DAYLIGHT & SUNLIGHT ASSESSMENT

Island Apartments, Harefield UB9 6FG| Blue Sky Surveyors

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Contents

1.0 Introduction

Blue Sky Surveyors have been appointed by Mr Matt Hallchurch to undertake an assessment in order to understand the potential effect that his proposed balcony additions to the first (Flat 4) and second floor (Flat 6) apartments in Island Apartments, Harefield UB9 6FG would have upon the daylight and sunlight enjoyed by the ground floor flat (Flat 2).

Blue Sky Surveyors undertook a full technical analysis in order to understand the likely impact that the balcony additions would have with respect to daylight and sunlight. This assessment was undertaken using 3D laser scan data, 3D computer modelling and specialist assessment software to run a simulation. Imagery of our assessment model can be seen in Appendix A.

When considering the results of our assessment, reference has been made to the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022). A summary of the assessment methodology and key recommendations from the BRE Report for daylight & sunlight can be found in Section 2.

A plan view of the site along with imagery of the modelling in its existing and proposed conditions can be found in Appendix A.

2.0 BRE Assessment & Guidelines

The primary tests that are advised to be undertaken in the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) are the Vertical Sky Component (VSC) and Daylight Distribution (DD) for daylight; and the Annual Probable Sunlight Hours (APSH) test for sunlight. It should be noted that we have only tested with respect to the neighbours daylight & sunlight amenity and not for the aesthetic impact of the proposal (a right to a view is not recognised).

It should be noted that the VSC and APSH calculations provide a more accurate assessment of potential amenity loss. According to the BRE guidelines, the results of these tests are more important for understanding potential loss of amenity compared to the 25-degree or 45-degree 'rules of thumb.'

Below we have provided a brief explanation of each test:

Vertical Sky Component Definition:

The VSC test is used to determine the amount of sky that is visible at the centre point of a window on the external plane. On a vertical plane the maximum value the VSC can take is 40%, which would represent a totally unobstructed window. The size of the window, nor the size of the room it serves, are accounted for in the VSC test. Therefore, it is necessary to look at the VSC result in conjunction with the Daylight Distribution (DD) test.

Daylight Distribution Definition:

The Daylight Distribution test is used to assess the area of a room which will have a view of sky at working plane level. This test is represented using contours drawings, which plot the 'no sky line' at working plane level.

Annual Probable Sunlight Hours Definition:

The sunlight levels which reach the centre point of a window can be looked at in percentage terms of the Annual Probable Sunlight Hours (APSH). Within its glossary, the BRE guidelines define "annual sunlight hours" as the following:

"the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account)."

Recommended Targets for Daylight:

Section 2.2 of the BRE Report states the following: *"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 [vertical sky component] measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; [or]*
- *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."*

Section 2.2.8 says*:*
" If there would be a significant loss of light to the main window but the room also has one or more smaller windows, an overall VSC may be derived by weighting each VSC element in accordance with the proportion of the total glazing area represented by its window."

Recommended Targets for Sunlight:

Paragraph 3.2.11 of the BRE Report states the following:

"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, or less than 5% of annual probable sunlight hours between 21 September and 21 March and*
- *receives less than 0.8 times its former sunlight hours during either period and*
- *has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours".*

3.0 Information for Computer Modelling

To carry out the daylight & sunlight tests, we built a model which detailed the property in its current and proposed conditions; as well as nearby neighbouring properties and additional context massing. Imagery of the computer model can be found in Appendix A.

The modelling was based around the following information:

Existing Massing

- Blue Sky Surveyors' 3D Scan Survey.
- OS Map.
- Blue Sky Surveyors' site photography.

Proposed Massing

Progress Design existing & proposed drawings:

"3190.PLN.101 - Proposed floor plans and elevations (rev B)".

4.0 Results of the Assessment

Ground Floor Apartment (Flat 2)

This residential flat is located on the ground floor of the building. The proposed balcony will be positioned directly above the rear garden doors, which face north. These glazed doors provide light to an open-plan LKD, which also benefits from windows to the east and west.

Our assessment demonstrates that there will be no change to the daylight distribution within the LKD. The average VSC reduction, when considering all windows, remains within the 0.8 guideline threshold of the former value and is therefore in full accordance with the BRE guidance.

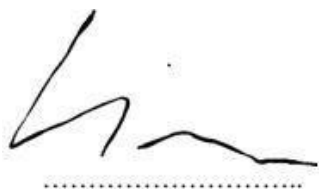
Sunlight is not relevant in this case, as the affected windows are north-facing. Accordingly, our assessment confirms that the proposed development complies with the BRE guidelines for daylight and sunlight across all recommended tests.

Finally, as the patio is relatively small and situated directly due north within the shadow of the building, there can be no reasonable expectation of meaningful levels of direct sunlight. If there are any changes they would be limited to a very small area for a short duration and would therefore be inconsequential in practice.

5.0 Conclusion

We have conducted a comprehensive daylight and sunlight computer assessment to evaluate the impact of the proposed balcony additions to Island Apartments first (Flat 4) and second floor (Flat 6) flats on the ground floor flat (Flat 2). This assessment included a detailed analysis of the internal arrangements of the ground floor flat and was carried out in accordance with the guidelines set forth in the BRE Report 209, Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice (third edition, 2022).

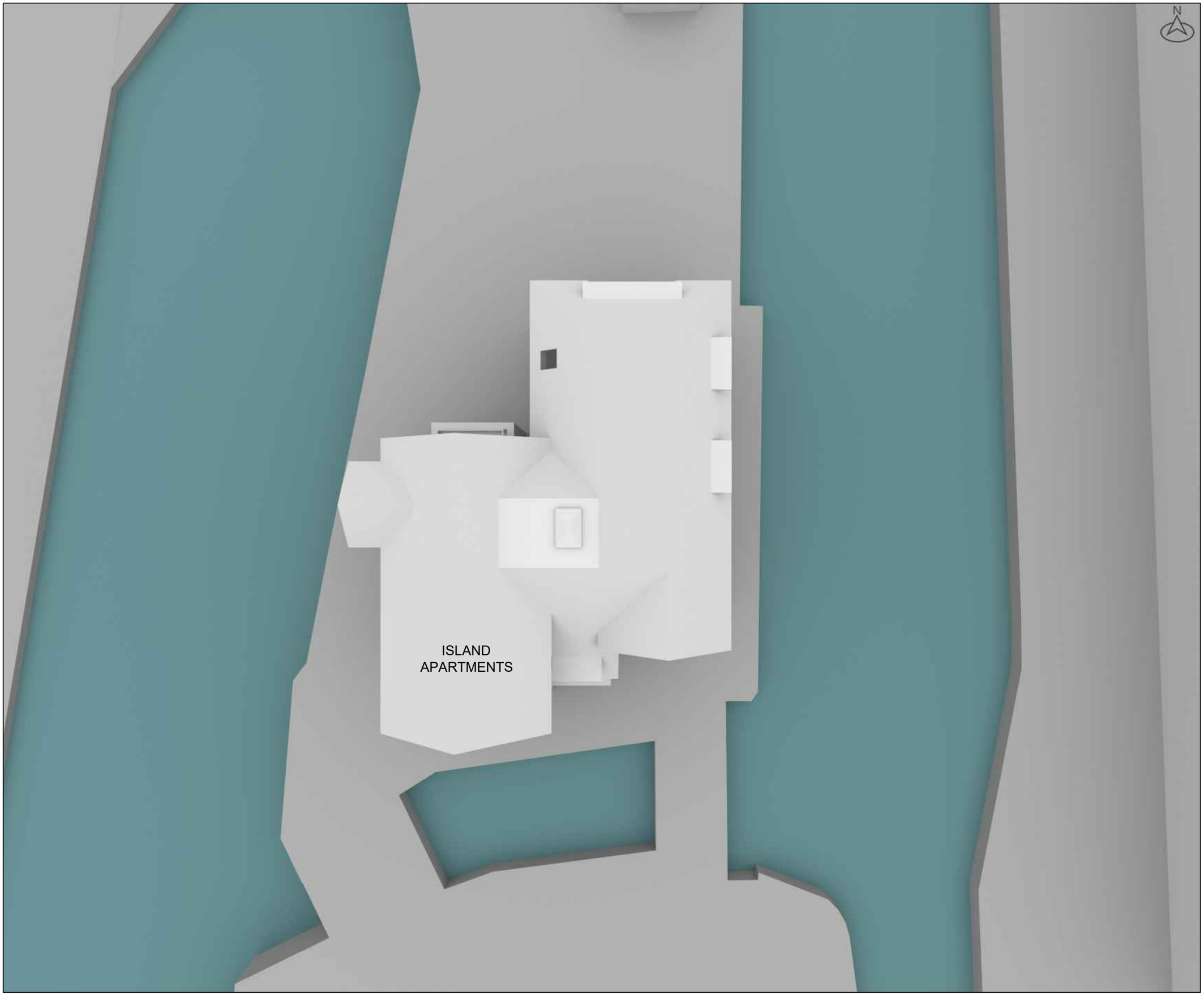
Our findings confirm that all recommended tests are satisfied and the proposed balconies will be fully compliant with the BRE daylight and sunlight guidelines.



Stevan Dillon

DIRECTOR - BLUE SKY SURVEYORS
17/12/2025

Appendix A – Plans & 3D Views



Sources:

BLUE SKY SURVEYORS
3D LASER SCAN SURVEY DATA
20250623Harefield.rcp
SITE PHOTOGRAPHY

PROGRESS DESIGN
EXISTING & PROPOSED DRAWINGS
3190.PLN.101 - Proposed floor plans and elevations(1).dwg
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KEY:

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REV:	DETAILS:	DATE:
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ADDRESS:
ISLAND APARTMENTS
ROYAL QUAY
HAREFIELD UB9 6FG

TITLE:
SITE PLAN
EXISTING

DRAWN:	DATE:
MG	05/09/25

DRAWING NO:	SCALE:
SDIL/341/ROL/01	NTS

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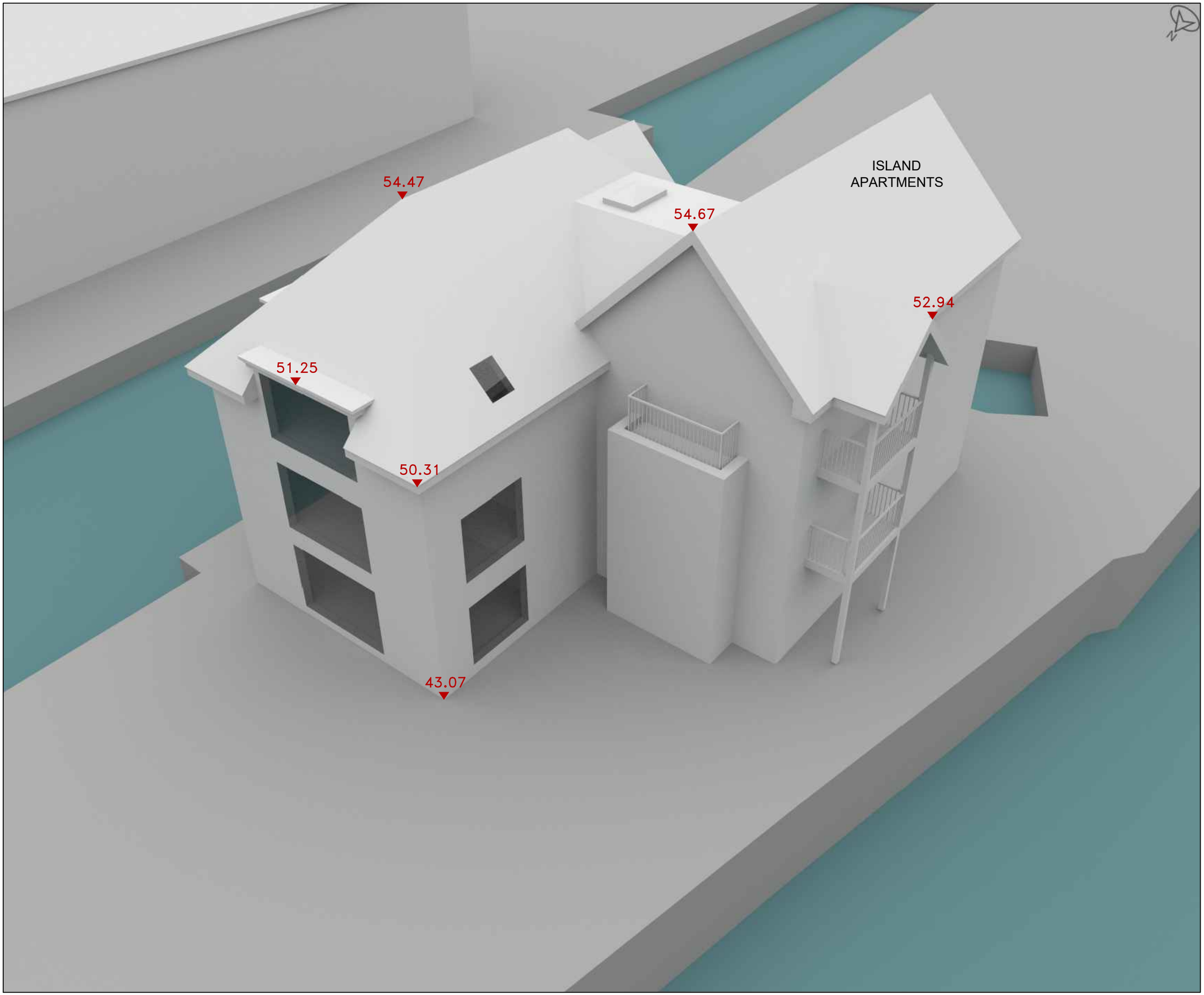

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ISLAND APARTMENTS
ROYAL QUAY
HAREFIELD UB9 6FG

TITLE:
3D VIEW
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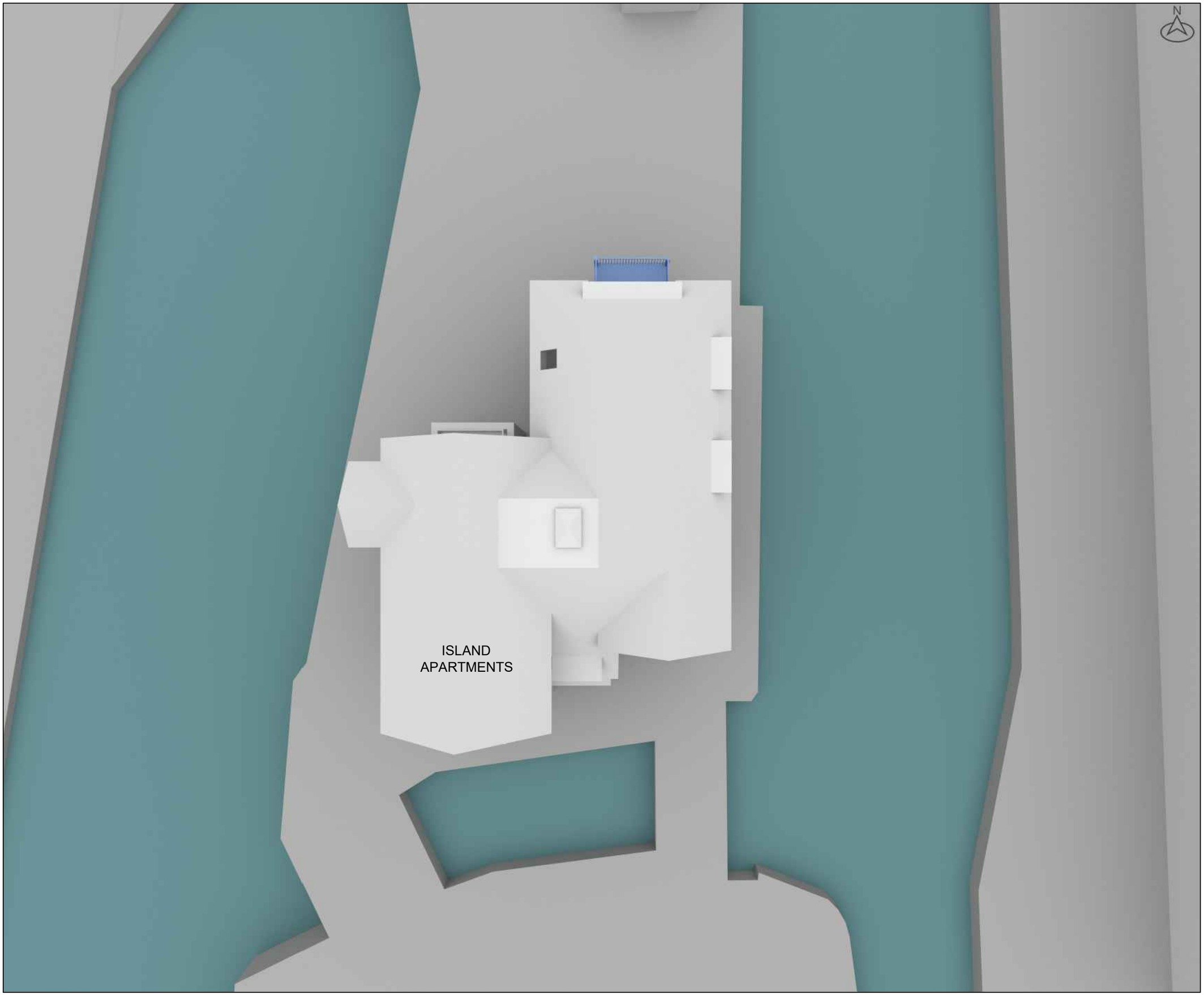

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PROPOSED BALCONIES IN BLUE

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ROYAL QUAY
HAREFIELD UB9 6FG

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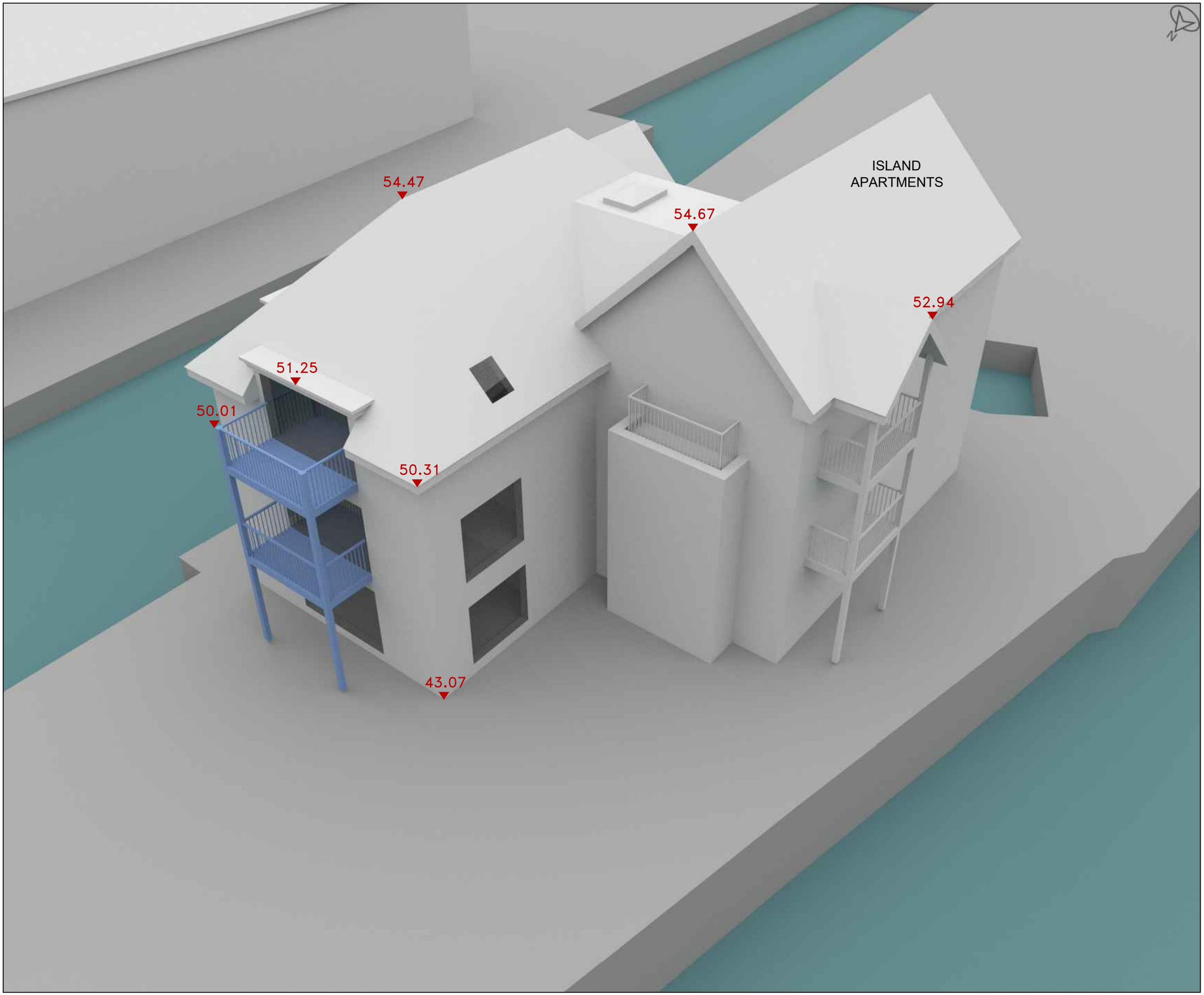

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ROYAL QUAY
HAREFIELD UB9 6FG

TITLE:
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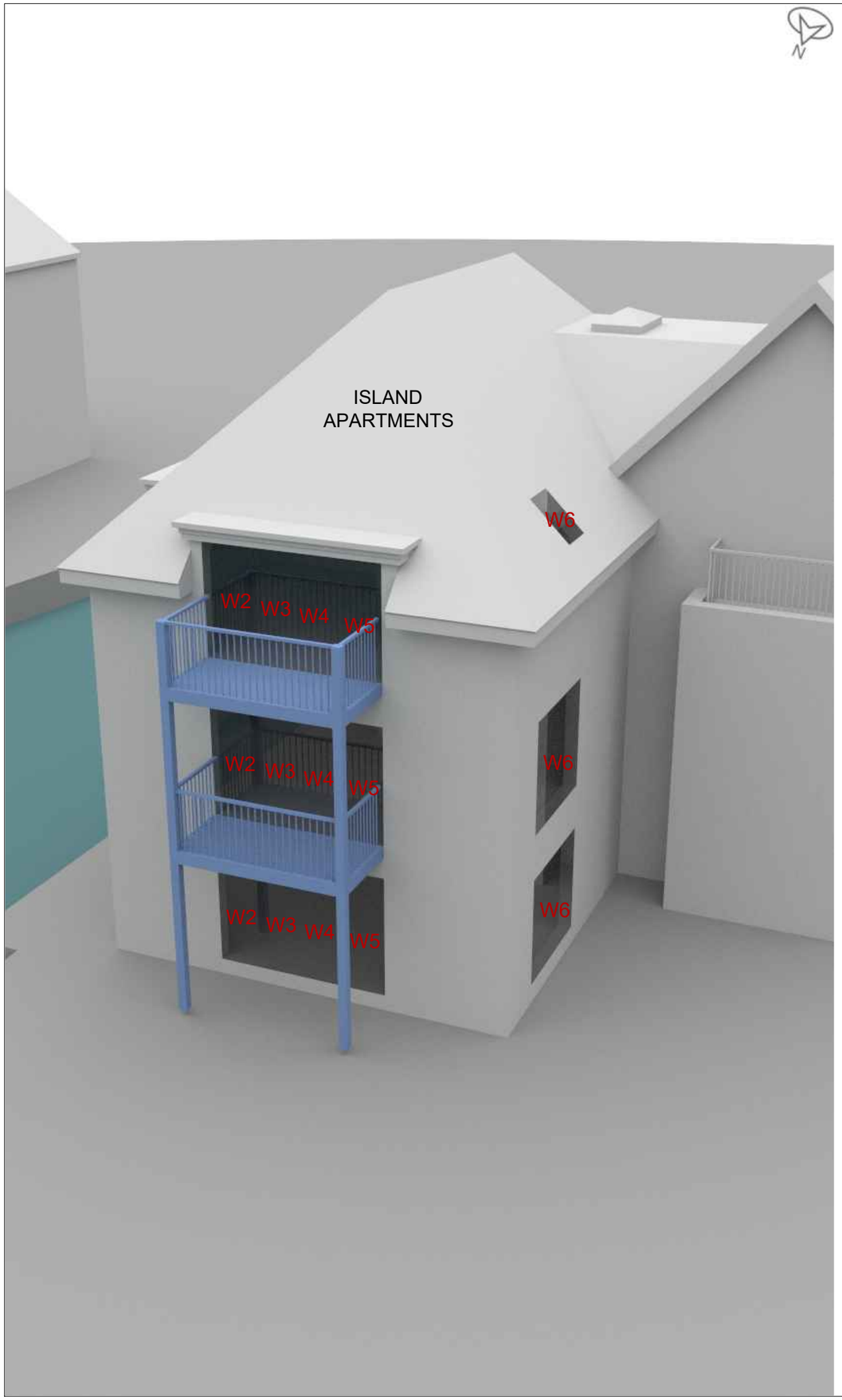

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A	-	-

ADDRESS:
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ROYAL QUAY
HAREFIELD UB9 6FG

TITLE:
WINDOW MAP

DRAWN:	DATE:
MG	05/09/25

DRAWING NO:	SCALE:
SDIL/341/ROL/05	NTS

BLUE SKY SURVEYORS

Appendix B – Numeric Results

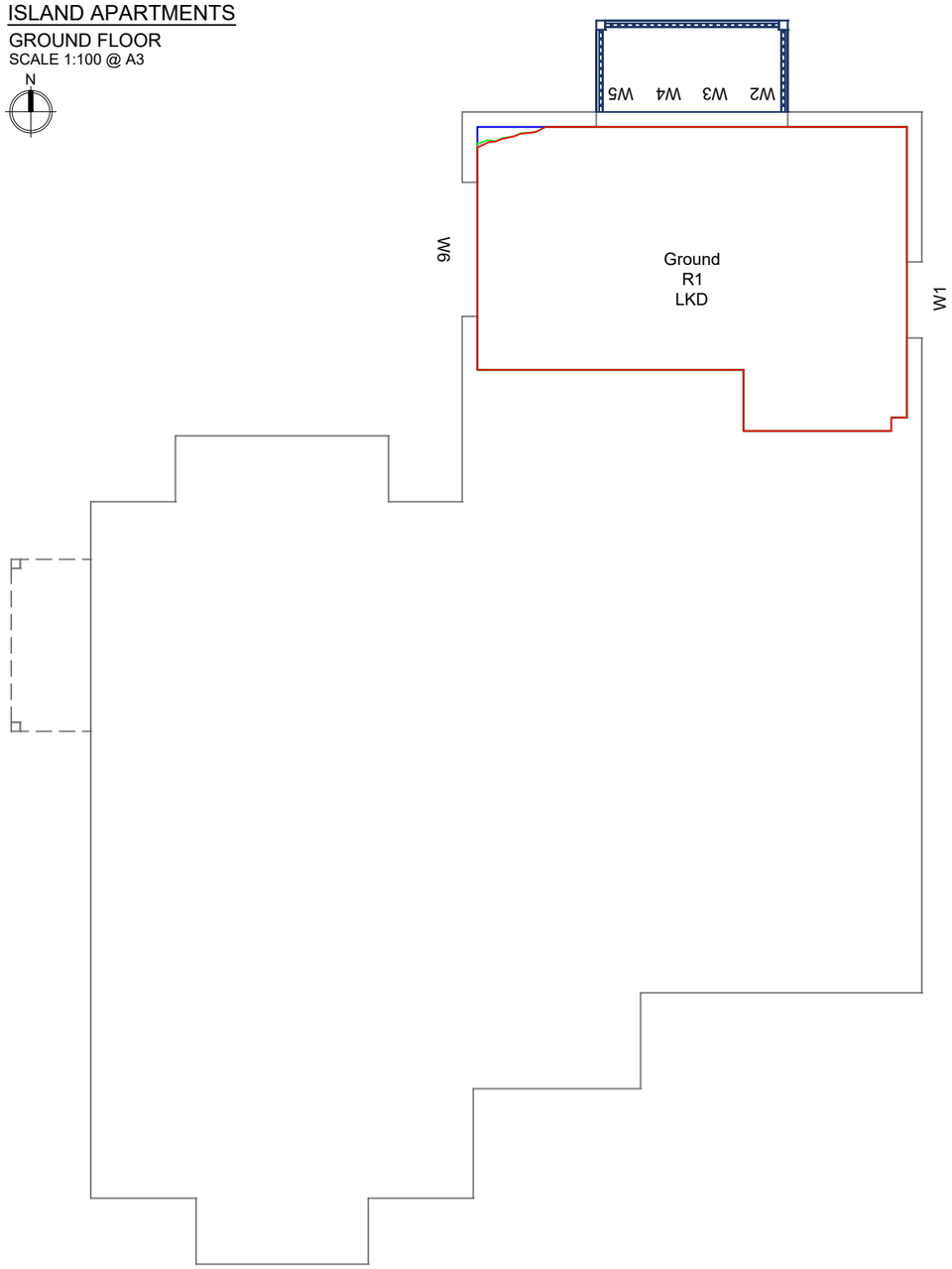
Project Name: Island Apartments, Harefield UB9 6FG_M02_OptBalcWidth
Project No.:
Report Title: Daylight Distribution Analysis - Neighbour
Date of Analysis:

Floor Ref.	Room Ref	Room Attribute	Property Type	Room Use		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
Island Apartments Royal Quay										
Ground	R1	Floor Plan	Residential	LKD	Area m2	30.85	30.68	30.66	1.00	YES
					% of room		99.44%	99.39%		
First	R1	Floor Plan	Residential	LKD	Area m2	31.73	31.60	31.60	1.00	YES
					% of room		99.61%	99.61%		
Second	R1	Floor Plan	Residential	LKD	Area m2	31.73	31.70	31.70	1.00	YES
					% of room		99.91%	99.91%		

Project Name: Island Apartments, Harefield UB9 6FG_M02_OptBalcWidth
Project No.:
Report Title: Daylight & Sunlight Analysis - Neighbour
Date of Analysis:

Floor Ref.	Room Ref.	Room Attribute	Property Type	Room Use	Window Ref.	Window Attribute		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Room VSC	Pr/Ex	Meets BRE Criteria	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria	Total Suns per Room Annual	Pr/Ex	Meets BRE Criteria	Total Suns per Room Winter	Pr/Ex	Meets BRE Criteria
Island Apartments Royal Quay																										
Ground	R1	Floor Plan	Residential	LKD	W1		Existing	29.96	1.00	YES	90°N					*North	*North		*North	*North						
							Proposed	29.96																		
Ground	R1	Floor Plan	Residential	LKD	W2		Existing	36.27	0.68	NO	0°N					*North	*North		*North	*North						
							Proposed	24.73																		
Ground	R1	Floor Plan	Residential	LKD	W3		Existing	36.36	0.62	NO	0°N					*North	*North		*North	*North						
							Proposed	22.64																		
Ground	R1	Floor Plan	Residential	LKD	W4		Existing	36.46	0.62	NO	0°N					*North	*North		*North	*North						
							Proposed	22.65																		
Ground	R1	Floor Plan	Residential	LKD	W5		Existing	36.58	0.69	NO	0°N					*North	*North		*North	*North						
							Proposed	25.08																		
Ground	R1	Floor Plan	Residential	LKD	W6		Existing	31.18	1.00	YES	270°N					*North	*North		*North	*North						
							Proposed	31.18																		
												33.94	0.80	YES												
												26.99										*North	*North		*North	*North
First	R1	Floor Plan	Residential	LKD	W1		Existing	32.56	1.00	YES	90°N					*North	*North		*North	*North						
							Proposed	32.56																		
First	R1	Floor Plan	Residential	LKD	W2		Existing	37.22	0.70	NO	0°N					*North	*North		*North	*North						
							Proposed	26.06																		
First	R1	Floor Plan	Residential	LKD	W3		Existing	37.31	0.65	NO	0°N					*North	*North		*North	*North						
							Proposed	24.16																		
First	R1	Floor Plan	Residential	LKD	W4		Existing	37.37	0.65	NO	0°N					*North	*North		*North	*North						
							Proposed	24.12																		
First	R1	Floor Plan	Residential	LKD	W5		Existing	37.40	0.69	NO	0°N					*North	*North		*North	*North						
							Proposed	25.72																		
First	R1	Floor Plan	Residential	LKD	W6		Existing	31.82	1.00	YES	270°N					*North	*North		*North	*North						
							Proposed	31.82																		
												34.84	0.81	YES												
												28.28										*North	*North		*North	*North
Second	R1	Floor Plan	Residential	LKD	W1		Existing	33.42	1.00	YES	90°N				41.00	*North	*North	12.00	*North	*North						
							Proposed	33.42							41.00			12.00								
Second	R1	Floor Plan	Residential	LKD	W2		Existing	35.78	0.97	YES	0°N				5.00	*North	*North	0.00	*North	*North						
							Proposed	34.88							5.00			0.00								
Second	R1	Floor Plan	Residential	LKD	W3		Existing	37.31	0.98	YES	0°N				5.00	*North	*North	0.00	*North	*North						
							Proposed	36.70							5.00			0.00								
Second	R1	Floor Plan	Residential	LKD	W4		Existing	37.33	0.98	YES	0°N				7.00	*North	*North	0.00	*North	*North						
							Proposed	36.63							7.00			0.00								
Second	R1	Floor Plan	Residential	LKD	W5		Existing	35.98	0.96	YES	0°N				4.00	*North	*North	0.00	*North	*North						
							Proposed	34.60							4.00			0.00								
Second	R1	Floor Plan	Residential	LKD	W6		Existing	74.76	1.00	YES	270° Inc				62.00	1.00	YES	13.00	1.00	YES						
							Proposed	74.76							62.00			13.00								
												39.54	0.98	YES							88.00			20.00		
												38.86									88.00	1.00	YES	20.00	1.00	YES

ISLAND APARTMENTS
GROUND FLOOR
SCALE 1:100 @ A3



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FIRST FLOOR
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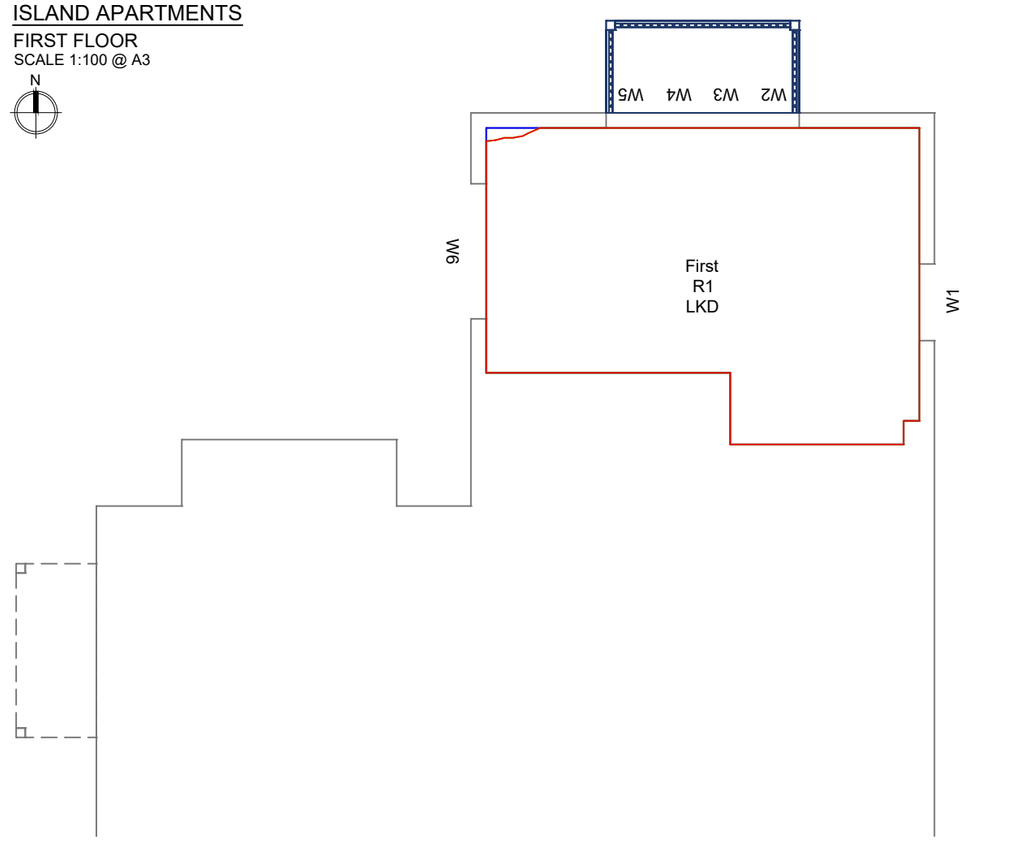

ISLAND APARTMENTS
SECOND FLOOR
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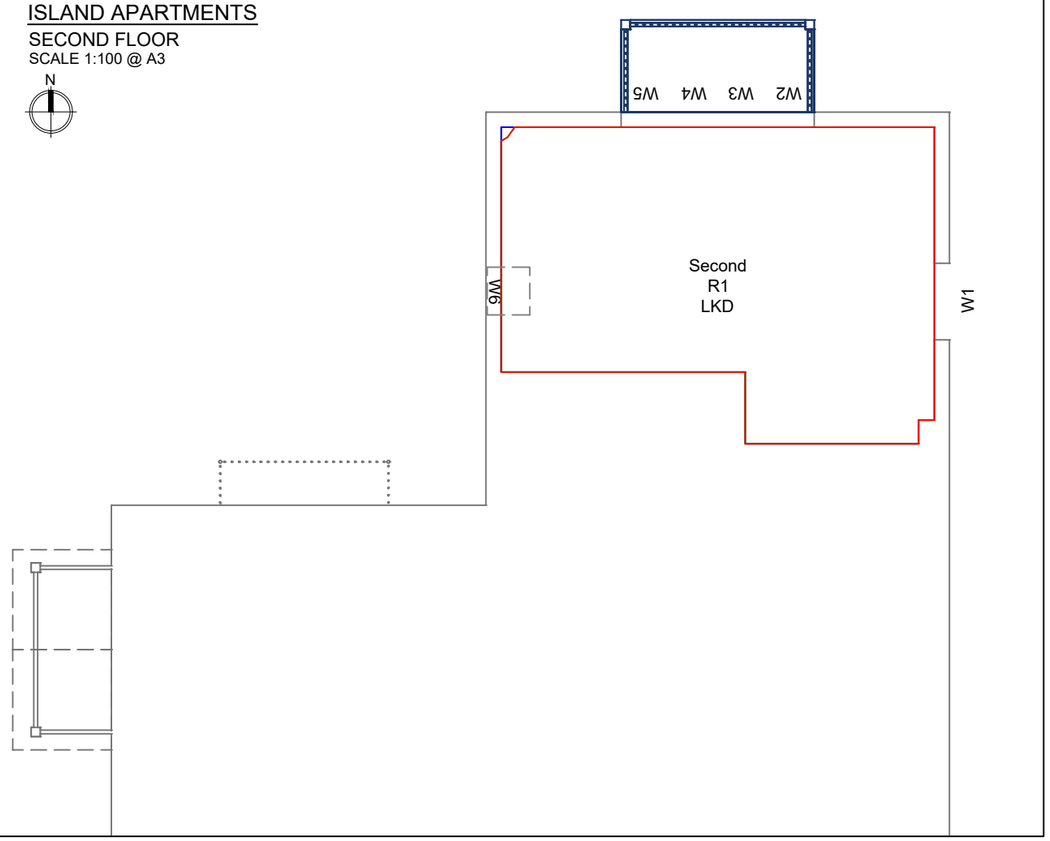

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KEY:

EXISTING NO-SKY CONTOUR

PROPOSED NO-SKY CONTOUR

AREA OF LOSS / GAIN

REV:	DETAILS:	DATE:
A	-	-

ADDRESS:
ISLAND APARTMENTS
ROYAL QUAY
HAREFIELD UB9 6FG

TITLE:
NO-SKY LINE CONTOURS

DRAWN:	DATE:
MG	05/09/25
DRAWING NO:	SCALE:
SDIL/341/ROL/06	1:100 @ A3

BLUE SKY SURVEYORS