

Sunlight
Assessments UK

Impact Assessment

Site address: 123b Central Avenue, Hayes

Impact address: 123A Central Avenue & 59 Orchard Road, Hayes

Designer/Architects SY Design Studio





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1. Introduction

- 1.1 Sunlight Assessments UK have been instructed to assess the daylight and sunlight of the proposed development of 123b Central Avenue, Hayes.
- 1.2 The report relates to the proposed Scheme presented by SY Design Studio, and provides detailed technical support regarding the potential impact on the daylight and sunlight of 123A Central Avenue & 59 Orchard Road, Hayes.
- 1.3 The Local Authority will be informed of this by the BRE document entitled 'Site layout planning for daylight and sunlight: a guide to good practice' (BR209 2022). This document is the principal guidance in this area and sets out the methodology for measuring light and recommends what it considers to be permitted or unobtrusive levels of change.
- 1.4 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 several planning considerations which the local authority will weigh.

Sources of Information

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

Ordnance Survey Data

OS Map

Proposed drawings in Appendix 1



2. Methodology

Effect on daylight

Vertical Sky Component (VSC), to surrounding properties.

BRE guidance summary on daylight:

2.2.23 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 diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- the VSC measured at the centre of an existing main window is less than 27%, and less than 0.80 times its former value.

the area of the working plane in a room which can receive direct skylight is reduced to less than 0.80 times its former value.

Effect on sunlight

Annual probable sunlight hours (APSH), to surrounding properties.

BRE guidance summary on sunlight:

3.2.13 If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sun lighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- values less than 25% of annual probable sunlight hours and less than 0.80 times its former annual value; or less than 5% of annual probable sunlight hours between 21 September and 21 March and less than 0.80 times its former value during that period.

and also has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.



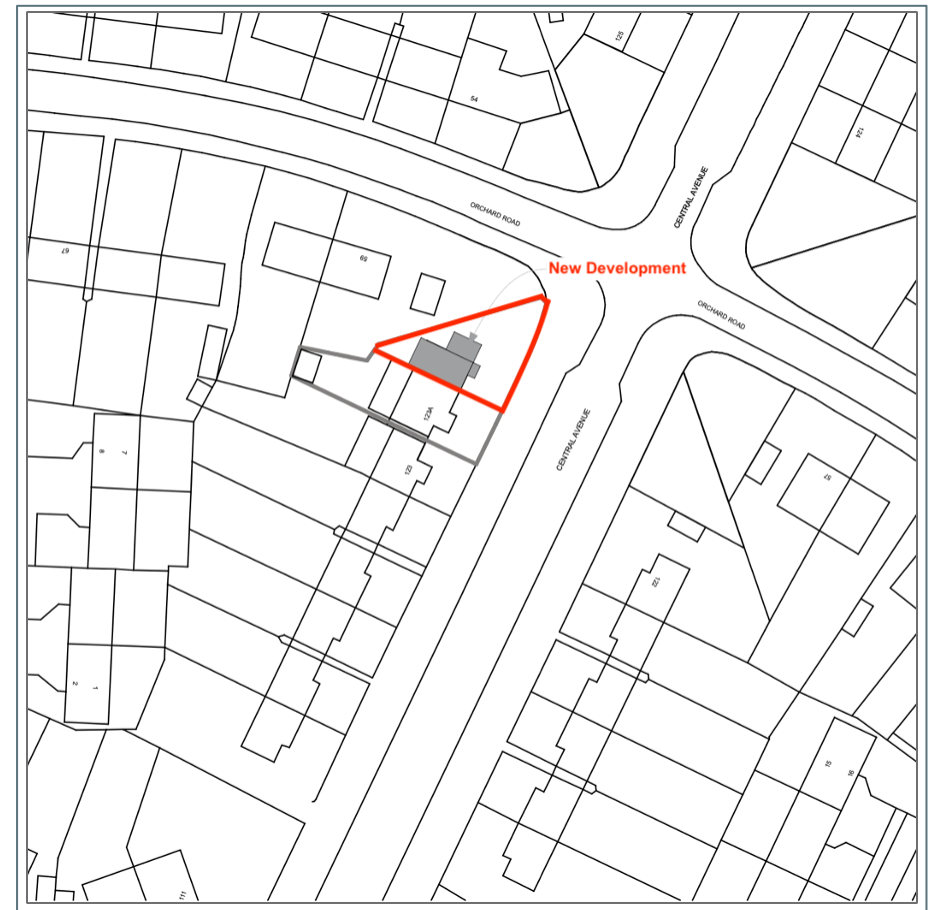
3. Standard Survey Limitations

- 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. Our understanding of the proposed development is informed in the drawings in Appendix 1 and information supplied by SY Design Studio.
- 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.
 - Where 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.



4. The Site

4.1 The site is located at 123b Central Avenue, Hayes.





5. The Proposal

PROPOSED DEVELOPMENT

- 5.1 Our understanding of the proposed new build is illustrated in the drawings, located in Appendix 1.
- 5.2 SY Design Studio has provided floorplans and elevations.





6. Impact on the Surrounding Properties

- 6.1 Due to the proximity to the site, we have assessed the rear windows of 123A Central Avenue & 59 Orchard Road, Hayes.
- 6.2 This/these residential properties are located adjacent to the Site.
- 6.3 The location of these properties is highlighted in the map:





7. Assessment Results

Vertical Sky Component (VSC)

- 7.1 The results show that the windows and associated room will not experience a noticeable reduction in daylight as defined in the BRE guidance.

Annual probable sunlight hours (APSH)

- 7.2 The results show that all windows and associated rooms will not experience a noticeable reduction in sunlight as defined in the BRE guidance.

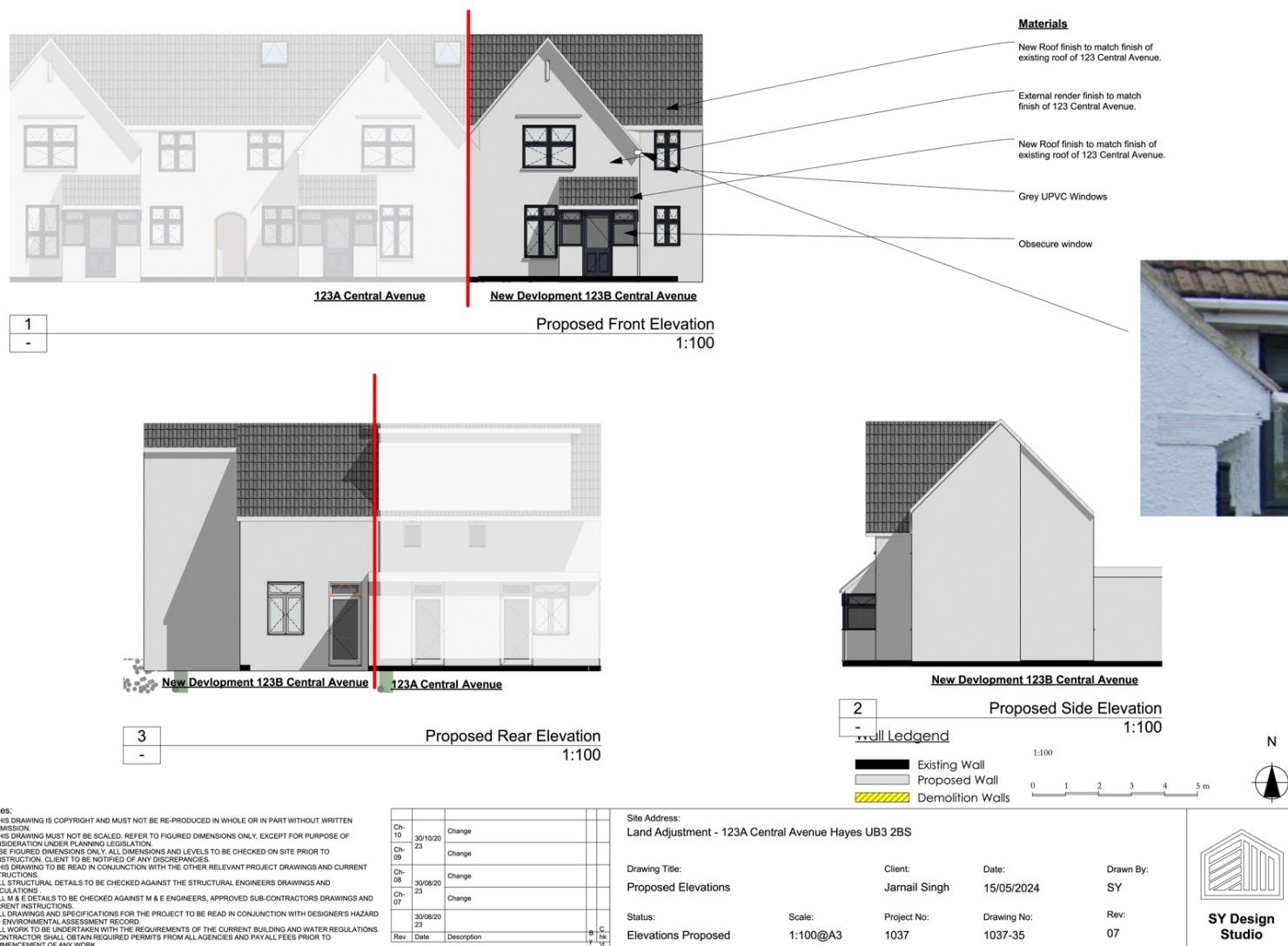


8. Conclusion

- 8.1 The daylight and sunlight to the analysed windows of 123A Central Avenue & 59 Orchard Road, Hayes will not experience a noticeable reduction of daylight and sunlight as set out in the BRE guidelines.
- 8.2 We, therefore, conclude that the effects of the proposed scheme in relation to daylight and sunlight are BRE compliant and we have identified no grounds for rejection of a planning application for this proposal.

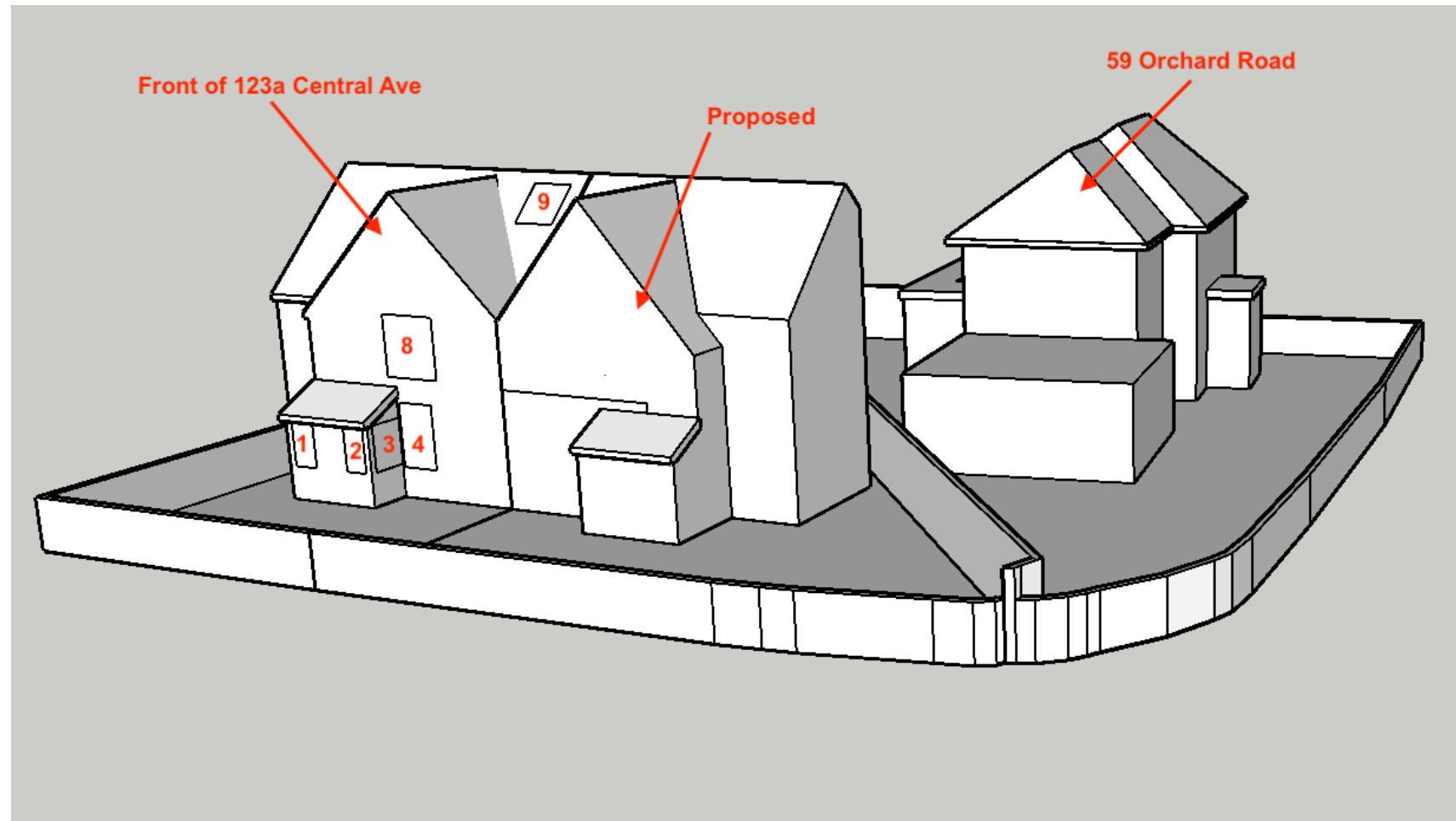
Appendix 1:

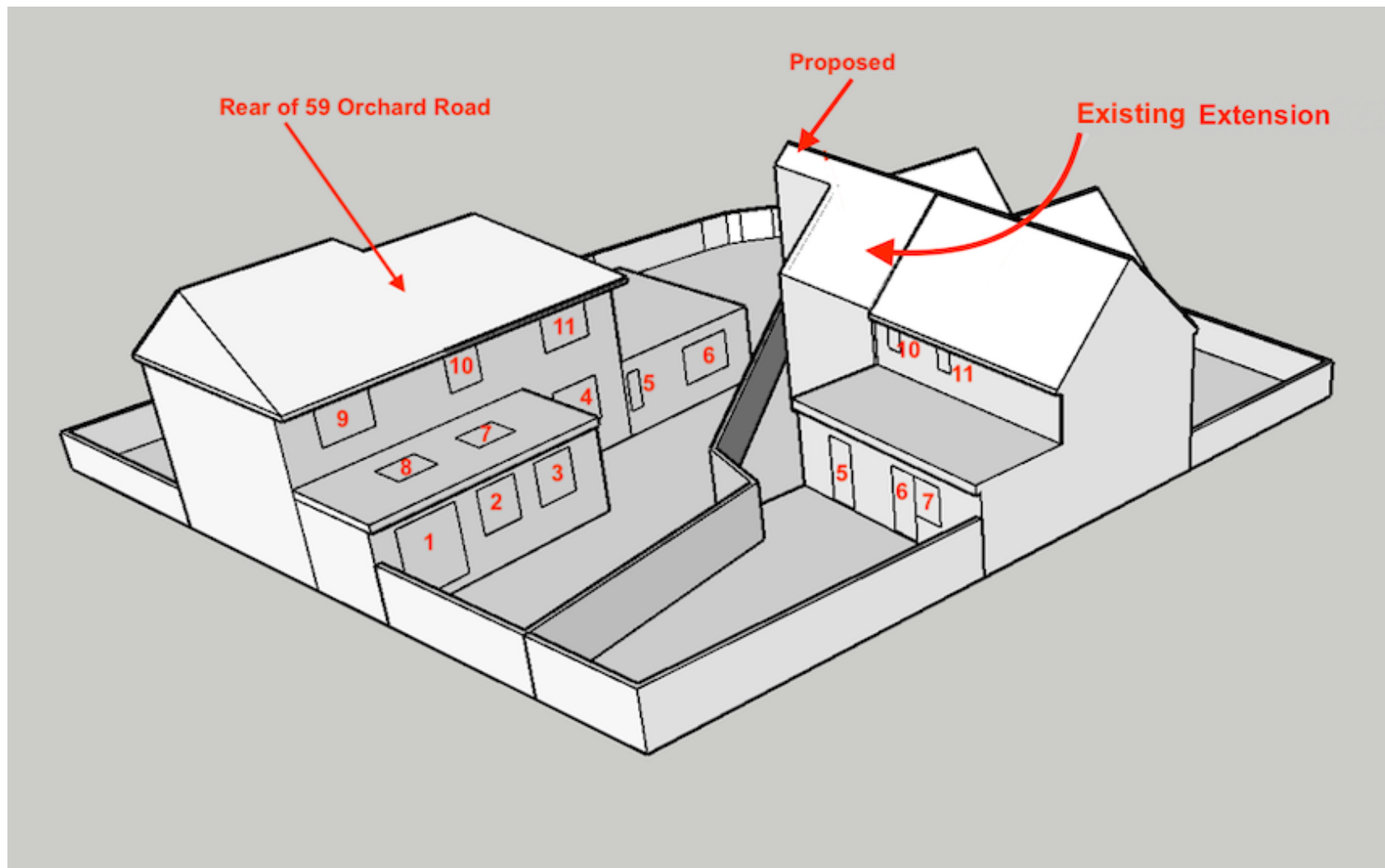
Drawings



Appendix 2:

Window Maps





Appendix 3:

Technical Analysis



Building Name	Floor Name	Window Name	Window Orientation	VSC Existing	VSC Proposed	Pr/Ex	Meets BRE Criteria
59 Orchard Road	Ground	W1	197°	34.32	34.30	1	YES
59 Orchard Road	Ground	W2	197°	36.24	36.20	1	YES
59 Orchard Road	Ground	W3	197°	35.17	35.12	1	YES
59 Orchard Road	Ground	W4	197°	29.02	28.32	0.98	YES
59 Orchard Road	Ground	W5	197°	28.81	27.60	0.96	YES
59 Orchard Road	Ground	W6	197°	25.12	21.73	0.87	YES
59 Orchard Road	Ground	W7	360° Hz	75.03	74.75	1	YES
59 Orchard Road	Ground	W8	0° Hz	74.04	73.87	1	YES
59 Orchard Road	First	W9	197°	31.38	31.29	1	YES
59 Orchard Road	First	W10	197°	30.68	30.48	0.99	YES
59 Orchard Road	First	W11	197°	29.54	29.05	0.98	YES
123a Central Avenue	Ground	W1	116°	37.88	37.88	1	YES
123a Central Avenue	Ground	W2	116°	37.87	37.86	1	YES
123a Central Avenue	Ground	W3	26°N	22.14	21.04	0.95	YES
123a Central Avenue	Ground	W4	116°	30.29	30.25	1	YES
123a Central Avenue	Ground	W5	296°N	31.56	31.56	1	YES
123a Central Avenue	Ground	W6	296°N	33.29	33.29	1	YES
123a Central Avenue	Ground	W7	296°N	34.90	34.90	1	YES
123a Central Avenue	First	W8	116°	39.62	39.62	1	YES
123a Central Avenue	First	W9	116° Inc	77.22	76.60	0.99	YES
123a Central Avenue	First	W10	296°N	34.47	34.38	1	YES
123a Central Avenue	First	W11	296°N	34.90	34.89	1	YES



Annual probable sunlight hours (APSH) results

Building Name	Floor Name	Window Name	Traffic Light Id	Window Orientation	Annual Ex	Annual Pr	Pr/Ex	Meets BRE Criteria
59 Orchard Road	Ground	W1	1	197°	75.00	75.00	1	YES
59 Orchard Road	Ground	W2	2	197°	76.00	76.00	1	YES
59 Orchard Road	Ground	W3	3	197°	75.00	75.00	1	YES
59 Orchard Road	Ground	W4	4	197°	64.00	59.00	0.92	YES
59 Orchard Road	Ground	W5	5	197°	68.00	59.00	0.87	YES
59 Orchard Road	Ground	W6	6	197°	65.00	47.00	0.72	YES
59 Orchard Road	Ground	W7	7	360° Hz	92.00	89.00	0.97	YES
59 Orchard Road	Ground	W8	8	0° Hz	93.00	91.00	0.98	YES
59 Orchard Road	First	W9	9	197°	66.00	65.00	0.98	YES
59 Orchard Road	First	W10	10	197°	65.00	64.00	0.98	YES
59 Orchard Road	First	W11	11	197°	65.00	62.00	0.95	YES
123a Central Avenue	Ground	W1	12	116°	60.00	60.00	1	YES
123a Central Avenue	Ground	W2	13	116°	58.00	58.00	1	YES
123a Central Avenue	Ground	W3	14	26°N	17.00	17.00	North	North
123a Central Avenue	Ground	W4	15	116°	36.00	36.00	1	YES
123a Central Avenue	Ground	W5	16	296°N	30.00	30.00	North	North
123a Central Avenue	Ground	W6	17	296°N	29.00	29.00	North	North
123a Central Avenue	Ground	W7	18	296°N	30.00	30.00	North	North
123a Central Avenue	First	W8	19	116°	64.00	64.00	1	YES
123a Central Avenue	First	W9	20	116° Inc	82.00	81.00	0.99	YES
123a Central Avenue	First	W10	21	296°N	29.00	29.00	North	North
123a Central Avenue	First	W11	22	296°N	29.00	29.00	North	North

* The BRE guidelines state regarding the APSH test “any windows facing within 90 degrees due north does not need to be analysed as there is no expectation of sunlight”.

Sunlight Assessments UK Ltd

