

# LOVE DESIGN STUD/O

## DAYLIGHT AND SUNLIGHT STUDY

2 Sandy Lodge Way  
by Love Design Studio

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PR0710\_V0



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## EXECUTIVE SUMMARY

Love Design Studio are appointed to prepare a daylight and sunlight assessment for the proposed development at 2 Sandy Lodge Way. This is to assess the impact of daylight and sunlight access to neighbouring properties, based on relevant industry guidance.

The following neighbouring properties were evaluated in detail:

- 20 Dene Road
- 4 Sandy Lodge Way
- 7 Woodbridge Way
- 16 Dene Road

To ensure that this assessment has correctly considered the daylight and sunlight access to neighbouring properties, it has been instigated in accordance with the Building Research Establishment's publication "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" (2022) (the "BRE Guidelines").

Daylight access is typically desirable for occupants within residential 'habitable' rooms. This is acknowledged within the BRE guidelines, which place the most emphasis on these uses; sunlight is considered mainly for living rooms based on the guidance.

Furthermore, the government wish to densify sites to maximise the delivery of housing for the UK and maximise the sustainability credentials by maximising the use on-site. The National Planning Policy Framework (2023) states at para.125 in relation to achieving appropriate densities that:

***"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)."***

Para.125 is also a policy objective of the adopted London Plan 2021 and supports Policy H1 'Housing Growth; of the Hillingdon's Local Plan (2011).

Assessments were carried out for 25-degree line, Vertical Sky Component (VSC) and Daylight Distribution (DD, also known as No sky-line (NSL)) to measure daylight access, and Annual / Winter Probable Sunlight hours (APSH / WPSH) to measure sunlight access.

20 Dene Road and 7 Woodbridge Road are located at reasonable distances from the application site and were found to meet BRE's initial 25-degree line

test. Therefore, the windows on these properties would not be affected from a daylight or sunlight perspective.

The windows and rooms at 4 Sandy Lodge Way were found to meet BRE's VSC and DD tests, therefore they would not experience a noticeable reduction in daylight based on the BRE guidelines. Living room windows were found to meet the APSH/WPSH tests complying with BRE's sunlight recommendations. The garden of this property also achieved BRE's recommendations for sunlight access to open spaces.

The rooms of 16 Dene Road with windows facing the application site were also evaluated in detail. All but two rooms met BRE's criteria for VSC and DD. These two rooms are most likely bathrooms (therefore, without notable daylight expectation) and were found to meet BRE's DD test.

Overall, it is considered that the proposed development design is in line with the objectives of the National, Regional and Local policy context and the guidelines on daylight and sunlight set by BRE whilst simultaneously considering other environmental factors.

## INTRODUCTION

Love Design Studio are appointed to prepare a daylight and sunlight assessment for the proposed development at 2 Sandy Lodge Way, London, HA6 2AJ. This is to assess the impact of daylight and sunlight access to neighbouring properties, based on relevant industry guidance.

The proposal is to demolish the existing buildings on site and to deliver a 3-storey plus basement development comprising 6no. new-build flats.

All neighbouring properties shown in the below image were included within the surrounding massing model where relevant; the existing site of 2 Sandy Lodge Way is indicated within the red line boundary.



Figure 1: Site plan aerial view with the proposed development (red) and neighbouring buildings assessed (blue)

## **METHODOLOGY**

### **MODELLING METHODOLOGY**

Using architectural drawings prepared by Ascot Design (received 20<sup>th</sup> November 2023), desktop research for neighbouring property layouts, topography survey information and google maps observations, 3D models were created in industry accepted daylight and sunlight software. These included the on-site existing structures within the site boundary, the proposed development, and the relevant neighbouring properties. Using a specialist computer programme, we have undertaken the analysis set out in the BRE Guidelines.

The guidelines for modelling and testing the scheme's daylight and sunlight access were provided by the BRE's "Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice" by PJ Littlefair (2022); accepted as good practice by Planning Authorities when assessing the applications for new schemes. For further guidance on the methodology please see the BRE's document<sup>1</sup>.

### **DAYLIGHT AND SUNLIGHT ACCESS TO NEIGHBOURS METHODOLOGY**

The numerical values contained within the BRE Guidelines to establish whether the proposals will have a significant effect on the daylight enjoyed by the neighbouring properties are based initially on a Vertical Sky Component analysis (VSC). It seeks for each window to achieve a VSC of 27% or 0.8 times the existing.

The BRE Guidelines also state that both the total amount of skylight (Vertical Sky Component) and its distribution within the building (Daylight Distribution) are important. Where room layouts are known, the impact on the daylighting distribution can be found by plotting the 'no-skyline' in each of the main rooms.

For a room to enjoy good daylight distribution, the BRE Guidelines set out numerical values for daylight distribution and seeks to ensure that a significant portion or at least 0.8 times the existing area of each habitable room lies in front

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<sup>1</sup> <https://www.brebookshop.com/details.jsp?id=328056>

of the no-skyline, but specifically states that bedrooms are less important than living rooms.

With regards to sunlight, the BRE Guidelines seek that all living room windows within 90° of due south achieve 25% of the Average Probable Sunlight Hours (APSH), with at least 5% during the winter months. Where this is not attainable, a relative test is performed to assess whether the relative value is 0.8 or higher.

## **ASSUMPTIONS & LIMITATIONS**

Drawings used to model the proposed scheme are based on pdf and cad files prepared by Ascot Design, as well as topo surveys google maps observations.

Drawings used to model 4 Sandy Lodge Way were obtained from the planning portal (Appendix B).

Where limited access or information is available, assumptions have been made, which may affect the conclusions reached in this report. The layouts for 16 Dene Road were developed based on publicly available information from previous listings of the properties on Zoopla (Appendix B). The photos enabled the identification of window types that are likely to belong to living rooms, bedrooms and kitchens and the layouts connected to such windows were modelled from inspection of the external façades of the building via satellite imagery. Assumptions were made on the likely internal layout of the rooms.

Therefore, the report may need to be updated if room layouts are confirmed by the local authority or by the consultation responses.

This study does not calculate the effects of trees and hedges on daylight and sunlight. The BRE guide states that it is usual to ignore the effect of existing trees and shrubs. This represents a worst-case approach in this instance, as trees present on the site boundaries and around the application site may make the effect of changes in daylight and sunlight from the proposed development less noticeable.

The report provided is solely for the use of the client and no liability to anyone else is accepted and this report is based upon and subject to the scope of work set out in Love Design Studio's terms and conditions.

## **NEIGHBOURING PROPERTIES**

For reference, please see below images of the existing neighbouring properties; this is for illustrative purposes only.



*Figure 2: Aerial view of 4 Sandy Lodge Way (blue)*



*Figure 3: Aerial view of 16 Dene Road (blue)*

## MODEL IMAGES

For reference, please see below images of the constructed model from the relevant software; these are for illustrative purposes only.

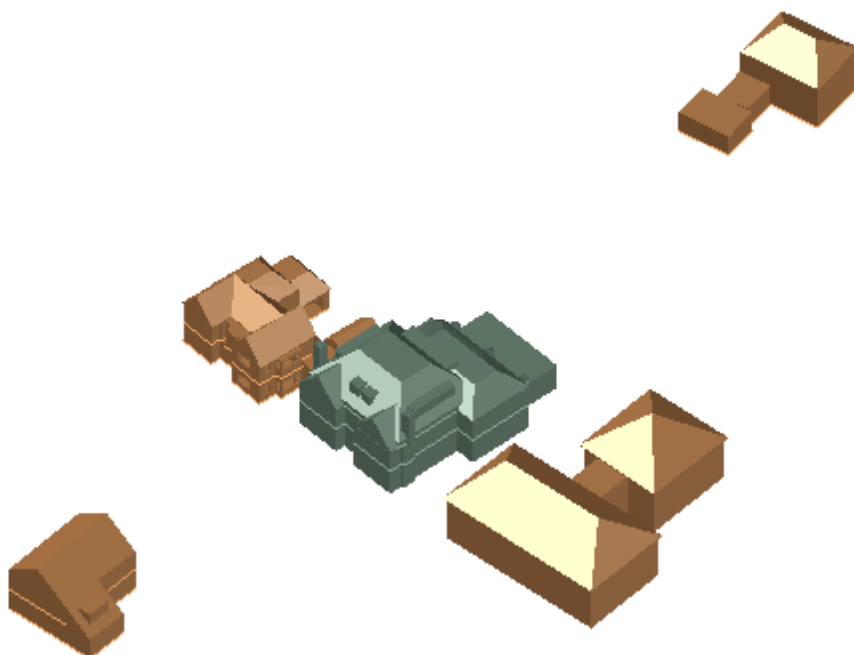


Figure 4. Aerial view of the model with proposed scheme.

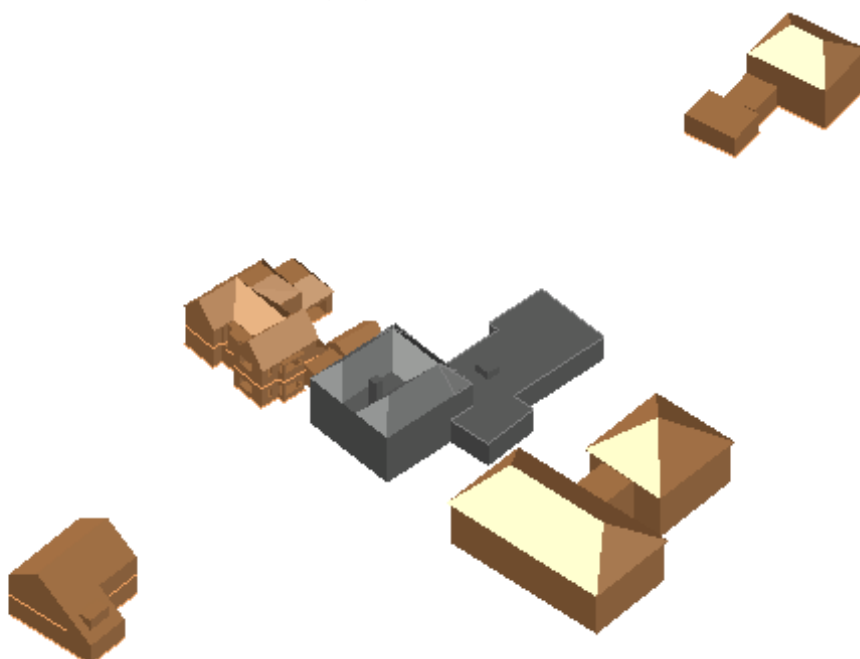


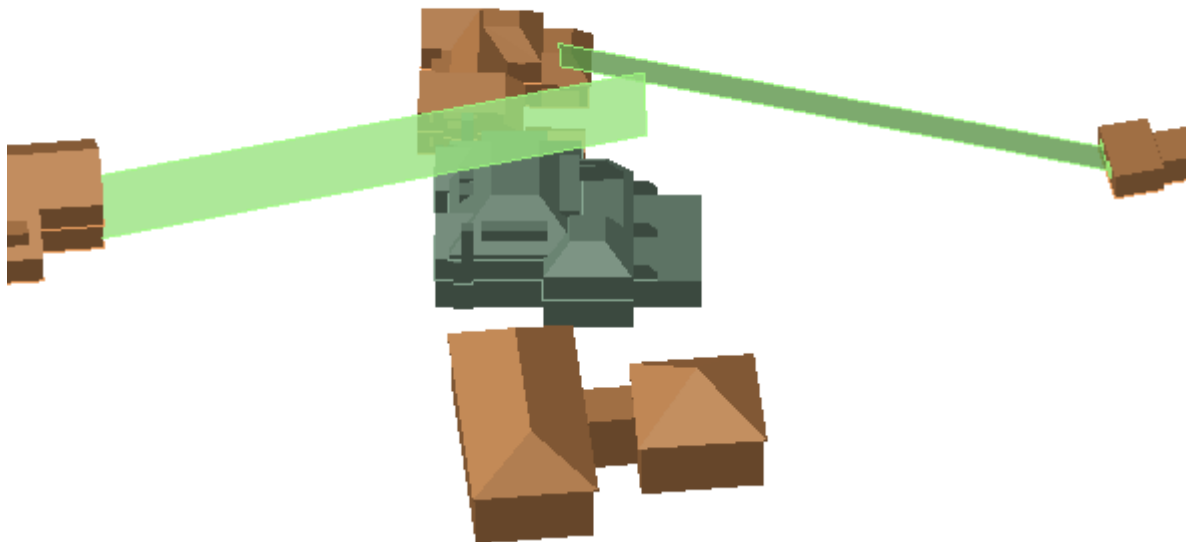
Figure 5: Aerial view of the model with existing building on site.

## **ASSESSMENT RESULTS**

### **DAYLIGHT**

#### **20 DENE ROAD AND 7 WOODBRIDGE ROAD**

These properties are located to the west and east of the application site. The closest ground floor window was reviewed in detail and the analysis showed that the 25-degree line test can be met. Therefore, these properties are deemed unaffected from a daylight/sunlight access perspective from the proposed development.



*Figure 6. 25 Degree line tests for ground floor windows of 20 Dene Road and 7 Woodbridge Way.*

#### **4 SANDY LODGE WAY**

This building is located to the north of the application site. It has a number of windows facing the proposed development that could be affected. Based on drawings found on the planning portal for this property, any habitable rooms with windows facing the application site are dual aspect and benefit from multiple windows.

The results showed that all habitable rooms have windows meeting the VSC tests and all rooms meet the DD recommendations by the BRE. Therefore, this property would not experience a noticeable reduction in daylight based on the BRE guidance.

### **16 DENE ROAD**

There are 14 windows facing the proposed development on this building which is situated to the south of the application site.

12 windows achieved BRE's recommendations for VSC while 2 windows fell slightly short of the guidance. These two windows most likely belong to bathrooms and the respective rooms met BRE's DD tests. All rooms on this building met BRE's DD tests.

Therefore, this property would not experience a noticeable reduction in daylight based on the BRE guidance.

SUNLIGHT

The only neighbouring property with living room windows facing within 90° of due south is 4 Sandy Lodge Way. All windows met the recommended APSH and WPSH criteria set out by the BRE. See Appendix A for the detailed table of the APSH and WPSH results.

Further to this, the garden of this property was evaluated for sunlight access. The results showed that more than 50% of the area of the garden has 2 hours of sunlight on the 21 March with the proposed development in place, meeting BRE’s criteria.

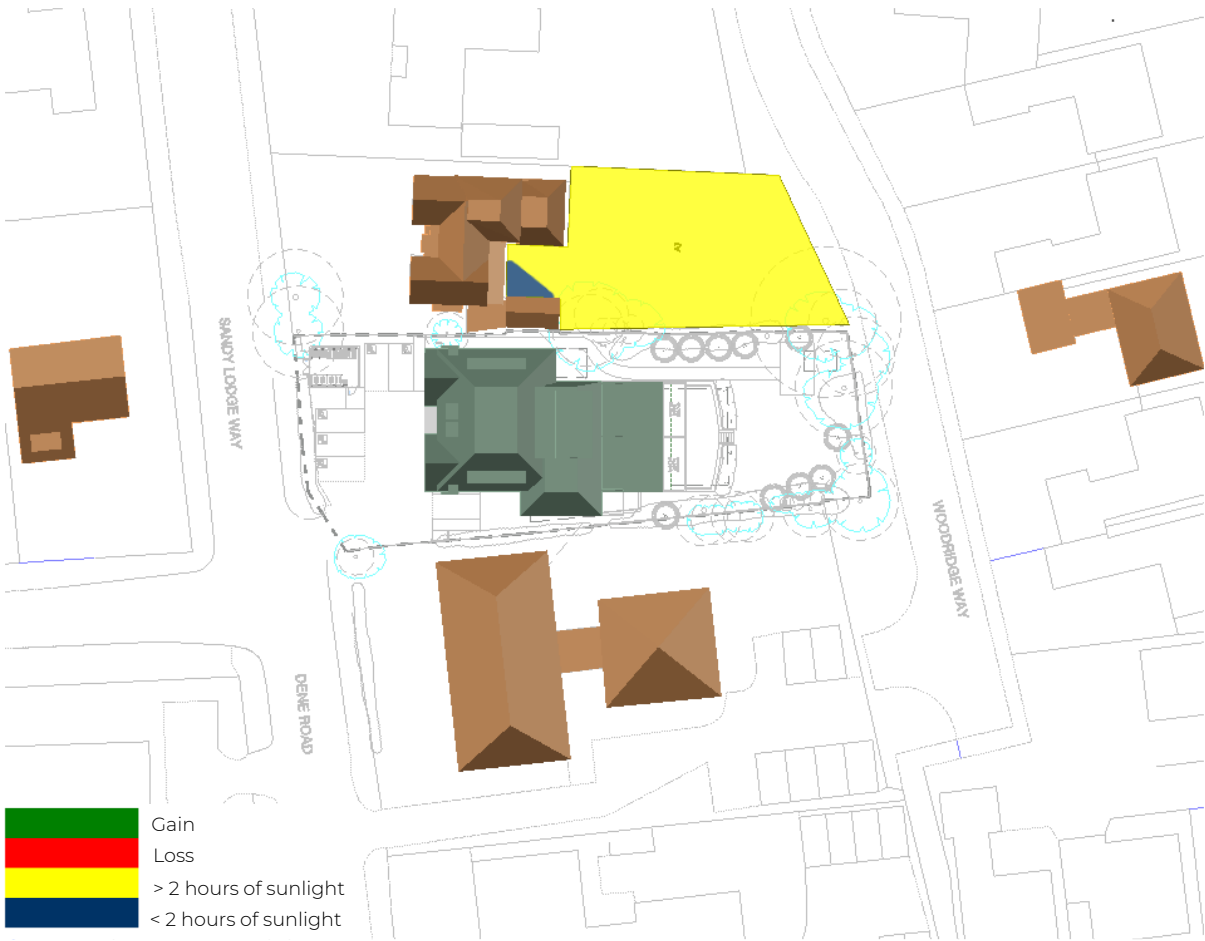


Figure 7. Sunlight results for the rear garden of 4 Sandy Lodge Way.

DETAILED RESULTS – 4 SANDY LODGE WAY



Figure 8: Image of the building assessed 4 Sandy Lodge Way.

Table 1: Vertical Sky Component Daylight Test results for 4 Sandy Lodge Way.

Windows Tested	Windows that meet BRE Guidelines		VSC Windows No. of Windows Experiencing Adverse Impacts		
	No.	%	20-29.99% loss	30-39.99% loss	>40% loss
15	14	93%	1	0	0

Table 2: No-Sky-Line Daylight Test results for 4 Sandy Lodge Way.

Rooms Tested	Rooms that meet BRE Guidelines		NSL Rooms No. of Rooms Experiencing Adverse Impacts		
	No.	%	20-29.99% loss	30-39.99% loss	>40% loss
3	3	100%	0	0	0

DETAILED RESULTS – 16 DENE ROAD



Figure 9: Image of the building assessed at 16 Dene Road.

Table 3: Vertical Sky Component Daylight Test results for 16 Dene Road.

Windows Tested	Windows that meet BRE Guidelines		VSC Windows No. of Windows Experiencing Adverse Impacts		
	No.	%	20-29.99% loss	30-39.99% loss	>40% loss
14	12	100%	1	1	0

Table 4: No-Sky-Line Daylight Test results for 16 Dene Road.

Rooms Tested	Rooms that meet BRE Guidelines		NSL Rooms No. of Rooms Experiencing Adverse Impacts		
	No.	%	20-29.99% loss	30-39.99% loss	>40% loss
8	8	100%	0	0	0

## APPENDIX A – DETAILED RESULTS TABLE

Table 5: Full Daylight and Sunlight Test results for impact on neighbouring properties.

Reference*	Vertical Sky Component Test			No-Sky-Line Test			APSH Test			WPSH Test		
	Existing %	Proposed %	Relative	Existing %	Proposed %	Relative	Existing APSH (%)	Proposed APSH	Relative	Existing WPSH %	Proposed WPSH %	Relative
4 Sandy Lodge Way												
SLW/GF/R1/W1 (Kitchen)	38.36	38.30	1.0	20.77	20.79	1.0	49	47	0.96	15	13	0.87
SLW/GF/R1/W2 (Kitchen)	24.34	23.49	0.97				60	59	0.98	14	13	0.93
SLW/GF/R2/W3 (Living room)	12.10	12.10	1.0	29.91	29.91	1.0	16	16	1.0	0	0	1.0
SLW/GF/R2/W4 (Living room)	2.35	2.16	0.92				5	4	0.8	0	0	1.0
SLW/GF/R2/W5 (Living room)	20.74	16.08	0.78				52	43	0.83	10	7	0.7
SLW/GF/R2/W6 (Living room)	21.58	21.44	0.99				* North					
SLW/GF/R2/W7 (Living room)	27.10	24.64	0.91				58	52	0.90	17	14	0.82
SLW/GF/R2/W8 (Living room)	38.90	38.90	1.0				* North					
SLW/GF/R2/W9 (Living room)	17.43	17.43	1.0				* North					
SLW/FF/R1/W1 (Bedroom)	19.59	19.13	0.98	19.87	19.86	1.0	34	31	0.91	4	1	0.25
SLW/FF/R1/W2 (Bedroom)	28.48	24.13	0.85				72	67	0.93	14	11	0.79
SLW/FF/R1/W3 (Bedroom)	21.98	21.91	1.0				* North					
SLW/FF/R1/W4 (Bedroom)	31.20	28.52	0.91				73	68	0.9	23	19	0.83
SLW/FF/R1/W5 (Bedroom)	39.34	39.34	1.0				* North					
SLW/FF/R1/W6 (Bedroom)	24.12	24.12	1.0				* North					
16 Dene Road												
DR/GF/R1/W1 (Bathroom)	22.67	15.44	0.68	81.63	72.77	0.89	* North					
DR/GF/R2/W2 (Kitchen)	27.42	25.15	0.92	94.06	85.96	0.91	* North					

Reference*	Vertical Sky Component Test			No-Sky-Line Test			APSH Test			WPSH Test		
	Existing %	Proposed %	Relative	Existing %	Proposed %	Relative	Existing APSH (%)	Proposed APSH	Relative	Existing WPSH %	Proposed WPSH %	Relative
DR/GF/R2/W3 (Kitchen)	29.42	28.15	0.96				* North					
DR/GF/R3/W4 (Bedroom)	26.19	25.02	0.96	91.96	90.85	0.99	* North					
DR/GF/R3/W5 (Bedroom)	24.87	24.07	0.97				* North					
DR/GF/R4/W6 (Kitchen)	20.17	19.75	0.98	94.46	94.47	1.0	* North					
DR/GF/R4/W7 (Kitchen)	15.26	14.98	0.98				* North					
DR/FF/R1/W1 (Bathroom)	26.92	19.33	0.72	91.89	79.92	0.87	* North					
DR/FF/R1/W2 (Kitchen)	32.37	29.64	0.92	97.18	95.35	0.98	* North					
DR/FF/R1/W3 (Kitchen)	33.18	31.56	0.95				* North					
DR/FF/R3/W4 (Bedroom)	32.94	30.36	0.92	96.90	96.09	0.99	* North					
DR/FF/R3/W5 (Bedroom)	32.10	30.39	0.95				* North					
DR/FF/R4/W6 (Kitchen)	28.27	27.35	0.97	97.29	97.29	1.0	* North					
DR/FF/R4/W7 (Kitchen)	22.55	21.87	0.97				* North					

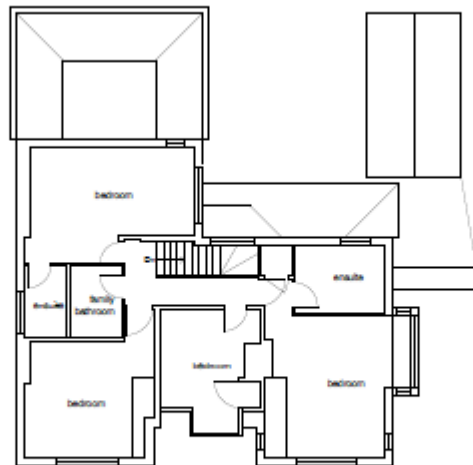
\*Dwelling name/Floor/Room/Window

## APPENDIX B – LAYOUT REFERENCES

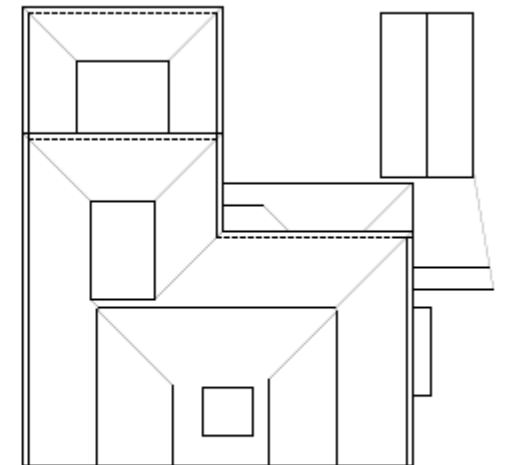
### 4 SANDY LODGE WAY – FLOOR PLANS AND ELEVATIONS



EXISTING GROUND FLOOR PLAN  
1:100



EXISTING FIRST FLOOR PLAN  
1:100



EXISTING ROOF PLAN  
1:100



## 16 DENE ROAD – TYPICAL FLAT IMAGES FOR WINDOW SIZES

The following photos were obtained from Zoopla (<https://www.zoopla.co.uk/property-history/flat-1/haywoods/16-dene-road/northwood/ha6-2aa/14388588/>, accessed 22 Nov 2023). Based on these, we have assumed that any full height glazing on the facades of this building is connected to living rooms. Kitchens seem to have windows which start from worktop height and have a small opening towards to the top of the window assembly. Equally sized double pane windows appear to be used in spaces such as living rooms and bedrooms. With this information and inspection of the façades, we estimated the room layouts.



## APPENDIX C – WINDOW AND ROOM REFERENCES

The following images reference the window, room, and amenity locations as per the results tables from earlier sections.

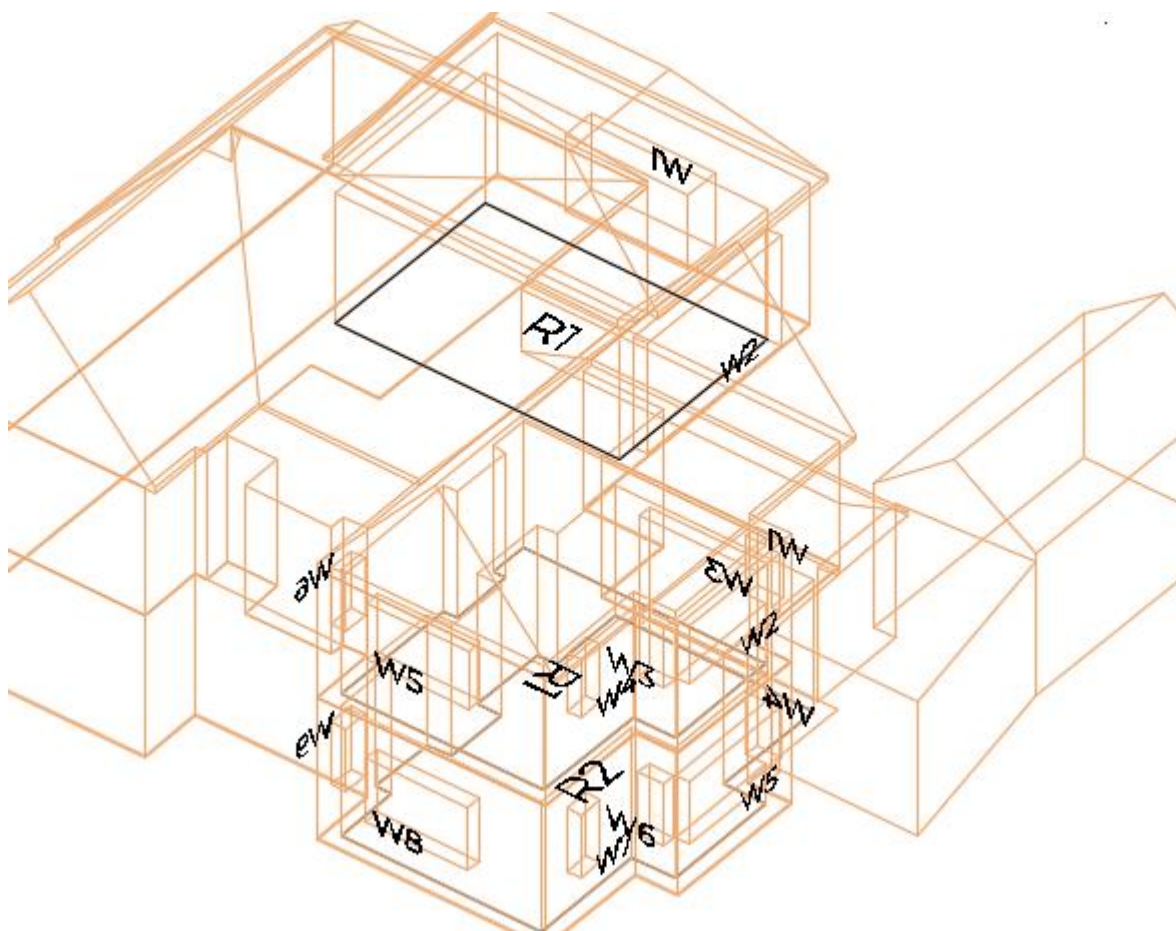


Figure 10. Room and window references for 4 Sandy Lodge Way.

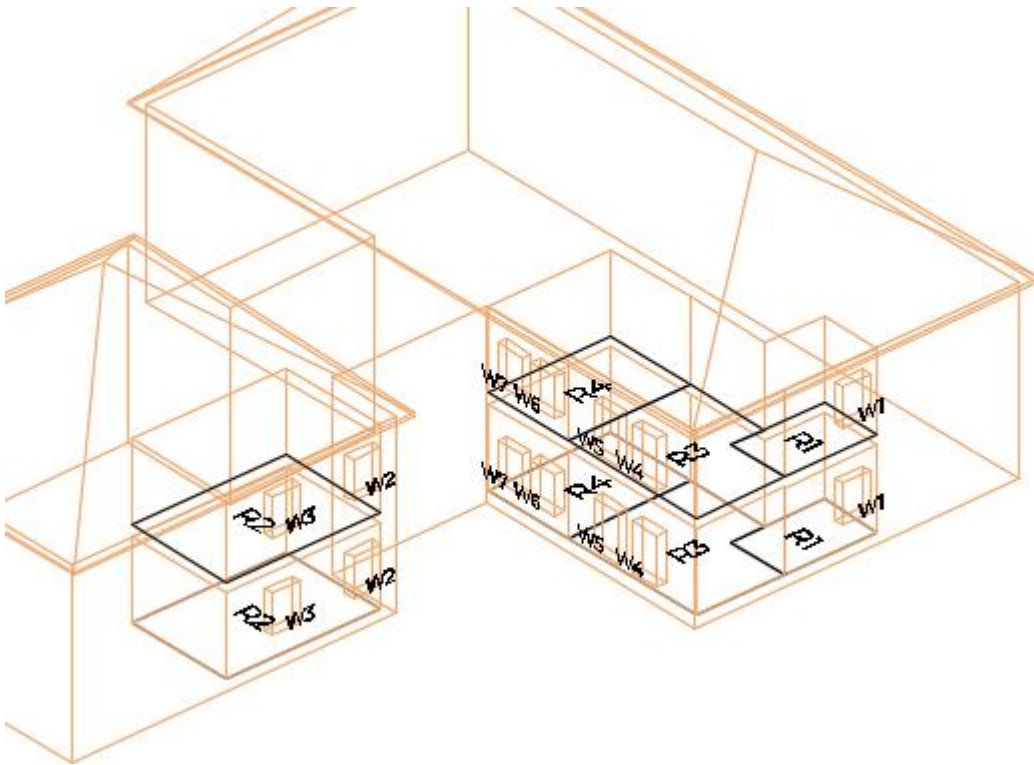


Figure 11. Window and room references for 16 Dene Road.

The background is a solid light orange color. In the center, the number '10' is written in a large, white, sans-serif font. The '1' is a simple vertical line, and the '0' is a circle. In the lower half of the image, there are three overlapping geometric shapes in a darker shade of orange. On the left is a large parallelogram. In the center is a square rotated 45 degrees. On the right is a triangle pointing towards the bottom right corner.

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