REPORT

30A HIGHGATE ROAD
LONDON NW5

DAYLIGHT, SUNLIGHT
AND
SHADE

BVP
BROOKE VINCENT + PARTNERS

RICS

CONTENTS OF REPORT

BVP
BROOKE VINCENT + PARTNERS

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Chassay + Last Architects
Berkeley Works
Berkley Grove
London NW1 8XY

Our Ref: JC/SAU/9552

Date: 29th September 2011

Dear Sirs

30A Highgate Road, London NW5

Daylight, Sunlight & Overshadowing

We are instructed to report upon the daylight, sunlight and overshadowing aspects of this Planning Application, in relation to neighbouring properties and proposed accommodation.

Our report is based upon the scheme drawings prepared by Chassay + Last Architects, site surveys, site inspection and photographs, plus daylight, sunlight and shade studies.

1.0 SUMMARY

1.1 This report has been drafted by reference to the Building Research Establishment (BRE) publication, *"Site layout planning for daylight and sunlight. A guide to good practice"*, and the requirements of the London Borough of Camden's Development Policies.

1.2 Daylighting and sunlight to neighbouring residential buildings would continue to satisfy BRE criteria in all neighbouring locations and there would be no adverse affect.

1.3 The design of the proposed accommodation has been developed with our input and would be in accordance with BRE recommendations.

1.4 The extent of permanent overshadowing to neighbouring amenity spaces at 21st March varies by relatively small amounts and there would be no adverse affect.

1.5 Consideration of daylighting, sunlight availability and overshadowing has confirmed there would be no adverse affect, as BRE criteria would be satisfied in all matters. London Borough of Camden's relevant policies are similarly satisfied.

Yours faithfully

John Carter FRICS
for BROOKE VINCENT + PARTNERS

email: john.carter@brooke-vincent.co.uk

2.0 INTRODUCTION

2.1 This report is based upon the application drawings of Chassay + Last Architects.

2.2 The London Borough of Camden's Local Development Framework (LDF), November 2010, sets out the key elements of the council's vision for the borough through its core strategy, whilst detailed planning criteria are defined through its development policies.

Core Strategy

POLICY CS5 - Managing the impact of growth and development.

The second part of this policy confirms:

"The council will protect the amenity of Camden's residents and those working in and visiting the borough by:

(e) Making sure that the impact of developments on their occupiers and neighbours is fully considered".

In the explanatory note following this policy item 58 confirms ... "we will expect development to avoid harmful effects on the amenity of existing and future occupiers and nearby properties or, where this is not possible, to take appropriate measures to minimise potential negative impacts".

Development Policies

POLICY DP26 - Managing the impact of development on occupiers and neighbours.

"The council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include;

(b) Overshadowing and outlook.

(c) Sunlight, daylight and artificial light levels.

Thereafter, explanatory comment 6.3 confirms the council will take into account the standards recommended in the British Research Establishment's (BRE) report: *Site layout planning for daylight and sunlight. A guide to good practice. 1991.*

2.3 We confirm all calculations and considerations within this report are based upon the Building Research Establishment (BRE) publication *"Site Layout Planning for Daylight and Sunlight, a guide to good practice."* This Guide does not contain mandatory requirements, but in the Introduction provides a full explanation of its purpose:

"The Guide is intended for building designers and their clients, consultants and planning officials."

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy."

"It aims to help rather than constrain the designer."

"Although it gives numerical guidelines these should be interpreted flexibly because 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 levels. For example, in an historic city centre, a high degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."

2.4 Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.

2.5 The simplest methods are not appropriate in an urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.

2.6 The BRE Guide states *"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 diffused daylighting of the existing building may be adversely affected.*

This will be the case if the 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".

2.7 Daylight distribution within a neighbour's room is also recommended by BRE as a measure of understanding the relationships between existing and proposed daylight. This relies on a knowledge of internal layouts and has not been referred to in all locations. BRE recommends that proposed daylight distribution, across a reference plane that is 0.85m above floor level, is no less than 0.8 the former (existing) value.

2.8 The conventional measure of daylight within proposed accommodation is Average Daylight Factor (ADF). This is preferred because it is a more comprehensive measure of daylighting within the room and the relevant information is readily available.

2.9 ADF starts with the VSC calculation in order to confirm the angle of obstruction and visible sky. It then goes on to consider the area of glass receiving light and the transmittance qualities of that glass. This is then related to size and reflectance value of the room beyond. The end result is compared to the room's use.

2.10 With the rooms complimented by artificial lighting, the BRE guidance seeks ADF's at, or in excess of:

2%	Kitchen
1.5%	Living Room
1%	Bedroom

3.0 DAYLIGHT

3.1 Generally

3.1.1 Daylight is not specific to a particular direction, as it is received from the dome of the sky. It is therefore necessary to consider all neighbouring residential property facing the application site.

3.1.2 We define below the properties that neighbour the site and refer to the location of the windows we have further considered by calculating VSC. Each window is defined by a number, which is highlighted on the location plan and model in Appendix 1, and also by its floor level, when referring to the results.

3.1.3 In a similar manner the proposed accommodation is referenced by floor and window number but with the addition of room reference and room use, in order to audit the ADF results.

3.1.4 In the model, the blue defines the existing site buildings and magenta, the proposed development. Green defines neighbouring buildings.

Daylight To Neighbouring Properties

3.2 North

3.2.1 To the north is a ground floor non-residential building, serving a property that is at the end of a drive from Burghley Road and set of Fortress Yard. This requires no further consideration but is in any case protected by substantial trees with mature canopies that stand between this property and the development site.

3.2.2 To the north west are No's. 8 and 10 Burghley Road which, we refer to, in conjunction with other properties in Burghley Road, under the heading of **West**.

3.3 East

3.3.1 To the north east and east of the development site is a terrace of residential properties, 21 to 37 Fortress Road and No's. 4-6 Fortress Yard. These are all defined on our model in Appendix 1.

3.3.2 The combination of distance from the proposed development and the relatively modest height of that development, led us to conclude there was most unlikely to be an adverse affect, to the daylight they presently receive. We therefore restricted our analysis to a single window at the lower ground floor level of each property. We chose the window that is located between back additions as the quality of daylight received is already restricted, when compared to the more open aspect of the windows on the rear face of the back additions. In other words, they have a tunnel vision and an adverse affect is more likely to occur.

3.3.3 The results in Appendix 2 confirm that existing daylighting to these windows is relatively low and in this situation, BRE confirm advice which is reiterated in item 2.6. This clearly states that an adverse affect would not occur unless proposed VSC were both less than 27% and less than 0.8 the former (existing) value.

3.3.4 The results confirm that all of these proposed values would be 0.89 to 0.99 the existing value and there would be no adverse affect.

3.3.5 The windows serving Fortress Yard benefit from far higher levels of daylight in the existing condition, because they have a view of a relatively open sky.

3.3.6 The results confirm that even in the proposed condition VSC will be in excess of the benchmark figure of 27% VSC, whilst the factor of proposed to existing is set at 0.99 and 1, the equivalent of little or no difference.

3.3.7 We have not analysed other properties in Fortress Road, as these are set even further from the proposed development and there can be no question of an adverse affect.

3.3.8 We have not sought access to measure rooms and consider daylight distribution. With almost no variation at the centre of the windows face, we have no concern regarding internal distributions, which is measured by receipt of light through the head of the window.

3.4 **South**

3.4.1 To the south is the Fire Brigade yard that requires no further consideration.

3.4.2 In the south east quadrant is 28B Highgate Road and a substantial block of flats known as 1-23 Elsfield and fronting Highgate Road.

3.4.3 The residential parts of 28B Highgate Road are set above a shop. At first floor level daylighting in both existing and proposed condition is substantially in excess of 27% VSC and there would be no adverse affect.

3.4.4 The vast majority of Elsfield retains an open view between the development site and the rear of Burghley Road properties. In any case windows on this rear elevation are most unusual in that they are set immediately beneath the balcony above, presumably for reasons of privacy. The indications are that these windows serve bathrooms for which, as non-habitable space, BRE specifically exclude from daylighting recommendations.

3.5 **West**

3.5.1 Burghley Road. We have again analysed the lower ground floor as we did not expect there to be an adverse affect. The results confirm this with existing and proposed VSC remaining well above the benchmark figure of 27% VSC. Indeed all the proposed values are within 0.97 of the existing value and this slight variation would be indiscernible to the occupants.

3.6 **Daylight To Proposed Accommodation**

3.6.1 We have worked with the architect, through the design process, to ensure that good daylighting is provided to all habitable space within the proposed accommodation.

3.6.2 The results in Appendix 3 confirm this and require no further comment.

3.7 DAYLIGHT SUMMARY

3.7.1 Our analysis has confirmed that daylighting to neighbouring residential buildings and to the proposed accommodation would satisfy BRE criteria.

4.0 SUNLIGHT

4.1 Generally

4.1.1 The BRE *Guide to Good Practice* confirms:

(i) Sunlight is only relevant to neighbouring residential windows which have a view of the proposed development and face within 90° of south, i.e. south of the east-west axis.

(ii) If any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the main living room window, a vertical section perpendicular to the window, then the sunlighting in the existing dwelling may be adversely affected.

(iii) Similarly, the sunlighting of the existing dwelling may be adversely affected if the centre of the window receives less than 25% of the annual probable sunlight hours, of which 5% of the annual total should be received between 21st September and 21st March (winter) and less than 0.8 times its former sunlight hours during either period.

(iv) Kitchens and bedrooms are less important, although care should be taken not to block too much sun.

4.2 Sunlight To Neighbouring Properties

4.2.1 The results for sunlight availability are to be found in the two extreme right hand columns in Appendix 2. The majority refer to N/A - not applicable, because the windows do not face within 90° of south.

4.2.2 In those locations that windows do face south it can be seen that there would almost no variation whatsoever. There would be no adverse affect.

Sunlight To Proposed Accommodation

4.3 It is inevitable that sunlight to proposed accommodation would vary widely dependent upon aspect. This is simply a statement of fact that reflects both the historic and modern urban grain and no point is served in giving a wide band of numerical values. However the most important point to note is that the living accommodation is dual aspect and all flats will benefit from sunlight.

4.4 SUNLIGHT SUMMARY

4.4.1 Sunlight availability to all neighbouring residential property, with a southerly aspect and a view of the development site, would retain existing levels of sunlight and BRE criteria is satisfied.

4.4.2 Sunlight availability to proposed accommodation would vary in accordance with aspect, just as it does in neighbouring properties.

5.0 OVERSHADOWING

5.1 Generally

5.1.1 The BRE guide considers that sunlight availability should be checked for all open spaces *"where it will be required"*, including:

- Gardens, usually the main back garden of a house and allotments;
- Parks and playing fields;
- Children's playgrounds;
- Outdoor swimming pools and paddling pools;
- Sitting-out areas, such as those between non-domestic buildings and in public squares; and
- Focal points, such as monuments or fountains.

5.1.2 The BRE guide adds:

"... for it to appear adequately sunlit throughout the year, no more than two-fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21st March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable".

5.2 Transient & Permanent Overshadowing

5.2.1 The shadow images in Appendix 4 define existing and proposed shadow for each hour of the day between 0800 hours and 1600 hours on 21st March, the date referred to by BRE.

5.2.2 Whilst there will be variation between existing and proposed shadow on neighbouring gardens, this is not significant. More importantly there would be no additional permanent overshadowing.

5.2.3 Within the proposed courtyard, were this to be defined as amenity space, there would be only one small area of permanent overshadowing. BRE criteria as defined by 5.1.2 would be satisfied.

5.3 OVERSHADOWING SUMMARY

5.3.1 Overshadowing of neighbouring and proposed amenity space satisfies BRE criteria. There would be no adverse affect.

APPENDIX 1

LOCATION PLAN
AND
CAD MODEL

LEGEND

Indicative

Existing buildings

Existing buildings to be demolished

Proposed new buildings

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Chassay Studio

PROJECT:
30A Highgate Road

DRAWING:
Plan View
Existing

DRAWN: BS	PROJECT NO: 9552
SCALE: NTS	
DATE: 28.09.2011	

DRAWING NO:	REV:
9529-01	D

LEGEND

indicative

Existing buildings

Existing buildings to be demolished

Proposed new buildings

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Chassay Studio

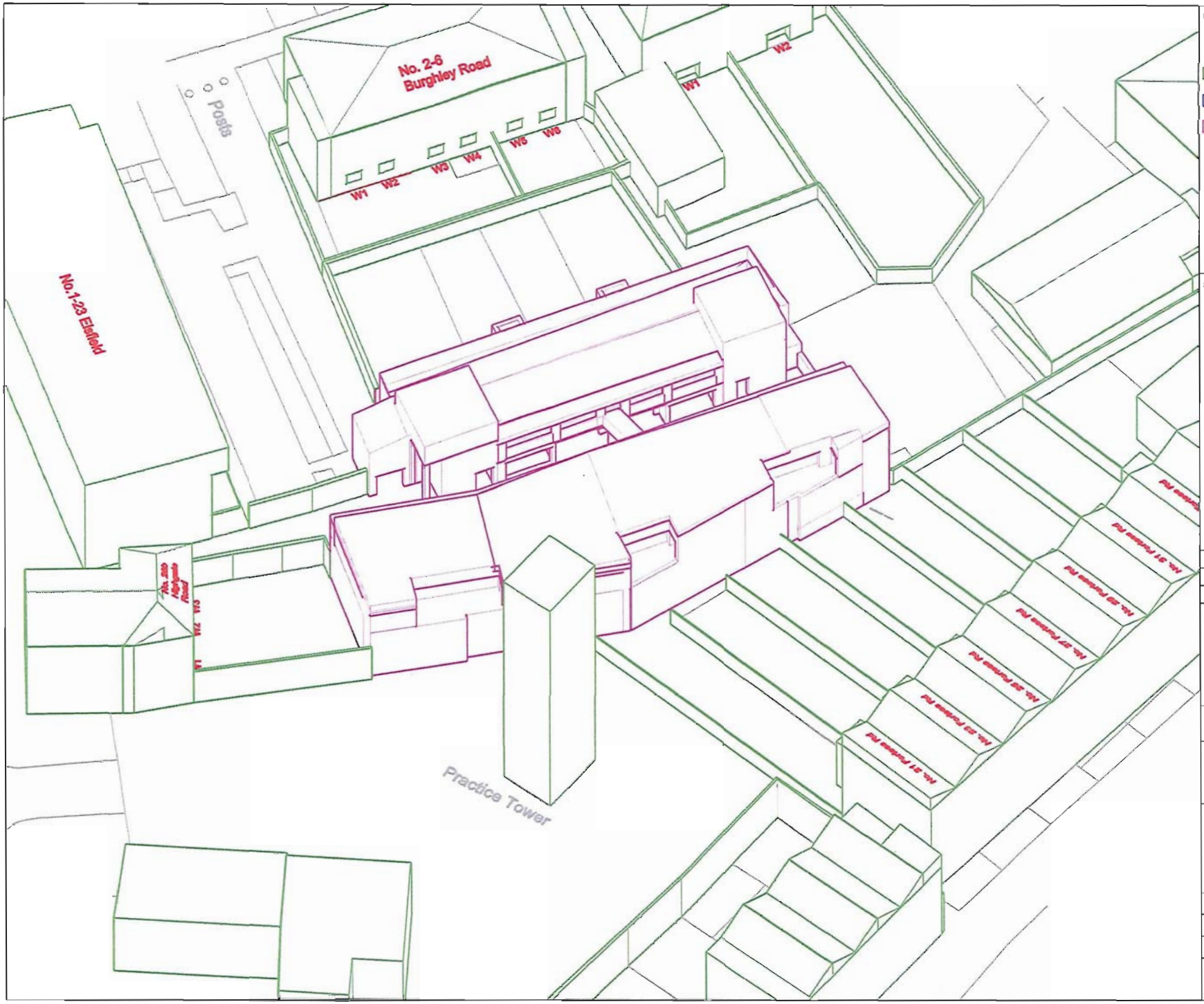
PROJECT:
30A Highgate Road

DRAWING:
Plan View
Proposed

DRAWN: BS	PROJECT NO: 9552
SCALE: NTS	
DATE: 28.09.2011	

DRAWING NO: 9529-02

REV: D



LEGEND

Existing buildings

Existing buildings to be demolished

Proposed new buildings

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Chassay Studio

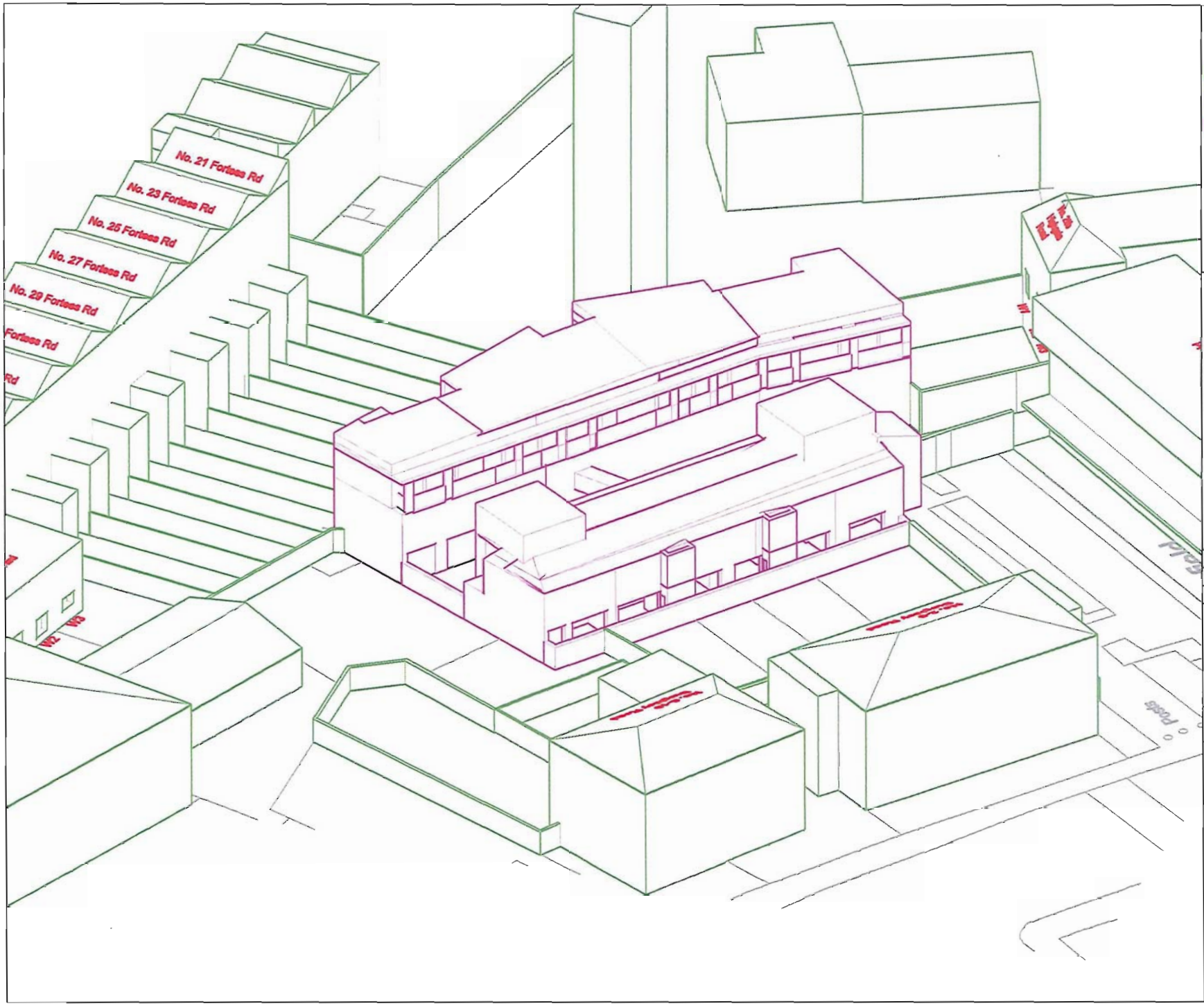
PROJECT:
30A Highgate Road

DRAWING:
Perspective 1
Proposed

DRAWN:	BS	PROJECT NO: 9552
SCALE:	NTS	
DATE:	28.09.2011	

DRAWING NO: 9529-03

REV: D



LEGEND

Existing buildings

Existing buildings to be demolished

Proposed new buildings

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Chassay Studio

PROJECT:
30A Highgate Road

DRAWING:
Perspective 2
Proposed

DRAWN:	BS	PROJECT NO: 9552
SCALE:	NTS	
DATE:	28.09.2011	

DRAWING NO:	REV:
9529-04	D

APPENDIX 2

DAYLIGHT & SUNLIGHT ANALYSIS - NEIGHBOURING PROPERTIES

30A Highgate Road (D/S) 28.09.2011

Floor Ref.	Window Ref.		VSC	Proposed / Existing	Available Sunlight Hours Annual %	Winter %
No.4-5 Fortess Yard						
Ground	W1	Existing	29.54	1.00	N/A	N/A
		Proposed	29.41		N/A	N/A
Ground	W2	Existing	30.70	0.99	N/A	N/A
		Proposed	30.48		N/A	N/A
Ground	W3	Existing	32.15	0.99	N/A	N/A
		Proposed	31.74		N/A	N/A
No.33 Fortess Road						
Ground	W1	Existing	17.05	0.97	N/A	N/A
		Proposed	16.62		N/A	N/A
No.35 Fortess Road						
Ground	W1	Existing	24.26	0.99	N/A	N/A
		Proposed	23.92		N/A	N/A
No.31 Fortess Road						
Ground	W1	Existing	16.50	0.96	N/A	N/A
		Proposed	15.88		N/A	N/A
No.29 Fortess Road						
Ground	W1	Existing	14.67	0.93	N/A	N/A
		Proposed	13.69		N/A	N/A
No.27 Fortess Road						
Ground	W1	Existing	16.50	0.90	N/A	N/A
		Proposed	14.91		N/A	N/A
No.25 Fortess Road						
Ground	W1	Existing	13.12	0.89	N/A	N/A
		Proposed	11.67		N/A	N/A
No.23 Fortess Road						
Ground	W1	Existing	13.80	0.89	N/A	N/A
		Proposed	12.30		N/A	N/A
No.21 Fortess Road						
Ground	W1	Existing	18.84	0.93	N/A	N/A
		Proposed	17.53		N/A	N/A

30A Highgate Road (D/S) 28.09.2011

Floor Ref.	Window Ref.		VSC	Proposed / Existing	Available Sunlight Hours Annual %	Winter %
No. 2-6 Burghley Road						
Ground	W1	Existing	32.63	0.97	48	13
		Proposed	31.63		48	13
Ground	W2	Existing	33.31	0.97	49	14
		Proposed	32.34		49	14
Ground	W3	Existing	33.53	0.97	50	15
		Proposed	32.53		50	15
Ground	W4	Existing	33.55	0.97	50	15
		Proposed	32.56		50	15
Ground	W5	Existing	33.02	0.97	50	16
		Proposed	32.11		50	16
Ground	W6	Existing	31.39	0.97	47	16
		Proposed	30.56		46	15
No. 8-10 Burghley Road						
Ground	W1	Existing	25.64	1.00	34	2
		Proposed	25.57		34	2
Ground	W2	Existing	33.16	0.99	54	17
		Proposed	32.92		54	17

APPENDIX 3

DAYLIGHT ANALYSIS - PROPOSED ACCOMMODATION

30A Highgate Road (ADF) 28.09.2011

Proposed

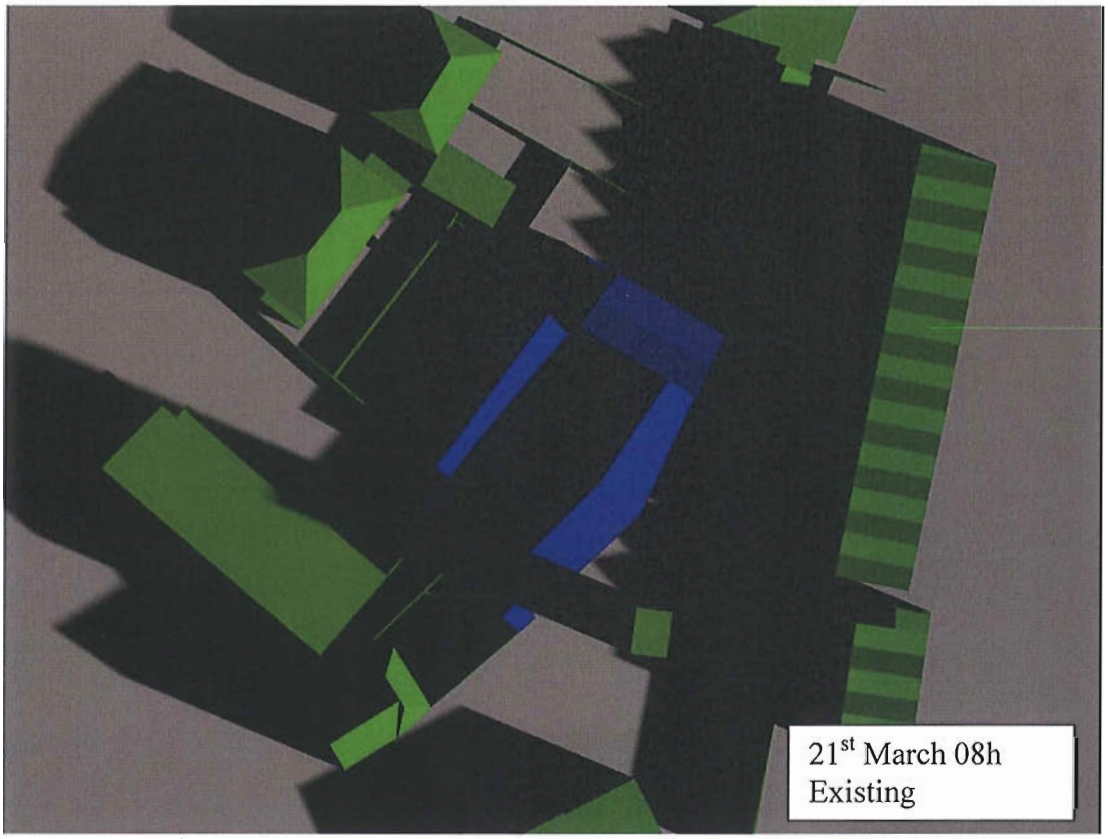
Floor Ref.	Room Ref.	Room Use	Window Ref.	ADF Proposed	Req'd Value	Pass/Fail
Ground	R5	Bedroom	W7 W8	0.57 0.81		
				1.38	1.0	PASS
Ground	R6	Bedroom	W9	2.71		
				2.71	1.0	PASS
Ground	R7	Kitchen	W10 W20 W21 W22	0.24 2.09 0.10 0.11		
				2.54	2.0	PASS
Ground	R8	Kitchen	W12 W16 W17 W18	1.51 2.25 0.09 0.11		
				3.96	2.0	PASS
Ground	R9	Bedroom	W12	3.39		
				3.39	1.0	PASS
Ground	R10	Bedroom	W13	1.35		
				1.35	1.0	PASS
Ground	R11	Bedroom	W14	2.71		
				2.71	1.0	PASS
Ground	R12	Bedroom	W15	4.74		
				4.74	1.0	PASS
Ground	R13	Bedroom	W16	4.92		
				4.92	1.0	PASS
Ground	R14	Bedroom	W23	6.12		
				6.12	1.0	PASS
Ground	R15	Bedroom	W24	6.79		
				6.79	1.0	PASS
Ground	R16	Bedroom	W25	3.53		
				3.53	1.0	PASS

30A Highgate Road (ADF) 28.09.2011

Floor Ref.	Room Ref.	Room Use	Window Ref.	ADF Proposed	Req'd Value	Pass/Fail
Second	R1	Bedroom	W1	2.26		
				2.26	1.0	PASS
Second	R2	Kitchen	W3	1.00		
			W2	0.45		
			W37	3.20		
			W38	0.48		
				5.13	2.0	PASS
Second	R3	Bedroom	W4	2.82		
				2.82	1.0	PASS
Second	R4	ving/dinning roo	W5	0.47		
			W6	1.99		
			W34	2.61		
				5.06	1.5	PASS
Second	R5	Bedroom	W26	2.38		
				2.38	1.0	PASS
Second	R6	Bedroom	W27	2.00		
				2.00	1.0	PASS
Second	R7	ving/dinning roo	W28	2.14		
			W31	4.95		
				7.08	1.5	PASS
Second	R8	Kitchen	W29	2.59		
				2.59	2.0	PASS
Second	R9	Bedroom	W30	2.02		
				2.02	1.0	PASS
Second	R10	Bedroom	W32	1.45		
				1.45	1.0	PASS
Second	R11	Bedroom	W33	2.35		
				2.35	1.0	PASS
Second	R12	Bedroom	W35	1.01		
				1.01	1.0	PASS
Second	R13	Bedroom	W36	2.99		
				2.99	1.0	PASS

APPENDIX 4

TRANSIENT SHADOW DIAGRAMS/OVERSHADOWING - 21ST MARCH GMT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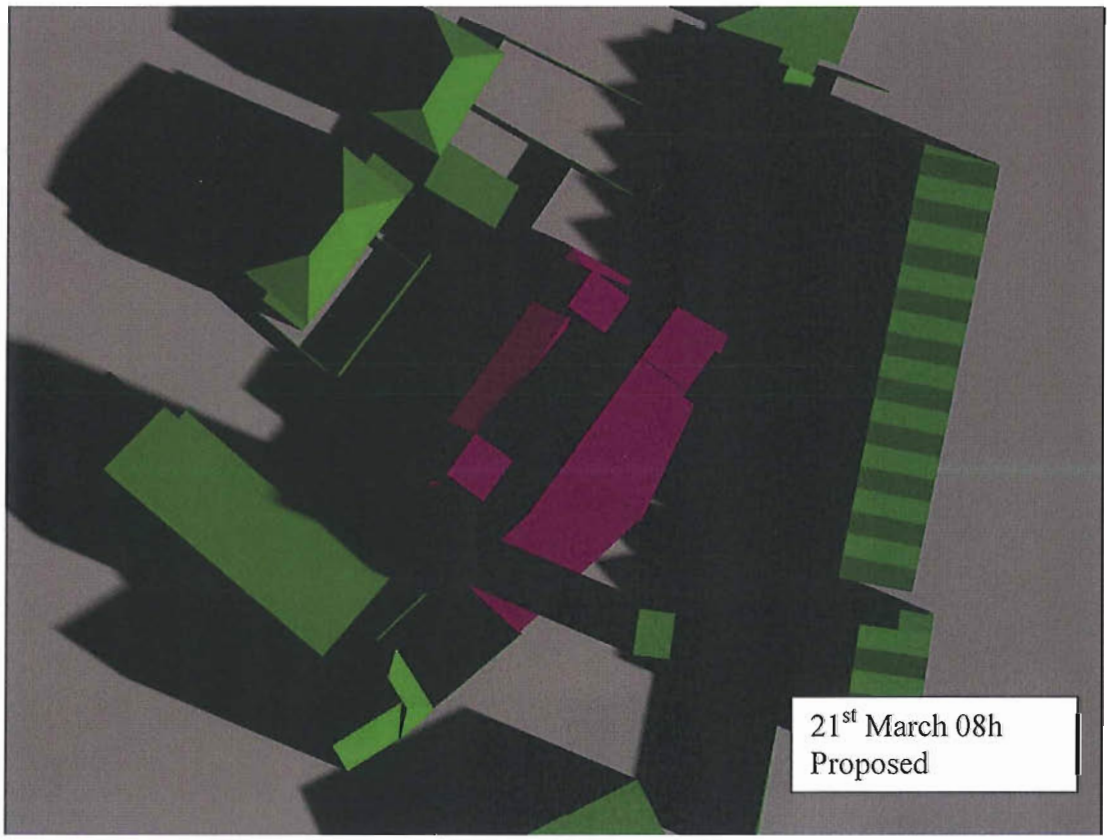
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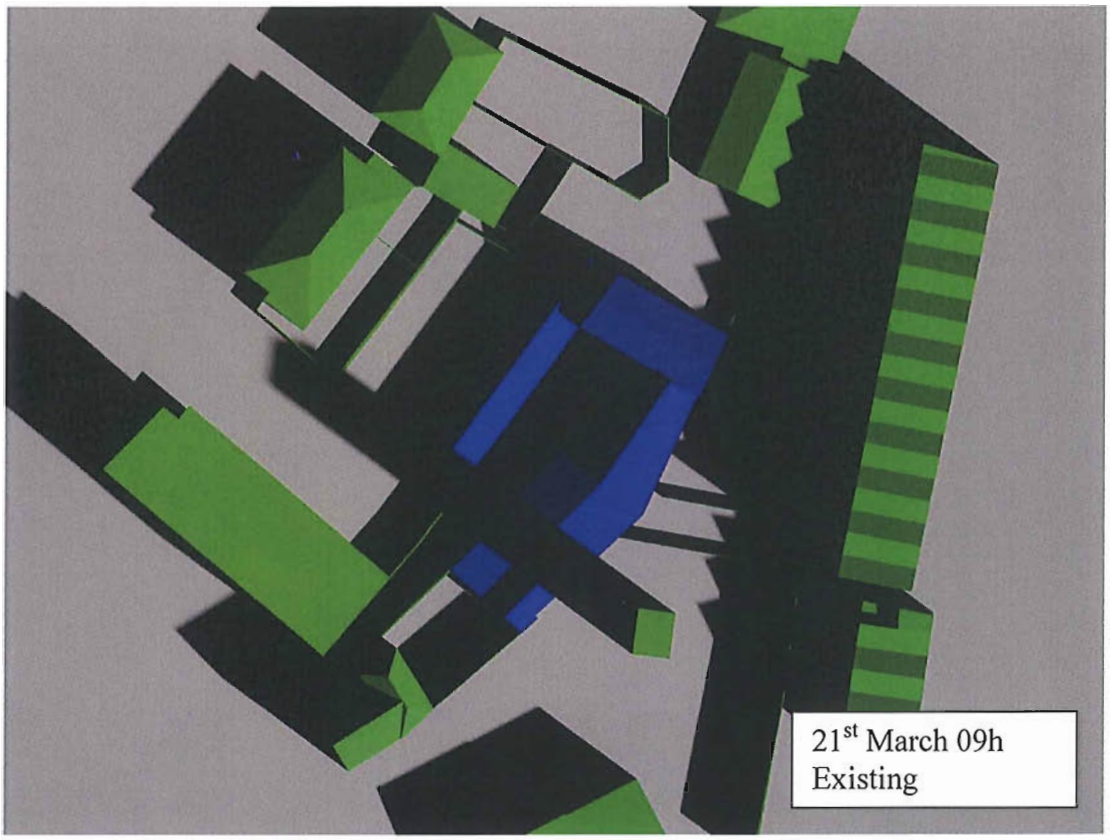
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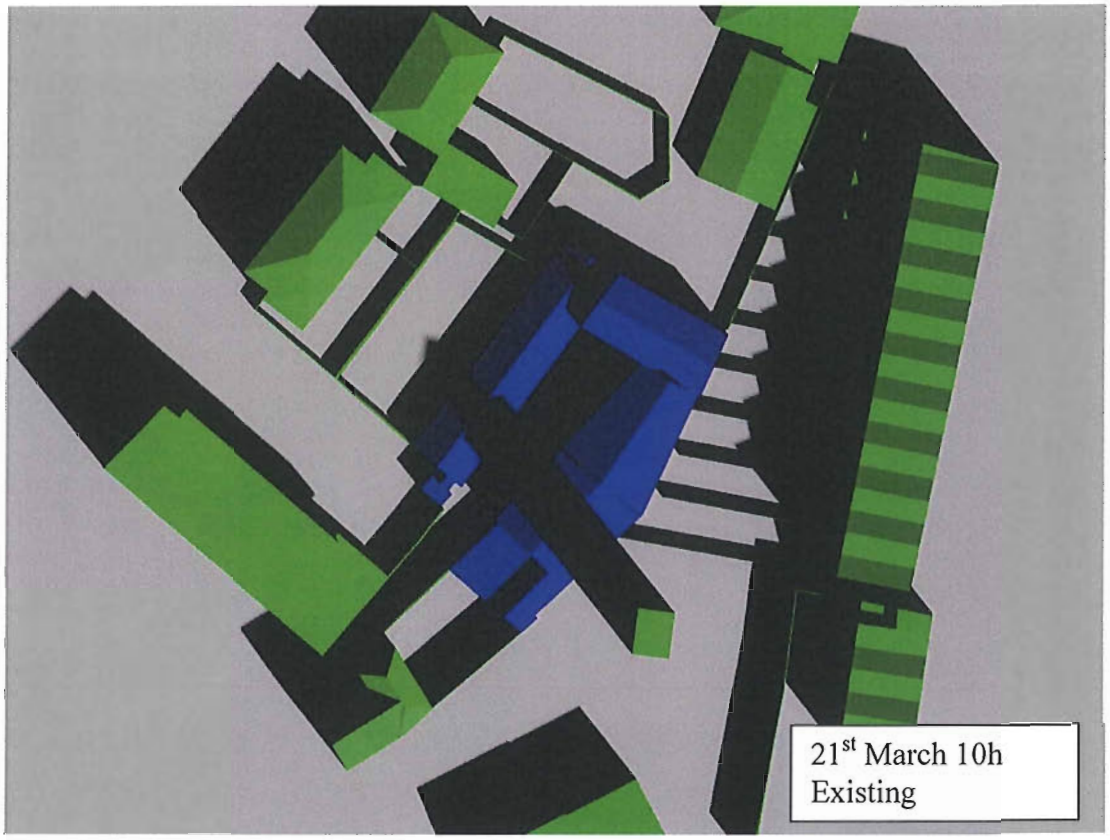
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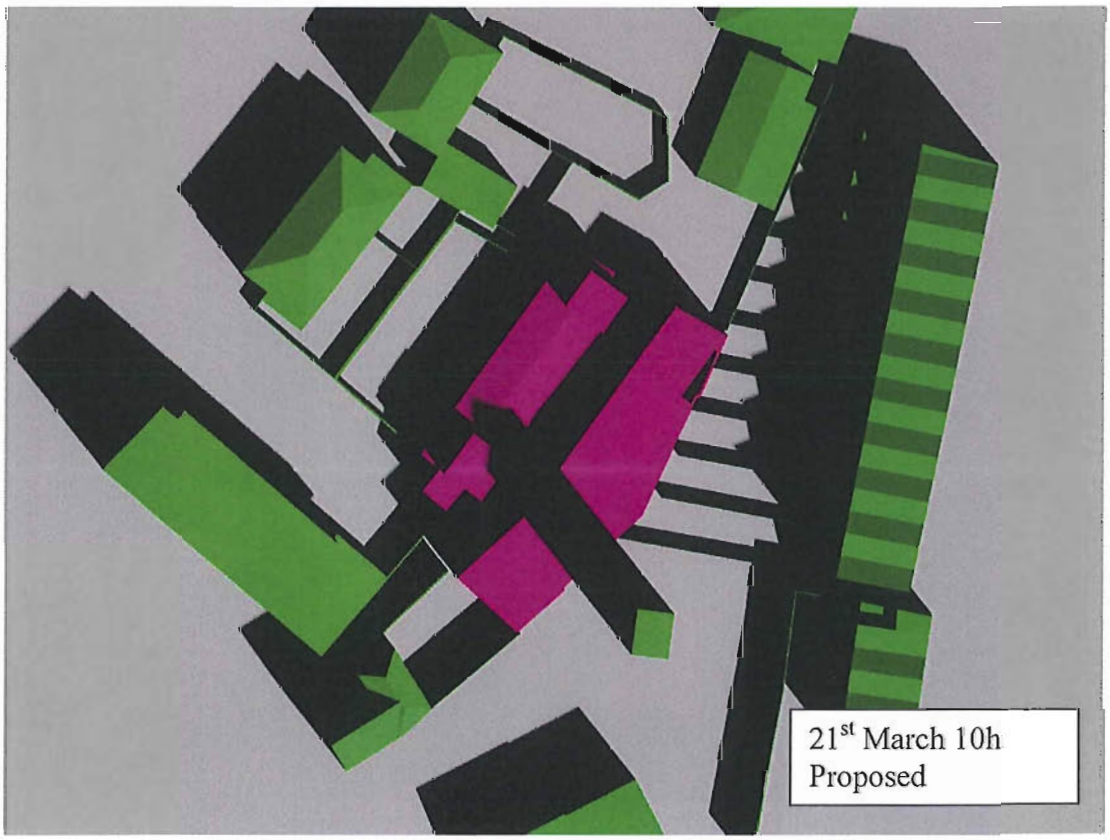
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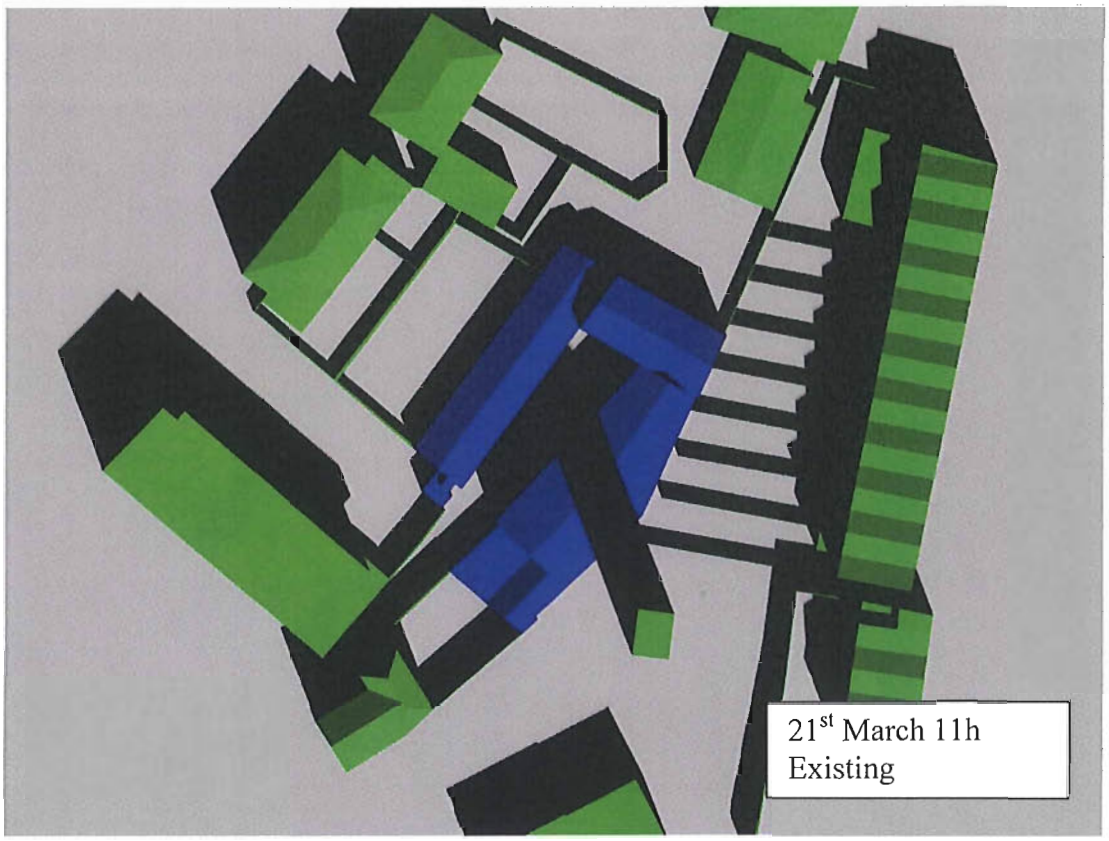
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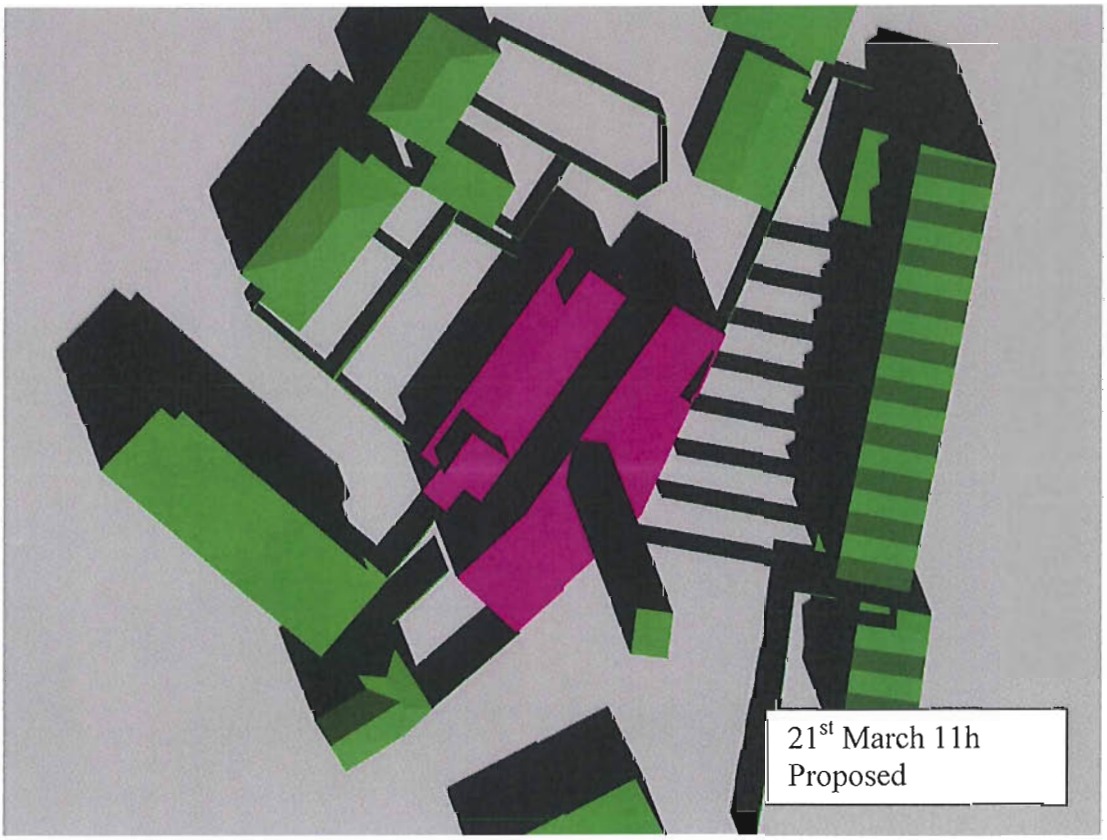
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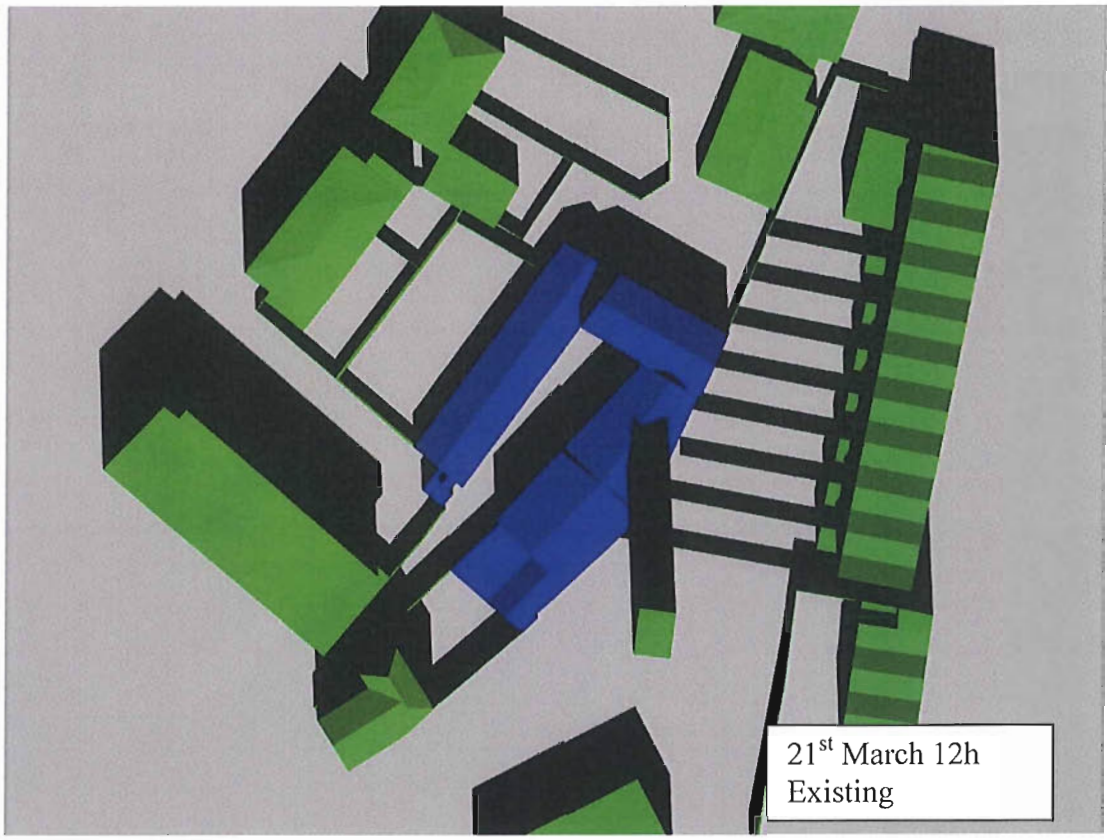
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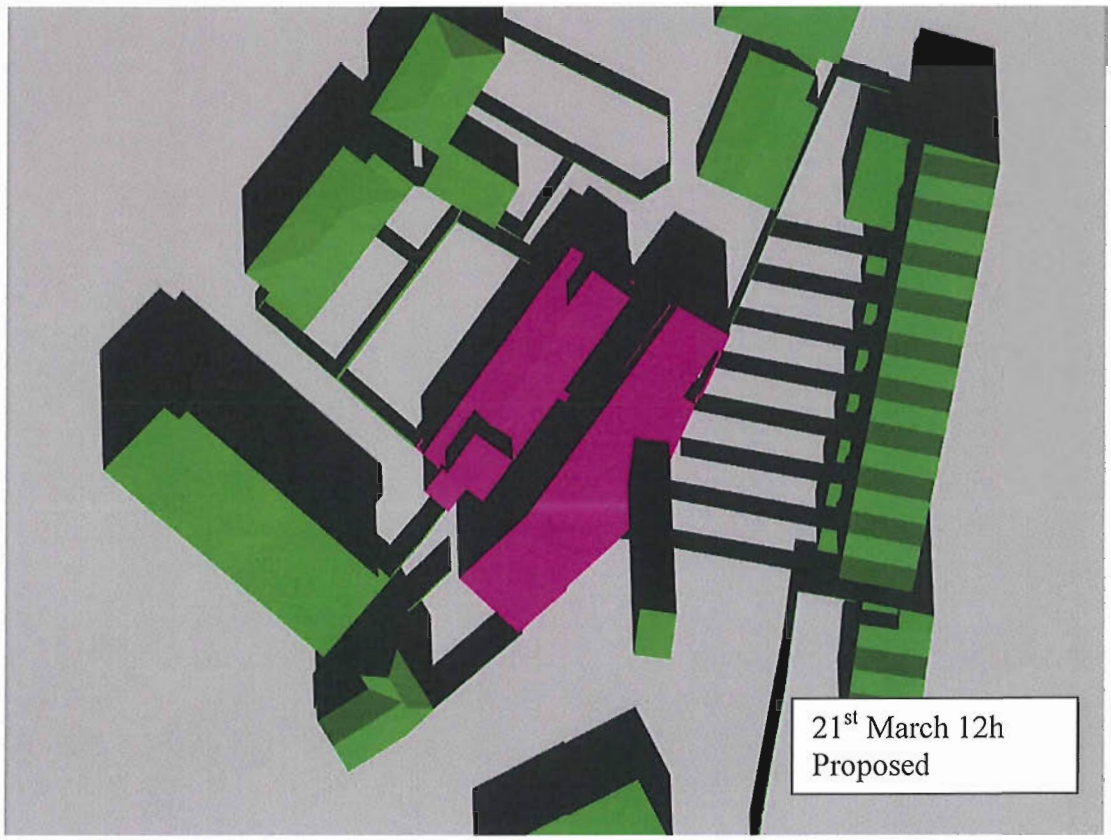
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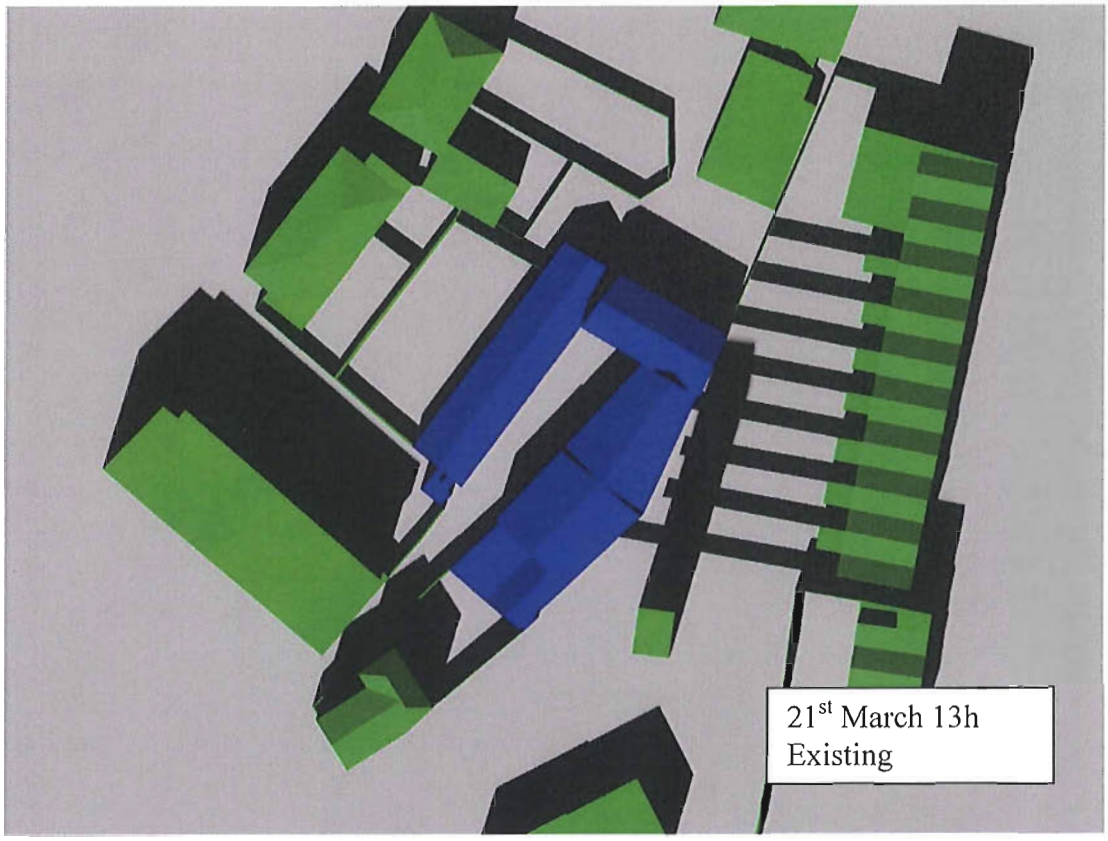
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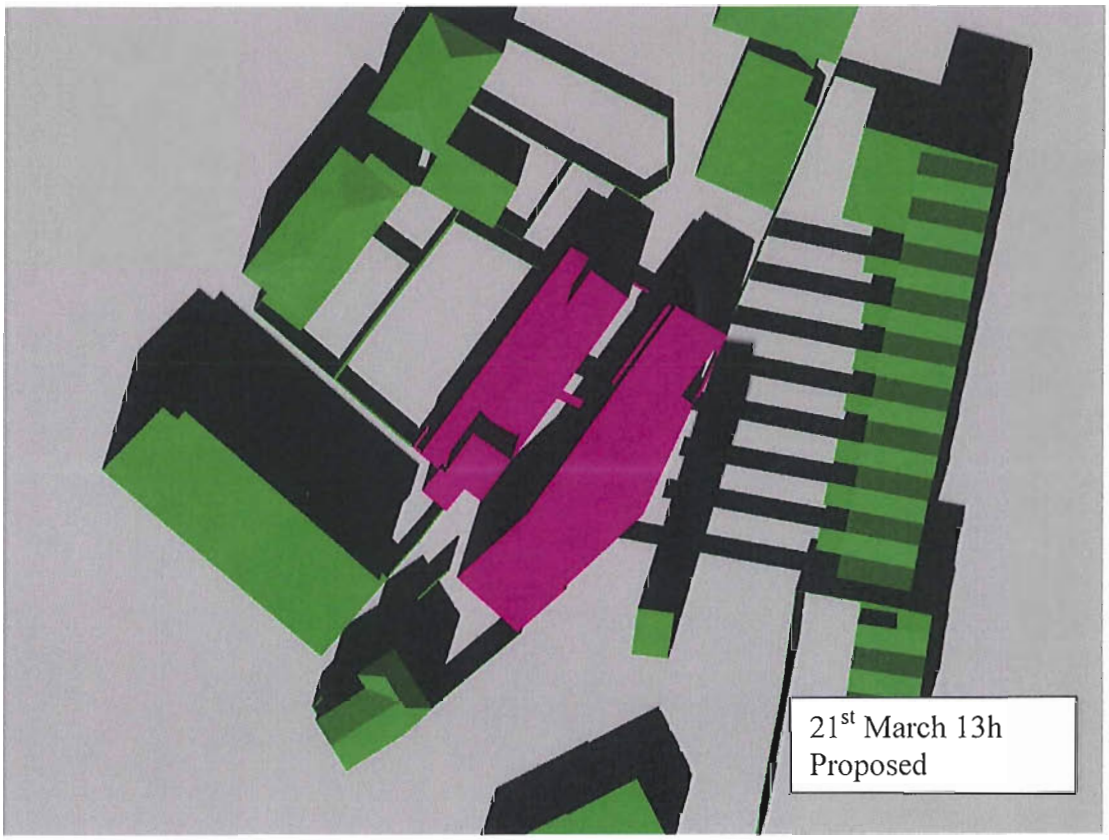
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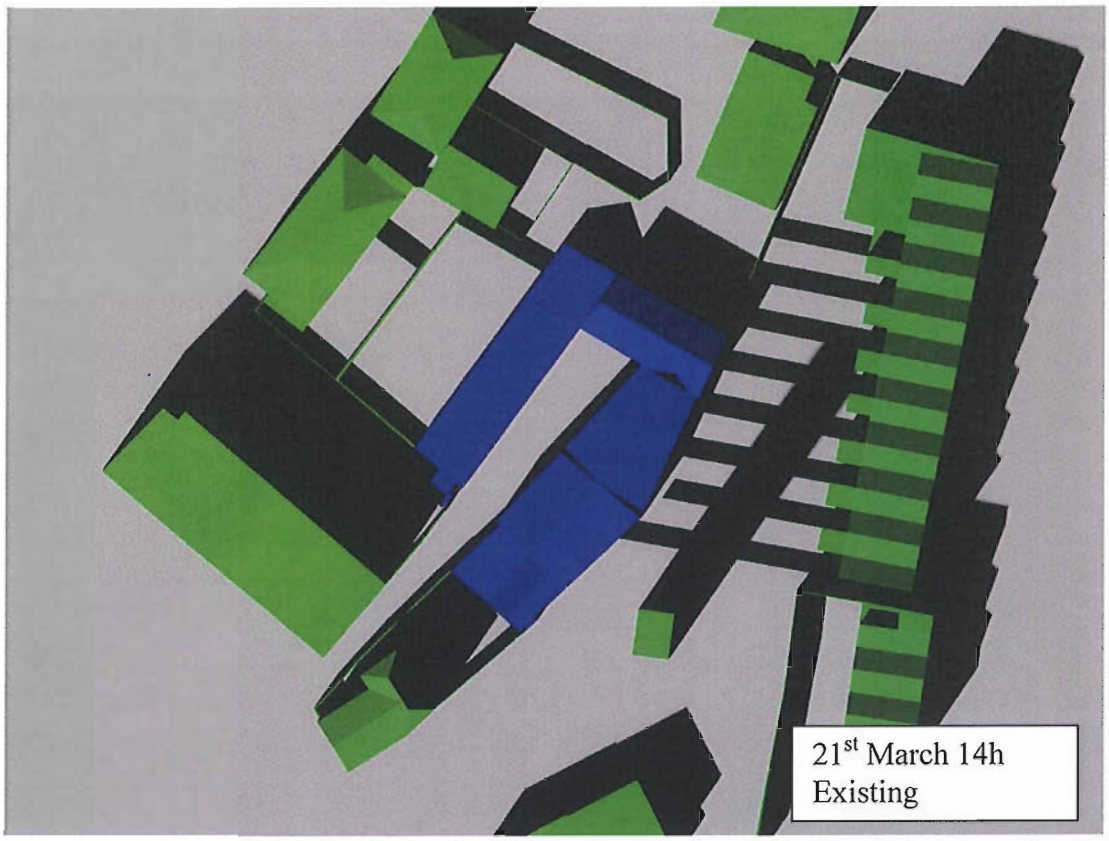
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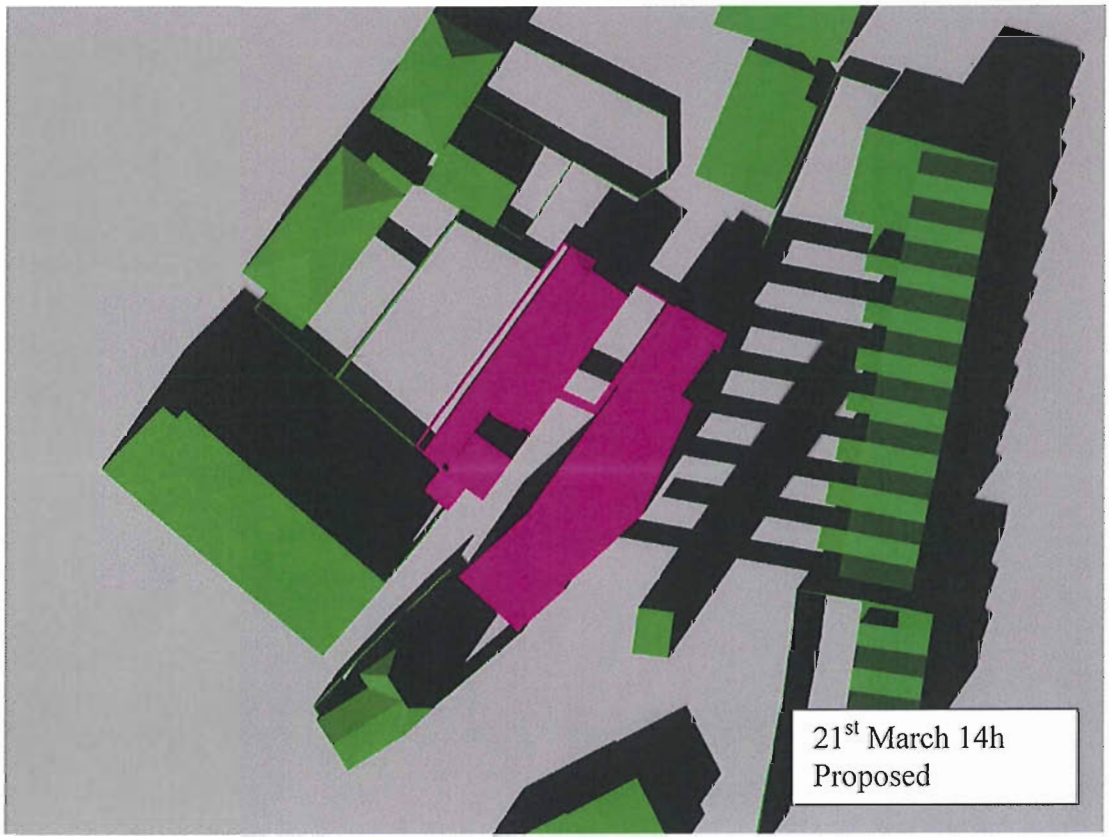
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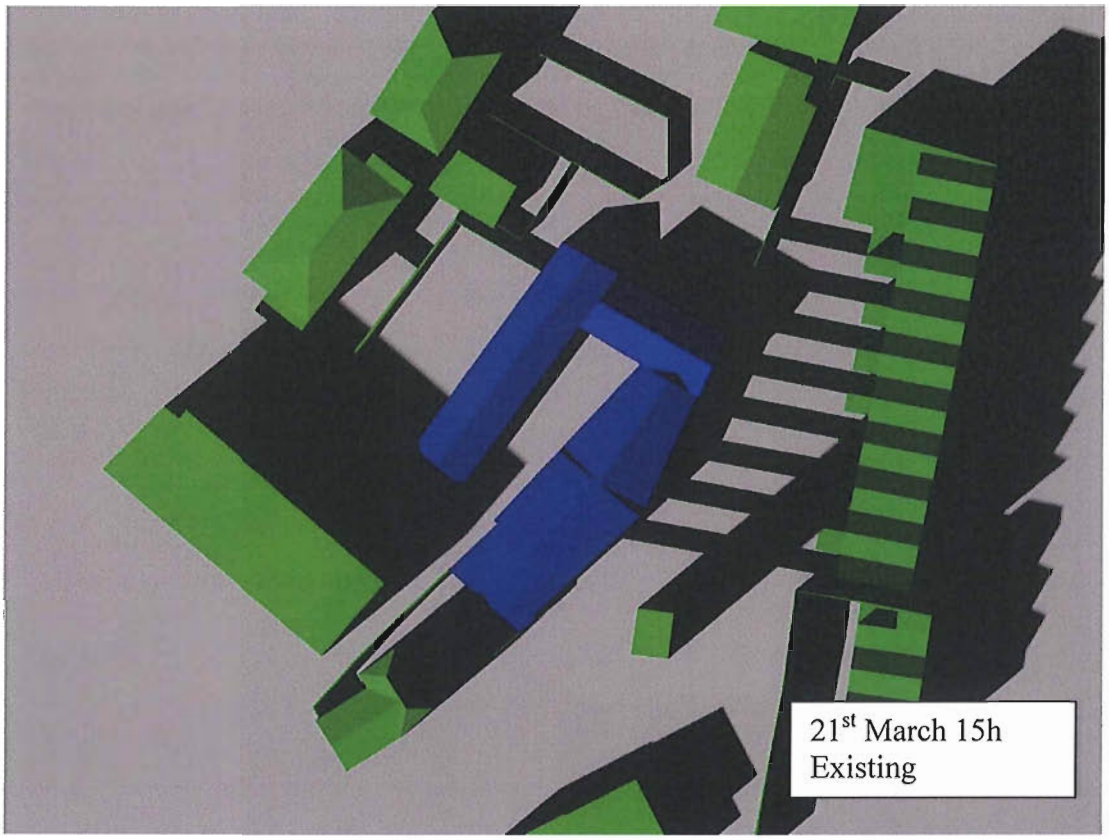
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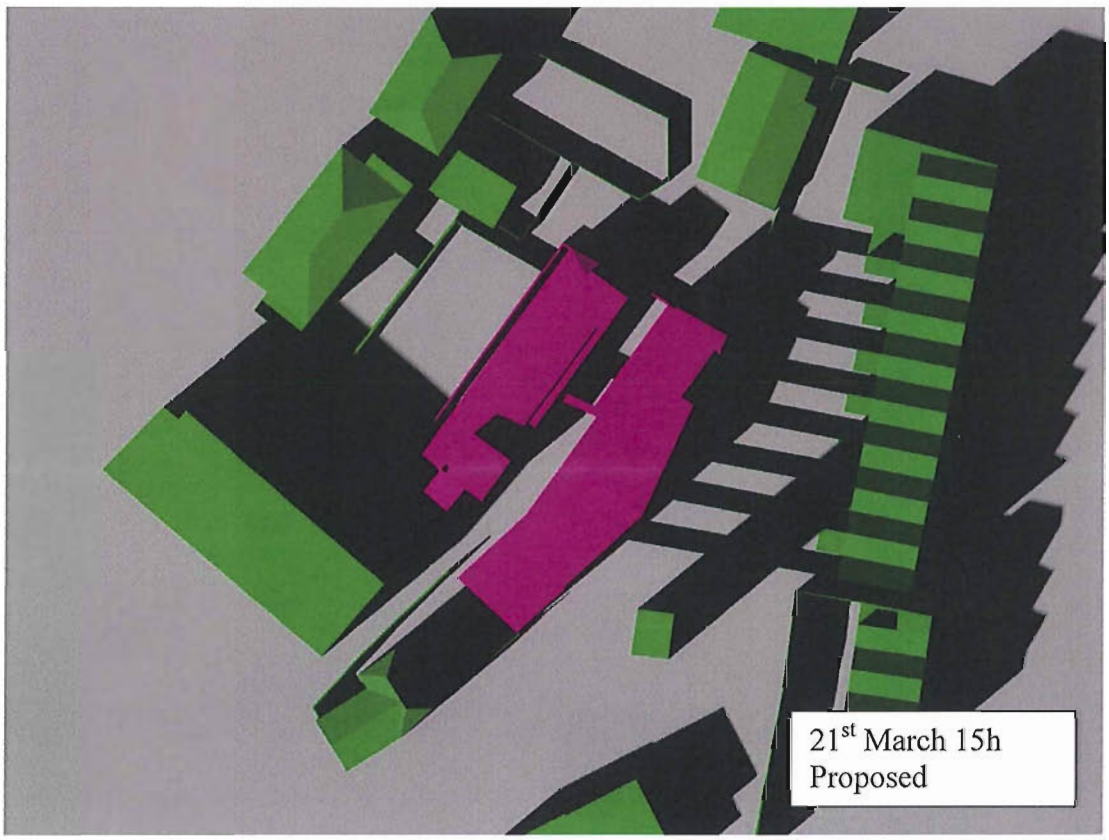
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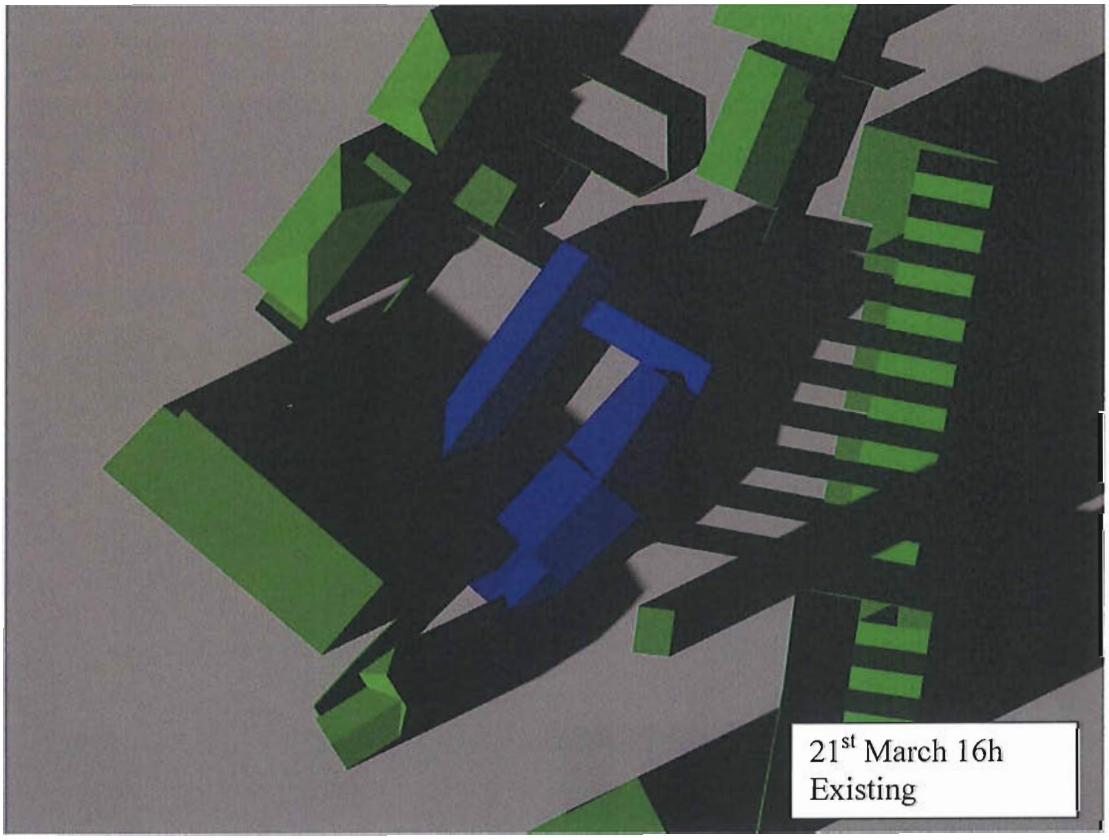
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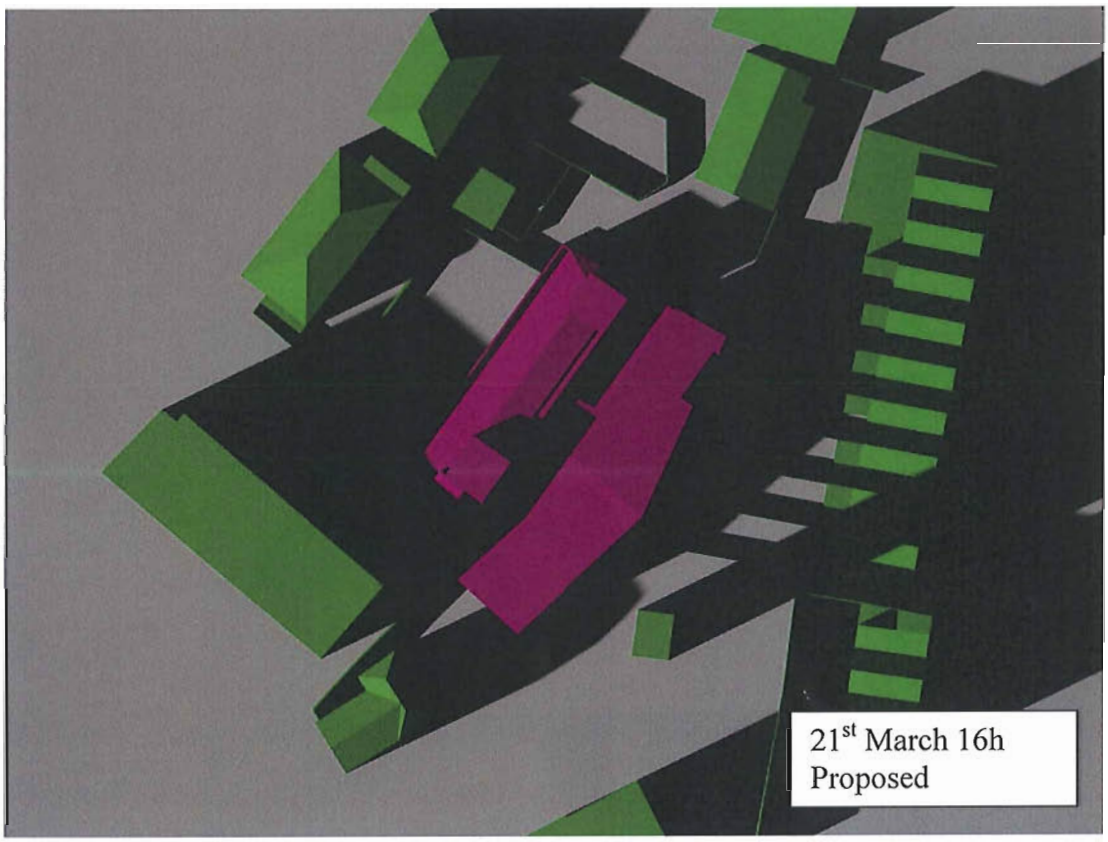
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Proposed

APPENDIX 5

CREDENTIALS

JOHN CARTER FRICS **2011**

A Founding Partner of Brooke Vincent + Partners in 1974, a Director from May 2007 and a Fellow of the Royal Institution of Chartered Surveyors since 1981.

Professional experience covers most aspects of a Chartered Building Surveyor's workload. Now almost exclusively Rights to Light and Daylighting but occasionally Party Wall legislation, boundary disputes and building surveys of a wide variety of building styles and ages.

Past Chairman of the Pyramus & Thisbe Club (a club for surveyors advising on boundary related disciplines) and Honorary Secretary from 2000 to 2007. Previously a member of two of the Institution's skills panels (residential surveys and geodetics) and a consulting member to the boundaries panel.

Whilst with the residential survey panel, co-opted onto the working party responsible for revising and extending the RICS Good Practice Note for Residential Building Surveys and thereafter scripting and presenting an educational tape on the same subject.

For many years an independent assessor of candidates undertaking their RICS Assessment of Professional Competence. In 1999, received CEDR accreditation as a mediator and became a member of the RICS panel of mediators (both now lapsed).

Previously a frequent speaker on Party Wall issues and building surveys but now speaking almost exclusively on Right of Light, Daylight and related topics. During the last few years, providing the knowledge based background to the production of new software that has now gained widespread acceptance for the analysis of natural light in the built environment.