

43 & 43A LONDON STREET READING

INTERNAL DAYLIGHT AND SUNLIGHT REPORT

DIRECTOR: LIAM DUNFORD

CLIENT: KEVIN SOOBADOO

DATE: JUNE 2019

VERSION: PLANNING

PROJECT: P1965

Point 2 Surveyors Limited,
17 Slingsby Place,
London, WC2E 9AB

0207 836 5828
point2.co.uk



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1 Introduction

- 1.1 This report relates to the DSP Architecture Proposed Scheme for the redevelopment of the 43 & 43A London Street, Reading insofar as assesses the levels of internal daylight and sunlight received by the proposed habitable rooms within the scheme.
- 1.2 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE guidance. Consideration will be given to the urban context within which a scheme is located and the daylight and sunlight will be one of a number of planning considerations which the local authority will weigh.

Sources of Information

In the process of compiling this report, the following sources of information have been used:

Point 2 Surveyors

3D Laser Scan Survey
Site Photography

DSP Architecture

Proposed Info (received 24/05/19)
43 London Street Reading Proposed Drawings.dwg

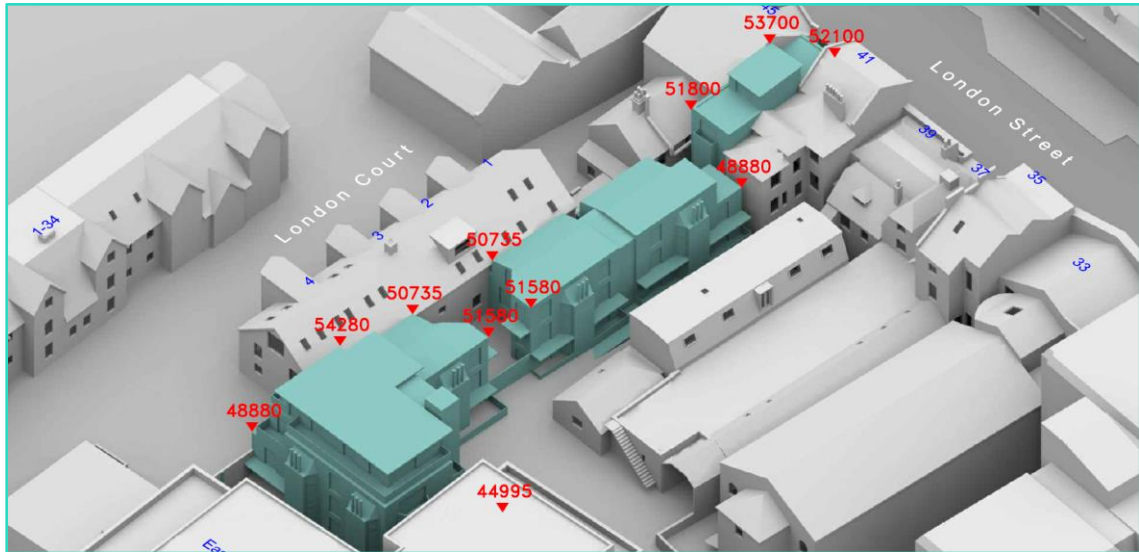
2 Methodology

- 2.1 In assessing the daylight to the main habitable spaces within the proposed accommodation, as recommended by the guidelines, we have calculated the ADF. With reference to BS8206 Part 2:2008 and Appendix C of the BRE Report, in calculating the values, we have assumed light internal finishes giving the following reflectances: floors 0.4 (light wood or cream carpet), ceilings 0.85 (white paint), internal walls 0.81 (pale cream paint). We have assumed double glazing with a transmittance of 0.68, and have allowed for a maintenance factor of 8% (appropriate for urban residential properties).
- 2.2 This daylight assessment method considers the transmittance of the glazing to the room in question (i.e. how much light gets through the window glass); the net glazed area of the window in question; the total area of the room surfaces (ceiling, walls, floor and windows) and their reflectances; and the angle of visible sky reaching the window/windows in question.
- 2.3 The BRE guidelines / British Standard sets the following recommended ADF levels for habitable room uses:
- 1% Bedroom
 - 1.5% Living Room
 - 2.0% Kitchens
- 2.4 It is important to remember that the BRE Guide states that 'the advice given here is not mandatory and should not be seen as an instrument of planning policy'. Furthermore, daylight criteria should be 'interpreted flexibly because natural lighting is only one of many factors'. Based upon these statements it is important to apply the guidance and target levels sensibly and flexibly taking into account the context of the site as a conversion of an existing building.

3 Standard Survey Limitations

- 3.1 Although we have undertaken as detailed an inspection as possible, we are required by our professional indemnity insurers to notify you that our report is based upon the Standard Terms and Conditions provided along with our fee proposal. Our understanding of the existing massing, including the surrounding context was established from the sources of information details within Section 3.
- 3.2 In addition to our standard limitations the following limitations and assumptions also apply.
- Best estimates were made in establishing building use (residential or commercial) and room uses; generally, these were made from external observations and recourse to planning records where available.
 - When floor plans of surrounding properties were not available, room depths have been assumed from external observations. Where no indicators of room depth were available a standard of 4m, 6m or 8m depths have been used.
 - In accordance with BRE Guidelines balconies, where present have been removed from calculations.

4 The Proposal



Drawing Number: P1965/15 – 3D View – Proposed Scheme

- 4.1 Our understanding of the proposed scheme is illustrated in drawings P1965/13-15 located within Appendix A.

4

5 Internal Daylight Assessment

- 5.1 57 rooms have been analysed to establish the internal daylight levels within. This represents all the proposed habitable rooms within the development. The ADF levels received by each room can be seen annotated on layout plans of the building located in Appendix B (P1965/INT/09-11). The layouts comprise 20 Living/Kitchen/Dining (LKD) Rooms, 1 Living Room, 1 Kitchen/Dining (KD) Room and 35 Bedrooms.

Daylight

- 5.2 54 of the 57 (95%) of the rooms assessed meet and, in most cases surpass, the desired ADF target value for their observed use. The 3 rooms (R2/249, R4/250 and R5/250) not meeting the requisite target value are bedrooms. The analysis indicates they receive 0.1%, 0.4% and 0.7% ADF in the proposed condition. In our opinion, this small handful of bedrooms (mainly secondary bedrooms) falling below target is acceptable on balance. The proposed scheme has made efficient use of what is a very constrained site and it was considered whilst designing the scheme that if some derogation from target was unavoidable, it should be associated to bedrooms and not the principle living spaces.

Sunlight

- 5.3 We have assessed the APSH values of the proposed living rooms. It should be borne that the site is north-facing thus sunlight access is inherently somewhat constrained, particularly in winter.
- 5.4 The proposed Annual APSH ranges 18 up to 64 which is good considering the site constraints. In terms of winter APSH, 9 rooms receive between 0 and 4 APSH which is below the recommended 5. This is considered acceptable in light of the northern orientation of the site and in consideration of the compliant ADF values received in all living rooms.

6 Conclusion

- 6.1 The design of the proposed layouts has evolved over the project to a best address daylight amenity. Over 95% of rooms meet the desired ADF targets with only 3 bedrooms falling short of their recommended target. This is considered to be a good level of compliance given the inherent constraints of the application site. In terms of sunlight, it should be borne the site is north facing but, notwithstanding this, the proposed APSH values are in keeping with urban residential sites and considered acceptable on balance.
- 6.2 Overall, the proposed scheme has been carefully designed to ensure adequate daylight access to internal layouts; the proposed results are considered acceptable, particularly in view of the constrained nature of the site.

We fully support this application in terms of daylight and sunlight amenity.

Appendix 1:

Drawings



Sources: Point 2 Surveyors
3D Laser Scan
DSP Architecture
Proposed Info (received 24/05/19)
43 London Street Reading Proposed Drawings.dwg

Key:  Existing Buildings
 Proposed Scheme

Project: 43-43A London Street
Reading

Title: Site Plan
Proposed Scheme 24/05/19

Scheme Confirmed:

-

Date:

-

Drawn By:

AFA/NI

Scale:

1:500 @ A3

Date:

May 19

Dwg No:

P1965/13

Rel:

03





Sources: Point 2 Surveyors
3D Laser Scan
DSP Architecture
Proposed Info (received 24/05/19)
43 London Street Reading Proposed Drawings.dwg

Key: Existing Buildings
Proposed Scheme

All Heights in mm AOD

Scheme Confirmed:

Date:

Project: 43-43A London Street
Reading

Drawn By:
AFA/NI

Scale:
NA @ A3

Date:
May 19

Title: 3D View
Proposed Scheme 24/05/19

Dwg No:
P1965/14

Rel:
03





Sources: Point 2 Surveyors
3D Laser Scan
DSP Architecture
Proposed Info (received 24/05/19)
43 London Street Reading Proposed Drawings.dwg

Key: Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Project: 43-43A London Street
Reading

Title: 3D View
Proposed Scheme 24/05/19

Scheme Confirmed:

-

Date:

-

Drawn By:

AFA/NI

Scale:

NA @ A3

Date:

May 19

Dwg No:

P1965/15

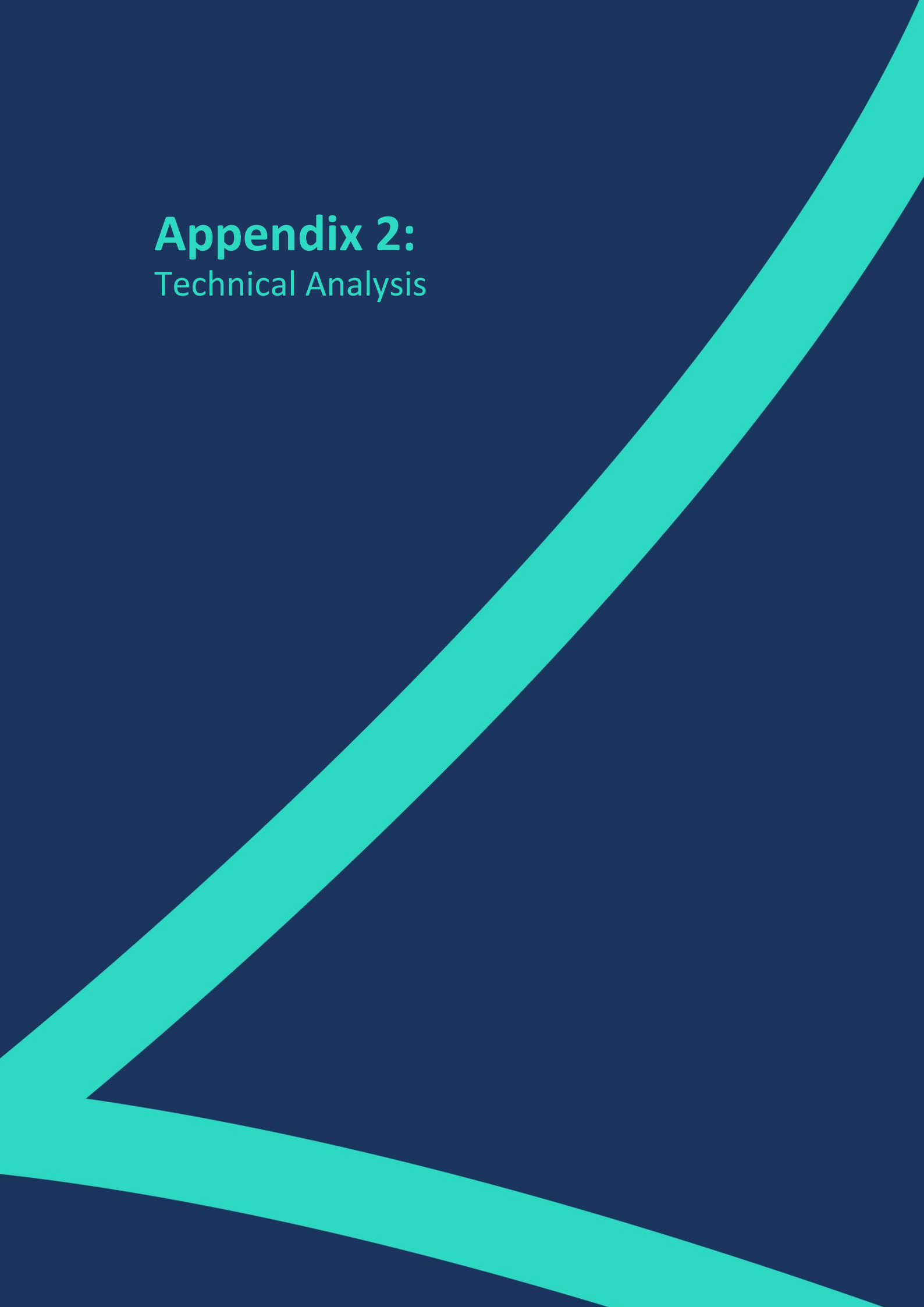
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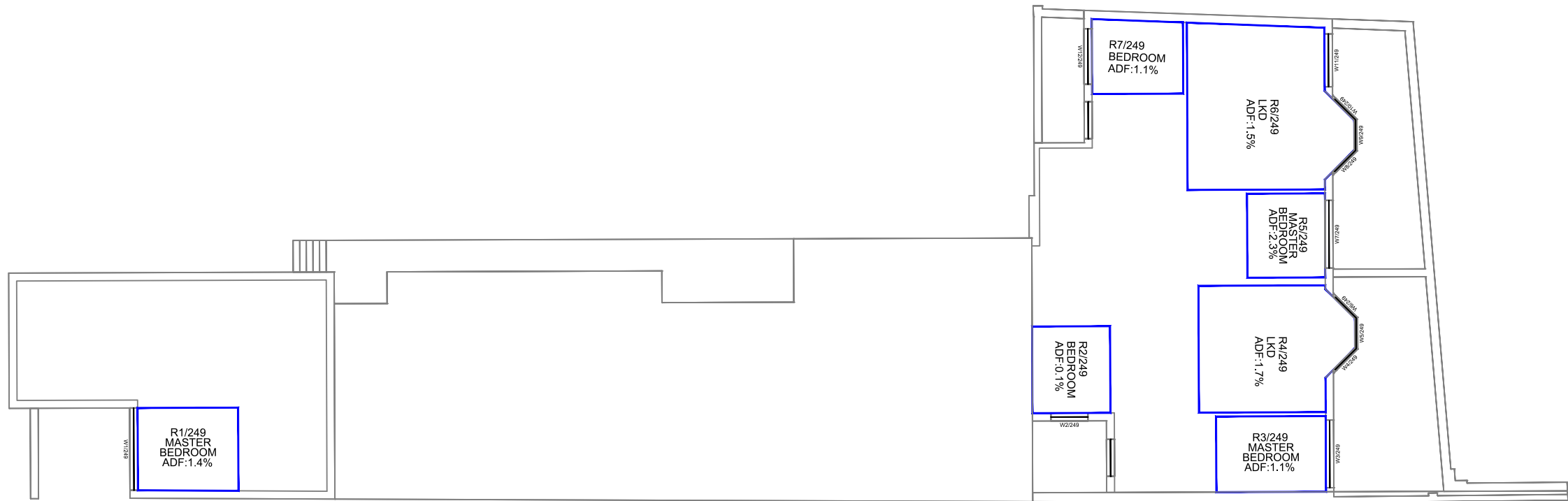
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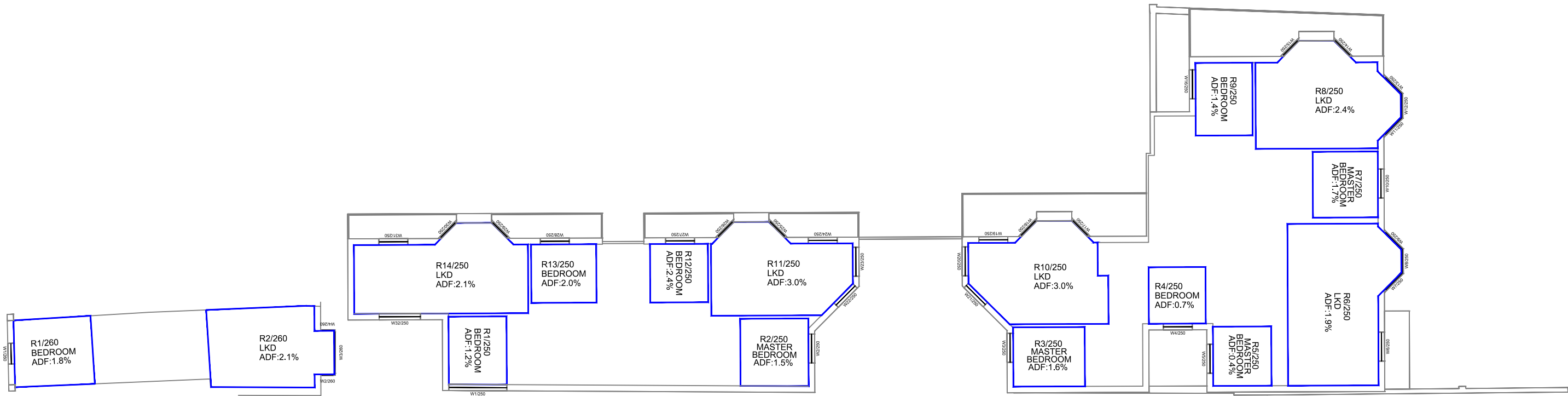
Appendix 2:

Technical Analysis





LOWER GROUND FLOOR



UPPER GROUND FLOOR

Sources: Point 2 Surveyors
3D Laser Scan
DSP Architecture
Proposed Info (received 12/06/19)
43 London Street - Planning P1 - (Draft).dwg

Key:

Project: 43-43A London Street
Reading

Drawn By: NI

Title: Room Layouts & ADF Results

Proposed Scheme received 12/06/19

Dwg No: P1965/INT/09

Rel: 05

Scheme Confirmed:

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Date:

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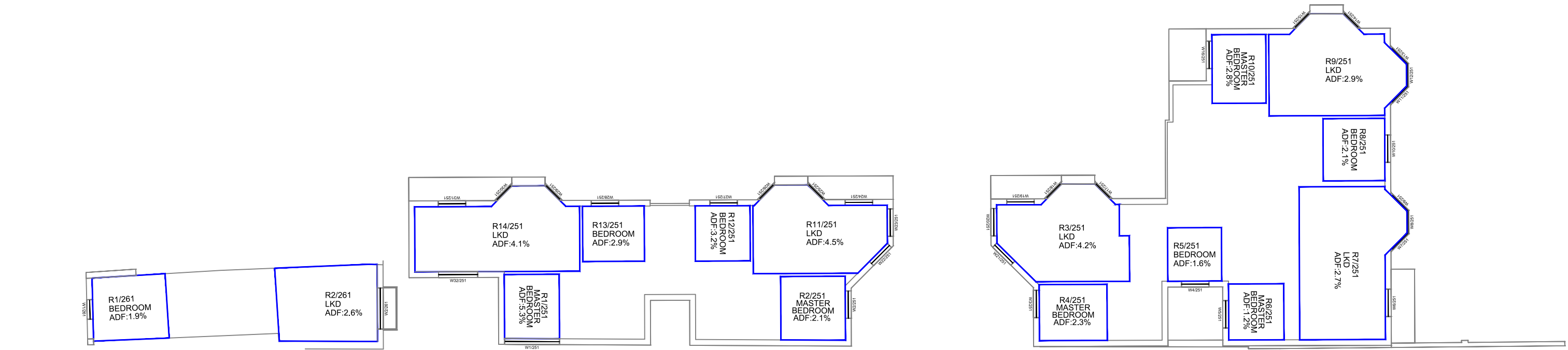
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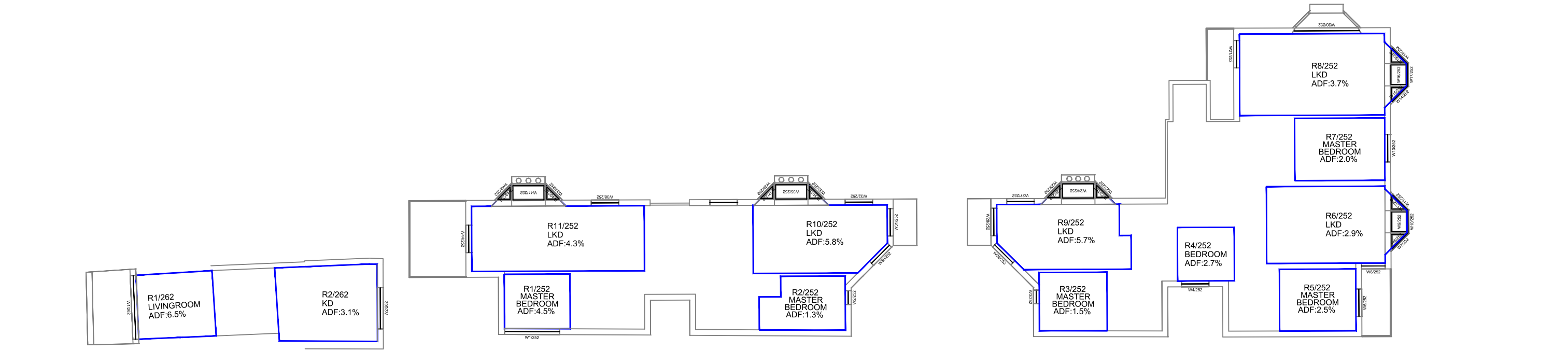
Date:

Jun 19





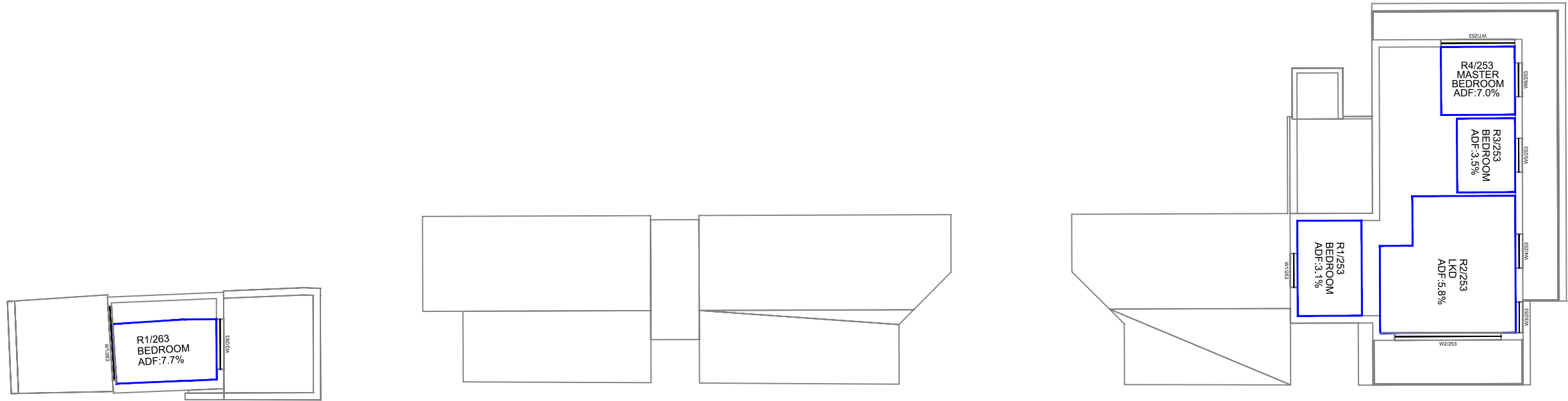
FIRST FLOOR



SECOND FLOOR

Sources: Point 2 Surveyors 3D Laser Scan DSP Architecture Proposed Info (received 12/06/19) 43 London Street - Planning P1 - (Draft).dwg	Key: 		Project: 43-43A London Street Reading		Title: Room Layouts & ADF Results Proposed Scheme received 12/06/19	
	Scheme Confirmed: -	Date: -	Drawn By: NI	Scale: 1:200 @ A3	Date: Jun 19	Dwg No: P1965/INT/10





THIRD FLOOR

Sources: Point 2 Surveyors
3D Laser Scan
DSP Architecture
Proposed Info (received 12/06/19)
43 London Street - Planning P1 - (Draft).dwg

Key:

Project: 43-43A London Street
Reading

Title: Room Layouts & ADF Results

Proposed Scheme received 12/06/19

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
-	-	NI	1:200 @ A3	Jun 19	P1965/INT/11	05





INTERNAL SUNLIGHT INTERNAL ANALYSIS

43-43A LONDON STREET, READING

PROPOSED SCHEME 12/06/19

P1965 - Rel5

INTERNAL APSH

Room	Window	Room Use	Orientation	Window		Room	
				Winter APSH	Annual APSH	Winter APSH	Annual APSH
R4/249	W4/249	LKD	126.6	0	14		
R4/249	W5/249	LKD	81.6	0	19		
R4/249	W6/249	LKD	36.6	0	4	0	20
R6/249	W8/249	LKD	126.6	4	18		
R6/249	W9/249	LKD	81.6	4	16		
R6/249	W10/249	LKD	36.6	0	0		
R6/249	W11/249	LKD	81.6	0	5	4	18
R6/250	W6/250	LKD	81.6	0	10		
R6/250	W7/250	LKD	126.6	3	24		
R6/250	W8/250	LKD	81.6	6	26		
R6/250	W9/250	LKD	36.6	1	5	6	36
R8/250	W11/250	LKD	126.6	7	24		
R8/250	W12/250	LKD	81.6	7	22		
R8/250	W13/250	LKD	36.6	0	1		
R8/250	W14/250	LKD	36.6	0	0		
R8/250	W15/250	LKD	306.6	0	8	7	32
R10/250	W17/250	LKD	36.6	0	0		
R10/250	W18/250	LKD	306.6	0	2		
R10/250	W19/250	LKD	351.6	0	0		
R10/250	W20/250	LKD	261.6	0	11		
R10/250	W21/250	LKD	216.6	0	17	0	21
R11/250	W22/250	LKD	126.6	0	14		
R11/250	W23/250	LKD	81.6	0	9		
R11/250	W24/250	LKD	351.6	0	0		
R11/250	W25/250	LKD	36.6	0	0		
R11/250	W26/250	LKD	306.6	0	6	0	21
R14/250	W29/250	LKD	36.6	0	1		
R14/250	W30/250	LKD	306.6	0	1		
R14/250	W31/250	LKD	351.6	0	0		
R14/250	W32/250	LKD	171.6	4	22	4	24
R3/251	W17/251	LKD	36.6	0	0		
R3/251	W18/251	LKD	306.6	0	9		
R3/251	W19/251	LKD	351.6	0	1		
R3/251	W20/251	LKD	261.6	2	14		
R3/251	W21/251	LKD	216.6	4	31	5	41



INTERNAL SUNLIGHT INTERNAL ANALYSIS

43-43A LONDON STREET, READING

PROPOSED SCHEME 12/06/19

P1965 - Rel5

INTERNAL APSH

Room	Window	Room Use	Orientation	Window		Room	
				Winter APSH	Annual APSH	Winter APSH	Annual APSH
R7/251	W6/251	LKD	81.6	5	29		
R7/251	W7/251	LKD	126.6	13	39		
R7/251	W8/251	LKD	81.6	11	33		
R7/251	W9/251	LKD	36.6	2	9	14	47
R9/251	W11/251	LKD	126.6	10	32		
R9/251	W12/251	LKD	81.6	8	23		
R9/251	W13/251	LKD	36.6	0	2		
R9/251	W14/251	LKD	36.6	0	0		
R9/251	W15/251	LKD	306.6	0	9	10	41
R11/251	W22/251	LKD	126.6	2	30		
R11/251	W23/251	LKD	81.6	1	12		
R11/251	W24/251	LKD	351.6	0	0		
R11/251	W25/251	LKD	36.6	0	1		
R11/251	W26/251	LKD	306.6	0	8	3	40
R14/251	W29/251	LKD	36.6	0	3		
R14/251	W30/251	LKD	306.6	0	6		
R14/251	W31/251	LKD	351.6	0	0		
R14/251	W32/251	LKD	171.6	13	36	13	45
R6/252	W6/252	LKD	171.6	14	40		
R6/252	W7/252	LKD	126.6	14	46		
R6/252	W8/252	LKD	121.6	14	46		
R6/252	W9/252	LKD	83.3	14	50		
R6/252	W10/252	LKD	81.6	11	34		
R6/252	W11/252	LKD	36.6	2	12		
R6/252	W12/252	LKD	45.1	1	16	15	52
R8/252	W14/252	LKD	126.6	11	36		
R8/252	W15/252	LKD	121.6	11	36		
R8/252	W16/252	LKD	83.3	11	40		
R8/252	W17/252	LKD	81.6	8	24		
R8/252	W18/252	LKD	36.6	0	3		
R8/252	W19/252	LKD	45.1	0	9		
R8/252	W20/252	LKD	351.6	0	5		
R8/252	W21/252	LKD	261.6	2	18	13	57
R9/252	W22/252	LKD	36.6	0	0		
R9/252	W23/252	LKD	44.1	0	0		
R9/252	W24/252	LKD	323.8	0	12		
R9/252	W25/252	LKD	306.6	0	10		



INTERNAL SUNLIGHT INTERNAL ANALYSIS

43-43A LONDON STREET, READING

PROPOSED SCHEME 12/06/19

P1965 - Rel5

INTERNAL APSH

Room	Window	Room Use	Orientation	Window		Room	
				Winter APSH	Annual APSH	Winter APSH	Annual APSH
R9/252	W26/252	LKD	302.2	0	10		
R9/252	W27/252	LKD	351.6	0	2		
R9/252	W28/252	LKD	261.6	5	34		
R9/252	W29/252	LKD	216.6	15	50	15	53
R10/252	W30/252	LKD	126.6	11	45		
R10/252	W31/252	LKD	81.6	4	27		
R10/252	W32/252	LKD	351.6	0	1		
R10/252	W33/252	LKD	36.6	0	3		
R10/252	W34/252	LKD	44.1	0	3		
R10/252	W35/252	LKD	323.8	0	15		
R10/252	W36/252	LKD	306.6	0	9		
R10/252	W37/252	LKD	302.2	0	9	12	59
R11/252	W38/252	LKD	351.6	0	2		
R11/252	W39/252	LKD	36.6	0	4		
R11/252	W40/252	LKD	44.1	0	4		
R11/252	W41/252	LKD	323.8	0	16		
R11/252	W42/252	LKD	306.6	0	11		
R11/252	W43/252	LKD	302.2	0	9		
R11/252	W44/252	LKD	261.6	4	30	4	37
R2/253	W2/253	LKD	171.6	29	50		
R2/253	W3/253	LKD	81.6	5	25		
R2/253	W4/253	LKD	81.6	6	26	30	64
R2/260	W2/260	LKD	171.6	0	17		
R2/260	W3/260	LKD	81.6	0	20		
R2/260	W4/260	LKD	351.6	0	0	0	26
R2/261	W2/261	LKD	81.6	4	27	4	27
R1/262	W1/262	LIVINGROOM	259.4	8	41	8	41
R2/262	W2/262	KD	81.6	8	35	8	35