

Daylight and Sunlight Assessment (Neighbouring Properties)

Heron House, The Grove, Gravesend

For Substantia Capital

July 2025

ecolytik

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Prepared by	Sherleen Pang
Checked by	Kostas Mastronikolaou

1 Executive Summary

Daylight and Sunlight analysis was carried out for the proposed roof extension development at Heron House, 44-46 The Grove in Gravesend, within the jurisdiction of Gravesend Borough Council. This report outlines the results of the analysis for the planning application, assessing daylight and sunlight impacts on surrounding developments.

The methodology set out in this report is in accordance with BRE’s “Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice” by PJ Littlefair (2022) which is accepted as good practice by Planning Authorities. The numerical criteria recommended within the BRE guidelines have been applied to the assessment and it is important to note that these guidelines are advisory and often need to be applied flexibly according to the specific context of a site.

To carry out the analysis, a 3D computer model has been prepared in specialist software of the existing site, the key surrounding properties and the proposed scheme. The daylight and sunlight levels in both the existing and proposed conditions for the relevant neighbouring buildings were evaluated.

The analysis has been carried out on the closest neighbouring buildings to the application site.

The assessment results demonstrate that all windows, rooms and amenity spaces of neighbouring properties will receive satisfactory levels of daylight and sunlight in line with BRE’s guidelines.

Other properties are either of non-domestic uses or are further away from the application site than the assessed worst case (closest) properties, therefore they are considered unaffected based on BRE’s guidelines and assessment results.

The proposed development is therefore not anticipated to have any notable daylight and sunlight impacts to neighbouring properties and is fully compliant with BRE’s guidelines.

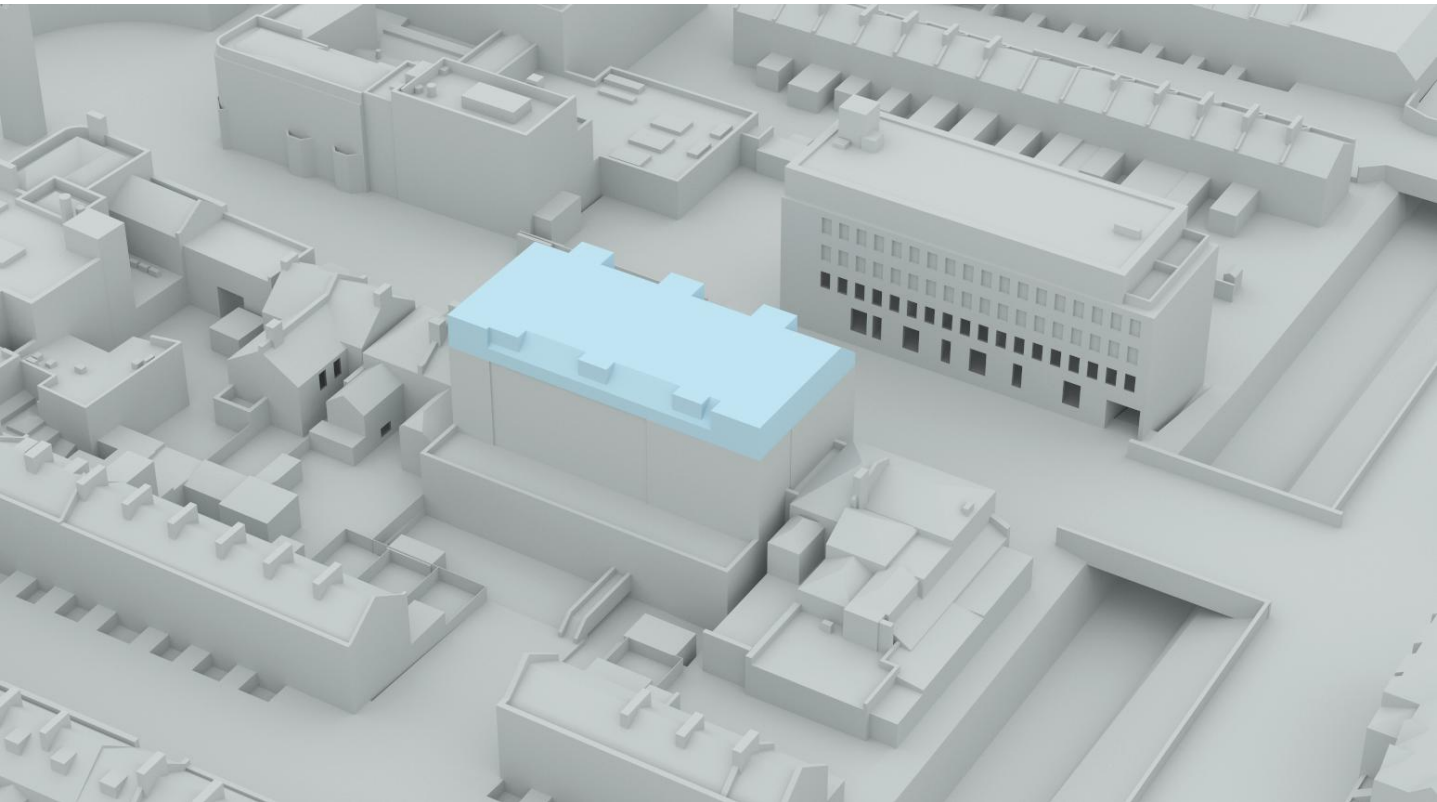


Figure 1: Technical 3D model of the proposed extension development and existing surrounding context.

Table 1. Summary of daylight and sunlight results (existing surrounding context)

Daylight to buildings	
Number of neighbouring buildings assessed	7
Neighbouring rooms that do not meet the 25-degree plane test	33
Neighbouring rooms that meet the VSC and DD tests	33
Neighbouring rooms that do not comply with the above daylight criteria	0
Sunlight to buildings	
Number of neighbouring buildings assessed	7
Neighbouring habitable rooms within 90 degrees south that do not meet the 25-degree plane test	19
Neighbouring rooms that meet the APSH/WPSH criteria	19
Neighbouring rooms that do not comply with BRE's sunlight criteria	0
Sunlight to amenity spaces	
Neighbouring amenity spaces assessed	5
Neighbouring amenity spaces with >50% of their area receiving >2 hours of sunlight on 21 March	5
Neighbouring amenity spaces that do not comply with BRE's sunlight criteria	0

2 Introduction

Ecolytik have been instructed to assess the effect of the proposed development at Heron House, 44-46 The Grove, Gravesend, on neighbouring properties in terms of daylight and sunlight access. The assessment considers the latest proposal for the site, received June/July 2025.

2.1 Site

The application site is located to the west side of The Grove in Gravesend. Surrounding properties are predominantly residential, alongside some non-domestic use with a nursery to the immediate south.

The proposed development comprises a single storey roof extension to the existing building with four above ground storeys plus basement. The scheme will create 6no. new homes (studios and 1-bed flats).

The site location is presented in Figure 2.

2.2 Planning policies

Local, regional and national planning policies relating to daylight and sunlight have been considered in the assessment. Planning policy advises that new development should only be permitted where it is shown not to cause unacceptable loss of daylight or sunlight amenity to neighbouring properties. Consideration often needs to be given to the development’s context.

A full summary of the relevant policy landscape is presented in Appendix C.



Figure 2. Approximate site location of Heron House at 44-46 The Grove, Gravesend.

2.3 Application of BRE’s guidance

The BRE guidelines advise that, when assessing any potential effects on surrounding properties, only those windows and rooms where daylight and sunlight is required need to be considered. These rooms have therefore been tested in the assessment, with the omission of non-habitable spaces such as staircases, hallways, bathrooms, toilets, stores etc, as per BRE guidance.

In addition, it is worth highlighting the following excerpts from the guidance:

“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 since 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.

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 no more than its fair share of light”

It is therefore important to carefully consider the context of a potential development site and in certain circumstances apply the BRE guidelines more flexibly. The numerical values of the BRE guide theoretically apply to any built environment. However, in more dense city environments or constrained sites, achieving the standard BRE criteria can be challenging and often conflicts with other beneficial factors of site layout design.

With the above in mind, rigid adherence to the BRE in certain situations could easily result in an inappropriate form of development. In such circumstances, local authorities and applicants

may agree to adopt lower target values which would be more relevant to the location concerned. Further details on the BRE guidelines including the standard numerical criteria as well as suggested approaches on how to set alternative targets, where this is deemed appropriate, are presented in Appendix D of this report.



3 Technical model

3.1 Sources of information and assumptions

Architectural drawings and site photography have been used to create a 3D computer model of the proposed development in the context of the existing site and surrounding buildings.

Where survey or planning information was unavailable, the positions of windows and buildings have been estimated based upon publicly available satellite imagery. Window positions and dimensions used directly affect the results of all assessment methods. Access to the surrounding properties has not been sought.

The full list of sources of information used in this assessment is as follows:

- 3D model generated from aerial mapping using stereo photogrammetry by AccuCities;
- Proposed roof extension floor plan: 300.010 Extension Floor Plan;
- Proposed roof extension elevations: 300.020 Extension Proposed Elevations;
- Proposed roof extension roof plan: 200.015 Roof Plan;
- Satellite images from Google Maps (accessed July 2025);
- From Gravesend's Planning Portal – floor plans and elevations for Stephenson House (ref. 20160070; 20150530).

3.2 Scope of Assessment

The images to the right and on the following page show the technical 3D models developed for the analysis.

The assessment is focused on the following properties that are in closest proximity to the proposed development:

- 47-49 The Grove to the north;
- 82, 86-88 Edwin Street to the west;
- Stephenson House to the east.

The findings and review of potential impacts for these properties are discussed in the next section of this report.

The building at 42 The Grove to the south of the site is used as a nursery, which is considered to be of non-domestic use where daylight expectations are low with artificial lighting in place throughout the day and is therefore excluded from the assessment.

Trees were omitted from the technical model such that the potential impact of the proposed building massing can be fully assessed.

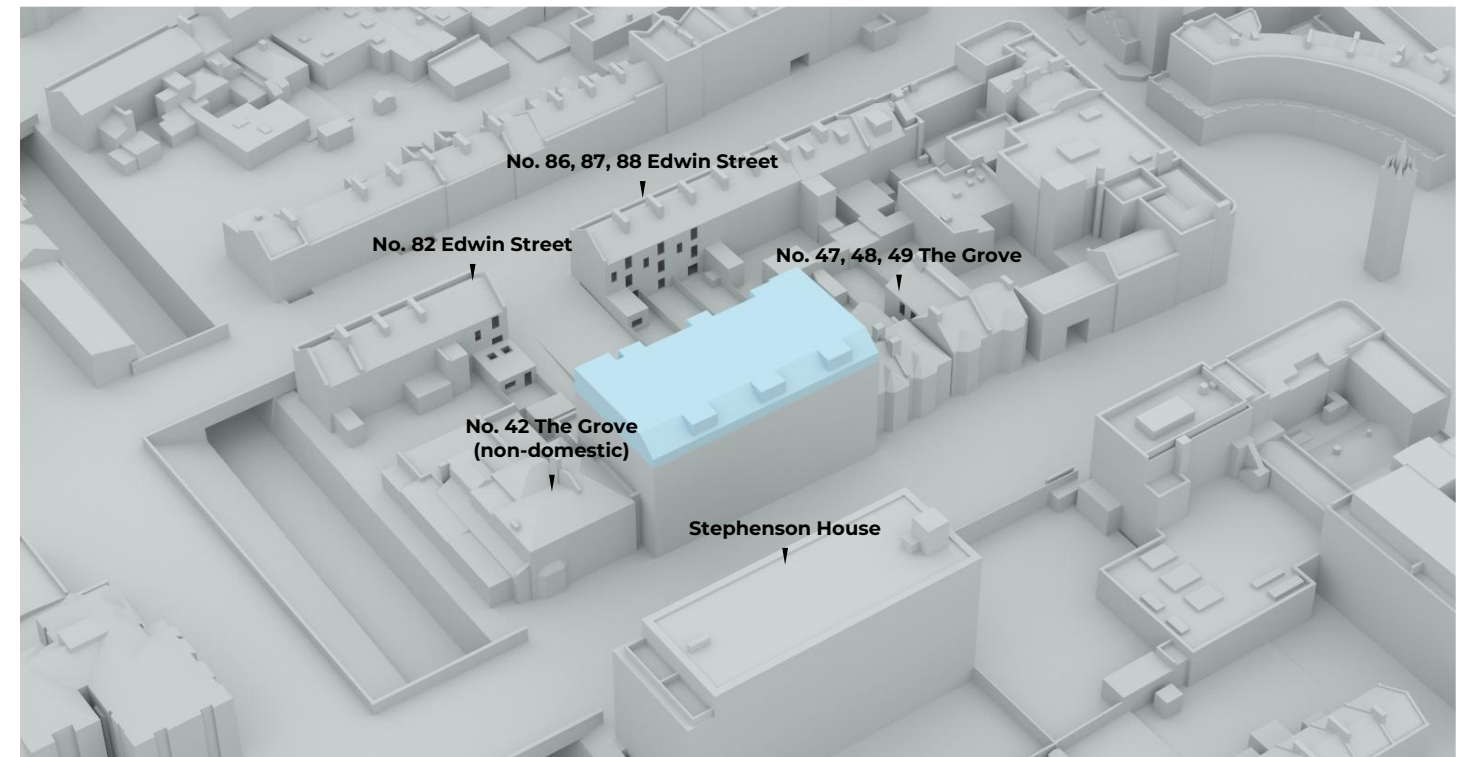


Figure 3: Technical 3D model of 44-46 The Grove, with the proposed roof extension development and existing surrounding context (view from southeast)

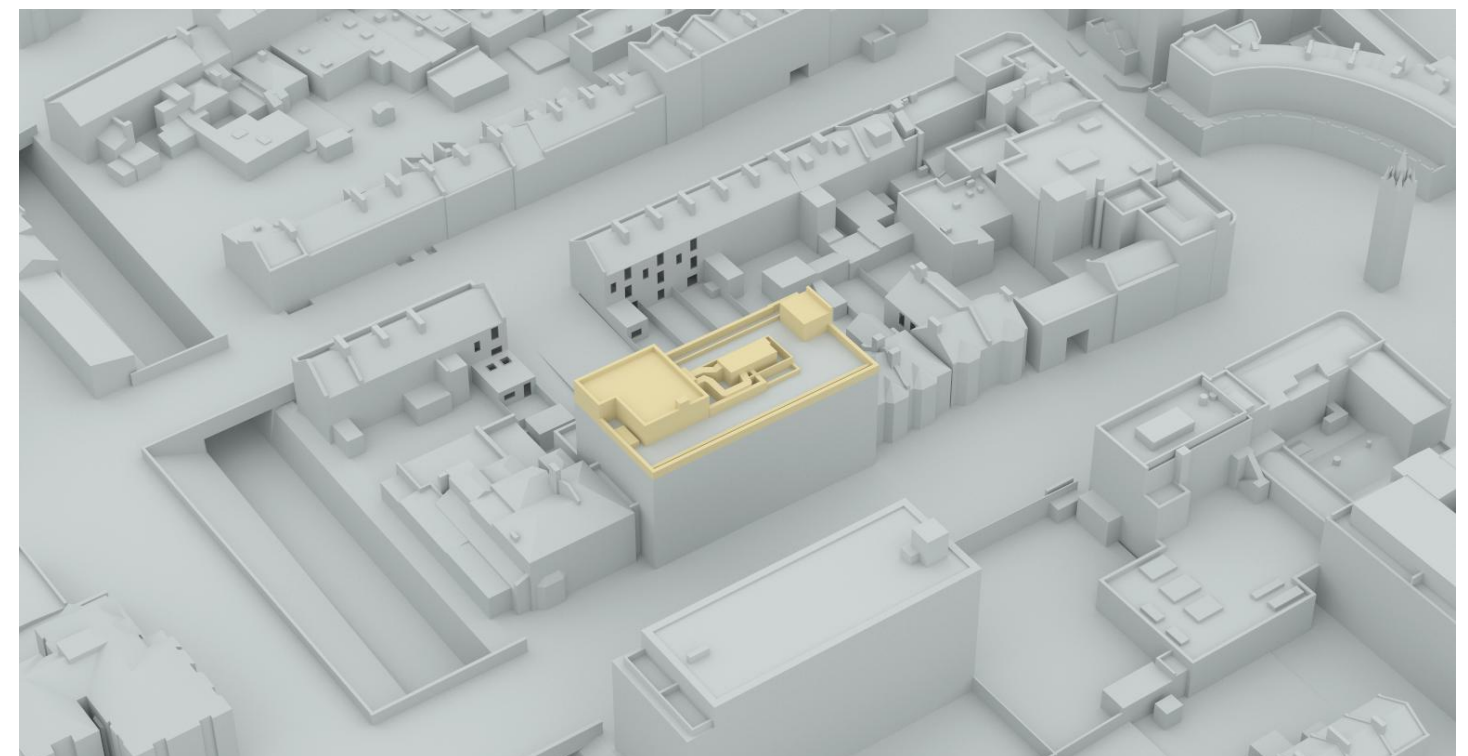


Figure 4: Technical 3D model of 44-46 The Grove, with the existing building and surrounding context (view from southeast).

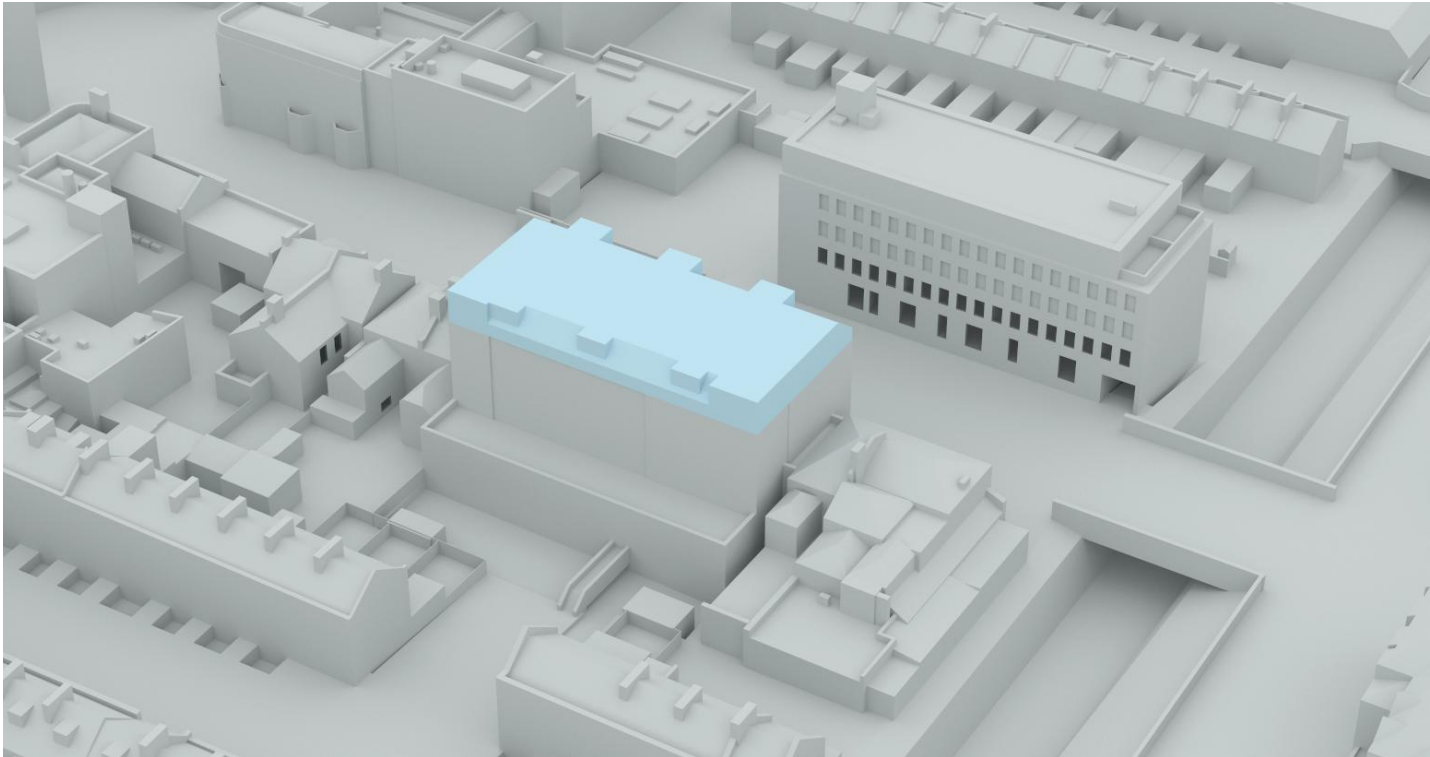


Figure 5. Technical 3D model of 44-46 The Grove, with the proposed roof extension development and existing surrounding context (view from southwest)

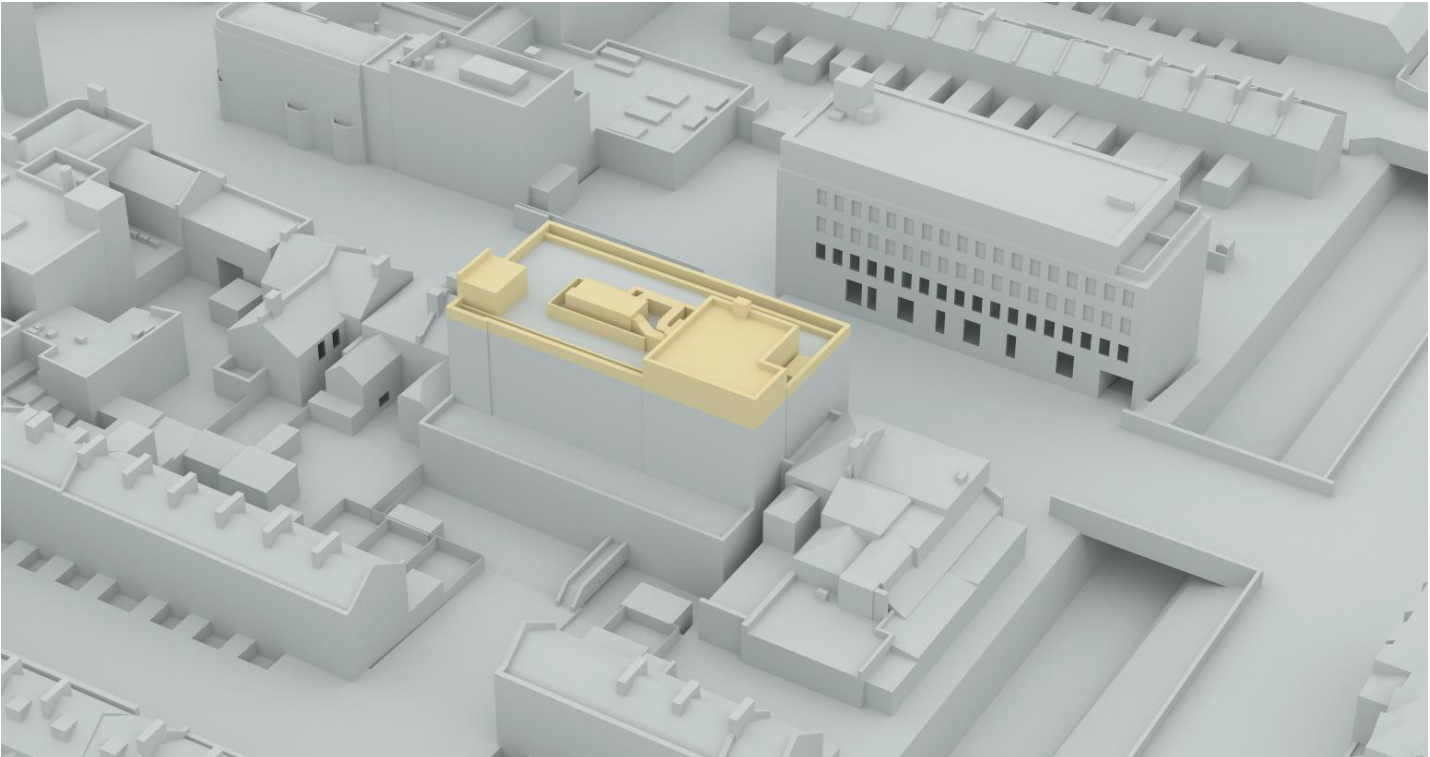


Figure 6. Technical 3D model of 44-46 The Grove, with the existing building and surrounding context (view from southwest).

4 Assessment results

4.1 Daylight and Sunlight to Buildings

4.1.1 25-degree plane test

Initial 25-degree plane test was carried out to assess all neighbouring properties and determine whether detailed daylight and sunlight analysis were required, in line with BRE methodology.

The initial tests showed that the 25-degree test was met for second floor (or above) windows on Stephenson House (Figure 7). As such no further tests were deemed required for these windows and associated rooms.

For all other assessed properties/windows, detailed daylight and sunlight analyses were carried out as presented in the following sections.

Window and room references are presented in Appendix A. Detailed results are presented in Appendix B.

4.1.2 No. 82, 86, 87 and 88 Edwin Street.

These properties are located to the west of the application site and comprise two storey terraced houses with lower ground floors.

Elevations and internal layouts information was not available for these properties and therefore assumptions have been made in the technical model.

The daylight assessment results show that all rooms will meet the Vertical Sky Components (VSCs) and Daylight Distribution (DD) targets set out by the BRE. The Annual and Winter Probable Sunlight Hours (APSH and WPSH) to the building will also meet BRE guidelines.

4.1.3 No. 47, 48 and 49 The Grove.

These semi-detached houses are located to the north of the site. Elevations and internal layout information was not available for these properties and therefore assumptions have been made in the technical model.

From review of satellite images, there are no windows at 47 The Grove facing the proposed roof extension development.

The analysis results show that all relevant windows and rooms at 48 and 49 The Grove will meet the daylight and sunlight targets.

4.1.4 Stephenson House

This building was previously converted from non-residential use into apartments. Windows and rooms at ground and first floors levels where the 25-degree test has not been met were assessed in detail.

Elevations and internal layouts of this building are available on Gravesend's planning portal and were used to inform the technical model.

The analysis results show that all assessed windows and rooms at Stephenson House will meet the daylight and sunlight targets.

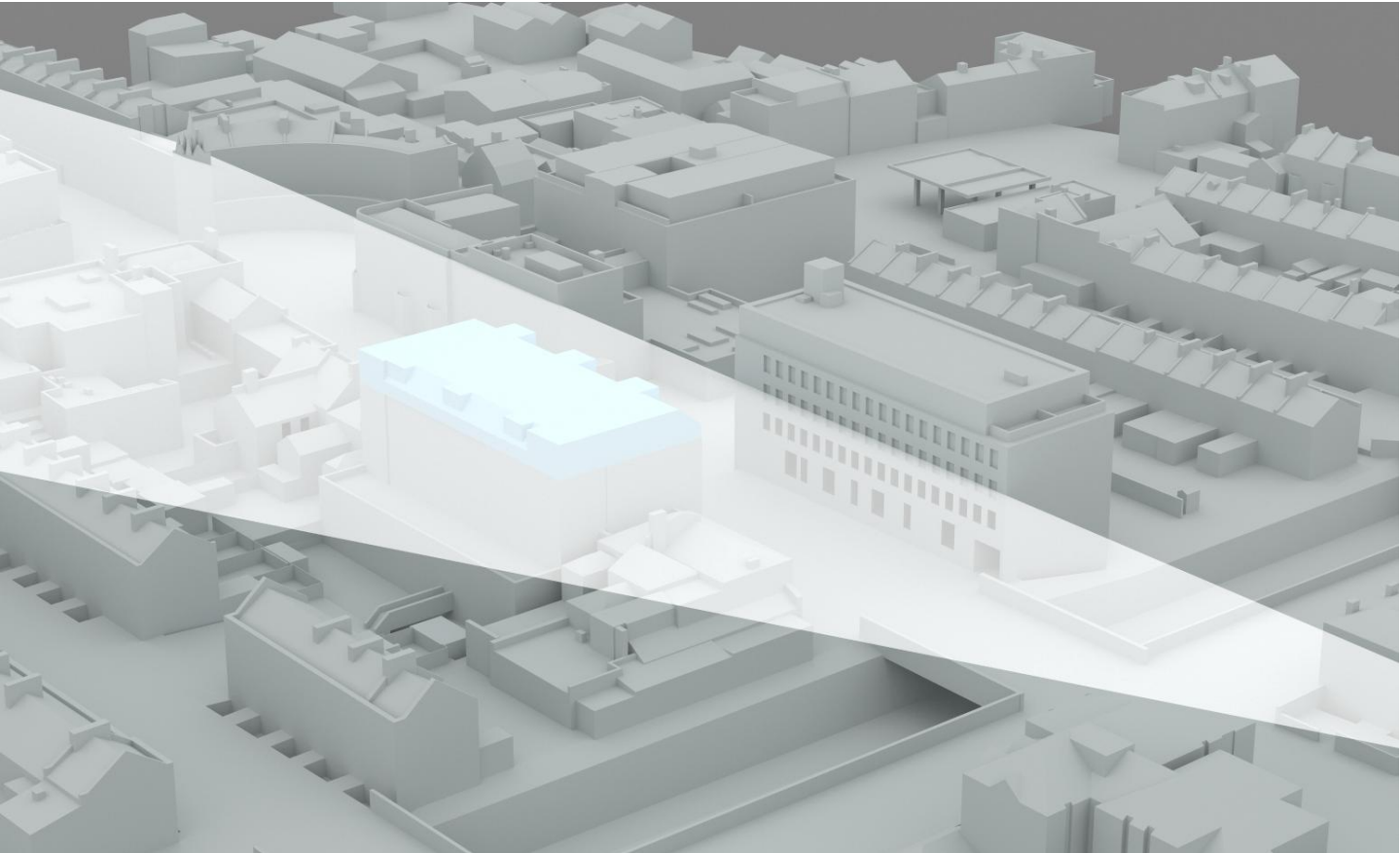


Figure 7: 25-degree test for second floor windows at Stephenson House (view from southwest).

4.2 Sunlight to Amenity Spaces

A review of satellite images shows that there are 5no. designated amenity spaces due north and west of the proposed development and may be affected from a sunlight access perspective.

These include existing rear gardens of:

- No. 82, 86, 87, 88 Edwin Street;
- No. 47 and 48 The Grove.

Sunlight assessments show that all assessed amenity spaces will meet the BRE criteria. Detailed numerical results are presented in Appendix B.



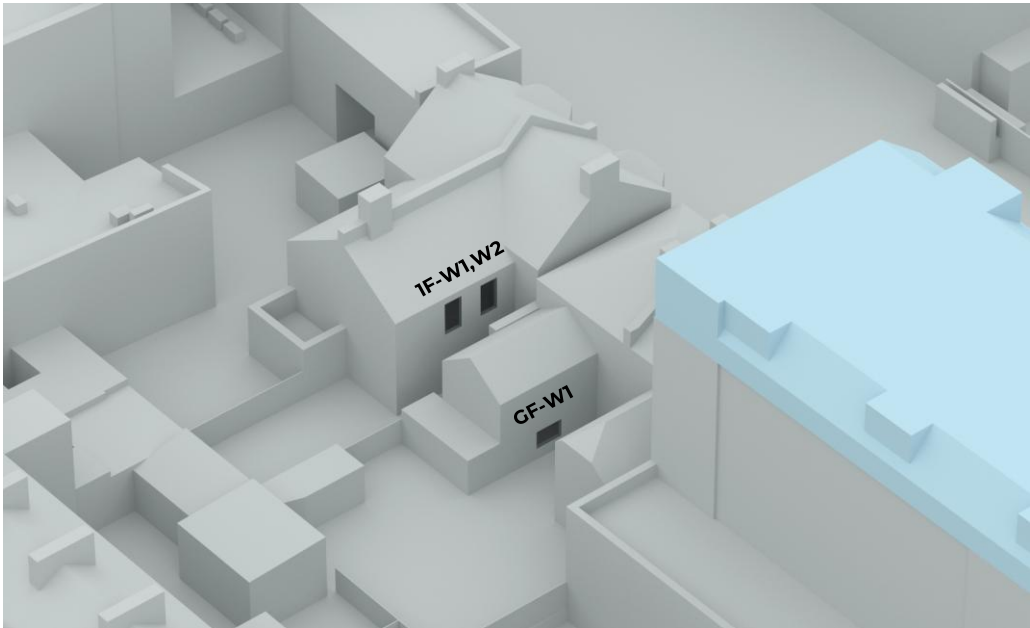
Figure 8: Sunlight to existing amenity results for 21 March.

5 Conclusions

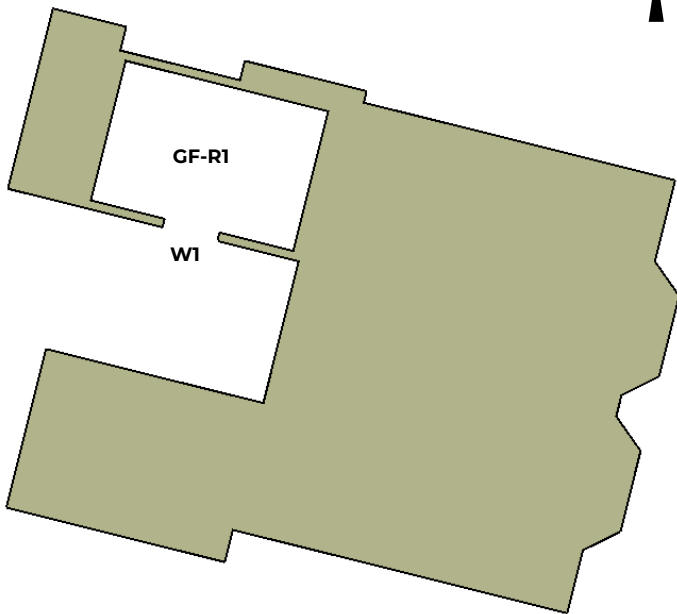
The Daylight and Sunlight Assessment results show that the proposed roof extension development at Heron House has been designed in a way that it will result in no significant and noticeable impact on daylight and sunlight access to neighbouring properties and is fully compliant with the BRE standards.

Appendix A – Window and Room References

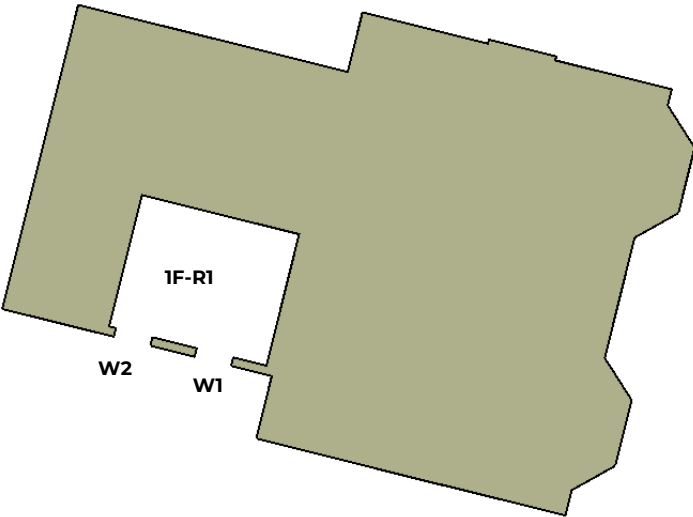
No. 48, 49 The Grove (assumed window sizes/positions and room layouts)



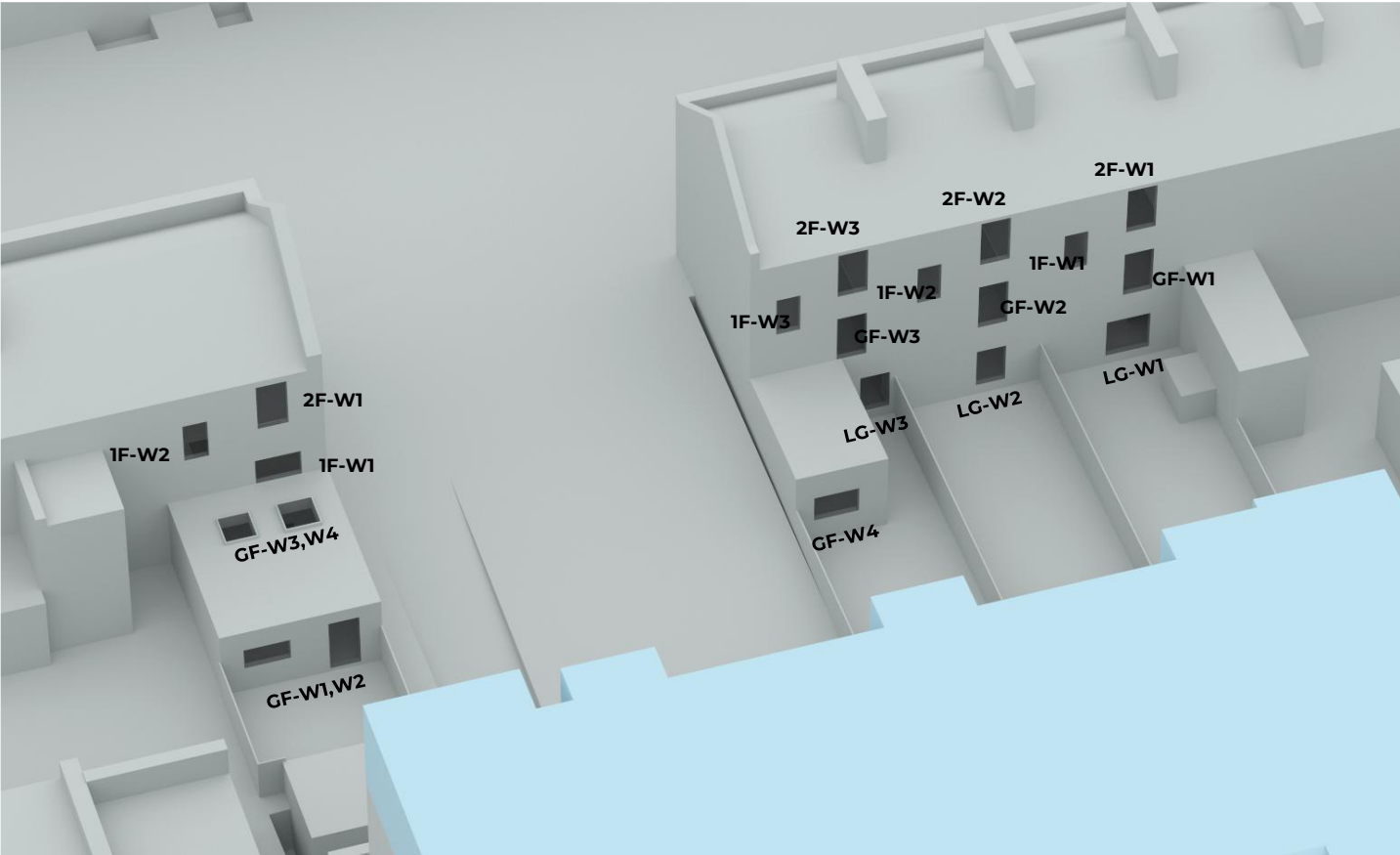
Ground floor, 48 The Grove



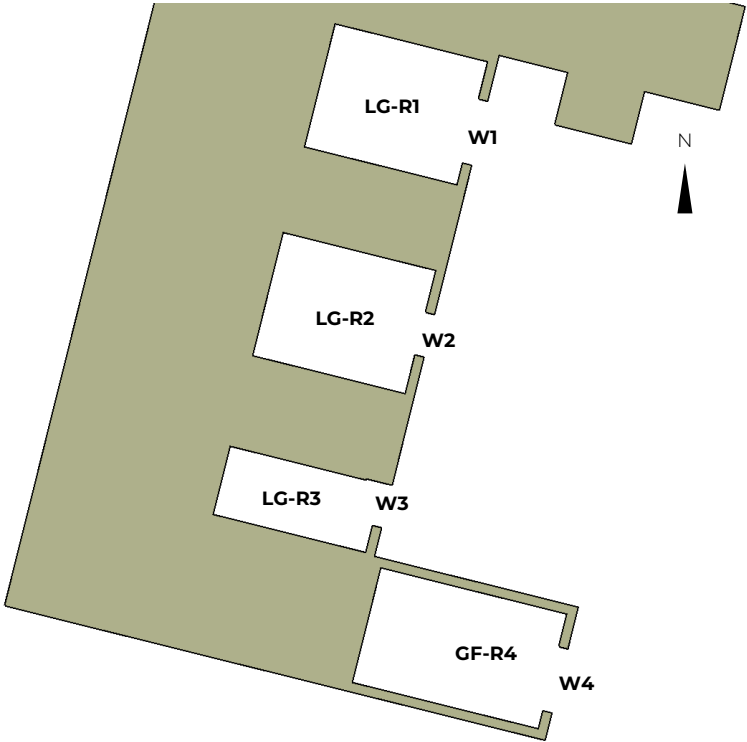
First floor, 49 The Grove



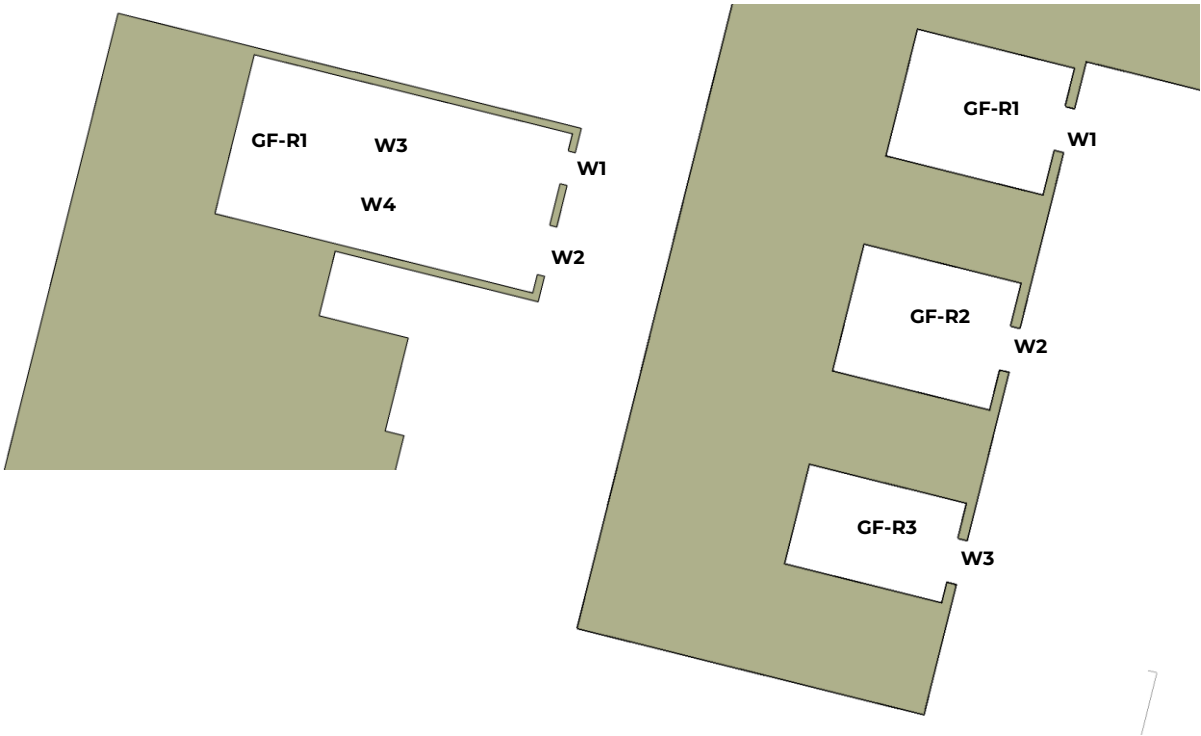
No. 82, 86-88 Edwin Street (assumed window sizes/positions and room layouts)

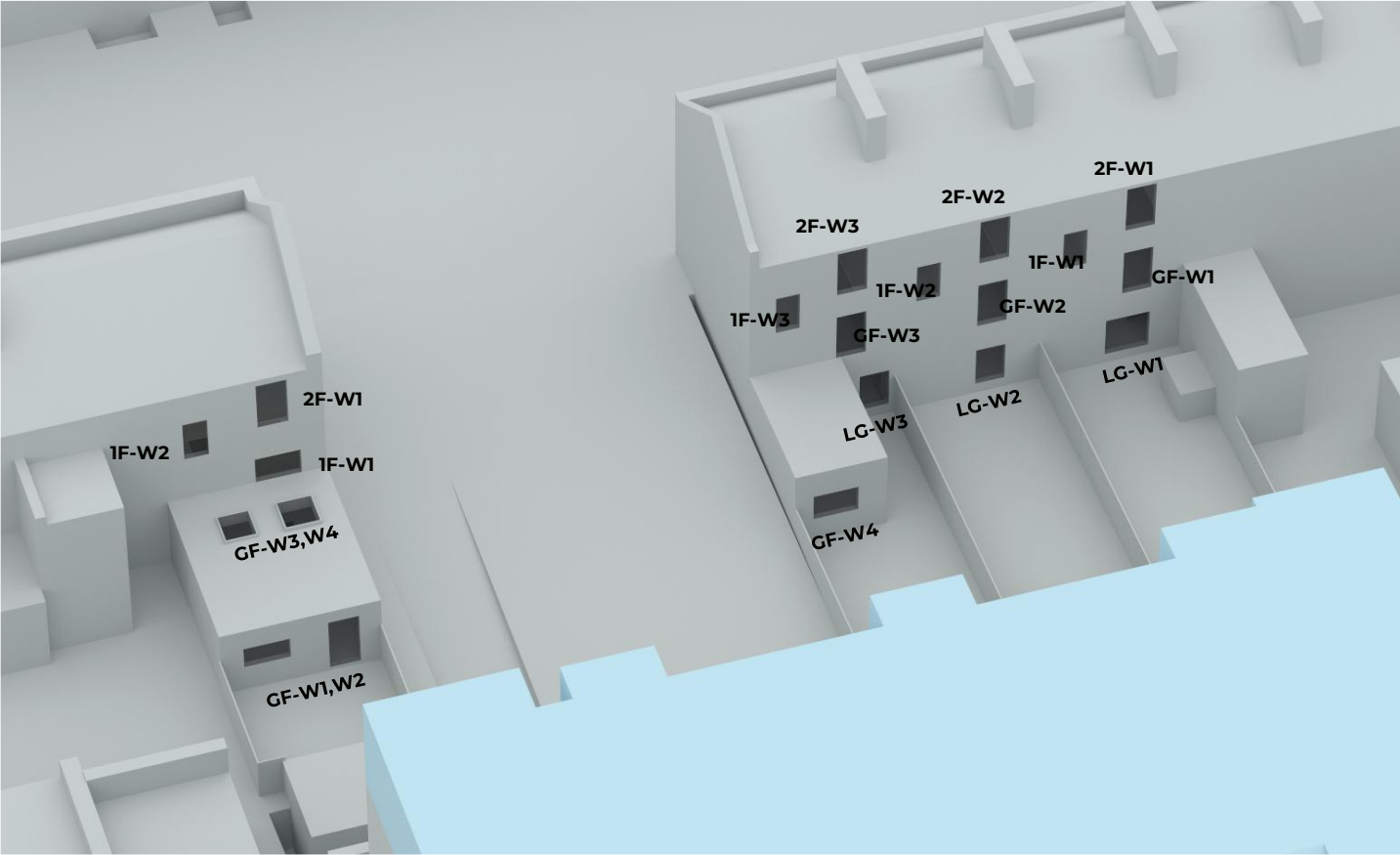


LG and GF, 82, 86-88 The Grove

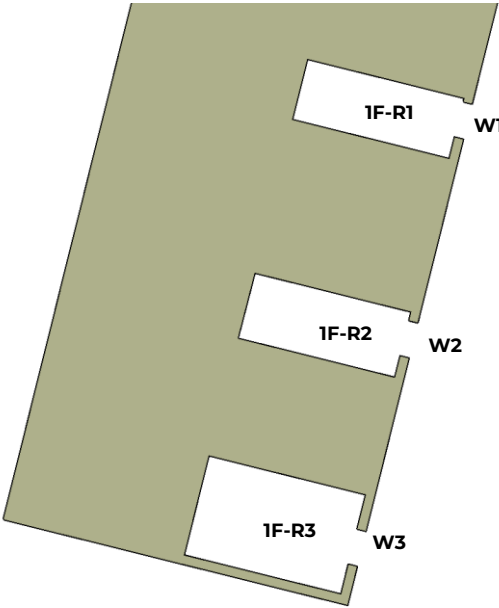
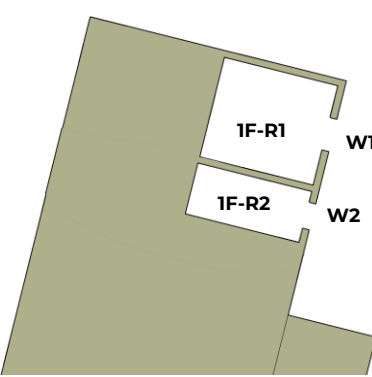


GF, 82, 86-88 The Grove

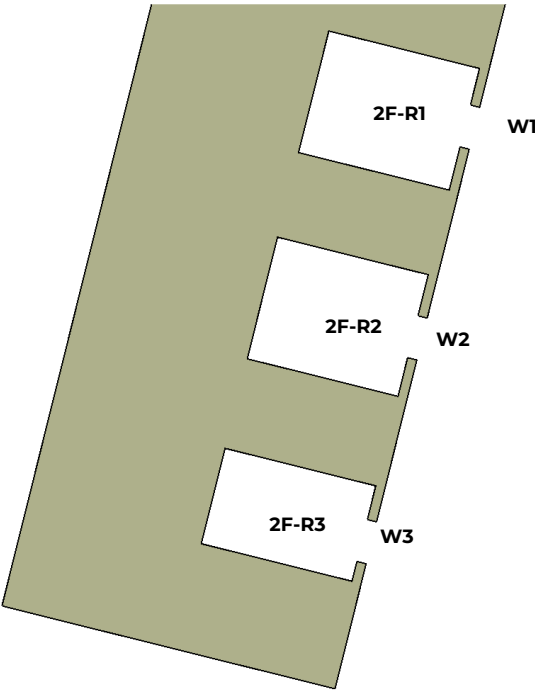
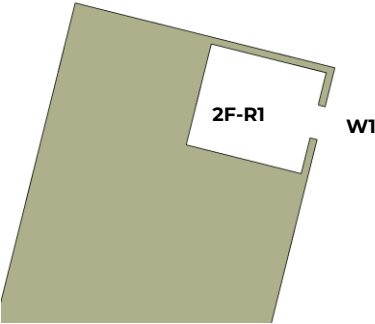




1F, 82, 86-88 The Grove

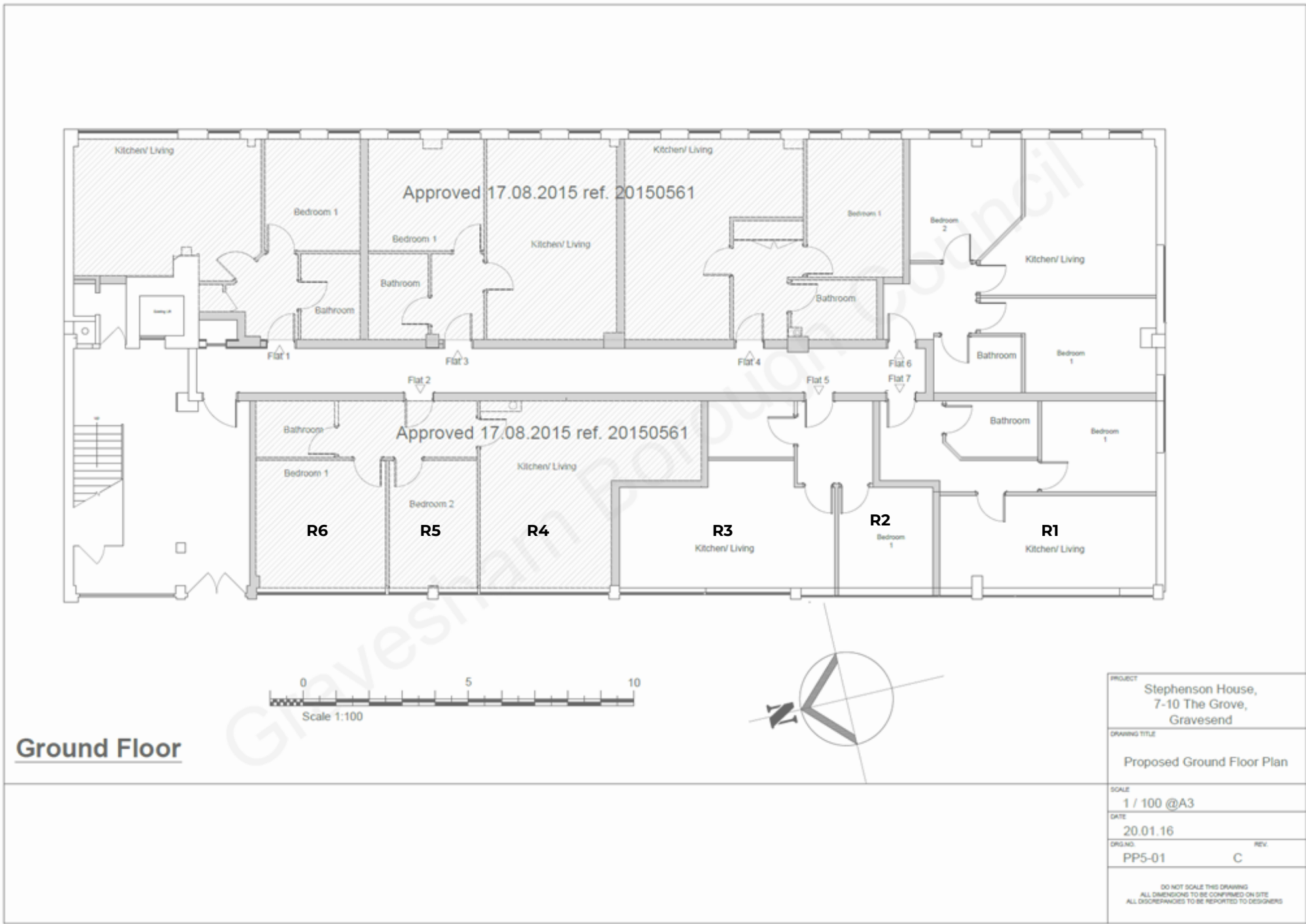


2F, 82, 86-88 The Grove



Stephenson House (Gravesend Planning Portal, ref: 20160070, 20150530)







Appendix B – Detailed Results

Table 2. Daylight and Sunlight to Buildings – Vertical sky component and sunlight probable hours results to all assessed windows and rooms.

Floor Ref.	Room Ref.	Window Ref.		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	
48-49 The Grove																							
Ground	R1	W1	Existing	11.78	0.98	YES	194°				22.00	0.95	YES	0.00	1.00	YES							
			Proposed	11.56							21.00			0.00									
								11.78	0.98	YES							22.00			0.00			
First	R1	W1	Existing	20.95	0.97	YES	194°				48.00	0.98	YES	6.00	0.83	YES							
			Proposed	20.41							47.00			5.00									
First	R1	W2	Existing	24.23	0.97	YES	194°				59.00	0.98	YES	8.00	0.88	YES							
			Proposed	23.57							58.00			7.00									
								22.59	0.97	YES							59.00			8.00			
		21.99			58.00	0.98	YES	7.00			0.88	YES											
82 Edwin Street																							
Ground	R1	W1	Existing	21.75	0.99	YES	104°				38.00	1.00	YES	14.00	1.00	YES							
			Proposed	21.46							38.00			14.00									
Ground	R1	W2	Existing	23.15	0.99	YES	104°				39.00	1.00	YES	12.00	1.00	YES							
			Proposed	22.91							39.00			12.00									
Ground	R1	W3	Existing	72.89	1.00	YES	90° Hz				67.00	1.00	YES	20.00	1.00	YES							
			Proposed	72.65							67.00			20.00									
Ground	R1	W4	Existing	67.55	1.00	YES	90° Hz				64.00	1.00	YES	17.00	1.00	YES							
			Proposed	67.34							64.00			17.00									
								42.10	0.99	YES							67.00			20.00			
First	R1	W1	Existing	28.92	0.99	YES	104°				44.00	1.00	YES	13.00	1.00	YES							
			Proposed	28.51							44.00			13.00									
								28.92									44.00			13.00			
First	R2	W2	Existing	31.69	0.99	YES	104°				49.00	1.00	YES	17.00	1.00	YES							
			Proposed	31.32							49.00			17.00									
								31.69	0.99	YES							49.00			17.00			
Second	R1	W1	Existing	32.31	0.99	YES	104°				50.00	1.00	YES	17.00	1.00	YES							
			Proposed	31.84													50.00	17.00					
								32.31									50.00			17.00			
								31.84	0.99	YES							50.00	1.00	YES	17.00	1.00	YES	
								50.00	17.00														
								50.00	17.00														

Daylight and Sunlight Assessment (Neighbouring Properties)

Floor Ref.	Room Ref.	Window Ref.		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
86-88 Edwin Street																						
Lower Ground	R1	W1	Existing	21.50	0.97	YES	104°				44.00	0.95	YES	12.00	1.00	YES						
			Proposed	20.95							42.00			12.00								
								21.50 20.95	0.97	YES							44.00 42.00	0.95	YES	12.00 12.00	1.00	YES
Lower Ground	R2	W2	Existing	25.81	0.97	YES	104°				41.00	0.93	YES	9.00	1.00	YES						
			Proposed	25.15							38.00			9.00								
								25.81 25.15	0.97	YES							41.00 38.00	0.93	YES	9.00 9.00	1.00	YES
Lower Ground	R3	W3	Existing	18.06	0.96	YES	104°				17.00	0.94	YES	0.00	1.00	YES						
			Proposed	17.37							16.00			0.00								
								18.06 17.37	0.96	YES							17.00 16.00	0.94	YES	0.00 0.00	1.00	YES
Ground	R1	W1	Existing	31.00	0.98	YES	104°				52.00	0.96	YES	13.00	0.92	YES						
			Proposed	30.38							50.00			12.00								
								31.00 30.38	0.98	YES							52.00 50.00	0.96	YES	13.00 12.00	0.92	YES
Ground	R2	W2	Existing	29.95	0.97	YES	104°				50.00	0.96	YES	14.00	0.93	YES						
			Proposed	29.19							48.00			13.00								
								29.95 29.19	0.97	YES							50.00 48.00	0.96	YES	14.00 13.00	0.93	YES
Ground	R3	W3	Existing	29.05	0.97	YES	104°				49.00	0.98	YES	13.00	1.00	YES						
			Proposed	28.23							48.00			13.00								
								29.05 28.23	0.97	YES							49.00 48.00	0.98	YES	13.00 13.00	1.00	YES
Ground	R4	W4	Existing	22.54	0.96	YES	104°				36.00	0.97	YES	13.00	1.00	YES						
			Proposed	21.72							35.00			13.00								
								22.54 21.72	0.96	YES							36.00 35.00	0.97	YES	13.00 13.00	1.00	YES
First	R1	W1	Existing	32.17	0.98	YES	104°				53.00	0.98	YES	14.00	0.93	YES						
			Proposed	31.44							52.00			13.00								
								32.17 31.44	0.98	YES							53.00 52.00	0.98	YES	14.00 13.00	0.93	YES
First	R2	W2	Existing	31.15	0.97	YES	104°				51.00	1.00	YES	14.00	1.00	YES						
			Proposed	30.29							51.00			14.00								
								31.15 30.29	0.97	YES							51.00 51.00	1.00	YES	14.00 14.00	1.00	YES
First	R3	W3	Existing	30.44	0.97	YES	104°				50.00	0.98	YES	14.00	1.00	YES						
			Proposed	29.55							49.00			14.00								
								30.44 29.55	0.97	YES							50.00 49.00	0.98	YES	14.00 14.00	1.00	YES

Daylight and Sunlight Assessment (Neighbouring Properties)

Floor Ref.	Room Ref.	Window Ref.		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
Second	R1	W1	Existing	33.76	0.98	YES	104°				56.00	0.96	YES	16.00	0.88	YES						
			Proposed	33.08							54.00			14.00								
								33.76	0.98	YES							56.00			16.00		
								33.08									54.00	0.96	YES	14.00	0.88	YES
Second	R2	W2	Existing	32.81	0.97	YES	104°				52.00	0.98	YES	15.00	1.00	YES						
			Proposed	31.97							51.00			15.00								
								32.81	0.97	YES							52.00			15.00		
								31.97									51.00	0.98	YES	15.00	1.00	YES
Second	R3	W3	Existing	31.98	0.97	YES	104°				52.00	0.98	YES	14.00	1.00	YES						
			Proposed	31.06							51.00			14.00								
								31.98	0.97	YES							52.00			14.00		
								31.06									51.00	0.98	YES	14.00	1.00	YES
Stephenson House																						
Ground	R1	W1	Existing	31.79	0.99	YES	284°N					*North	*North		*North	*North						
			Proposed	31.38																		
								31.79	0.99	YES												
								31.38										*North	*North		*North	*North
Ground	R2	W2	Existing	30.34	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	29.85																		
								30.34	0.98	YES												
								29.85										*North	*North		*North	*North
Ground	R3	W3	Existing	29.36	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	28.81																		
Ground	R3	W4	Existing	28.50	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	27.89																		
								29.05	0.98	YES												
								28.48										*North	*North		*North	*North
Ground	R4	W5	Existing	27.44	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	26.73																		
								27.44	0.97	YES												
								26.73										*North	*North		*North	*North
Ground	R5	W6	Existing	26.63	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	25.84																		
								26.63	0.97	YES												
								25.84										*North	*North		*North	*North
Ground	R6	W7	Existing	26.33	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	25.51																		
								26.33	0.97	YES												
								25.51										*North	*North		*North	*North
First	R1	W1	Existing	35.45	0.99	YES	284°N					*North	*North		*North	*North						
			Proposed	35.13																		

Daylight and Sunlight Assessment (Neighbouring Properties)

Floor Ref.	Room Ref.	Window Ref.		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
First	R1	W2	Existing	35.19	0.99	YES	284°N					*North	*North		*North	*North						
			Proposed	34.83																		
								35.32 34.98	0.99	YES								*North	*North		*North	*North
First	R2	W3	Existing	34.93	0.99	YES	284°N					*North	*North		*North	*North						
			Proposed	34.52																		
First	R2	W4	Existing	34.62	0.99	YES	284°N					*North	*North		*North	*North						
			Proposed	34.15																		
First	R2	W5	Existing	34.27	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	33.75																		
								34.61 34.14	0.99	YES												
First	R3	W6	Existing	33.93	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	33.35																		
First	R3	W7	Existing	33.57	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	32.94																		
First	R3	W8	Existing	33.22	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	32.55																		
								33.57 32.95	0.98	YES												
First	R4	W9	Existing	32.89	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	32.17																		
								32.89 32.17	0.98	YES												
First	R5	W10	Existing	32.58	0.98	YES	284°N					*North	*North		*North	*North						
			Proposed	31.81																		
First	R5	W11	Existing	32.13	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	31.27																		
								32.36 31.54	0.97	YES												
First	R6	W12	Existing	31.61	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	30.68																		
First	R6	W13	Existing	31.17	0.97	YES	284°N					*North	*North		*North	*North						
			Proposed	30.16																		
								31.39 30.42	0.97	YES												
First	R7	W14	Existing	30.78	0.96	YES	284°N					*North	*North		*North	*North						
			Proposed	29.70																		
First	R7	W15	Existing	30.47	0.96	YES	284°N					*North	*North		*North	*North						
			Proposed	29.34																		
								30.63	0.96	YES												

Floor Ref.	Room Ref.	Window Ref.		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
								29.52										*North	*North		*North	*North
First	R8	W16	Existing	30.23	0.96	YES	284°N					*North	*North		*North	*North						
			Proposed	29.05																		
First	R8	W17	Existing	30.09	0.96	YES	284°N					*North	*North		*North	*North						
			Proposed	28.87																		
First	R8	W18	Existing	30.00	0.96	YES	284°N					*North	*North		*North	*North						
			Proposed	28.77																		
								30.11	0.96	YES												
								28.90										*North	*North		*North	*North

Table 3. Daylight to Buildings – Daylight distribution results to assessed rooms.

Floor Ref.	Room Ref		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
48-49 The Grove							
Ground	R1	Area m2	20.58	7.56	7.54	1.00	YES
		% of room		36.73%	36.61%		
First	R1	Area m2	14.91	14.46	14.47	1.00	YES
		% of room		96.97%	97.05%		
82 Edwin Street							
Ground	R1	Area m2	46.20	35.06	34.81	0.99	YES
		% of room		75.89%	75.35%		
First	R1	Area m2	10.64	8.34	8.11	0.97	YES
		% of room		78.33%	76.21%		
Second	R2	Area m2	5.45	5.11	5.13	1.00	YES
		% of room		93.92%	94.29%		
	R1	Area m2	10.64	10.46	10.46	1.00	YES
		% of room		98.25%	98.25%		
86-88 Edwin Street							
Lower Ground	R1	Area m2	10.22	9.22	9.08	0.98	YES
		% of room		90.19%	88.83%		
	R2	Area m2	10.22	8.26	7.98	0.97	YES
		% of room		80.82%	78.08%		
	R3	Area m2	5.69	4.45	4.30	0.97	YES
		% of room		78.21%	75.64%		
Ground	R1	Area m2	10.22	10.09	9.79	0.97	YES
		% of room		98.71%	95.73%		
	R2	Area m2	10.22	10.09	9.48	0.94	YES
		% of room		98.74%	92.75%		
	R3	Area m2	8.03	7.97	7.09	0.89	YES
		% of room		99.20%	88.29%		
	R4	Area m2	11.60	4.30	4.24	0.99	YES
		% of room		37.04%	36.57%		
First	R1	Area m2	4.88	4.83	4.73	0.98	YES
		% of room		99.01%	96.87%		
	R2	Area m2	5.28	5.14	4.56	0.89	YES
		% of room		97.40%	86.43%		
	R3	Area m2	8.03	7.62	6.43	0.84	YES
		% of room		94.88%	80.10%		
Second	R1	Area m2	10.22	10.09	10.09	1.00	YES
		% of room		98.71%	98.71%		
	R2	Area m2	10.22	10.10	10.10	1.00	YES
		% of room		98.74%	98.74%		
	R3	Area m2	8.03	7.97	7.97	1.00	YES

Floor Ref.	Room Ref		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
		% of room		99.20%	99.20%		
Stephenson House							
Ground	R1	Area m2	18.42	17.23	17.04	0.99	YES
		% of room		93.54%	92.53%		
	R2	Area m2	8.78	8.41	8.29	0.98	YES
		% of room		95.89%	94.45%		
	R3	Area m2	22.02	21.30	21.27	1.00	YES
		% of room		96.71%	96.56%		
	R4	Area m2	29.01	13.52	13.10	0.97	YES
		% of room		46.62%	45.17%		
	R5	Area m2	10.27	6.26	5.75	0.92	YES
		% of room		60.93%	56.03%		
	R6	Area m2	15.20	11.94	11.63	0.97	YES
		% of room		78.60%	76.50%		
First	R1	Area m2	16.61	16.56	16.56	1.00	YES
		% of room		99.69%	99.69%		
	R2	Area m2	27.22	27.15	27.15	1.00	YES
		% of room		99.74%	99.74%		
	R3	Area m2	24.15	24.09	24.09	1.00	YES
		% of room		99.77%	99.77%		
	R4	Area m2	7.26	6.98	6.98	1.00	YES
		% of room		96.19%	96.19%		
	R5	Area m2	12.86	12.82	12.82	1.00	YES
		% of room		99.68%	99.66%		
	R6	Area m2	13.69	13.13	12.81	0.98	YES
		% of room		95.93%	93.59%		
	R7	Area m2	11.69	11.55	11.55	1.00	YES
		% of room		98.82%	98.81%		
	R8	Area m2	28.99	24.86	24.60	0.99	YES
		% of room		85.75%	84.87%		

Table 4. Sunlight to amenity results on 21 March

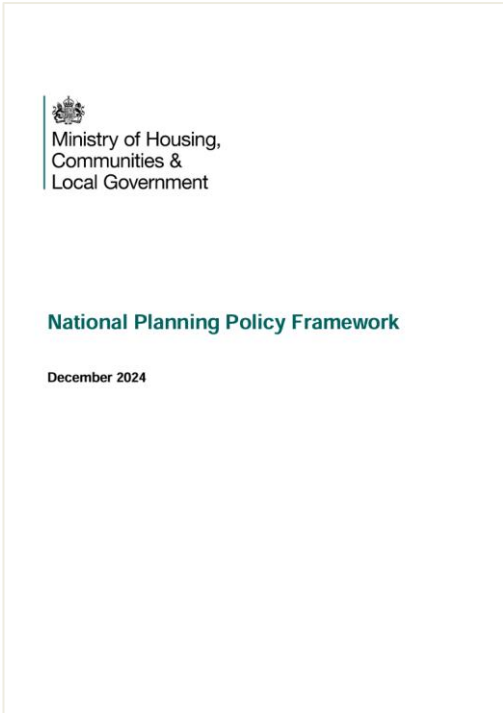
Amenity Ref		Amenity Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
A1	Area m2	37.10	18.33	18.33	1.00	YES
	Percentage		49%	49%		
A2	Area m2	52.13	33.25	33.34	1.00	YES
	Percentage		64%	64%		
A3	Area m2	48.92	30.54	30.37	0.99	YES
	Percentage		62%	62%		
A4	Area m2	23.08	15.15	15.15	1.00	YES
	Percentage		66%	66%		
A5	Area m2	147.44	96.03	95.67	1.00	YES
	Percentage		65%	65%		

Appendix C – Planning Policies

National Planning Policy Framework (2024)

This document provides a framework within which locally prepared plans for housing and other development can be produced.

For example, it sets out how the planning system could achieve sustainable development, effective use of land, well-designed places, protecting the green belt, meeting the challenge of climate change, among several other aspects which precipitate with more specificity into local planning policies.



Gravesend Local Plan Core Strategy 2014

This document is the Council's adopted Core Strategy. It is accompanied by a Policies Map which shows the areas affected by the policies in the Core Strategy and saved policies from the Local Plan First Review (1994). It has been informed by a Sustainability Appraisal/Strategic Environmental Assessment and a Habitats Regulations Assessment.

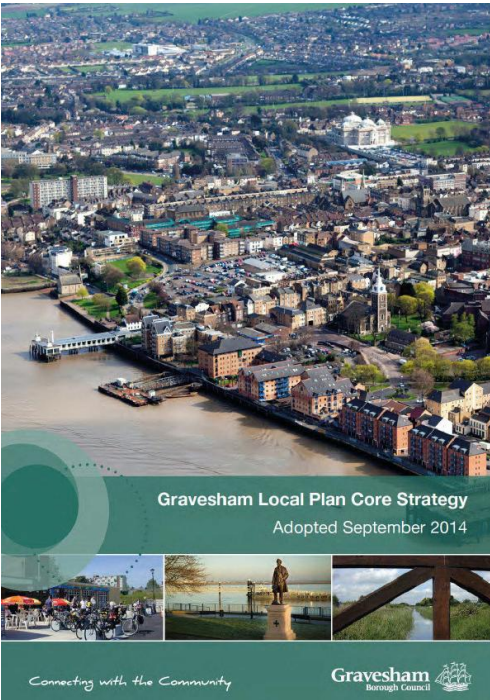
The Core Strategy must be consistent with national planning policy, in particular the National Planning Policy Framework (NPPF).

Relevant policies to daylight/sunlight are summarised below.

CS19 Development and Design Principles

Among other considerations for new development, this policy sets out daylight/sunlight principles expected for developments.

New development will be located, designed and constructed to safeguard the amenity, including privacy, daylight and sunlight, of its occupants and those of neighbouring properties and land.



Appendix D – BRE Guidance

Daylight

A series of tests are recommended by BRE's guide (2022) to evaluate whether daylight levels on existing surrounding properties would be noticeably reduced when new development comes forward.

Window proximity

If a neighbouring window is more than 3 times the development height away from the scheme, then it does not need to be assessed for daylight or sunlight impacts.

25-degree plane

For windows directly facing towards the proposed development, a 25-degree plane is drawn to review whether the proposed scheme intersects it. If it does, daylight levels may be reduced and further analysis is required, detailed below.

45-degree plane

For windows that are not directly facing the development, which is often more applicable for rear extensions to buildings, two different 45-degree planes are drawn as shown in the images below (Figure 9) which are taken directly from the BRE guide. If the development intersects one of those planes, then further analysis is required for daylight, as discussed below. These planes can often be used to evaluate windows of buildings which are adjacent to a development but not directly facing it.

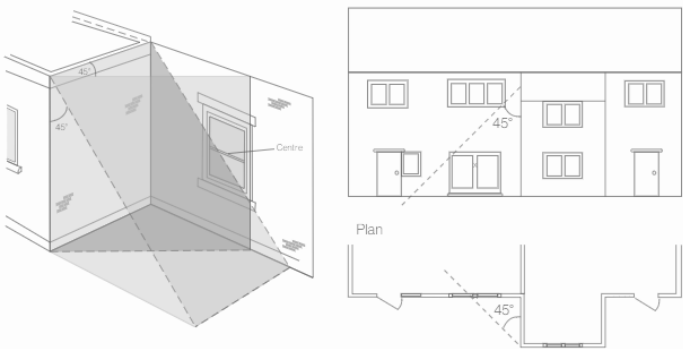


Figure 9: 45-degree plane tests for extensions (source: BRE guide 2022)

Vertical sky component (VSC)

VSC is the first detailed test carried out for windows that do not meet the aforementioned initial tests. It is a measure of the illuminance on the window compared to an unobstructed horizontal plane. If the VSC of an existing window is 27% or higher, then it is not considered to be affected by the proposed development. If not, and its VSC is more than 0.8 of its former pre-development value, then the BRE guide suggests that the daylight reduction to this window would not be noticeable by the occupants.

No sky line (NSL) and Daylight Distribution (DD)

NSL is the area of the working plane of the room, usually taken at 850mm from finished floor level, that can have a direct view of the sky. It is often referred to as the Daylight Distribution (DD) test. The BRE guide suggests that daylight levels to a neighbouring room would not be noticeable if the area of the working plane that receives direct skylight is more than 0.8 of its former pre-development value. The guide notes that this assessment can be carried out when neighbouring property layouts are available (e.g. from the planning portal).

Alternative daylight criteria

The above numerical criteria are the standard tests used to evaluate impacts on neighbouring properties. In certain circumstances, the BRE guide recommends the use of alternative targets, taking into account the specific site context.

One method is establishing the obstruction angle of the context to derive the target VSC which should be met by neighbouring windows with the development in place. Figure 10 illustrates the example of a mews. When the obstruction angle of the context is 40 degrees, then a VSC target of 18%, rather than 27% could be considered applicable. Alternative sunlight criteria could also be derived using this approach.

In other situations, such as when neighbouring windows are close to the site boundary and are taking more than their 'fair share of light' over the application site, the BRE guide recommends the use of the mirror image approach. The existing building is mirrored into the application site and a simulation is run to derive target daylight and sunlight values (Figure 11).

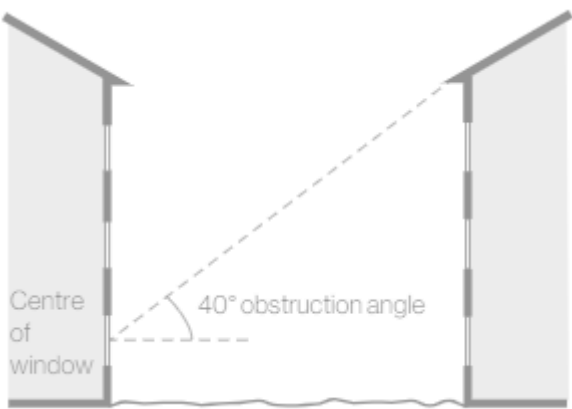


Figure 10: Use of obstruction angle and Appendix F to establish target values for daylight and sunlight (source: BRE guide 2022)

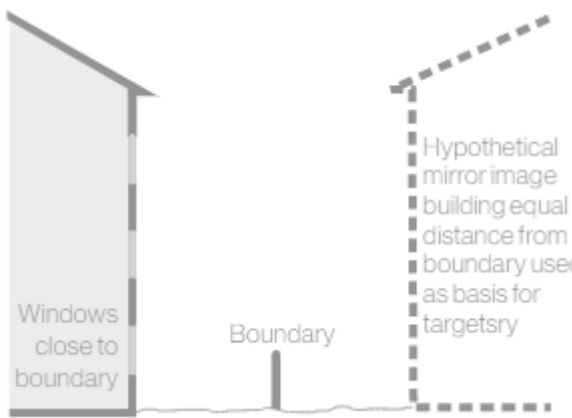


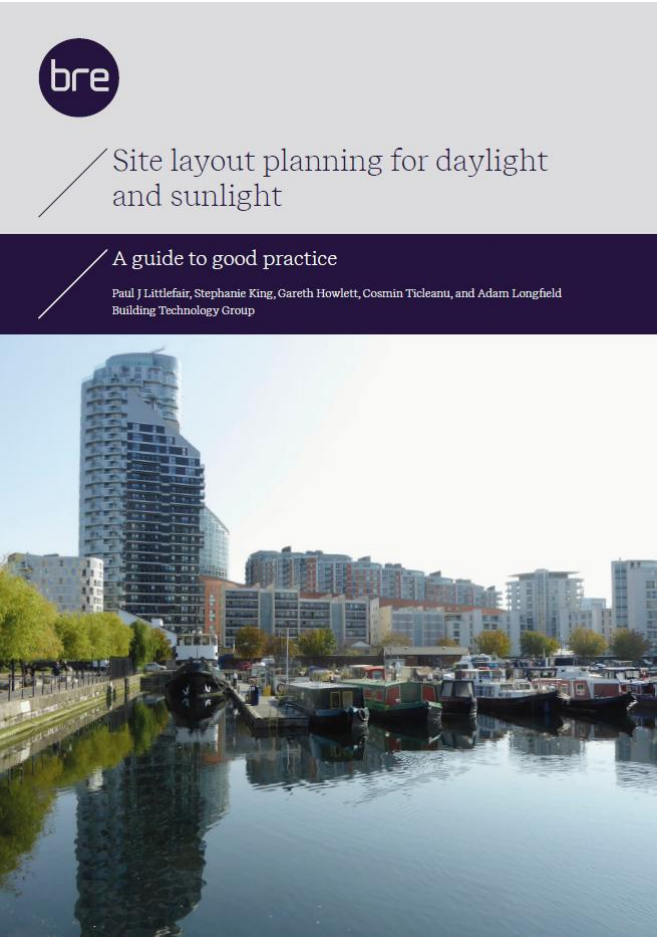
Figure 11: Mirror image methodology (source BRE guide 2022)

Sunlight

Sunlight access should be safeguarded for existing dwellings and non-residential buildings with a particular expectation for sunlight. The BRE guide suggests that main living rooms and conservatories should be checked if they have a window within 90° south. If such windows do not meet the initial 25/45-degree plane test, then the Annual (APSH) and Winter (WPSH) Probable Sunlight Hours should be calculated. Sunlight access may be adversely affected if the window achieves less than 25% APSH and less than 0.8 times its former annual value; or less than 5% of WPSH and less than 0.8 its former value; and also has a reduction of more than 4% in APSH over the whole year.

Overshadowing

Sunlight access to existing surrounding amenity spaces may potentially be affected by a proposed development situated to the south of the amenity space. The BRE guide suggests that the amenity space would be reasonably sunlit throughout the year if it receives at least 2 hours of sunlight over at lest 50% of its area during the 21 of March. If that’s not satisfied, the reduction in sunlight access would not be noticeable if the open space attains 2 hours of sunlight to at least 0.8 time the area of its former pre-development value.



ecolytik

86-90 Paul Street
London
EC2A 4NE

+44 (0) 0203 835 4114
mail@ecolytik.com
ecolytik.com