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DAYLIGHT AND SUNLIGHT ASSESSMENT

On the neighbouring properties at:

The Constitution 42 St Pancras Way London **NW1 0QT**

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Anderson Wilde and Harris

Date:

4th October 2021





1 EXECUTIVE SUMMARY

This report assesses the levels of daylighting and sunlighting received by surrounding residential properties following the development at The Constitution, 42 St Pancras Way, London NW1 0QT.

An analysis was carried out in accordance with the criteria set out for national discretionary guidance in the publication Site Layout Planning for Daylight and Sunlight published by the Building Research Establishment in 2011 (the BRE Report); The Greater London Authority, representation hearing report D&P/3067/03, Daylight and Sunlight test – Appendix 1 in 2013 and the London borough of Camden requirements for daylight and sunlighting, detailed in the Local Plan.

RESULTS: SURROUNDING PROPERTIES

No. of Properties Assessed	% of Windows Assessed Which Pass Vertical Sky Component	% of Rooms Assessed Which Pass Average Daylight Factor	% of Rooms Assessed Which Pass Daylight Distribution
6	100	100	100
Overall, there is	a: negligible impact.		

SURROUNDING PROPERTIES

Daylighting and sunlighting has been assessed in six (6) of the neighbouring residential properties.

Daylighting has been assessed in 38 windows using the Vertical Sky Component. The results reveal that all 38 windows meet the levels detailed in the BRE. This equates to a 100% pass rate.

Internal daylighting has been assessed in 38 rooms using the Average Daylight Factor and Daylight Distribution tests. All 38 rooms meet the BRE recommended levels for both Daylight Distribution and Average Daylight Factor. This equates to a 100% pass rate for both tests.

Sunlighting has been assessed in 18 windows, all 18 windows meet the BRE recommended levels for summer and winter months. This equates to a 100% pass rate for both tests.

Overall, this development is suitable in terms of daylight and sunlighting.

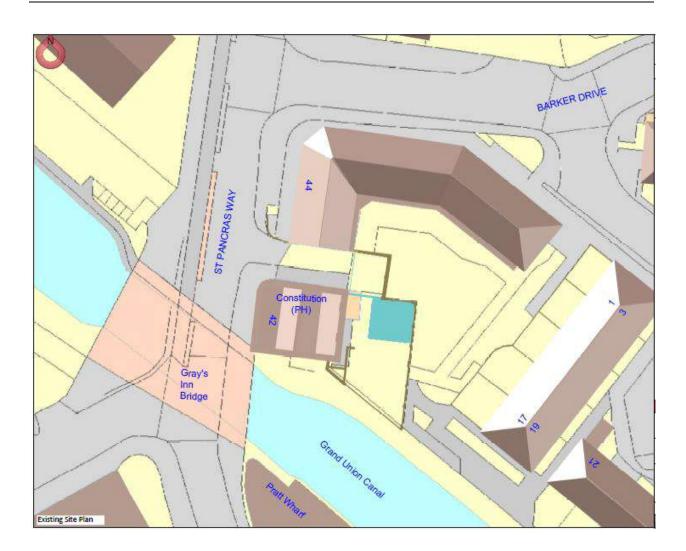


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2 LOCATION



2.1 EXISTING SITE

The existing site is a four-storey (basement to second floor) pub founded originally in 1858.

2.2 LOCALITY

The surrounding area is mainly comprised of residential properties. The immediate neighbouring properties are two to three-storeys high.

The development site is located 0.2 mile from Camden Road station.



3 INTRODUCTION

Anderson Wilde and Harris has been instructed to assess the Daylight and Sunlighting of the properties surrounding the proposed development at The Constitution, 42 St Pancras Way London NW1 0QT.

An analysis was carried out in accordance with the criteria set out for national discretionary guidance in the publication: Site Layout Planning for Daylight and Sunlight published by the Building Research Establishment in 2011 (the BRE Report). The British Standard upon which this guidance is based is BS 8206-2:1992. The British Standard current for this subject is BS 8206-2:2008 – Lighting for buildings. Code of practice for daylighting which superseded BS 8206-2:1992. Although it gives numerical guidelines, these should be interpreted flexibly because natural light is only one of the many factors in site layout design. It is noted that the guidelines are national guidelines; therefore, they should be applied flexibly having regard to site specific context. In certain circumstances, the planning authority may wish to use alternative target values.

The Greater London Authority, representation hearing report D&P/3067/03, Daylight and Sunlight test – Appendix 1 in 2013, provides supplementary thresholds.

The report has considered the Camden Council guidelines for Daylight and Sunlighting, detailed in their Local Plan.

Anderson Wilde and Harris has not been able to inspect inside any of the neighbouring properties. Internal floor plans have been modelled using floor plans readily available on the internet. In the absence of floor plans, we have assumed the properties to be similar to the neighbouring properties and made adjustments where appropriate.

This assessment does not consider Rights of Light, as it is not a material planning consideration and therefore not required in this report.



In accordance with the BRE report, assessment of Daylight and Sunlighting should only be carried out on windows which serve living rooms, diners, kitchens, and bedrooms. Windows to all other room types, for instance bathrooms, toilets, store rooms, circulation areas and garages, do not require assessment.

When assessing Daylighting and Sunlighting, the quantitative analysis should always be considered in conjunction with the layout of the development site and any existing constraints it may impose. It is also important to look at adjoining buildings and whether it is a good neighbour and stands a reasonable distance from the boundary so as not to take more than its fair share of light.

Daylight and sunlight received by non-residential units are not generally considered as they are not typical town-planning issues. Therefore, surrounding non-residential properties have not been assessed or included in this report.

The analyses used in this chapter are:

For daylight: The principles set out in Section 2 of the BRE Report – Light from the sky. i.e. the combined impacts of all direct sunlight and indirect skylight during the daytime

For internal daylighting: The principles set out in Appendix C of the BRE Report – Interior Daylighting Recommendations.

For sunlight: The principles set out in Section 3 of the BRE Report – Sunlighting i.e. the impacts of only the direct sunlight.

Determining significance:

4.1 DAYLIGHT

The BRE Report advises that the diffuse daylighting to a building may be adversely affected by a development if, following that development, either:

- The Vertical Sky Component (VSC) at the centre of an existing main window is reduced to less than 27% or has been left at less than 80% its former value; or
- The area of the working plane in a room that can receive direct skylight is reduced to less than 80% of its former value.



4.2 INTERNAL DAYLIGHTING DISTRIBUTION

The BRE Report advises that for the whole of a room to look adequately daylit, the following three criteria must be met:

(a) AVERAGE DAYLIGHT FACTOR (ADF)

The Average Daylight Factor calculation (ADF) enables a more accurate assessment of daylighting conditions as it assesses the internal illuminance within a room based on the average daylight factor, window size, and reflectance of internal surfaces enabling a more accurate assessment of daylight conditions.

The ADF methodology is generally not recommended for use to surrounding buildings; however, in some circumstances this is acceptable. More information on this can be found in the BRE guidance. The BRE Report advises that where supplementary electric lighting is available, the recommended daylight factor levels for dwellings are 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. Additionally, for non-residential it specifies a minimum of 5% where no supplementary electric lighting is provided and 2% where electric lighting has been provided.

The average daylight factor is calculated using the following formula:

$$df (ADF) = \underbrace{T Aw \Theta}_{A (1-R^2)}$$
%

Where T is the diffuse visible transmittance of the glazing.

Aw is the net glazed area of the window (m²)

A is the total area of room surfaces: ceiling, floor, walls and

windows (m²)

R is their average reflectance

Θ is the angle of visible sky in degrees

(b) ROOM DEPTH

If a daylit room is lit by windows in one wall only, the depth of the room should not exceed the limiting value given by:

$$\frac{L}{W}$$
 + $\frac{L}{H}$ $\leq \frac{2}{1 - Rb}$

Where L is the depth of the room.

W is the room width

H is the window-head height above floor level

Rb is the average reflectance of surfaces in the rear half of

the room (away from the windows)



(c) POSITION OF THE NO-SKY LINE

If a significant area of the working plane lies beyond the no-sky line (i.e. it receives no direct sunlight), then the distribution of daylight in the room will look poor and supplementary electric lighting will be required.

However, if an adjoining building contains rooms that are greater than 5 metres deep and lit only from one side then greater movement of the no sky line is unavoidable.

4.3 SUNLIGHT

The BRE Report advises that the levels of sunlighting to the rooms within a new development will appear reasonably sunlit provided:

- The windows can receive at least 25% of annual probable sunlight hours (APSH) including 5% during winter months; and
- Have at least one main window wall facing within 90° of due south.

The BRE Report states that all main living rooms within 90° of due south should be assessed. It states that bedrooms are less important, although care should be taken not to block out too much sunlight.

The BRE Report guidelines refer to the method set out in BS 8206-2:1992 as the appropriate method to calculate sunlight.

The BRE Report specifically warns local planning authorities to exercise care when using this method of assessment in the existing building situation particularly when development has been historically undertaken close to the common boundary.

It is important to understand that people like and appreciate sunlight, although it is not an essential requirement of a dwelling, unlike daylight availability or access to a quiet noise environment. Therefore, larger reductions in sunlight may be acceptable if a new development is to match the height and proportion of the existing buildings nearby.

The BRE Report emphasises that the existing building section of the guide is "purely advisory" and that "Planning authorities may wish to use criteria based on the requirements for sunlight in particular types of development in particular areas".



4.4 DETERMINING SIGNIFICANCE

The BRE Report states on Page 1: The advice given here is not mandatory and the guide should not be 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.

The BRE Report states that the numerical values are advisory only and failure to meet the guideline criteria should not be used by Local Councils as an indicator as to whether a development is acceptable.

The BRE Report suggests alternative targets can be used:

- Where the site already has an existing planning permission that the development wants to vary, the VSC and APSH (annual probable sunlight hours) of the permitted scheme may be used as alternative benchmarks.
- In a historic city centre environment, it is often not possible to achieve 27% VSC, therefore it is sensible to use a target value consistent with levels of daylight typically experienced in the street.
- Where an existing building has windows that are unusually close to the site boundary
 and taking more than their fair share of light, to ensure that new development matches
 the height and proportions of existing buildings, the VSC and APSH targets for these
 windows could be set to those for a "mirror-image" building of the same height and size,
 and equal distance away on the other side of the boundary.

The BRE Report provides guidance on a semantic scale which can be used to describe the impact. This is summarised on the next page.



CRITERIA	IMPACT MAGNITUDE
Where the decrease in daylight or sunlight fails to meet the guidelines and one or more of the following scenarios applies:	Major Adverse
 A large number of windows or large area of open space is affected The loss of light is substantially outside the guidelines All windows in a particular property are affected The affected building or outdoor space has a particularly strong requirement for light, e.g., a living room in a dwelling or a children's playground. 	
Where the decrease in daylight or sunlight fails to meet the guidelines and a large number of windows or open space are affected. Or	Minor Adverse
Here the decrease in daylight or sunlight fails to meet the guidelines, but one or more of the following scenarios applies:	
 Only a small number of windows or limited area of open space is affected The loss of light is only just outside the guidelines An affected room has other sources of light The affected building or outdoor space has a low-level requirement for light. 	
Where the increase/ decrease in daylight or sunlight fully meets the guidelines and only a small number of windows are affected	Negligible
Where the increase in daylight or sunlight is small and/or the number of affected windows or area of open space affected is small.	Minor Beneficial
Where the increase in daylight or sunlight is large and/or the number of affected windows or area of open space affected is large.	Major Beneficial



5 SOURCES OF INFORMATION

5.1 PROPOSED SITE

ARCHITECTS DRAWINGS

All Architect drawings have been provided by Sampson Associates.

5.2 SURROUNDING SITE

PROMAP

A Promap OS detail was downloaded with Promap drawing number: "Promap-1020351-1120128-720-0.dwg".

SITE PHOTOGRAPHS

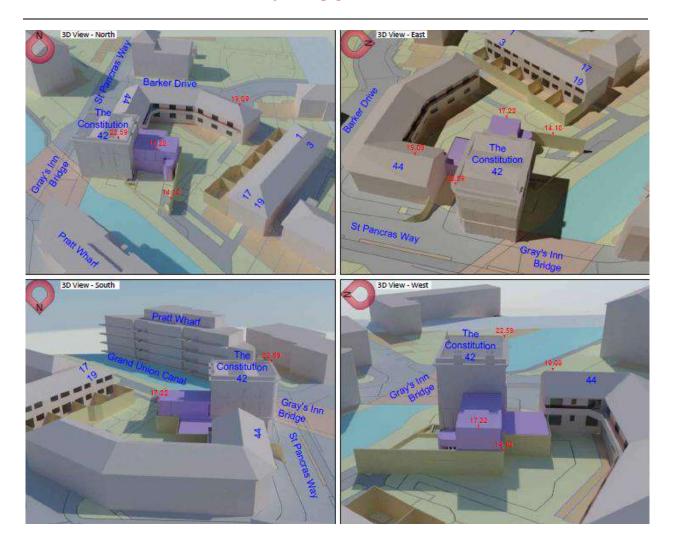
Photographs were taken during a site inspection carried out by George Palos and Heidi Serrano on 5th October 2020.

PLANNING APPLICATIONS

Where readily available drawings submitted for planning applications have been used to construct internal layouts of the surrounding properties.



6 SCHEME



PROPOSED SITE

The proposed development includes for an extension to the rear of the existing public house.



7 SURROUNDING SITE

We have assessed the following residential properties adjoining the proposed development:

- 44 St Pancras Way
- 17-19 Rossendale Way
- 13-15 Rossendale Way
- 9-11 Rossendale Way
- 5-7 Rossendale Way
- 1-3 Rossendale Way



8 RESULTS

8.1 SURROUNDING PROPERTIES

44 ST PANCRAS WAY

The property is located north of the development site. It is a two-storey residential property.

Daylighting has been assessed to 18 windows using the Vertical Sky Component (VSC). The results reveal that all 18 windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to 18 rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. The Average Daylight Factor and Daylight Distribution results detail that all rooms meet the levels advised for their room type following the development.

Sunlighting has been assessed to 18 windows, using annual probable sunlight hours. The results reveal that all 18 windows meet the recommended levels of sunlighting for summer and winter months.

17-19 ROSSENDALE WAY

The property is located east of the development site. It is a two-storey residential property.

Daylighting has been assessed to four (4) windows using the Vertical Sky Component (VSC). All windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to four (4) rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. All four (4) rooms meet the BRE recommended levels for Daylight Distribution and Average Daylight Factor.

Sunlighting has not been assessed in the property. The Annual Probable Sunlight Hour (APSH) is applied to properties with windows that are situated north of the proposed development or are facing within 90° due south. This property does not meet the criteria for this particular part of the analysis and as such are exempt.

13-15 ROSSENDALE WAY

The property is located east of the development site. It is a two-storey residential property.

Daylighting has been assessed to four (4) windows using the Vertical Sky Component (VSC). All four (4) windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to four (4) rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. All four (4) rooms meet the BRE recommended levels for Daylight Distribution and Average Daylight Factor.

Sunlighting has not been assessed in the property. The Annual Probable Sunlight Hour (APSH) is applied to properties with windows that are situated north of the proposed development or are facing within 90° due south. This property does not meet the criteria for this particular part of the analysis and as such are exempt.



RESULTS

9-11 ROSSENDALE WAY

The property is located east of the development site. It is a two-storey residential property.

Daylighting has been assessed to four (4) windows using the Vertical Sky Component (VSC). All windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to four (4) rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. All four (4) rooms meet the BRE recommended levels for Daylight Distribution and Average Daylight Factor.

Sunlighting has not been assessed in the property. The Annual Probable Sunlight Hour (APSH) is applied to properties with windows that are situated north of the proposed development or are facing within 90° due south. This property does not meet the criteria for this particular part of the analysis and as such are exempt.

5-7 ROSSENDALE WAY

The property is located east of the development site. It is a two-storey residential property.

Daylighting has been assessed to four (4) windows using the Vertical Sky Component (VSC). All windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to four (4) rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. All four (4) rooms meet the BRE recommended levels for Daylight Distribution and Average Daylight Factor.

Sunlighting has not been assessed in the property. The Annual Probable Sunlight Hour (APSH) is applied to properties with windows that are situated north of the proposed development or are facing within 90° due south. This property does not meet the criteria for this particular part of the analysis and as such are exempt.

1-3 ROSSENDALE WAY

The property is located east of the development site. It is a two-storey residential property.

Daylighting has been assessed to four (4) windows using the Vertical Sky Component (VSC). All windows meet the recommended level detailed in the BRE guidelines.

Internal daylighting has been assessed to four (4) rooms using the Average Daylight Factor (ADF) and Daylight Distribution tests. All four (4) rooms meet the BRE recommended levels for Daylight Distribution and Average Daylight Factor.

Sunlighting has not been assessed in the property. The Annual Probable Sunlight Hour (APSH) is applied to properties with windows that are situated north of the proposed development or are facing within 90° due south. This property does not meet the criteria for this particular part of the analysis and as such are exempt.



RESULTS

8.2 **OUTPUTS**

VERTICAL SKY COMPONENT INC. ANNUAL PROBABLE SUNLIGHT HOURS

The Vertical Sky Component, APSH results for the surrounding properties are attached in Appendix 2.

AVERAGE DAYLIGHT FACTOR

The Average Daylight Factor results for the surrounding properties are attached in Appendix 3.

DAYLIGHT DISTRIBUTION

The Daylight Distribution results for the surrounding properties are attached in Appendix 4.

DAYLIGHT CONTOURS

Daylight Contours for the surrounding properties are attached in Appendix 5.



9 CONCLUSION

It is worth reiterating that the national BRE Report states that "care should be taken in applying these guidelines", for example where the buildings stand very close or when a new development is to match the height and proportion of an existing building.

The BRE Report states that the numerical values are advisory only and failure to meet the guideline criteria should not be used by Local Councils as an indicator as to whether a development is acceptable.

Daylighting and sunlighting have been assessed to six (6) surrounding residential properties. In total, 38 windows have been assessed using the Vertical Sky Component of which all 38 windows will satisfy the levels detailed in the BRE.

Internal daylighting has been assessed to 38 rooms using the Average Daylight Factor and Daylight Distribution tests of which all rooms will satisfy the levels for both tests Average Daylight Factor and Daylight Distribution tests. This equates to a 100% pass rate.

In our opinion, the proposed development is suitable and does not injure the surrounding properties for it to be considered inappropriate for the area.

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Surveyor V Rights of Lights

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Arbitrator, Independent Expert and RICS Accredited Mediator

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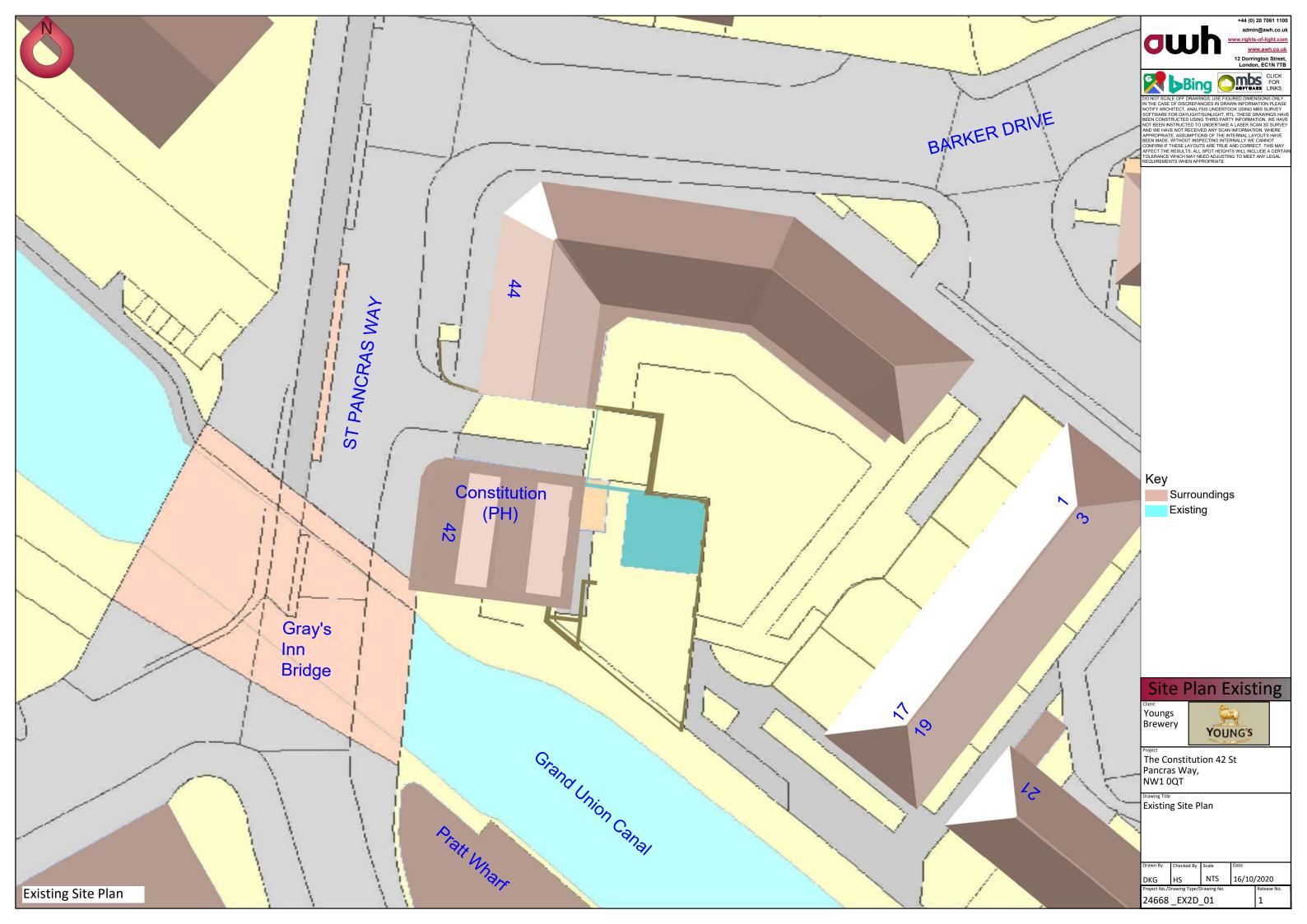
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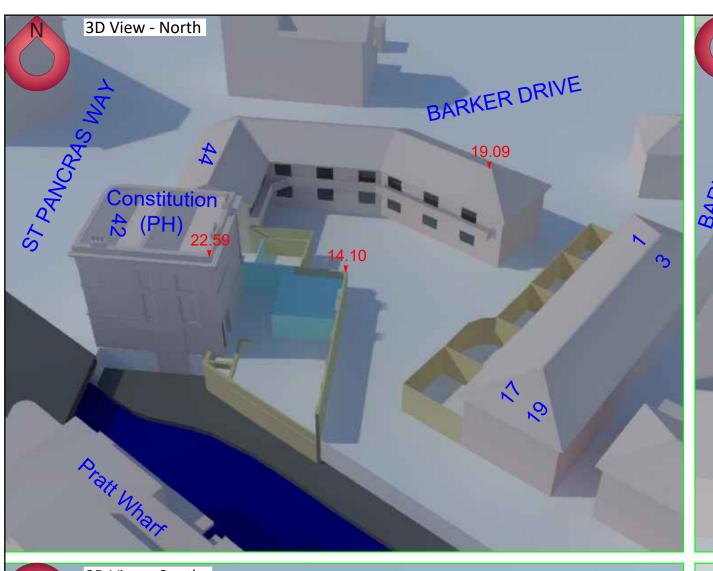


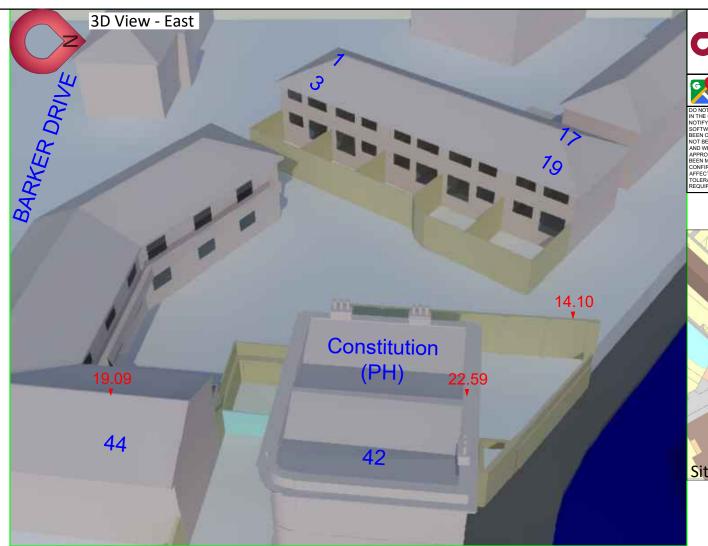
10 APPENDIX



10.1 Appendix 1 - Drawings







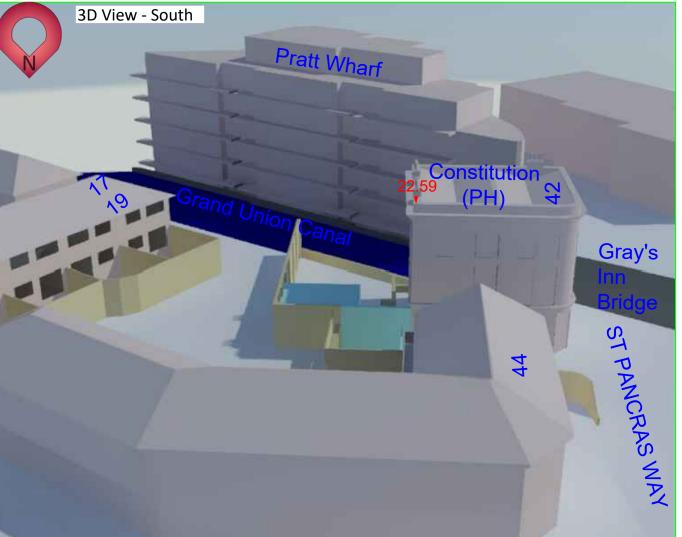


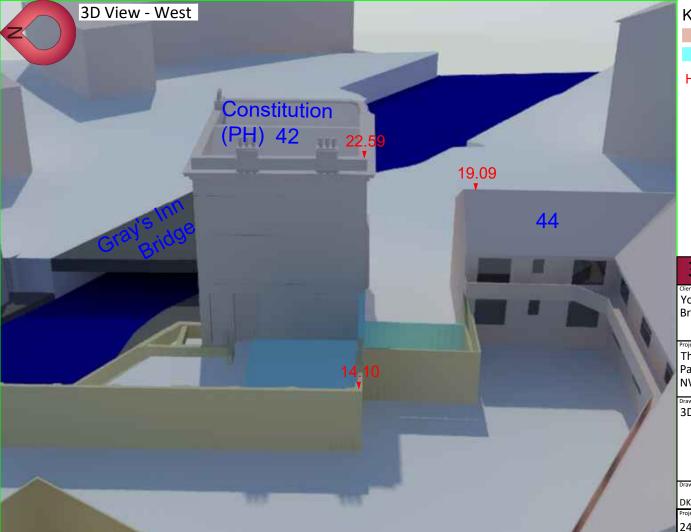
+44 (0) 20 7061 1100

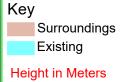












3D View Existing

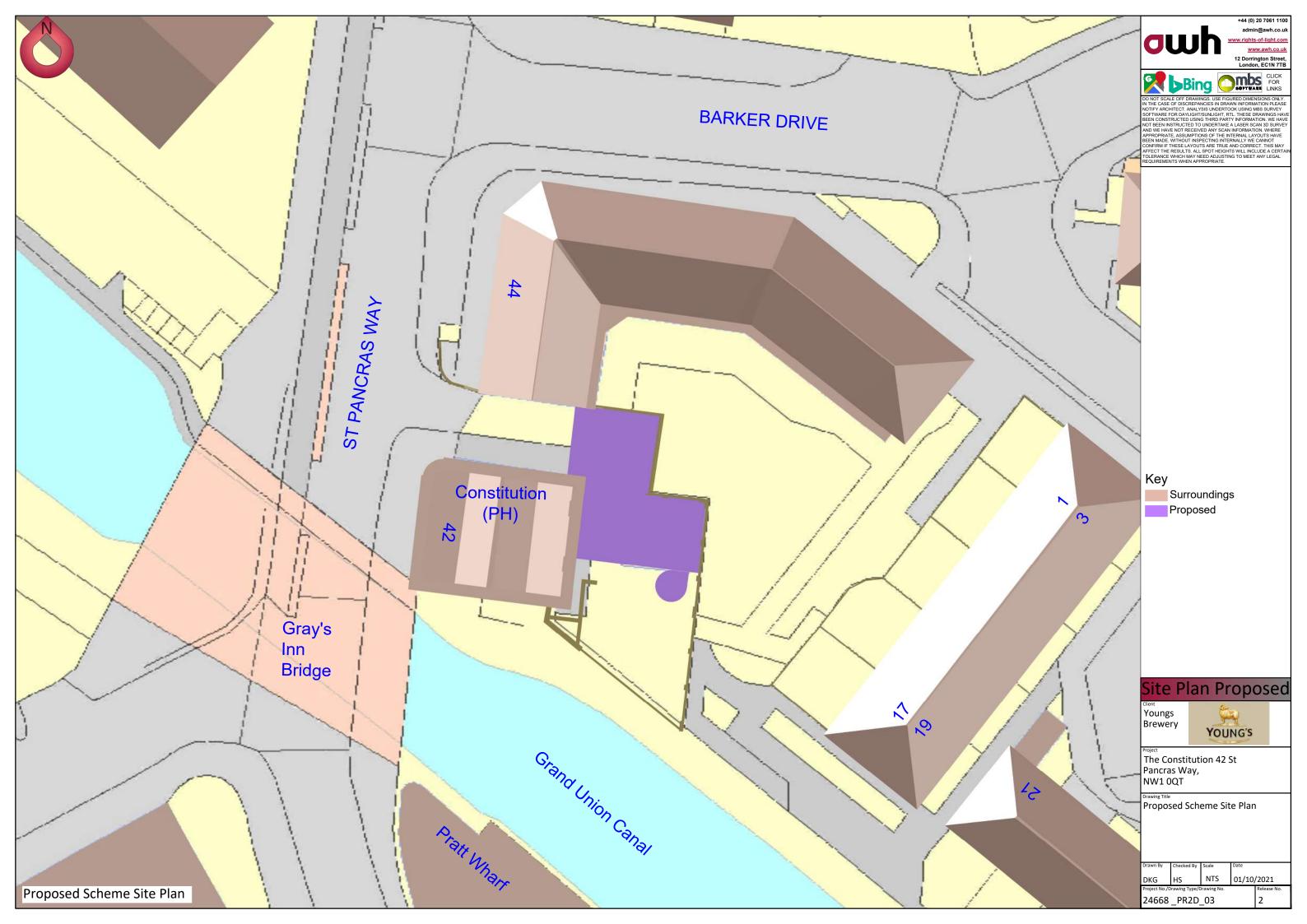
Youngs Brewery

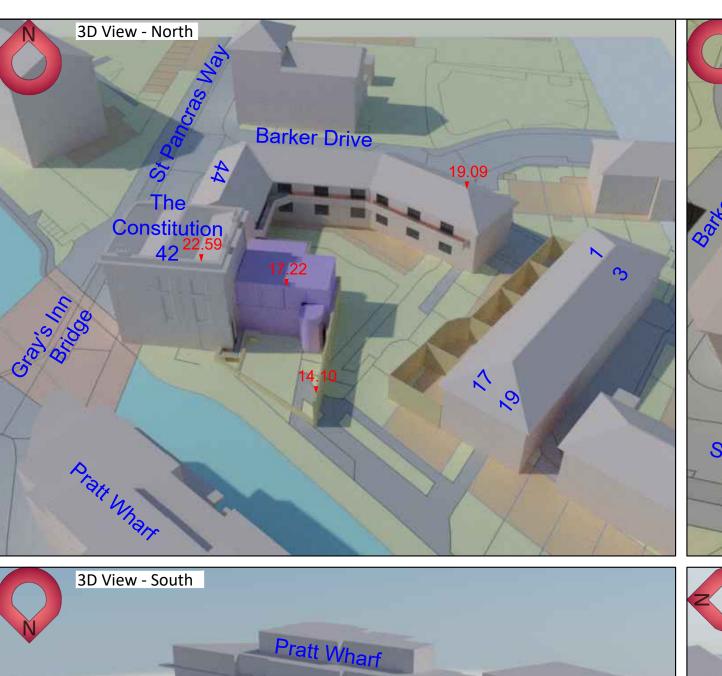


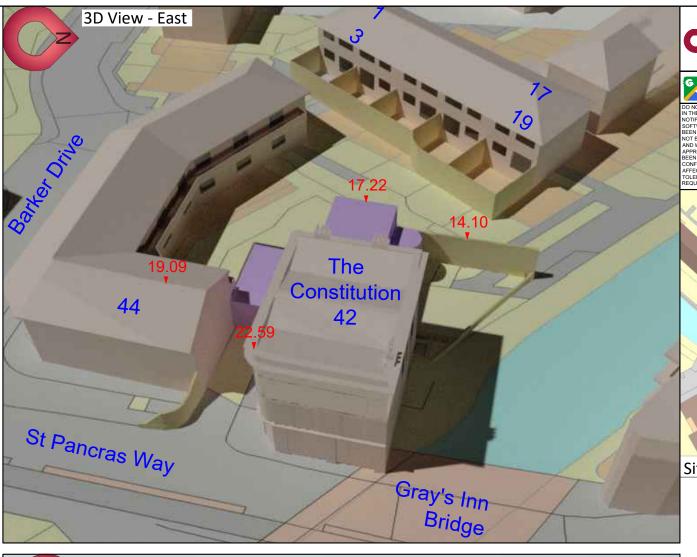
The Constitution 42 St Pancras Way, NW1 0QT

Drawing Title
3D Views of Existing Site

Drawn By	Checked By	Scale	Date	
DKG	HS	NTS	16/10,	/2020
Project No./D	rawing Type/[Drawing No.		Release No
24668	_EX3D	_02		1









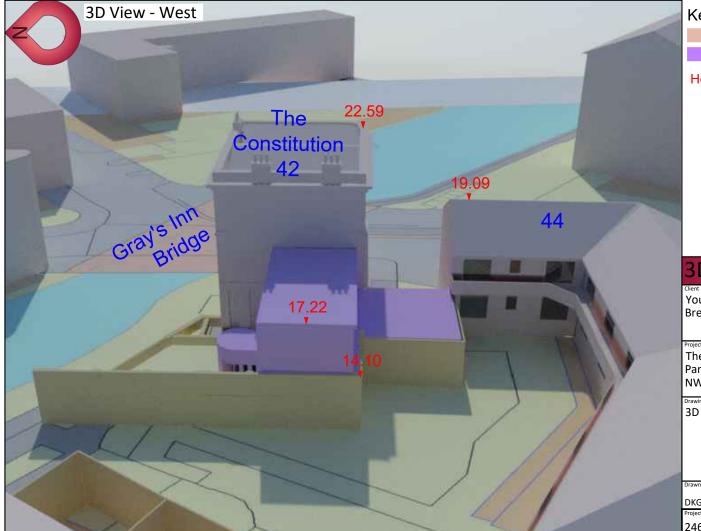






Site Location Plan





Key Surroundings Proposed Height in Meters

3D View Proposed

Youngs Brewery



Project
The Constitution 42 St
Pancras Way,
NW1 0QT

Drawing Title
3D Views of the Proposed Scheme

-					
	Drawn By	Checked By	Scale	Date	
	DKG	HS	NTS	01/10,	/2021
	Project No./D	rawing Type/[rawing No.		Release No.
	24668	_PR3D	_04		2



10.2 Appendix 2 - Vertical Sky Component and Annual Probable Sunlight Hours

Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
						44 St P	ancras Wa	у							
	R1	Residential	LKD	W1	Existing	16.02	1.00	YES	98	23.00	1.00	YES	3.00	1.00	YES
					Proposed	16.02				23.00			3.00		_
	R2	Residential	Bed	W2	Existing	13.27	0.96	YES	98	20.00	0.90	YES	7.00	0.71	YES
				14/2	Proposed	12.71	0.00	\/EC	22	18.00	0.00	\/FC	5.00	0.70	\/FC
	R3	Residential	LKD	W3	Existing	9.60	0.96	YES	98	20.00	0.90	YES	9.00	0.78	YES
				W4	Proposed	9.24 9.53	0.93	YES	188	18.00 17.00	0.94	YES	7.00 15.00	0.93	YES
	R4	Residential	LKD	VV4	Existing	9.53 8.86	0.93	YES	188	16.00	0.94	YES	14.00	0.93	YES
				W5	Proposed Existing	16.74	0.97	YES	188	28.00	0.96	YES	18.00	0.94	YES
Ground	R5	Residential	LKD	l ws	Proposed	16.24	0.57	TES	100	27.00	0.90	IES	17.00	0.54	163
				W6	Existing	17.04	0.98	YES	188	29.00	0.97	YES	19.00	0.95	YES
	R6	Residential	LKD	***	Proposed	16.69	0.50	123	100	28.00	0.57	123	18.00	0.55	123
				W7	Existing	15.78	0.98	YES	218	30.00	1.00	YES	15.00	1.00	YES
	R7	Residential	LKD	""	Proposed	15.41	0.50	123	210	30.00	1.00	123	15.00	1.00	123
				W8	Existing	17.26	0.97	YES	218	34.00	0.97	YES	17.00	0.94	YES
	R8	Residential	LKD		Proposed	16.83				33.00			16.00		-
				W9	Existing	17.96	0.98	YES	218	37.00	1.00	YES	18.00	1.00	YES
	R9	Residential	LKD		Proposed	17.66				37.00			18.00		
	R1	Desidential	Bed	W1	Existing	29.66	0.99	YES	98	38.00	1.00	YES	13.00	1.00	YES
	KI	Residential	веа		Proposed	29.23				38.00			13.00		
	R2	Residential	Bed	W2	Existing	23.44	0.99	YES	98	27.00	1.00	YES	8.00	1.00	YES
	NZ	Residential	веи		Proposed	23.28				27.00			8.00		
	R3	Residential	Bed	W3	Existing	25.23	1.00	YES	98	35.00	1.00	YES	12.00	1.00	YES
		Residential			Proposed	25.13				35.00			12.00		
	R4	Residential	Bed	W4	Existing	23.79	1.00	YES	188	44.00	1.00	YES	20.00	1.00	YES
		residential			Proposed	23.72				44.00			20.00		
First	R5	Residential	Bed	W5	Existing	26.88	1.00	YES	188	53.00	1.00	YES	25.00	1.00	YES
					Proposed	26.88				53.00			25.00		
	R6	Residential	Bed	W6	Existing	27.48	1.00	YES	188	51.00	1.00	YES	23.00	1.00	YES
					Proposed	27.48				51.00			23.00		
	R7	Residential	Bed	W7	Existing	27.23	1.00	YES	218	51.00	1.00	YES	21.00	1.00	YES
				1	Proposed	27.23				51.00			21.00		\/=o
	R8	Residential	Bed	W8	Existing	28.16	1.00	YES	218	53.00	1.00	YES	21.00	1.00	YES
[Proposed	28.10				53.00			21.00		

Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
	R9	Residential	Bed	W9	Existing	28.49	1.00	YES	218	54.00	1.00	YES	22.00	1.00	YES
	11.5	Residential			Proposed	28.42				54.00			22.00		
					1	L7-19 Ro	ssendale W	/ay							
	R1	Residential	LKD	W1	Existing	29.70	0.99	YES	308°N	13.00	*North	*North	0.00	*North	*North
Ground		Residential	LND		Proposed	29.41				13.00			0.00		
Ground	R2	Residential	LKD	W2	Existing	32.37	0.99	YES	308°N	19.00	*North	*North	1.00	*North	*North
		1100100111101			Proposed	32.15				19.00			1.00		
	R1	Residential	Bed	W1	Existing	25.97	1.00	YES	308°N	11.00	*North	*North	0.00	*North	*North
First					Proposed	25.97				11.00			0.00		
	R2	Residential	Bed	W2	Existing	26.17	1.00	YES	308°N	12.00	*North	*North	1.00	*North	*North
	L				Proposed	26.14				12.00			1.00		
				_	1		ssendale W								
	R1	Residential	LKD	W1	Existing	32.27	0.99	YES	308°N	18.00	*North	*North	1.00	*North	*North
Ground					Proposed	32.07				18.00			1.00		
	R2	Residential	LKD	W2	Existing	30.11	1.00	YES	308°N	20.00	*North	*North	3.00	*North	*North
					Proposed	29.98				20.00			3.00		
	R1	Residential	Bed	W1	Existing	26.43	1.00	YES	308°N	12.00	*North	*North	1.00	*North	*North
First					Proposed	26.37				12.00			1.00		
	R2	Residential	Bed	W2	Existing	26.57	1.00	YES	308°N	13.00	*North	*North	1.00	*North	*North
					Proposed	26.51				13.00			1.00		
						9-11 Ros	sendale W	ay							
	R1	Residential	LKD	W1	Existing	29.61	1.00	YES	308°N	13.00	*North	*North	0.00	*North	*North
Ground		Residential	LND		Proposed	29.60				13.00			0.00		
Ground	R2	Residential	LKD	W2	Existing	32.29	1.00	YES	308°N	21.00	*North	*North	3.00	*North	*North
	112	Residential	LND		Proposed	32.27				21.00			3.00		
	R1	Residential	Bed	W1	Existing	26.69	1.00	YES	308°N	13.00	*North	*North	2.00	*North	*North
First		coldellelal	564		Proposed	26.65				13.00			2.00		
	R2	Residential	Bed	W2	Existing	26.79	1.00	YES	308°N	13.00	*North	*North	2.00	*North	*North
					Proposed	26.78				13.00			2.00		

Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
						5-7 Ross	endale W	ау							
	R1	Residential	LKD	W1	Existing	31.65	1.00	YES	308°N	19.00	*North	*North	1.00	*North	*North
Ground				W2	Proposed Existing	31.65 28.21	1.00	YES	308°N	19.00 21.00	*North	*North	3.00	*North	*North
	R2	Residential	LKD	VV2	Proposed	28.21	1.00	163	300 IN	21.00	North	NOILII	3.00	NOTUI	NOTUI
	R1	Desidential	Bed	W1	Existing	26.96	1.00	YES	308°N	13.00	*North	*North	2.00	*North	*North
First	KI	Residential	веа		Proposed	26.96				13.00			2.00		
11130	R2	Residential	Bed	W2	Existing	27.00	1.00	YES	308°N	13.00	*North	*North	2.00	*North	*North
		Residential			Proposed	27.00				13.00			2.00		
						1-3 Ross	sendale Wa	ау							
	R1	Residential	LKD	W1	Existing	27.92	1.00	YES	308°N	13.00	*North	*North	0.00	*North	*North
Ground	KI	Residential	LND		Proposed	27.92				13.00			0.00		
Ground	R2	Residential	LKD	W2	Existing	30.95	1.00	YES	308°N	20.00	*North	*North	3.00	*North	*North
	112	Residential	LIND		Proposed	30.95				20.00			3.00		
	R1	Residential	Bed	W1	Existing	27.13	1.00	YES	308°N	14.00	*North	*North	2.00	*North	*North
First					Proposed	27.12				14.00			2.00		
	R2	Residential	Bed	W2	Existing	27.09	1.00	YES	308°N	13.00	*North	*North	2.00	*North	*North
					Proposed	27.08				13.00			2.00		



10.3 Appendix 3 - Average Daylight Factor

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Existing	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Existing	ADF Proposed	Req'd Value	Pr/Ex	Meets BRE Criteria
						4	4 St Pancra	s Way								
Ground	R1	LKD	W1-L	0.68	1.00	1.30	44.33	44.33	53.38	0.73	0.15	0.24	0.24			
		LKD	W1-U	0.68	1.00	1.95	34.35	33.74	53.38	0.73	1.00	1.84	1.81			
												2.08	2.05	2.00	0.98	YES
Ground	R2	Bed	W2-L	0.68	1.00	0.05	43.53	43.42	50.89	0.73	0.15	0.01	0.01			
		Bed	W2-U	0.68	1.00	0.68	32.74	32.57	50.89	0.73	1.00	0.65	0.64			
								22.21				0.66	0.65	1.00	1.00	YES
Ground	R3	LKD	W3-L	0.68	1.00	1.30	37.21	36.61	53.38	0.73	0.15	0.20	0.20			
		LKD	W3-U	0.68	1.00	1.95	24.94	24.21	53.38	0.73	1.00	1.34	1.30 1.49	2.00	0.97	YES
Ground	R4	LKD	W4-L	0.68	1.00	1.30	37.47	35.92	75.25	0.73	0.15	0.14	0.14	2.00	0.97	YES
Ground	K4	LKD	W4-L W4-U	0.68	1.00	1.95	24.82	23.61	75.25 75.25	0.73	1.00	0.14	0.14			
		LKD	VV4-0	0.08	1.00	1.55	24.02	23.01	73.23	0.73	1.00	1.09	1.04	2.00	0.95	YES
Ground	R5	LKD	W5-L	0.68	1.00	1.30	49.60	48.44	77.30	0.73	0.15	0.18	0.18	2.00	0.55	125
0.04.14		LKD	W5-U	0.68	1.00	1.95	31.59	30.99	77.30	0.73	1.00	1.17	1.15			
												1.35	1.33	2.00	0.98	YES
Ground	R6	LKD	W6-L	0.68	1.00	1.30	49.77	48.96	74.10	0.73	0.15	0.19	0.19			
		LKD	W6-U	0.68	1.00	1.95	32.19	31.78	74.10	0.73	1.00	1.24	1.23			
												1.44	1.42	2.00	0.99	YES
Ground	R7	LKD	W7-L	0.68	1.00	1.30	48.30	47.50	79.10	0.73	0.15	0.18	0.17			
		LKD	W7-U	0.68	1.00	1.95	29.83	29.24	79.10	0.73	1.00	1.08	1.06			
												1.25	1.23	2.00	0.98	YES
Ground	R8	LKD	W8-L	0.68	1.00	1.30	51.31	50.47	77.30	0.73	0.15	0.19	0.19			
		LKD	W8-U	0.68	1.00	1.95	32.05	31.33	77.30	0.73	1.00	1.19	1.16			
												1.38	1.35	2.00	0.98	YES
Ground	R9	LKD	W9-L	0.68	1.00	1.30	52.38	51.86	98.01	0.73	0.15	0.15	0.15			
		LKD	W9-U	0.68	1.00	1.95	33.16	32.64	98.01	0.73	1.00	0.97	0.95	2.00	0.00	\/F6
Fit	D4	Dl	14/4 1	0.60	1.00	0.70	CF 24	C 1 11	F2 20	0.72	0.45	1.12	1.11	2.00	0.98	YES
First	R1	Bed	W1-L	0.68	1.00	0.79	65.24	64.41	53.38	0.73	0.15	0.21	0.21			
		Bed	W1-U	0.68	1.00	1.99	49.62	49.05	53.38	0.73	1.00	2.73	2.70 2.90	1.00	0.99	YES
First	R2	Bed	W2	0.68	1.00	0.60	42.01	41.96	50.89	0.73	1.00	0.73	0.73	1.00	0.99	153
FIISC	NΔ	beu	VV Z	0.06	1.00	0.00	42.01	41.50	30.03	0.73	1.00	0.73	0.73	1.00	1.00	YES
First	R3	Bed	W3-L	0.68	1.00	0.79	55.87	55.72	53.38	0.73	0.15	0.18	0.18	1.00	1.00	1.13
11130	113	Bed	W3-U	0.68	1.00	1.99	45.11	44.96	53.38	0.73	1.00	2.48	2.47			
				2.00								2.66	2.65	1.00	1.00	YES
First	R4	Bed	W4-L	0.68	1.00	0.79	54.39	54.39	75.25	0.73	0.15	0.13	0.13			-
		Bed	W4-U	0.68	1.00	1.99	41.74	41.65	75.25	0.73	1.00	1.63	1.62			
												1.75	1.75	1.00	1.00	YES

First R5 R6 W5-L 0.68 1.00 0.79 61.87 61.87 73.0 0.73 0.15 01.4 0.14 0.14 0.14 0.14 0.16	Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Existing	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Existing	ADF Proposed	Req'd Value	Pr/Ex	Meets BRE Criteria
First R6	First	R5	Bed	W5-L	0.68	1.00	0.79	61.87	61.87	77.30	0.73	0.15	0.14	0.14			
First R6 Bed W6-L 0.68 1.00 0.79 62.52 62.52 74.10 0.73 0.15 0.15 0.15			Bed	W5-U	0.68	1.00	1.99	45.03	45.03	77.30	0.73	1.00	1.71	1.71			
First Red W6-l New N													1.85	1.85	1.00	1.00	YES
First R7 Bed W7-L 0.68 1.00 0.79 62.77 62.77 79.10 0.73 0.15 0.14 0.14 8ed W7-U 0.68 1.00 1.99 45.70 45.70 79.10 0.73 1.00 1.69 1.69 1.69 First R8 Bed W8-L 0.68 1.00 0.79 64.52 64.52 77.30 0.73 1.00 1.83 1.83 1.00 1.00 YES 8ed W8-L 0.68 1.00 0.79 64.52 64.52 77.30 0.73 1.00 1.78 1.78 First R9 Bed W9-L 0.68 1.00 0.79 64.97 64.97 88.01 0.73 0.15 0.14 0.14 Bed W9-U 0.68 1.00 0.79 64.97 64.97 88.01 0.73 0.15 0.11 0.11 Bed W9-U 0.68 1.00 0.79 64.97 64.97 88.01 0.73 1.00 1.17 0.12 Bed W9-U 0.68 1.00 1.99 48.89 48.84 0.73 0.73 1.00 1.15 0.11 0.11 Bed W9-U 0.68 1.00 0.79 64.97 64.97 88.01 0.73 1.00 1.12 0.14 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42 T1-19 Rossendale Way Ground R1 UKD W1-L 0.68 1.00 2.67 65.32 64.91 57.84 0.73 1.00 4.42 44.1 EVEN W1-U 0.68 1.00 1.73 64.21 63.85 58.07 0.73 1.00 2.81 2.80 2.00 0.99 YES First R1 Bed W1 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.28 2.81 2.80 First R2 Bed W2 0.68 1.00 1.73 63.78 63.45 56.97 0.73 1.00 2.28 2.83 2.00 0.99 YES First R1 Bed W1 0.68 1.00 1.73 50.26 60.28 58.88 0.73 0.15 0.17 0.27 0.27 EVEN URL W1-U 0.68 1.00 1.73 50.66 50.25 58.80 0.73 1.00 2.85 2.83 2.00 0.99 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.25 58.80 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.83 2.00 0.99 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W2-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 EVEN URL W1-U-U-U-U-U-U-U-U-U-U-U-U-U-U-U-U-U-U-U	First	R6	Bed	W6-L	0.68	1.00	0.79	62.52	62.52	74.10	0.73	0.15	0.15	0.15			
First R7 Bed W7-L 0.68 1.00 0.79 62.77 79.10 0.73 0.15 0.14 0.14 0.14 Bed W7-U 0.68 1.00 1.99 45.70 45.70 79.10 0.73 1.00 1.69 1.69 Bed W8-U 0.68 1.00 0.79 64.52 64.52 77.30 0.73 1.00 1.69 1.69 Bed W8-U 0.68 1.00 0.79 64.52 64.52 77.30 0.73 1.00 1.78 1.78 Bed W8-U 0.68 1.00 0.79 64.57 64.57 86.10 0.73 1.00 1.78 1.78 Bed W9-U 0.68 1.00 0.79 64.57 64.57 86.10 0.73 0.15 0.14 0.14 Bed W9-U 0.68 1.00 0.79 64.57 64.57 86.10 0.73 0.15 0.14 0.14 Bed W9-U 0.68 1.00 0.79 64.57 64.57 86.10 0.73 0.15 0.14 0.14 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42 Bed W9-U 0.68 1.00 1.79 64.57 65.32 64.51 57.84 0.73 1.00 1.40 1.42 1.42 Bed W9-U 0.68 1.00 1.73 64.21 63.85 \$8.07 0.73 1.00 2.81 2.80 Bed W9-U 0.68 1.00 1.73 64.21 63.85 \$8.07 0.73 1.00 2.81 2.80 Bed W9-U 0.68 1.00 1.73 64.21 63.85 \$8.07 0.73 1.00 2.81 2.81 Bed W1 0.68 1.00 1.73 63.78 63.45 \$8.07 0.73 1.00 2.81 2.81 Bed W1 0.68 1.00 1.73 63.78 63.45 \$8.07 0.73 1.00 2.82 2.83 Bed W9-U 0.68 1.00 1.73 63.78 63.45 \$8.07 0.73 1.00 2.85 2.83 Bed W9-U 0.68 1.00 1.73 63.68 63.45 \$8.07 0.73 1.00 2.85 2.83 Bed W9-U 0.68 1.00 1.73 66.68 66.38 \$8.88 0.73 1.00 2.85 2.83 Bed W9-U 0.68 1.00 1.73 66.68 66.38 \$8.88 0.73 1.00 2.85 2.83 Bed W9-U 0.68 1.00 1.73 50.66 60.57 56.97 0.73 1.00 2.85 2.83 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.85 2.85 Bed W9-U 0.68 1.00 1.00 VES 0.00			Bed	W6-U	0.68	1.00	1.99	46.19	46.19	74.10	0.73	1.00	1.83	1.83			
First R8 Bed W7-U 0.68 1.00 1.99 45.70 45.70 79.10 0.73 1.00 1.69													1.97	1.97	1.00	1.00	YES
First R8 Bed W8-L 0.68 1.00 0.79 64.52 64.52 77.30 0.73 0.15 0.14 0.14 First R9 Bed W9-L 0.68 1.00 0.79 64.59 64.97 98.01 0.73 0.15 0.11 0.178 1.78 First R9 Bed W9-L 0.68 1.00 0.79 64.97 98.01 0.73 0.15 0.11 0.11 0.11 First R9 Bed W9-L 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42 T17-19 Rossendale Way First R1 LKD W1-L 0.68 1.00 1.20 60.20 60.06 57.84 0.73 1.00 4.43 4.41 First R1 Bed W1 0.68 1.00 1.73 64.21 63.85 58.07 0.73 1.00 2.81 2.80 First R1 Bed W1 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.81 2.81 First R1 Bed W2 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.85 2.83 First R2 Bed W2 0.68 1.00 1.73 63.78 63.45 56.97 0.73 1.00 2.85 2.83 First R1 Bed W1 0.68 1.00 1.73 60.28 60.28 58.88 0.73 1.00 4.44 4.42 First R1 Bed W1 0.68 1.00 1.73 50.26 60.88 58.88 0.73 1.00 4.44 4.42 First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 1.00 1.00 YES	First	R7	Bed	W7-L	0.68	1.00	0.79	62.77	62.77	79.10	0.73	0.15	0.14	0.14			
First R8 Bed W8-U 0.68 1.00 0.79 64.52 64.52 77.30 0.73 0.15 0.14 0.14 Bed W8-U 0.68 1.00 1.99 46.89 46.84 77.30 0.73 1.00 1.78 1.78 First R9 Bed W9-U 0.68 1.00 0.79 64.97 64.97 98.01 0.73 0.15 0.11 0.11 First R9 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 0.15 0.11 0.11 First R9 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 0.15 0.11 0.11 First R1 B B B B B B B B B B B B B B B B B B			Bed	W7-U	0.68	1.00	1.99	45.70	45.70	79.10	0.73	1.00	1.69				
First R9 Bed W8-U 0.68 1.00 1.99 46.89 46.84 77.30 0.73 1.00 1.78 1.78 1.92 1.90 1.00 1.00 VES															1.00	1.00	YES
First R9 Bed W9-L 0.68 1.00 0.79 64.97 64.97 98.01 0.73 0.15 0.11 0.11	First	R8	Bed	W8-L	0.68	1.00	0.79	64.52	64.52	77.30	0.73	0.15	0.14	0.14			
First R9 Bed W9-U 0.68 1.00 0.79 64.97 64.97 98.01 0.73 0.15 0.11 0.11 First R9 Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42			Bed	W8-U	0.68	1.00	1.99	46.89	46.84	77.30	0.73	1.00					
Bed W9-U 0.68 1.00 1.99 47.44 47.34 98.01 0.73 1.00 1.42 1.42 1.42 1.53 1.53 1.00 1.00 YES															1.00	1.00	YES
T-19 Rossendale Way	First	R9						64.97				0.15	0.11				
Section of Count Section of			Bed	W9-U	0.68	1.00	1.99	47.44	47.34	98.01	0.73	1.00					
Ground R1 LKD W1-L 0.68 1.00 1.20 60.20 60.06 57.84 0.73 0.15 0.27 0.27 LKD W1-U 0.68 1.00 2.67 65.32 64.91 57.84 0.73 1.00 4.43 4.41 Ground R2 LKD W2 0.68 1.00 1.73 64.21 63.85 58.07 0.73 1.00 2.81 2.80 First R1 Bed W1 0.68 1.00 2.21 50.09 50.09 57.84 0.73 1.00 2.81 2.80 First R2 Bed W2 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.20 2.20 1.00 1.00 YES Ground R1 LKD W1 0.68 1.00 1.73 63.78 63.45 56.97 0.73 1.00 2.85 2.83 Ground R2 LKD W2 0.68 1.00 1.73 63.78 63.45 56.97 0.73 1.00 2.85 2.83 Ground R3 LKD W2 0.68 1.00 1.73 63.78 63.78 63.45 56.97 0.73 1.00 2.85 2.83 2.00 0.99 YES First R5													1.53	1.53	1.00	1.00	YES
LKD																	
Ground R2 LKD W2 0.68 1.00 1.73 64.21 63.85 58.07 0.73 1.00 2.81 2.80	Ground	R1															
Ground R2			LKD	W1-U	0.68	1.00	2.67	65.32	64.91	57.84	0.73	1.00					
First R1 Bed W1 0.68 1.00 2.21 50.09 50.09 57.84 0.73 1.00 2.81 2.80 2.00 0.99 YES First R2 Bed W2 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.20 2.20 1.00 1.00 YES			11/5	14/2	0.50	1.00	4.70	64.24	62.05	F0.07	0.70	4.00			2.00	0.99	YES
First R1 Bed W1 0.68 1.00 2.21 50.09 50.09 57.84 0.73 1.00 2.81 2.81	Ground	K2	LKD	W2	0.68	1.00	1./3	64.21	63.85	58.07	0.73	1.00			2.00	0.00	7/56
First R2 Bed W2 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.20 2.20	F: .			1444	0.50	1.00	2.24	F0.00	50.00	57.04	0.70	4.00			2.00	0.99	YES
First R2 Bed W2 0.68 1.00 1.73 50.26 50.22 58.07 0.73 1.00 2.20 2.20	First	K1	веа	W1	0.68	1.00	2.21	50.09	50.09	57.84	0.73	1.00			1.00	1.00	VEC
Compage	First		D - d	14/2	0.60	4.00	1.72	F0.2C	50.22	F0.07	0.72	4.00			1.00	1.00	YES
Second R1	FIRST	K2	веа	W2	0.68	1.00	1./3	50.26	50.22	58.07	0.73	1.00			1.00	1.00	VEC
Ground R1 LKD W1 0.68 1.00 1.73 63.78 63.45 56.97 0.73 1.00 2.85 2.83 2.00 0.99 YES Ground R2 LKD W2-L 0.68 1.00 1.20 60.28 60.28 58.88 0.73 0.15 0.27 0.27 0.27 LKD W2-U 0.68 1.00 2.67 66.61 66.38 58.88 0.73 1.00 4.44 4.42 4.71 4.70 2.00 1.00 YES 7.00													2.20	2.20	1.00	1.00	YES
First R1 Bed W2 0.68 1.00 2.21 51.04 50.95 58.88 0.73 1.00 2.85 2.83 2.00 0.99 YES Comparison of							13-	15 Rossend	ale Way								
Ground R2 LKD W2-L 0.68 1.00 1.20 60.28 60.28 58.88 0.73 0.15 0.27 <	Ground	R1	LKD	W1	0.68	1.00	1.73	63.78	63.45	56.97	0.73	1.00	2.85	2.83			
LKD W2-U 0.68 1.00 2.67 66.61 66.38 58.88 0.73 1.00 4.44 4.42 First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26 2.26 2.26 1.00 1.00 YES First R2 Bed W2 0.68 1.00 2.21 51.04 50.95 58.88 0.73 1.00 2.82 2.81													2.85	2.83	2.00	0.99	YES
First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26	Ground	R2	LKD	W2-L	0.68	1.00	1.20	60.28	60.28	58.88	0.73	0.15	0.27	0.27			
First R1 Bed W1 0.68 1.00 1.73 50.66 50.57 56.97 0.73 1.00 2.26 2.26			LKD	W2-U	0.68	1.00	2.67	66.61	66.38	58.88	0.73	1.00	4.44	4.42			
First R2 Bed W2 0.68 1.00 2.21 51.04 50.95 58.88 0.73 1.00 2.82 2.81 First R2 Bed W2 0.68 1.00 2.21 51.04 50.95 58.88 0.73 1.00 2.82 2.81													4.71	4.70	2.00	1.00	YES
First R2 Bed W2 0.68 1.00 2.21 51.04 50.95 58.88 0.73 1.00 2.82 2.81	First	R1	Bed	W1	0.68	1.00	1.73	50.66	50.57	56.97	0.73	1.00	2.26	2.26			
															1.00	1.00	YES
2.82 2.81 1.00 1.00 YES	First	R2	Bed	W2	0.68	1.00	2.21	51.04	50.95	58.88	0.73	1.00	2.82				
													2.82	2.81	1.00	1.00	YES

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Existing	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Existing	ADF Proposed	Req'd Value	Pr/Ex	Meets BRE Criteria
						9-1	1 Rossenda	le Way								
Ground	R1	LKD	W1-L	0.68	1.00	1.20	58.99	58.99	58.81	0.73	0.15	0.26	0.26			
		LKD	W1-U	0.68	1.00	2.67	65.71	65.60	58.81	0.73	1.00	4.39	4.38			
												4.65	4.64	2.00	1.00	YES
Ground	R2	LKD	W2	0.68	1.00	1.73	63.94	63.89	58.30	0.73	1.00	2.79	2.79			
												2.79	2.79	2.00	1.00	YES
First	R1	Bed	W1	0.68	1.00	2.21	51.24	51.16	58.81	0.73	1.00	2.83	2.83			
												2.83	2.83	1.00	1.00	YES
First	R2	Bed	W2	0.68	1.00	1.73	51.21	51.18	58.30	0.73	1.00	2.23	2.23			
												2.23	2.23	1.00	1.00	YES
							7 Rossenda									
Ground	R1	LKD	W1	0.68	1.00	1.73	62.81	62.81	58.81	0.73	1.00	2.71	2.71			
												2.71	2.71	2.00	1.00	YES
Ground	R2	LKD	W2-L	0.68	1.00	1.20	57.81	57.81	58.30	0.73	0.15	0.26	0.26			
		LKD	W2-U	0.68	1.00	2.67	63.49	63.49	58.30	0.73	1.00	4.27	4.27			1/50
F: .			1444	0.50	1.00	4.72	54.50	54.52	F0.04	0.72	4.00	4.54	4.54	2.00	1.00	YES
First	R1	Bed	W1	0.68	1.00	1.73	51.52	51.52	58.81	0.73	1.00	2.23	2.23	1.00	1.00	YES
Finak	R2	Bed	W2	0.68	1.00	2.21	51.81	51.81	F0 20	0.73	1.00	2.23	2.23	1.00	1.00	YES
First	K2	веа	VV Z	0.08	1.00	2.21	51.81	51.81	58.30	0.73	1.00	2.89	2.89	1.00	1.00	YES
												2.69	2.09	1.00	1.00	TES
						1-3	3 Rossenda	le Way								
Ground	R1	LKD	W1-L	0.68	1.00	1.20	56.97	56.97	57.06	0.73	0.15	0.26	0.26			
		LKD	W1-U	0.68	1.00	2.67	63.62	63.62	57.06	0.73	1.00	4.38	4.38			
												4.64	4.64	2.00	1.00	YES
Ground	R2	LKD	W2	0.68	1.00	1.73	61.61	61.60	58.35	0.73	1.00	2.68	2.68			
												2.68	2.68	2.00	1.00	YES
First	R1	Bed	W1	0.68	1.00	2.21	51.99	51.99	57.06	0.73	1.00	2.96	2.96			
												2.96	2.96	1.00	1.00	YES
First	R2	Bed	W2	0.68	1.00	1.73	51.72	51.71	58.35	0.73	1.00	2.25	2.25			
												2.25	2.25	1.00	1.00	YES



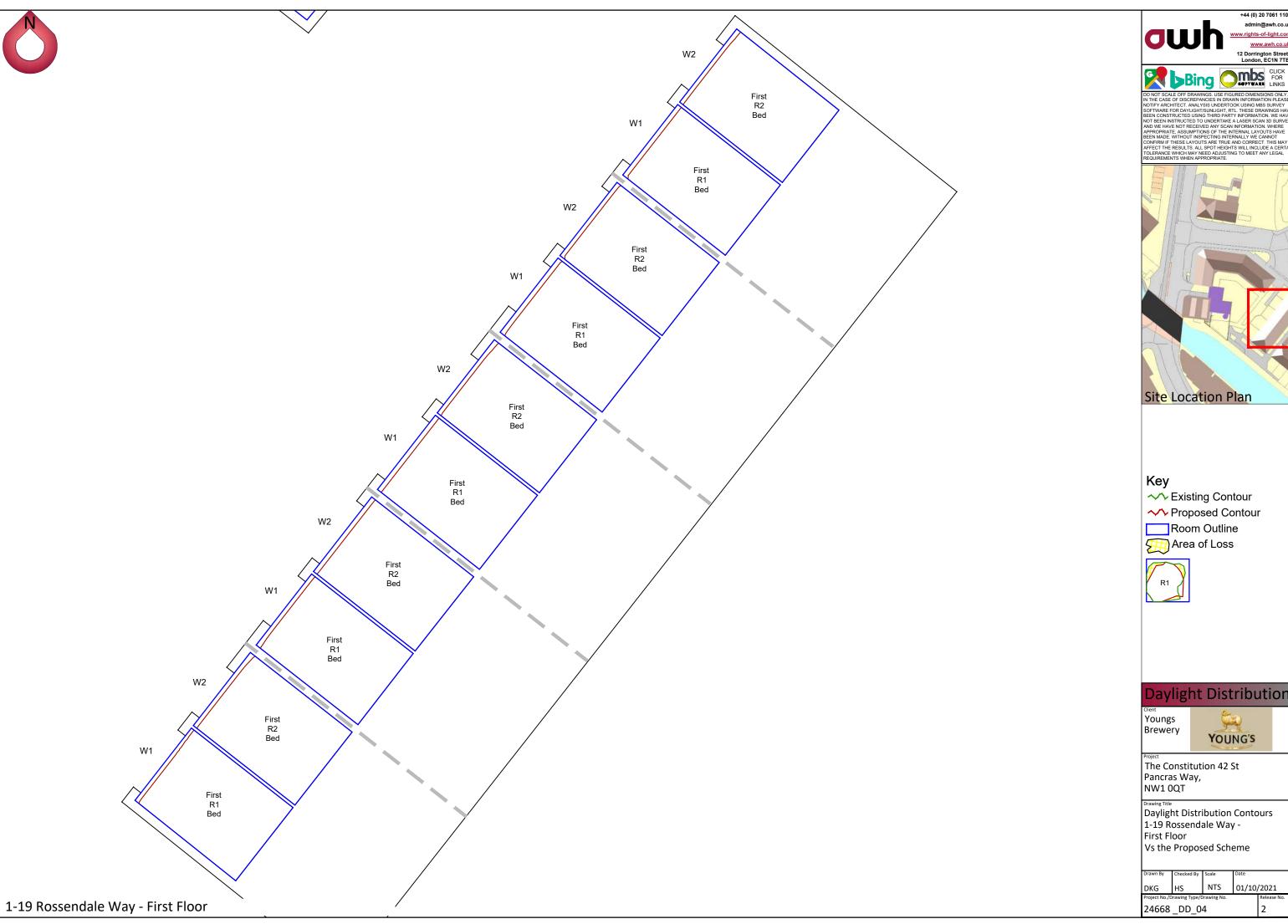
10.4 Appendix 4 - Daylight Distribution

R1 R2 R3 R4 R5 R6 R7 R8 R9	LKD Bed LKD LKD LKD LKD LKD	Area m2 % of room	10.81 10.05 10.81 17.49 18.13 17.05	10.72 99.19% 9.37 93.24% 10.62 98.27% 12.39 70.82% 15.11 83.35% 16.16	10.72 99.15% 9.31 92.58% 10.60 98.06% 12.38 70.79% 15.09 83.24% 16.14	1.00 0.99 1.00 1.00	YES YES YES YES
R2 R3 R4 R5 R6 R7 R8	Bed LKD LKD LKD LKD	% of room Area m2	10.05 10.81 17.49 18.13	99.19% 9.37 93.24% 10.62 98.27% 12.39 70.82% 15.11 83.35% 16.16	99.15% 9.31 92.58% 10.60 98.06% 12.38 70.79% 15.09 83.24%	0.99 1.00 1.00	YES YES YES
R3 R4 R5 R6 R7 R8	LKD LKD LKD LKD	Area m2 % of room Area m2	10.81 17.49 18.13	9.37 93.24% 10.62 98.27% 12.39 70.82% 15.11 83.35% 16.16	9.31 92.58% 10.60 98.06% 12.38 70.79% 15.09 83.24%	0.99 1.00 1.00	YES YES YES
R3 R4 R5 R6 R7 R8	LKD LKD LKD LKD	% of room Area m2	10.81 17.49 18.13	93.24% 10.62 98.27% 12.39 70.82% 15.11 83.35% 16.16	92.58% 10.60 98.06% 12.38 70.79% 15.09 83.24%	1.00 1.00	YES YES
R4 R5 R6 R7 R8	LKD LKD LKD	Area m2 % of room Area m2	17.49 18.13	10.62 98.27% 12.39 70.82% 15.11 83.35% 16.16	10.60 98.06% 12.38 70.79% 15.09 83.24%	1.00 1.00	YES YES
R4 R5 R6 R7 R8	LKD LKD LKD	% of room Area m2	17.49 18.13	98.27% 12.39 70.82% 15.11 83.35% 16.16	98.06% 12.38 70.79% 15.09 83.24%	1.00	YES
R5 R6 R7 R8 R9	LKD LKD LKD	Area m2 % of room Area m2 % of room Area m2 % of room Area m2	18.13	12.39 70.82% 15.11 83.35% 16.16	12.38 70.79% 15.09 83.24%	1.00	YES
R5 R6 R7 R8 R9	LKD LKD LKD	% of room Area m2 % of room Area m2 % of room Area m2	18.13	70.82% 15.11 83.35% 16.16	70.79% 15.09 83.24%		
R6 R7 R8 R9	LKD LKD	Area m2 % of room Area m2 % of room Area m2		15.11 83.35% 16.16	15.09 83.24%		
R6 R7 R8 R9	LKD LKD	% of room Area m2 % of room Area m2		83.35% 16.16	83.24%	1.00	YES
R7 R8 R9	LKD	Area m2 % of room Area m2	17.05	16.16		1.00	YES
R7 R8 R9	LKD	% of room Area m2	17.05		16 1/		
R8 R9		Area m2		04 750/			
R8 R9				94.75%	94.64%	1.00	YES
R9	LKD	% of room	18.56	17.45	17.43		
R9	LKD			94.01%	93.91%	1.00	YES
		Area m2	18.13	17.22	17.21		
		% of room		95.01%	94.92%	1.00	YES
	LKD	Area m2	24.52	21.93	21.88		
		% of room		89.41%	89.23%	1.00	YES
R1	Bed	Area m2	10.81	10.76	10.76		
		% of room		99.60%	99.60%	1.00	YES
R2	Bed	Area m2	10.05	9.41	9.41		
		% of room		93.58%	93.58%	1.00	YES
R3	Bed	Area m2	10.81	10.74	10.74		
		% of room		99.42%	99.42%	1.00	YES
R4	Bed	Area m2	17.49	14.98	14.98		
		% of room		85.66%	85.66%	1.00	YES
R5	Bed	Area m2	18.13	16.96	16.96		
		% of room		93.54%	93.54%	1.00	YES
R6	Bed	Area m2	17.05	16.66	16.66		
		% of room		97.70%	97.70%	1.00	YES
R7	Bed	Area m2	18.56	18.13	18.13		
		% of room		97.67%	97.67%	1.00	YES
R8	Bed	Area m2	18.13	17.78	17.78		
		% of room		98.07%	98.07%	1.00	YES
R9	Bed	Area m2	24.52		23.37		
		% of room		95.29%	95.29%	1.00	YES
	1	17-19 Rossendale '	Way				
R1	LKD	Area m2	12.03	12.03	12.03		
		% of room		99.93%	99.93%	1.00	YES
R2	LKD	Area m2	12.11	11.91	11.91		
		% of room		98.42%	98.42%	1.00	YES
R1	Bed	Area m2	12.03	11.67	11.67		
		% of room		97.00%	97.00%	1.00	YES
R2	Bed	Area m2	12.11	11.70	11.70		
		% of room		96.65%	96.65%	1.00	YES
	,	12 15 Descendels	14/				
	R8 R9 R1 R2 R1 R2	R9 Bed 1 R1 LKD R2 LKD R1 Bed R2 Bed	R8 Bed Area m2 K9 Bed Area m2 % of room % of room 17-19 Rossendale 1 R1 LKD Area m2 % of room % of room R1 Bed Area m2 % of room % of room R2 Bed Area m2 % of room % of room	R8 Bed Area m2 18.13 K9 Bed Area m2 24.52 % of room 24.52 17-19 Rossendale Way R1 LKD Area m2 12.03 % of room 82 LKD Area m2 12.11 % of room 81 Bed Area m2 12.03 % of room 82 Bed Area m2 12.11	R8 Bed Area m2 18.13 17.78 % of room 98.07% R9 Bed Area m2 24.52 23.37 % of room 95.29% 17-19 Rossendale Way R1 LKD Area m2 12.03 12.03 % of room 99.93% R2 LKD Area m2 12.11 11.91 % of room 98.42% R1 Bed Area m2 12.03 11.67 % of room 97.00% R2 Bed Area m2 12.11 11.70 % of room 96.65%	R8 Bed Area m2 18.13 17.78 17.78 % of room 98.07% 98.07% 98.07% 98.07% 98.07% 98.07% 98.07% 98.07% 96.07% 97.00% 97.00% 97.00% 96.65% 96.65%	R8 Bed Area m2 18.13 17.78 17.78 98.07% 1.00 R9 Bed Area m2 24.52 23.37 23.37 95.29% 1.00 17-19 Rossendale Way R1 LKD Area m2 12.03 12.03 12.03 99.93% 99.93% 1.00 R2 LKD Area m2 12.11 11.91 11.91 90.00 R1 Bed Area m2 12.03 11.67 11.67 97.00% 97.00% 1.00 R2 Bed Area m2 12.11 11.70 11.70 96.65% 96.65% 1.00

Floor Ref.	Room Ref.	Room Use.		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
Ground	R1	LKD	Area m2	11.76	11.58	11.58		
			% of room		98.47%	98.47%	1.00	YES
Ground	R2	LKD	Area m2	12.36	12.35	12.35		
			% of room		99.90%	99.90%	1.00	YES
First	R1	Bed	Area m2	11.76	11.37	11.37		
			% of room		96.67%	96.67%	1.00	YES
First	R2	Bed	Area m2	12.36	11.93	11.93		
			% of room		96.50%	96.50%	1.00	YES
		9)-11 Rossendale \	Nay				
Ground	R1	LKD	Area m2	12.33	12.32	12.32		
			% of room		99.91%	99.91%	1.00	YES
Ground	R2	LKD	Area m2	12.17	11.99	11.99		
			% of room		98.51%	98.51%	1.00	YES
First	R1	Bed	Area m2	12.33	11.89	11.89		
			% of room		96.38%	96.38%	1.00	YES
First	R2	Bed	Area m2	12.17	11.77	11.77		
			% of room		96.72%	96.72%	1.00	YES
		!	5-7 Rossendale V	Vay				
Ground	R1	LKD	Area m2	12.33	12.16	12.16		
			% of room		98.57%	98.57%	1.00	YES
Ground	R2	LKD	Area m2	12.17	12.15	12.15		
			% of room		99.88%	99.88%	1.00	YES
First	R1	Bed	Area m2	12.33	11.88	11.88		
			% of room		96.33%	96.33%	1.00	YES
First	R2	Bed	Area m2	12.17	11.78	11.78		
			% of room		96.80%	96.80%	1.00	YES
			1-3 Rossendale V	Vay				
Ground	R1	LKD	Area m2	11.77	11.76	11.76		
			% of room		99.91%	99.91%	1.00	YES
Ground	R2	LKD	Area m2	12.17	11.93	11.93		
			% of room		97.99%	97.99%	1.00	YES
First	R1	Bed	Area m2	11.77	11.35	11.35		
			% of room		96.45%	96.45%	1.00	YES
First	R2	Bed	Area m2	12.17	11.78	11.78		
			% of room		96.78%	96.78%	1.00	YES



10.5 Appendix 5 - Daylight Contour Plots



+44 (0) 20 7061 1100



Existing Contour

✓ Proposed Contour

Room Outline

Daylight Distribution



Vs the Proposed Scheme

				١ ـ
Project No./D	rawing Type/D	rawing No.		Release N
DKG	HS	NTS	01/10	/2021
Drawn By	Checked By	Scale	Date	

