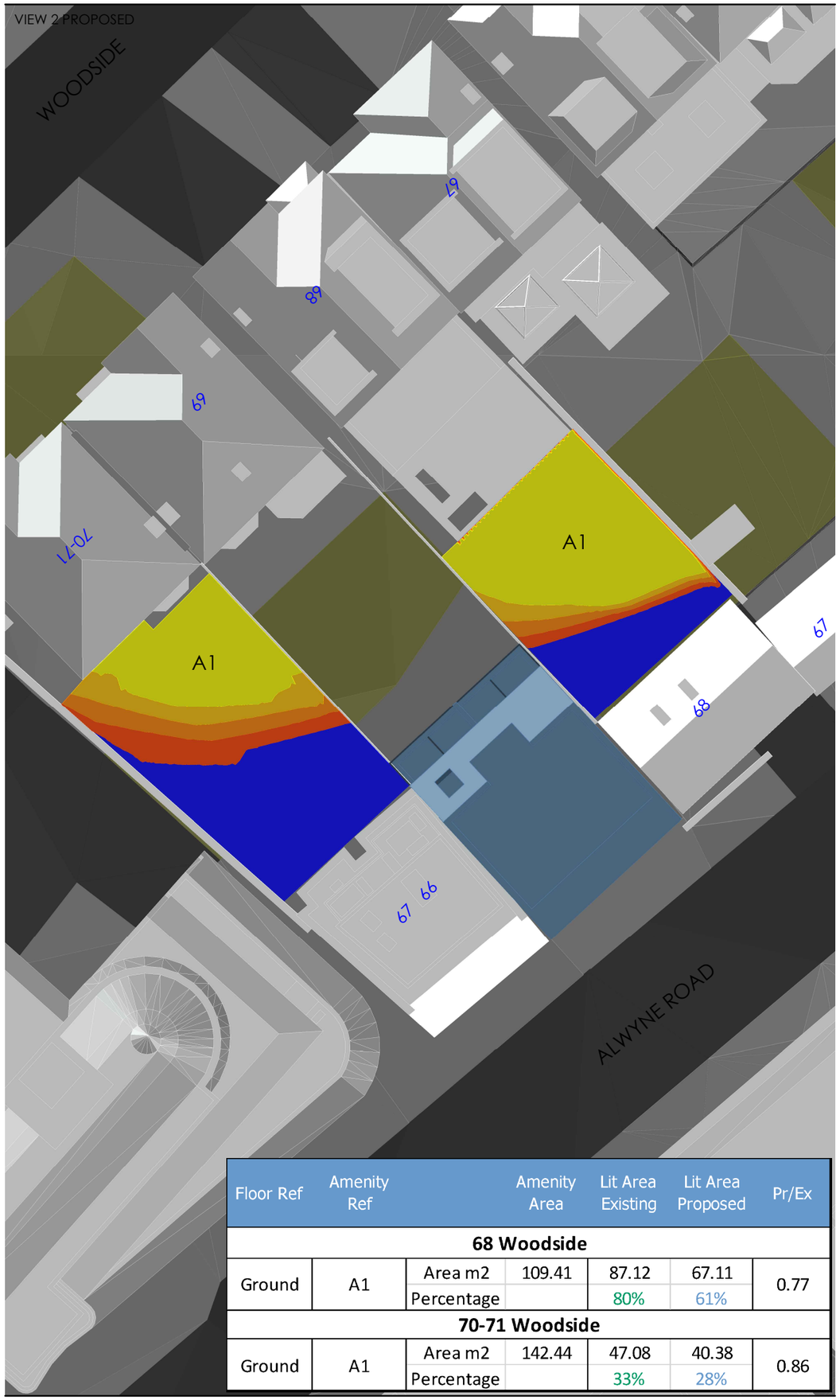
APPENDIX 4

Sunlight Amenity Results

VIEW 1 EXISTING



VIEW 2 PROPOSED



Floor Ref	Amenity Ref		Amenity Area	Lit Area Existing	Lit Area Proposed	Pr/Ex
68 Woodside						
Ground	A1	Area m2	109.41	87.12	67.11	0.77
		Percentage		80%	61%	
70-71 Woodside						
Ground	A1	Area m2	142.44	47.08	40.38	0.86
		Percentage		33%	28%	

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SOURCES OF INFORMATION:

GBS ARCHITECTURAL
IR01 (RECEIVED 04.07.22)

ACCUCITIES
IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION

NOTES:

EXISTING SCENARIO SHOWN IN GREEN

PROPOSED SCENARIO SHOWN IN BLUE

- MORE THAN 2 HOURS OF SUN
- 1.5 TO 2 HOURS OF SUN
- 1 TO 1.5 HOURS OF SUN
- 0.5 TO 1 HOURS OF SUN
- LESS THAN 0.5 HOURS OF SUN

PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
AMENITY ANALYSIS
EXISTING VS PROPOSED SCENARIO

SCALE @ A3
1:250

DATE
27.07.2022

MODELLED BY
VR

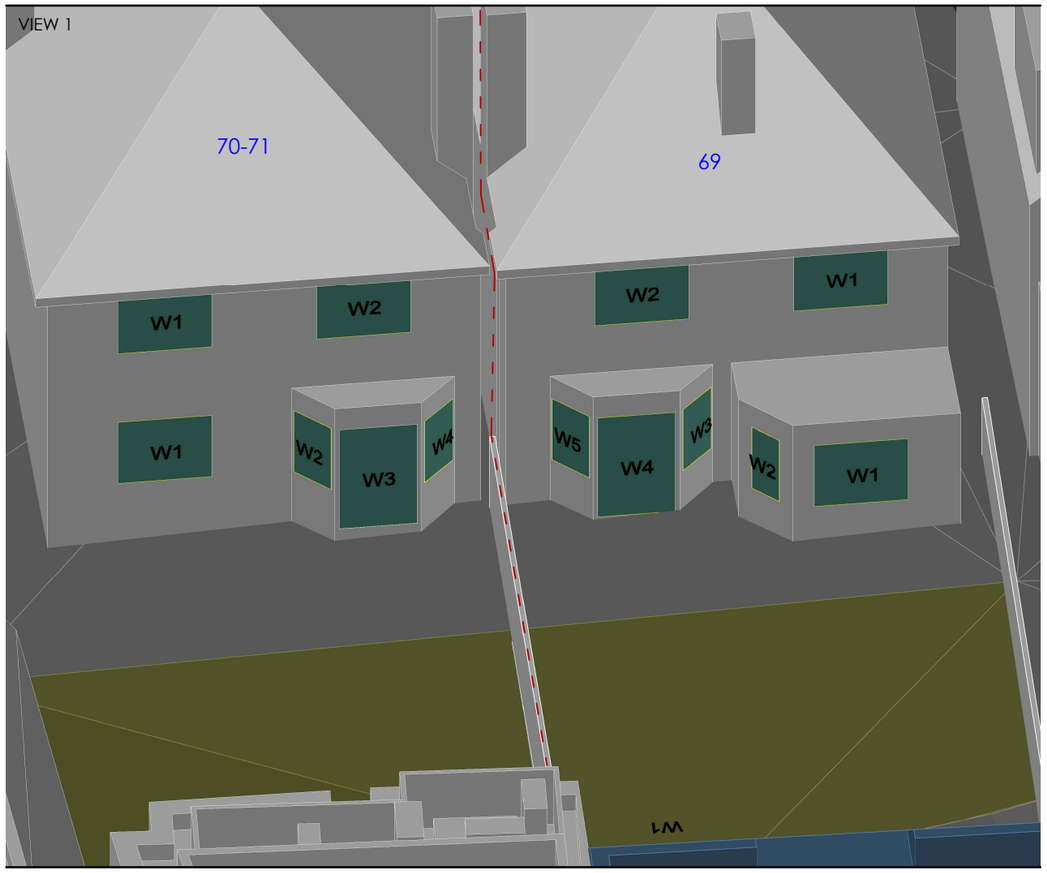
DRAWN BY
DF

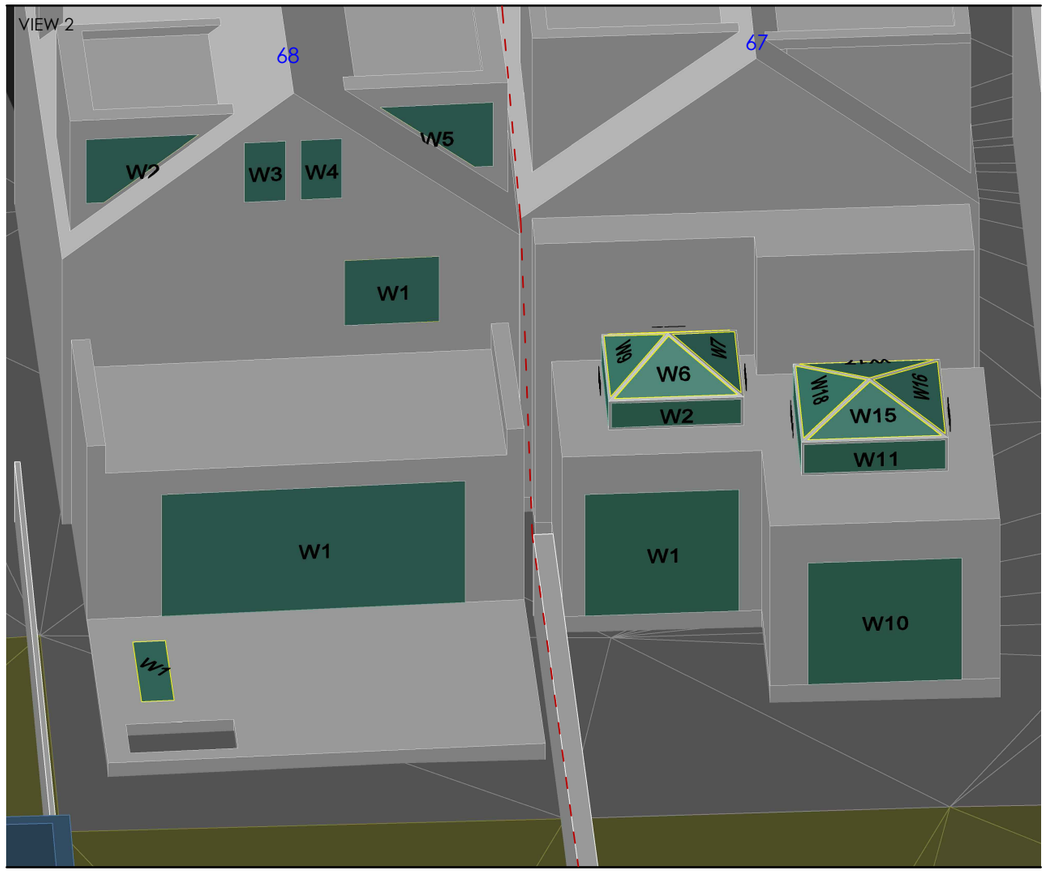
PROJECT No.
2947

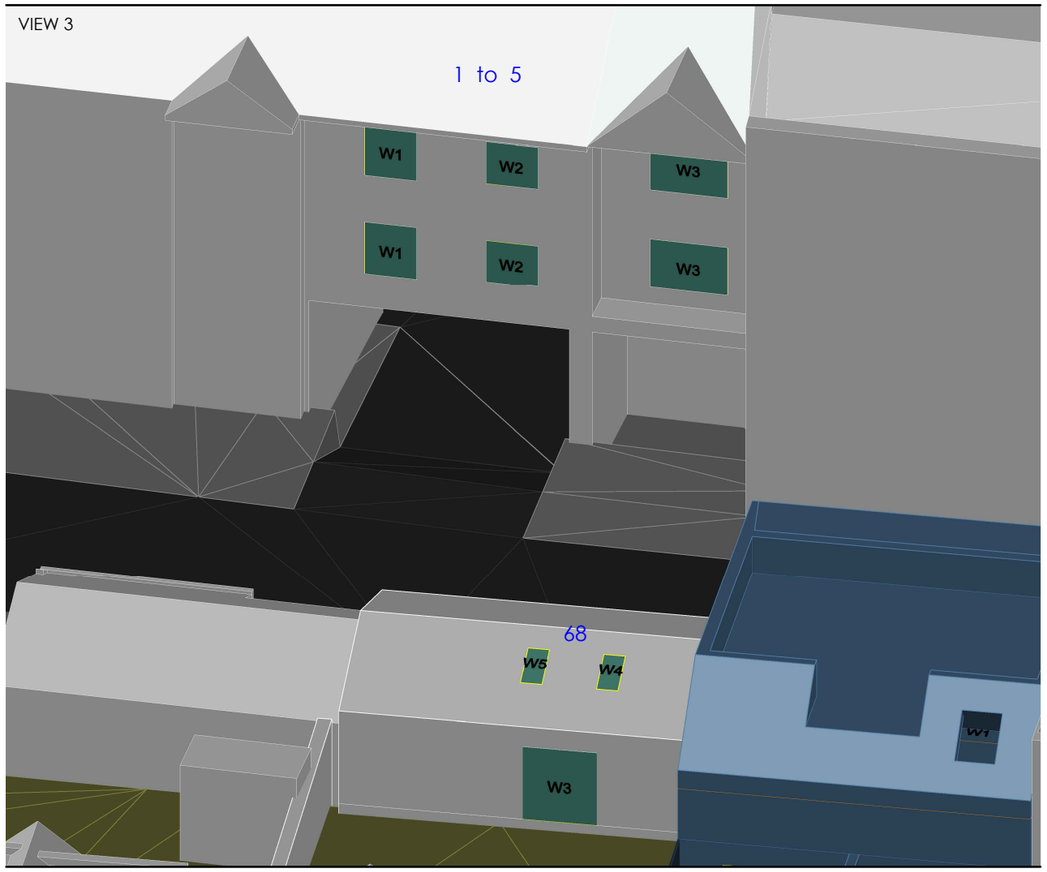
REL No.- DWG No.
01-10

APPENDIX 5

Window Maps







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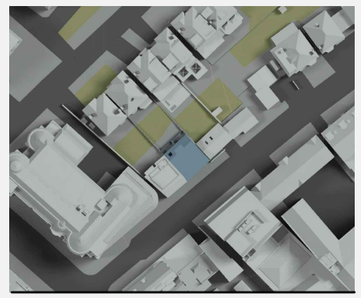
SOURCES OF INFORMATION:

GBS ARCHITECTURAL
IR01 (RECEIVED 04.07.22)

ACCUCITIES
IR02 (RECEIVED 08.07.22)

SITE PHOTOGRAPHS

SURROUNDING PROPERTY INFORMATION



PROJECT
REAR OF 69 WOODSID
LONDON SW19

DRAWING
WINDOW MAPS

SCALE @ A3	**DATE**
NTS	27.07.2022
MODELLED BY	**DRAWN BY**
VR	DF
PROJECT No.	**REL No.- DWG No.**
2947	01-09

Waldrams Ltd.

020 7183 9109

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