Daylight & Sunlight Amenity (Internal) for
Carlford Properties Ltd

9-10 GEORGES STREET
RICHMOND
LONDON
TW9 1JY

Date: November 2020

Our Ref: 20-01558

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Appendices

1 EXECUTIVE SUMMARY

1.1 We have been instructed to compile a Daylight & Sunlight Amenity (Internal) Study with regard to the proposed development at 9-10 Georges Street, Richmond, London TW9 1JY.

1.2 We undertook a site inspection showing the proposal in context, allowing us to gain a greater understanding of the interrelationship between proposed and the various surrounding buildings.

1.3 We have reviewed the Local Authority's planning policy in respect of Daylight & Sunlight (see s.5).

1.4 On the basis of the above, we set about conducting an analysis in accordance with Building Research Establishment's Report 209 "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" (2011 2nd Edition). This guidance is regarded as industry standard and we regularly prepare such studies for local authorities throughout the UK.

1.5 We have identified 14 habitable rooms within the proposed development. We have tested these to ensure they meet the targets for internal rooms within a proposed development, in accordance with the BRE guidelines.

1.6 The analysis has involved utilising specialist software applied on the AutoCAD model supplied.

1.7 The results from the analysis confirm that all of the rooms within the proposed development meet or surpass the Average Daylight Factor Targets (ADF), with the exception of one room, giving a compliance rate of around 93%.

1.8 All living rooms tested, with the exception of 2 on the first floor (66%), have at least one window meeting the BRE sunlight to windows recommendations.

1.9 The results for the Overshadowing to Gardens and Open Spaces test show that only the amenity space on the third floor surpasses the BRE recommendations. The remaining spaces on the first and second floors fall short of their recommendations by varying amounts.

1.10 Please refer to section 8 for further commentary on the results mentioned above.

1.11 Having considered all of the mitigating circumstances of this case, we conclude that the habitable rooms, windows and amenity spaces within the proposed development generally have good access to daylight and sunlight, in the context of a high street location. Where isolated shortfalls occur, we believe they have been adequately mitigated. In our opinion there is no daylight and sunlight related reason why planning permission should not be granted for this scheme.

2 PROPOSED DRAWINGS

2.1 The 3D computer model considers the following proposed design:

THOMAS MOSS ARCHITECTURAL DESIGN & SURVEYING SERVICES

Drawings Ref	Description	Revision
161/20/01	Existing Floor Plans	Rev -
161/20/02	Existing Elevations	Rev -
	George Street, Richmond - 20 - 400 - Proposed Elevations	
	Proposed Ground Floor Plan – bind	
	Proposed First Floor Plan – bind	
	Proposed Second Floor Plan – bind	
	Proposed Third Floor Plan – bind	
	Proposed Section	

3 INTRODUCTION

INSTRUCTIONS

3.1 We received instructions from Carlford Properties Ltd to prepare an internal Daylight & Sunlight Amenity Study in respect of the proposed development at 9-10 Georges Street, Richmond, London TW9 1JY.

3.2 A copy of our terms of engagement are held on file.

CONFLICT OF INTEREST

3.3 We confirm that, as far as we are aware, no conflict of interest exists either personally or with Rapleys, in connection with Carlford Properties Ltd. We further confirm that Professional Indemnity Insurance on a per claim basis is available in respect of this report.

DISCLOSURE

3.4 This report is specifically for the addressee stated above.

SIGNATURE

3.5 We confirm that the undersigned is an appropriately qualified and experienced consultant experienced in the commercial property sector.

THIS REPORT HAS BEEN PREPARED WITHIN THE QUALITY SYSTEM OPERATED AT RAPLEYS LLPACCORDING TO BRITISH STANDARD ISO 9001: 2015	
Created By	Natasha Bray LLB (Hons) Natasha.Bray@rapleys.com
Signature	N.Bray N.Bray (Nov 27, 2020 12:40 GMT)
Checked by	Dan Tapscott BSc (Hons) MRICS Dan.Tapscott@rapleys.com
Signature	D. Tapscott D. Tapscott (Nov 27, 2020 13:14 GMT)

FOR AND ON BEHALF OF RAPLEYS LLP

NOVEMBER 2020

4 BASIS OF ASSESSMENT

DETAILS OF THE PROPOSALS

4.1 The proposals seek to provide a vertical and rear extension to the currently existing two storey building with an attic loft.

4.2 The proposals which we have analysed are those which were provided electronically by the Sheen Lane Developments Ltd, received via email on 26 October 2020. An initial set of indicative proposals were forwarded to us prior to this to assist our understanding of the proposals in general.

4.3 Rapleys have taken the information supplied upon which this report is based, in good faith, as being sufficiently accurate for these purposes. In the event inaccuracies become apparent, Rapleys would be willing to re visit the analysis subject to further instructions.

SITE INSPECTION

4.4 The site and surrounding properties were inspected externally on 29 October 2020 by Manuella Nguessan LLB (Hons). During the inspection, Manuella was accompanied by Cathal Travers of Sheen Lane Developments Ltd.

4.5 The model used for the analysis undertaken was the same as used for the assessment of the impact of the proposed development on the neighbouring properties assessment, dated November 2020. Therefore, all previously considered neighbouring properties were treated as obstructions to the proposed development for the purposes of our calculations.

RELEVANT NEIGHBOURING PROPERTIES

4.6 The properties considered as neighbouring obstructions to the proposed development are as follows:

- Property 75 to 81 George Street; a four storey commercial building containing a House of Fraser shop, located west of the development site.
- Property 73 and 74 George Street; a three storey commercial building containing Bowleys shoes located north of the development site.
- Property 71 George Street; a three storey commercial building containing Reiss located north of the development site.
- Property 11 to 13 George Street; four storey commercial buildings containing both Marks and Spencers located east of the development site.
- Property Lion House; a five storey building with mixed commercial and residential use. There appears to be a Pizza Express on the ground floor and residential accommodation on the upper floors. This property is located south of the development site.
- Property 3 to 7 Red Lion Street; three storey commercial buildings containing Headmasters and Cirrus located south of the development site.
- Property 4 to 6 George Street; a four storey building with mixed commercial and residential use, with a Barclays Bank on the ground floor located west of the development site.
- Property 8 George Street; a six storey Barclays bank building located west of the development site.

4.7 These properties together with other relevant obstructions can be viewed in the identification drawings, contained within Appendix 1.

BACKGROUND TO THE ANALYSIS

4.8 In order to undertake the analysis a 3D computer model was drawn in AutoCAD for the development site and the surrounding properties.

4.9 This was based upon site and drawing information provided by the client and their architect, supplemented by information gathered from the photographs of the subject area taken during our site visit.

4.10 Details of the proposals forwarded by the design team were incorporated into a 3D AutoCAD model.

4.11 Thereafter, industry standard Daylight and Sunlight analysis software was applied to the model. This produced the results which have been presented and commented upon within this report.

5 RELEVANT PLANNING POLICY

PLANNING GUIDANCE

5.1 Through the planning process the local authority will wish to be reassured that the rooms within the proposed development are adequately well lit for the future occupiers.

5.2 The Local Development Plan identified as being relevant to our review is the London Borough of Richmond Upon Thames - Local Development Framework: Development Management Plan (Adopted November 2011).

5.3 The Development Management Plan makes specific reference to Daylight & Sunlight in the following section:

> *Policy DM DC 5 - Neighbourliness, Sunlighting and Daylighting: "The Council will generally seek to ensure that the design and layout of buildings enables sufficient sunlight and daylight to penetrate into and between buildings, and that adjoining land or properties are protected from overshadowing in accordance with established standards".*

5.4 Despite the above, no specific guidance on the levels of Daylight & Sunlight Amenity is provided by the Local Authority. However, we have experience in producing studies utilising the guidance set out within Building Research Establishment's Report 209 "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" (2011 2nd Edition) [the BRE Report]. This is widely recognised as the most appropriate way of undertaking a study such as this.

6 DAYLIGHT & SUNLIGHT ASSESSMENT GUIDELINES

6.1 BRE Report 209 *Site Layout Planning for Daylight and Sunlight – a guide to good practice Second Edition 2011*, provides guidance to designers, clients, consultants and planning officials on laying out proposed development sites, to ensure that the rooms within the proposed development are adequately well lit for future occupiers. This document is widely used in the construction industry.

6.2 An important point to note contained within the introduction of the BRE Report is:

> *"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 the main factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable…"*

6.3 The BRE guide sets out recommendations for light levels within particular rooms, these guidelines are intended to be applied flexibly. Accordingly, in some cases there may be special requirements for daylight or sunlight; this could increase or reduce the recommendations for particular rooms.

AVERAGE DAYLIGHT FACTOR

6.4 The Average Daylight Factor (ADF) is used for considering the amount of light received within the habitable rooms within a proposal.

6.5 The ADF recommendations are set out in the BRE guide; these are based on British Standard BS 8206 Part 2 and the Chartered Institute of Building Services Engineers Applications Manual on window design.

6.6 The ADF calculation measures the distribution and quality of light within a room served by a window. It takes account of the size of the room, the size and number of windows, surface finishes, glazing qualities and room use. If a room is served by more than one window, the total ADF for that room will be based on the aggregate amount of natural light entering the room through all of the windows.

6.7 The Average Daylight Factor can be calculated using the following formula:

$$df = \frac{T \, Aw \, \theta \, .}{A \, (1-R^2)} \%$$

T = the diffuse visible transmittance of the glazing (BRE standard of 0.68)
Aw = the net glazed area of the window (m2)
A = the total area of the room surfaces (m2)
R = their average reflectance
Θ = the angle of visible sky in degrees

6.8 Where supplementary lighting is supplied the following ADF values should be considered the minimum. 2% for rooms containing a kitchen element, 1.5 for living rooms and 1% for bedrooms.

SUNLIGHT TO WINDOWS (APSH)

6.9 When considering sunlight, in the northern hemisphere, it is only those windows that face within 90 degrees of due south that will enjoy significant amounts of Sunlight Accordingly,

the BRE sunlight to windows analysis is to be applied to all main living rooms and conservatories that have a window facing within 90 degrees of due south.

6.10 Any windows that face within 90 degrees of due north will be annotated as such within the analysis results.

6.11 The BRE guide recommends that the windows tested should receive 25% of the total annual probable sunlight hours and 5% of annual probable sunlight hours during winter (21st September – 21st March).

6.12 The guide recommends that where possible each dwelling should have at least one main living room window that faces within 90 degrees of due south. It also recognises that this is not always possible with proposed flats.

OVERSHADOWING TO GARDENS AND OPEN SPACES

6.13 The BRE guide recommends that at least 50% of the area of each amenity space should receive at least two hours of sunlight on 21st March. The availability of sunlight should be checked for all open spaces where sunlight is required.

7 FINDINGS OF THE ANALYSIS

RESULTS

7.1 The ADF results are shown in the tables contained within appendix 2. Sunlight to Windows results are contained within appendix 3. Overshadowing to gardens and open spaces results are contained within appendix 4. The 2hr Amenity drawings are contained in appendix 5.

7.2 The following section contains commentary on the results from the analysis.

8 COMMENTARY ON RESULTS

AVERAGE DAYLIGHT FACTOR

8.1 The results confirm that all of the proposed rooms tested meet or surpass their Average Daylight Factor targets with the exception of one room on the first floor (Room 2). This gives an overall compliance rate of around 93%.

8.2 Room 2 achieves a result of 0.8 which is close the desired target of 1.00. We therefore consider this minor shortfall to be marginal and reasonable given the context of this urban high street location and the use of the room being a bedroom and therefore not considered to be as important as other room types, according to the BRE guide.

8.3 We confirm that the chosen proposed layouts for the internal rooms are considerate of the nature of the area and its neighbouring obstructions. On the whole, the future occupiers of these dwellings will benefit from good access to light.

SUNLIGHT TO WINDOWS

8.4 All habitable rooms tested, with the exception of 2 rooms on the first floor, have at least one window that meets the requirements of the sunlight to windows test.

8.5 The two rooms falling short of their sunlight requirements are located at rooms 1 and 4 on the first floor. It should be noted that the windows at these rooms do not have a direct view within 90 degrees of due south due to their sunken position and as such will not have a reasonable expectation for sunlight. The BRE guide recognises that not all windows can be oriented to benefit from good access to sunlight. In this case we are of the opinion that, given the site restrictions, the best effort has been made to orient windows in the best position where possible.

8.6 We are therefore of the opinion that the sunlight to windows results are acceptable in the context of the location of the development site.

OVERSHADOWING TO GARDENS AND OPEN SPACES

8.7 The results for the Overshadowing to Gardens and Open Spaces test show that only the amenity space on the third floor surpasses the BRE recommendations. The remaining spaces on the first and second floors fall short of their recommendations by varying amounts.

8.8 The spaces on the first floor are recessed into the building in the form of courtyards. Accordingly, they only benefit from sunlight received from directly above, rather than having any southerly views.

8.9 The spaces on the second floor perform better than those on the first floor. As part of our analysis we conducted an additional test to determine the reason why these spaces do not meet the recommendations and have determined it is the presence of the protective railing around the spaces reducing access to sunlight. With the railing removed the spaces surpass the BRE recommendations. As the railings are a necessary safety feature they must remain in place, however note should be made of the compromise this forces on the sunlight compliance.

8.10 Whilst the spaces on the first and second floors are not compliant with the BRE recommendations, it should be noted that Richmond Green is within a few minutes walk of the site and should be able to provide the occupants with easy access to an outdoor space in addition to those in the development. We therefore consider these results to be reasonable and acceptable in the context of the location.

9 CONCLUSION

9.1 Whilst not all of the rooms, windows and amenity spaces are fully compliant with the BRE recommendations, it should be noted that the targets provided are simply recommendations and not intended to be applied in a strict fashion. Drawing directly from the BRE guide:

> "The guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and this document should not be considered 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."

9.2 The results confirm that the majority of the rooms and windows within the proposed development will receive satisfactory levels of daylight and sunlight.

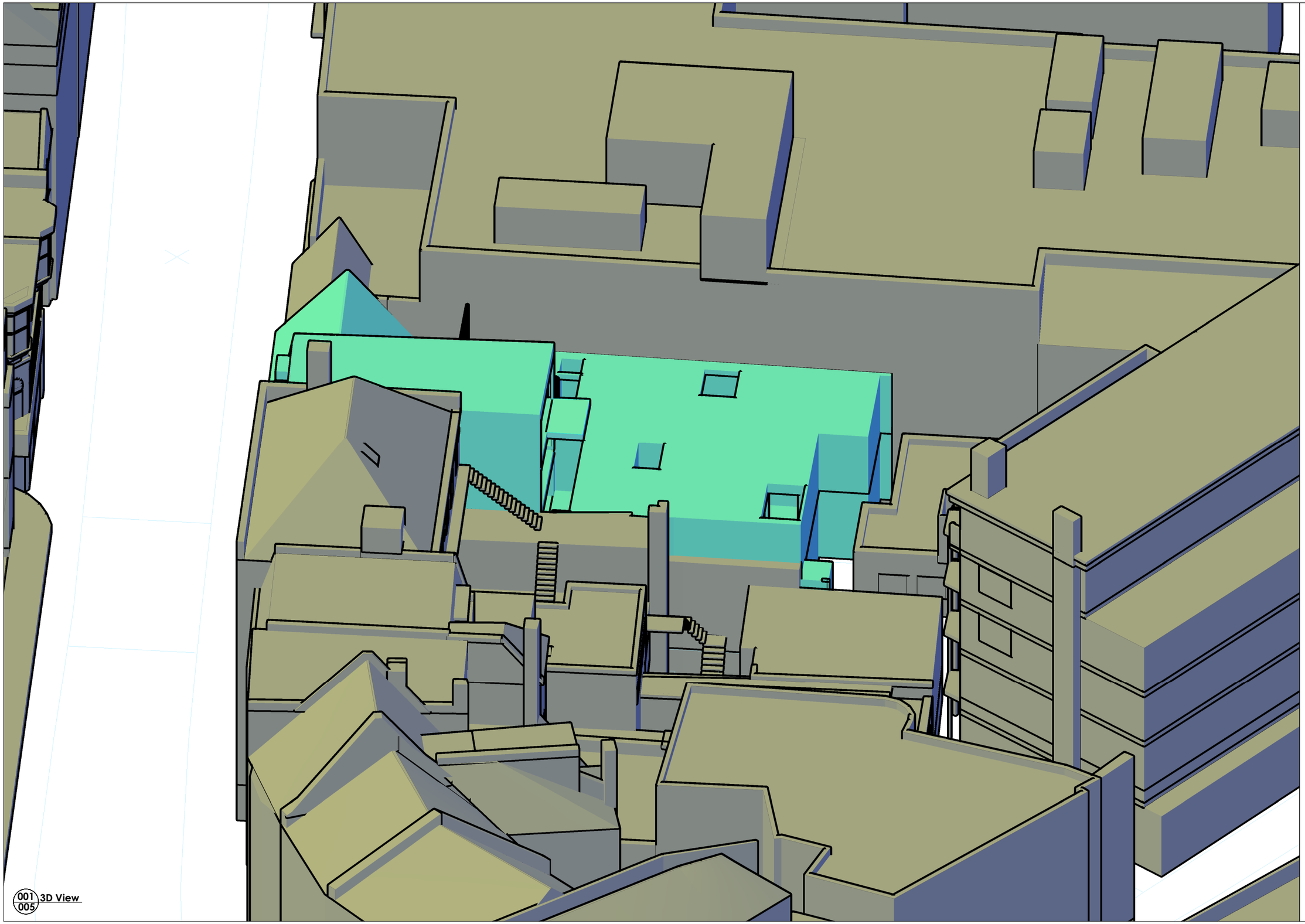
9.3 Whilst only one of the amenity spaces tested surpasses the BRE Daylight & Sunlight recommendations, we consider the results not to be unusual given the urban location and the aforementioned restrictive nature of the railings. Furthermore, the availability of nearby park spaces which can be used by the residents should provide easy access to substantial and sunlit outdoor spaces.

9.4 We conclude that the proposed development has been designed well. It allows good access to light to the rooms, with due consideration of the future occupiers of the dwellings.

9.5 Combining the BRE's intended flexibility with the National Planning Policy Framework, published in July 2018, this recommends taking a flexible approach in applying policies or guidance relating to daylight and sunlight, where making efficient use of a site is at risk. We are therefore of the opinion that there is no daylight and sunlight related reason why planning permission should not be granted for this scheme.

Appendix 1

IDENTIFICATION DRAWINGS



001
005
3D View

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
Proposed 3D View Looking North

Scale	Date	Drawn
NTS	Nov-20	MF

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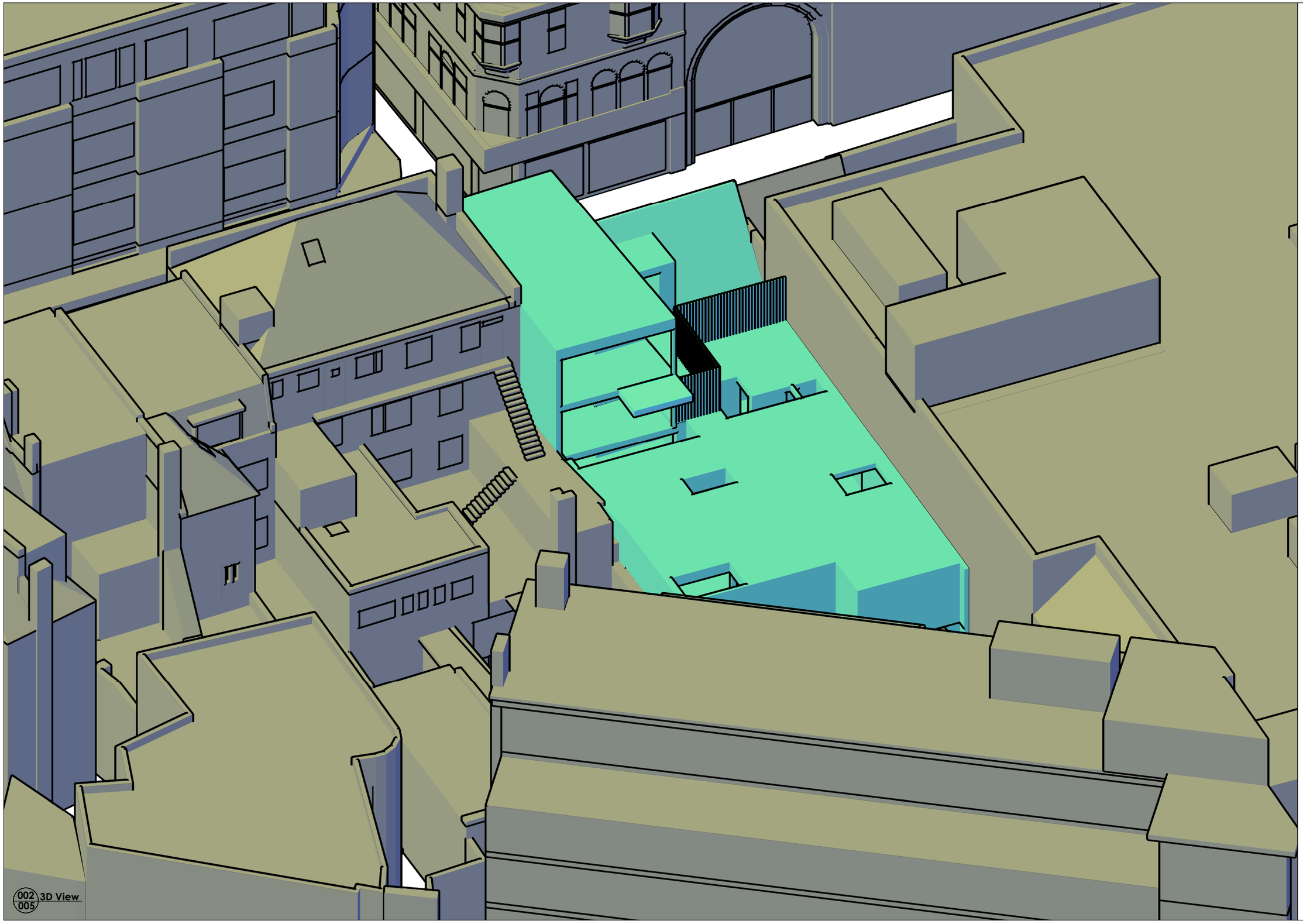

002 005 3D View

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
Proposed 3D View Looking East

Scale	Date	Drawn
NTS	Nov-20	MF

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003/005 Rooms & Windows Layout - First Floor

Existing Drawings & Proposed Drawings
Thomas Moss Architectural Design & Surveying Services
October 2020

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
Rooms & Windows Layout

Scale	Date	Drawn
NTS	Nov-20	MF

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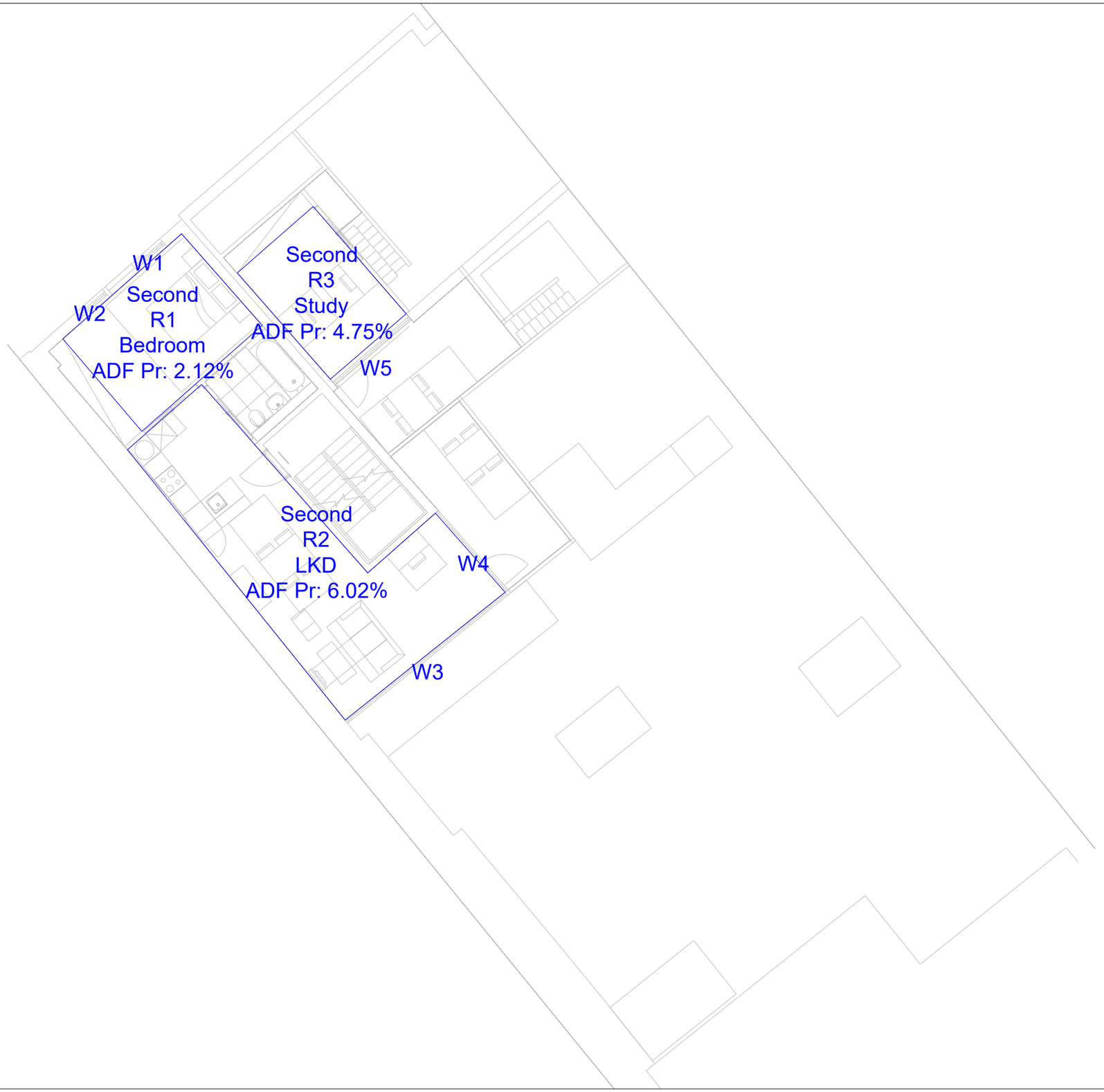

004 Rooms & Windows
005 Layout - Second Floor

N

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
Rooms & Windows Layout

Scale	Date	Drawn
NTS	Nov-20	MF

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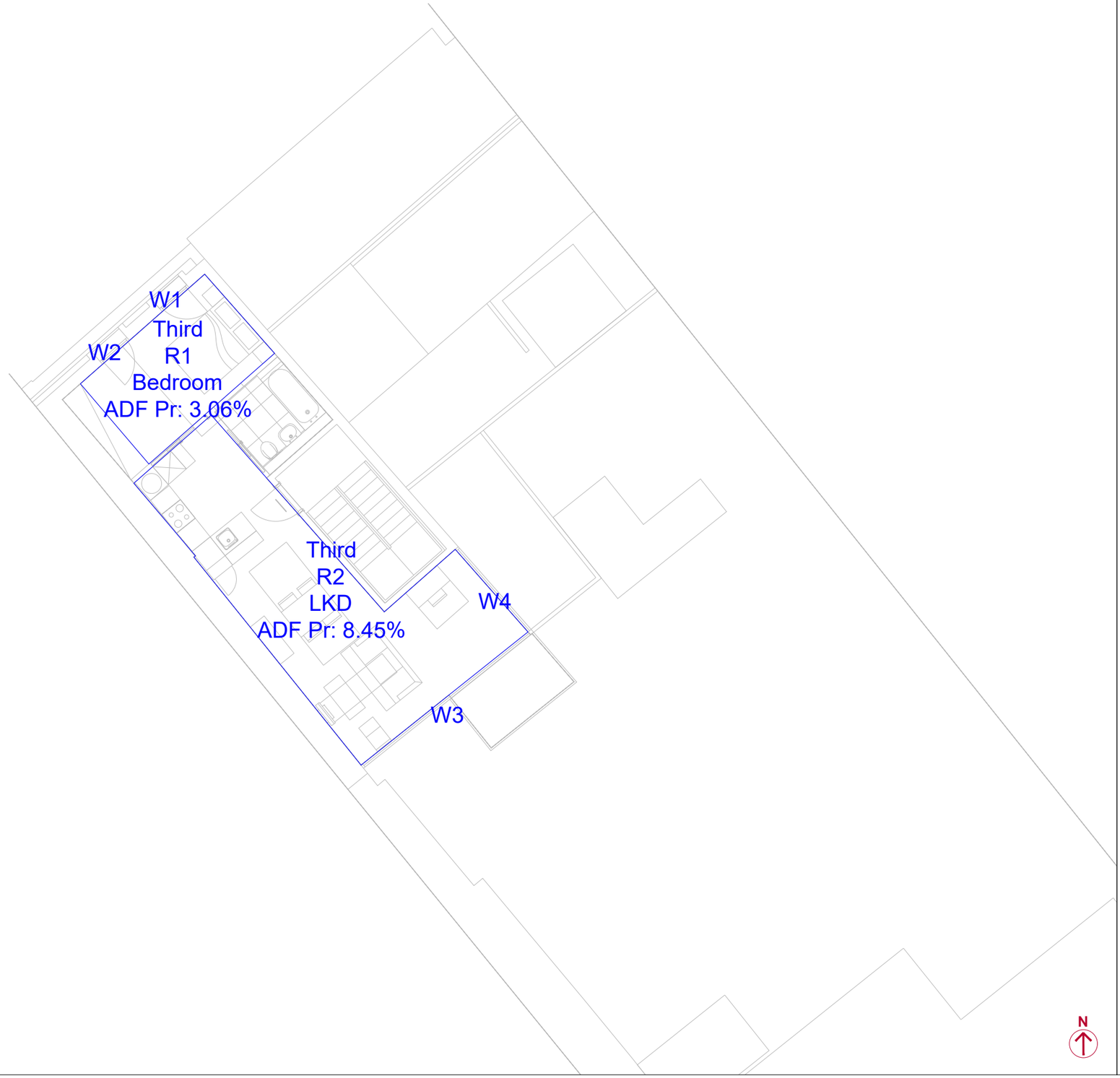

005 Rooms & Windows
005 Layout - Third Floor

N

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
Rooms & Windows Layout

Scale	Date	Drawn
NTS	Nov-20	MF

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Appendix 2

AVERAGE DAYLIGHT FACTOR RESULTS

Project Name: 9 - 10 George Street, Richmond, London TW9 1JY
Project No.: 20-01558
Report Title: Average Daylight Factor - Proposed Scheme Analysis
Date: November 2020 V.2

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRE Criteria
9-10 Georges Street													
First	R1	LKD	W1-L	0.68	1.00	0.46	51.62	123.80	0.69	0.15	0.04		
			W1-U	0.68	1.00	0.99	52.13	123.80	0.69	1.00	0.54		
			W2-L	0.68	1.00	0.46	52.44	123.80	0.69	0.15	0.04		
			W2-U	0.68	1.00	0.99	52.80	123.80	0.69	1.00	0.54		
			W17-L	0.68	1.00	1.27	21.01	123.80	0.69	0.15	0.04		
			W17-U	0.68	1.00	3.55	32.35	123.80	0.69	1.00	1.19		
											2.39	2.00	YES
First	R2	Bedroom	W3-L	0.68	1.00	0.32	50.94	62.21	0.69	0.15	0.05		
			W3-U	0.68	1.00	0.70	51.49	62.21	0.69	1.00	0.74		
											0.80	1.00	NO
First	R3	Bedroom	W4-L	0.68	1.00	0.36	50.91	64.95	0.69	0.15	0.06		
			W4-U	0.68	1.00	0.79	51.17	64.95	0.69	1.00	0.80		
			W5-L	0.68	1.00	0.36	49.45	64.95	0.69	0.15	0.05		
			W5-U	0.68	1.00	0.78	49.68	64.95	0.69	1.00	0.77		
											1.67	1.00	YES
First	R4	LKD	W6-L	0.68	1.00	2.76	25.45	138.08	0.69	0.15	0.10		
			W6-U	0.68	1.00	6.71	40.54	138.08	0.69	1.00	2.53		
											2.63	2.00	YES
First	R5	Bedroom	W7-L	0.68	1.00	0.88	20.24	54.24	0.69	0.15	0.06		
			W7-U	0.68	1.00	1.75	31.89	54.24	0.69	1.00	1.33		
											1.39	1.00	YES
First	R6	LKD	W7-L	0.68	1.00	0.88	20.24	131.77	0.69	0.15	0.03		
			W7-U	0.68	1.00	1.75	31.89	131.77	0.69	1.00	0.55		
			W8	0.68	1.00	2.02	167.04	131.77	0.69	1.00	3.29		
			W9-L	0.68	1.00	1.63	27.70	131.77	0.69	0.15	0.07		
			W9-U	0.68	1.00	3.95	44.77	131.77	0.69	1.00	1.73		
			W10-L	0.68	1.00	0.81	28.67	131.77	0.69	0.15	0.03		
			W10-U	0.68	1.00	1.97	42.57	131.77	0.69	1.00	0.82		
											6.51	2.00	YES
First	R7	Bedroom	W11-L	0.68	1.00	1.05	10.93	50.75	0.69	0.15	0.04		
			W11-U	0.68	1.00	2.40	16.97	50.75	0.69	1.00	1.03		
											1.08	1.00	YES
First	R8	LKD	W11-L	0.68	1.00	1.05	10.93	136.43	0.69	0.15	0.02		
			W11-U	0.68	1.00	2.40	16.97	136.43	0.69	1.00	0.38		
			W12	0.68	1.00	2.81	131.32	136.43	0.69	1.00	3.48		
			W13-L	0.68	1.00	1.96	23.48	136.43	0.69	0.15	0.07		
			W13-U	0.68	1.00	5.46	34.61	136.43	0.69	1.00	1.78		
			W14-L	0.68	1.00	0.59	20.08	136.43	0.69	0.15	0.02		
			W14-U	0.68	1.00	1.64	31.15	136.43	0.69	1.00	0.48		
			W15	0.68	1.00	0.97	118.13	136.43	0.69	1.00	1.08		
											7.30	2.00	YES
First	R9	Bedroom	W16-L	0.68	1.00	0.70	19.76	54.47	0.69	0.15	0.05		
			W16-U	0.68	1.00	1.96	30.18	54.47	0.69	1.00	1.40		
											1.44	1.00	YES
Second	R1	Bedroom	W1-L	0.68	1.00	0.36	58.71	64.15	0.69	0.15	0.06		
			W1-U	0.68	1.00	0.85	59.66	64.15	0.69	1.00	1.01		
			W2-L	0.68	1.00	0.36	57.12	64.15	0.69	0.15	0.06		
			W2-U	0.68	1.00	0.85	57.72	64.15	0.69	1.00	0.98		
											2.12	1.00	YES
Second	R2	LKD	W3-L	0.68	1.00	3.65	58.29	137.07	0.69	0.15	0.30		
			W3-U	0.68	1.00	7.29	51.30	137.07	0.69	1.00	3.51		
			W4-L	0.68	1.00	1.44	49.26	137.07	0.69	0.15	0.10		
			W4-U	0.68	1.00	3.77	59.56	137.07	0.69	1.00	2.11		
											6.02	2.00	YES
Second	R3	Study	W5-L	0.68	1.00	1.47	45.12	51.79	0.69	0.15	0.25		
			W5-U	0.68	1.00	3.57	50.77	51.79	0.69	1.00	4.50		
											4.75	1.50	YES
Third	R1	Bedroom	W1-L	0.68	1.00	0.61	67.28	56.97	0.69	0.15	0.14		
			W1-U	0.68	1.00	0.90	68.98	56.97	0.69	1.00	1.41		
			W2-L	0.68	1.00	0.61	65.86	56.97	0.69	0.15	0.14		
			W2-U	0.68	1.00	0.90	67.62	56.97	0.69	1.00	1.38		
											3.06	1.00	YES
Third	R2	LKD	W3-L	0.68	1.00	3.65	75.06	136.99	0.69	0.15	0.39		
			W3-U	0.68	1.00	7.29	76.61	136.99	0.69	1.00	5.25		
			W4-L	0.68	1.00	1.88	69.41	136.99	0.69	0.15	0.18		
			W4-U	0.68	1.00	3.76	74.40	136.99	0.69	1.00	2.63		
											8.45	2.00	YES

Appendix 3

SUNLIGHT TO WINDOWS RESULTS

Project Name: 9 - 10 George Street, Richmond, London TW9 1JY
Project No.: 20-01558
Report Title: Daylight & Sunlight - Proposed Scheme Analysis
Date of Analysis: November 2020 V.2

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Window Orientation	Annual	Meets BRE Criteria	Winter	Meets BRE Criteria	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
9-10 Georges Street												
First	R1	LKD	W1	319°N	2.00	NO	0.00	NO				
			W2	319°N	2.00	NO	0.00	NO				
			W17	141°	14.00	NO	0.00	NO				
									16.00	NO	0.00	NO
	R4	LKD	W6	141°	20.00	NO	1.00	NO				
									20.00	NO	1.00	NO
	R6	LKD	W7	51°N	0.00	NO	0.00	NO				
			W8	90° Hz	67.00	YES	12.00	YES				
			W9	141°	22.00	NO	0.00	NO				
			W10	231°	20.00	NO	0.00	NO				
									67.00	YES	12.00	YES
	R8	LKD	W11	51°N	0.00	NO	0.00	NO				
			W12	90° Hz	55.00	YES	12.00	YES				
			W13	321°N	0.00	NO	0.00	NO				
			W14	231°	5.00	NO	0.00	NO				
			W15	90° Hz	39.00	YES	8.00	YES				
									56.00	YES	13.00	YES
Second	R2	LKD	W3	141°	48.00	YES	21.00	YES				
			W4	49°N	6.00	NO	1.00	NO				
									53.00	YES	21.00	YES
Third	R2	LKD	W3	141°	68.00	YES	25.00	YES				
			W4	49°N	23.00	NO	4.00	NO				
									69.00	YES	25.00	YES

Appendix 4

OVERSHADOWING TO GARDENS AND OPEN SPACES

Project Name: 9 - 10 George Street, Richmond, London TW9 1JY
Project No.: 20-01558
Report Title: Two hours Sunlight to Amenity - Proposed Scheme Analysis
Date: November 2020 V.2

Floor Ref.	Amenity Ref.		Amenity Area	Lit Area Proposed	Meets BRE Criteria
9-10 Georges Street					
First	A1	Area m2 Percentage	7.16	0.00 0%	NO
First	A2	Area m2 Percentage	4.55	0.00 0%	NO
First	A3	Area m2 Percentage	5.65	0.00 0%	NO
First	A4	Area m2 Percentage	3.30	0.00 0%	NO
Second	A1	Area m2 Percentage	9.47	0.80 8%	NO
Second	A2	Area m2 Percentage	9.53	2.04 21%	NO
Third	A1	Area m2 Percentage	4.07	4.07 100%	YES

Appendix 5

2HR AMENITY DRAWINGS

001
003 Amenity
First Floor

N

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Key

- 2 Hour Amenity Contours

A1 - Amenity 1

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
2hr Sunlight to Amenity

Scale	Date	Drawn
NTS	Nov-20	MF

RAPLEYS
33 Jermyn Street,
London SW1Y 6DN
Tel: 0370 777 6292 www.rapleys.com

002
003 Amenity
Second Floor

N

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Key

- 2 Hour Amenity Contours

A1 - Amenity 1

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
2hr Sunlight to Amenity

Scale	Date	Drawn
NTS	Nov-20	MF

RAPLEYS
33 Jermyn Street,
London SW1Y 6DN
Tel: 0370 777 6292 www.rapleys.com

003
003 Amenity
Third Floor

N

Existing Drawings &
Proposed Drawings
Thomas Moss Architectural
Design & Surveying Services
October 2020

Key

- 2 Hour Amenity Contours

A1 - Amenity 1

Client
Carlford Properties Ltd.

Job Title
20 - 01558 - 9-10 Georges Street, Richmond, London TW9 1JY

Drawing Title
2hr Sunlight to Amenity

Scale	Date	Drawn
NTS	Nov-20	MF

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