

**23A, 23B AND LAND ADJOINING 23
RAVENSHAW STREET, LONDON, NW6,
LONDON, NW6**

**SUNLIGHT AND DAYLIGHT REPORT FOR
P AND R ASSOCIATES: ARCHITECTS**

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CONTENTS

SECTION 1: INTRODUCTION	3
SECTION 2: PROPOSED DEVELOPMENT	4
SECTION 3: SUNLIGHT AND DAYLIGHT METHODOLOGY	5
SECTION 4: SUNLIGHT AND DAYLIGHT ASSESSMENT	7
SECTION 5: CONCLUSION	9

FIGURES

FIGURE 1: SITE PLAN	
FIGURE 2: GROUND FLOOR PLAN WITH SIGHT LINES	
FIGURE 3: REAR ELEVATION	
FIGURE 4: WALDRAM DIAGRAM FOR SUNLIGHT AVAILABILITY AT WINDOW OF NUMBER 21; EXISTING.	
FIGURE 5: WALDRAM DIAGRAM FOR SUNLIGHT AVAILABILITY AT WINDOW OF NUMBER 21; PROPOSED.	
FIGURE 6: WALDRAM DIAGRAM FOR SKYLIGHT AVAILABILITY AT WINDOW OF NUMBER 21; EXISTING.	
FIGURE 7: WALDRAM DIAGRAM FOR SKYLIGHT AVAILABILITY AT WINDOW OF NUMBER 21; PROPOSED.	

SECTION 1: INTRODUCTION

- 1.1** This Sunlight and Daylight Report is undertaken on behalf of Mr C Taylor. It has been prepared in respect of a planning application for a proposed residential development at 23 Ravenshaw Street, London.
- 1.2** 23 Ravenshaw Street is an end of terrace property, with a large rear garden (See Figure 1).
- 1.3** This application relates to the demolition of the existing dwelling house and the erection of a three-storey apartment block.
- 1.4** This report assesses the impact of the proposals on the daylight and sunlight levels to existing properties. The Building Research Establishment (BRE) publication 'Site layout and planning for daylight and sunlight, a guide to good practice' (1991) is the basis of this assessment. This document is referred to as 'the guide' in this report.

SECTION 2: PROPOSED DEVELOPMENT

- 2.1 The proposed development comprises a three-storey apartment block in the centre of the proposal site. This will replace the existing dwelling house and hardstanding on the site.**

SECTION 3: SUNLIGHT AND DAYLIGHT METHODOLOGY

- 3.1 The assessments that have been undertaken are of the impact on the 'worst affected' window in adjoining property, at number 21 Ravenshaw Street. By way of its orientation to the proposal site and proximity to other elevations, this window is considered to receive the least amount of daylight and sunlight.
- 3.2 The methodology used to assess the impact of the proposed development on sunlight and daylight is that set out by the BRE 'Site Layout and Planning for Daylight and Sunlight, A Guide to Good Practice' (1991).
- 3.3 The assessments that have been undertaken are of the impact on the 'worst affected' window in adjoining property, identified in Figure 2. By way of its orientation to the proposal site and proximity to other elevations, this window is considered to receive the least amount of daylight and sunlight. If this window receives adequate sunlight and daylight, it is a consequential conclusion that all other windows will receive adequate levels of light.
- 3.4 The 'worst affected' window is at ground floor level. The assessment of the impact of the proposed development on the 'worst affected' window was undertaken. A comparison was then undertaken between the existing position and the proposed position.

Daylighting

- 3.5 The amount of daylight available to any window depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration. The amount of visible sky and consequently the amount of available skylight is assessed by calculating the Vertical Sky Component (VSC) at the centre of a window. The guidance states that if the VSC is greater than 27%, then enough skylight should still be reaching the window of the existing building. The guidance advises that a reduction below this level should be kept to a minimum. However, only where the VSC, with new developments in place, is both less than 27% and less than 0.8 times its former value will occupants notice any reduction.
- 3.6 The VSC calculation measures light reaching the outside plane of the window under consideration, i.e. potential light rather than actual light. The BRE advise that depending upon the room and window size, the room may still be adequately lit with a lesser VSC value than the 27% referred to above.
- 3.7 BRE guidance states that the guidance should not be applied prescriptively, but with flexibility.

Sunlighting

- 3.8 The levels of sunlight into a window can be affected where they face within 90 degrees of due south. Calculations are taken with a reference at the centre of each window. BRE guidance recommends that assessments need only be undertaken of habitable rooms. These guidelines have formed the basis for this assessment.

- 3.9 The BRE suggests that a window's reference point should ideally receive more than one quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during winter months, on 21 September and 21 March in order to receive sufficient sunlight. The BRE suggest that any reduction in sunlight below this level should be kept to a minimum, in order that occupants do not notice a lesser level of sunlight. Again, the guidance states that only where the available sunlight hours are both less than the amount given and less than 0.8 times their former value, will occupants notice the loss of sunlight.
- 3.10 Again, the BRE advise that this guidance should not be applied prescriptively, but with flexibility.

SECTION 4: SUNLIGHT AND DAYLIGHT ASSESSMENT

- 4.1 The location of the 'worst case' window is shown in Figure 2. Figure 3 identifies the heights of adjacent obstructions to the 'worst case' window.
- 4.2 A summary of the existing levels of sunlight received by the 'worst case' window is set out in Table 4.1. This is set out diagrammatically in Figure 4.

Table 4.1- Existing sunlight results for the 'worst case' window within the adjoining development.

Reference Point	Total percentage of annual probable sunlight hours	Total percentage of annual probable sunlight hours
1a	51%	14

- 4.3 A summary of the levels of sunlight that would be received by the 'worst case' window within the adjacent dwelling house following the proposed development is set out in Table 4.2. This is set out diagrammatically in Figure 5.

Table 4.2- Sunlight results for the 'worst case' window within the adjacent dwelling house.

Reference Point	Total percentage of annual probable sunlight hours	Total percentage of annual probable sunlight hours
1a	42%	7

- 4.4 Table 4.1 shows that even with the proposed development in place the 'worst case' window would continue to receive a level of sunlight which exceeds the recommended levels set out by the BRE. However, there would be some reduction in the level of sunlight received into the 'worst case' window, as a result of the proposed development. As this is less than 0.8 times the former value, occupants of the existing building will not notice the reduction in the amount of sunlight, as defined in the BRE guidance.
- 4.5 A summary of the existing levels of daylight received by the 'worst case' window within the adjoining development is set out in Table 4.3. This is set out diagrammatically in Figure 6.

Table 4.3- Existing daylight results for the 'worst case' window within adjacent dwelling house.

Reference Point	VSC Level (%)
1a	21.6%

- 4.6 A summary of levels of daylight that would be received by the 'worst case' window within the adjoining development following the proposed development is set out in Table 4.4. This is set out diagrammatically in Figure 7.

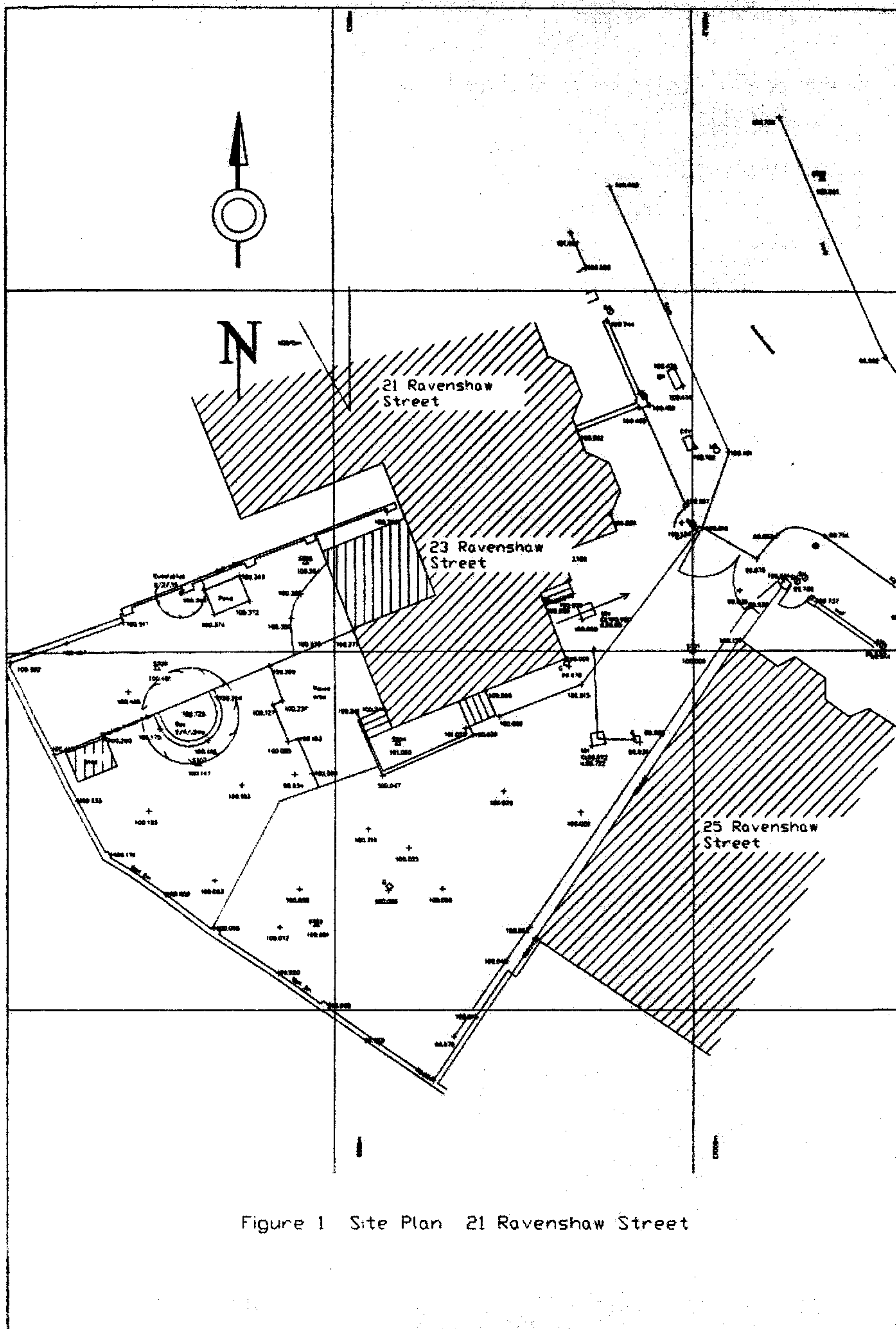
Table 4.4 – Daylight results for the 'worst case' window of the adjacent dwelling house.

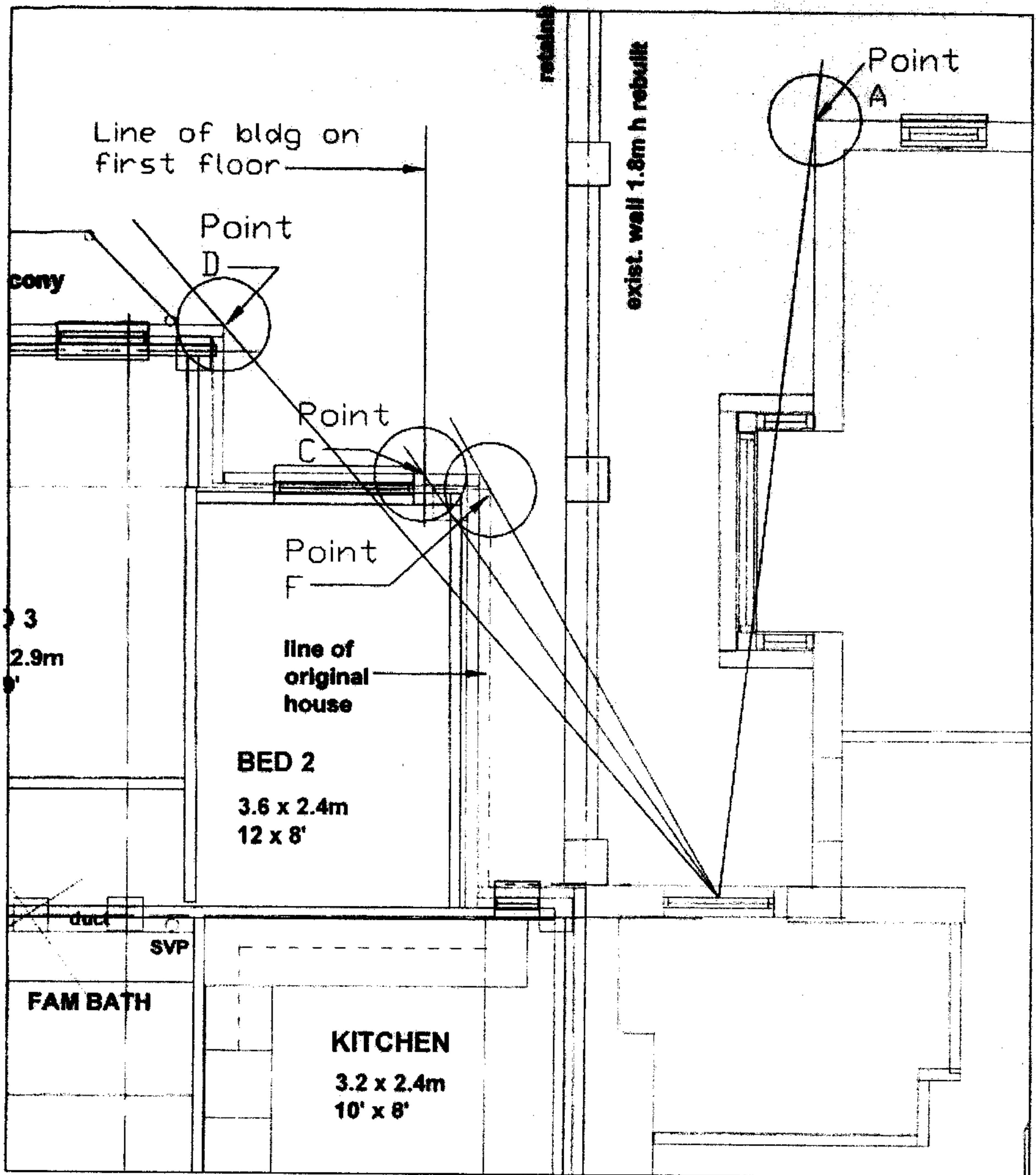
Reference Point	VSC Level (%)
1a	18.4%

- 4.7 Table 4.3 shows that the 'worst affected' window does not receive the recommended level of sunlight hours, given the proximity and orientation of the window to existing built form.
- 4.8 It is evident from Table 4.4 that there would be some reduction in the level of daylight received as a result of the proposed development. However, this reduction would be less than 0.8 times the former value. Therefore, occupants of the existing building will not notice the reduction in the amount of sunlight, as defined by the BRE guidance.

SECTION 5: CONCLUSION

- 5.1** In the BRE guidance, set out in the publication 'Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice' (1991), it is stated that the guidance should not be applied prescriptively, but with flexibility.
- 5.2** We have undertaken detailed sunlight and daylight assessments. The assessments show that residual levels of sunlight and daylight received by the 'worst affected' window will not be significantly reduced as a consequence of the proposed development, and indeed, the difference would be regarded, following the guidance of the BRE, to be unnoticeable.
- 5.3** As the window tested is the 'worst case' window, it is a consequential conclusion that all other windows adjacent to the application site would receive acceptable levels of daylight and sunlight.

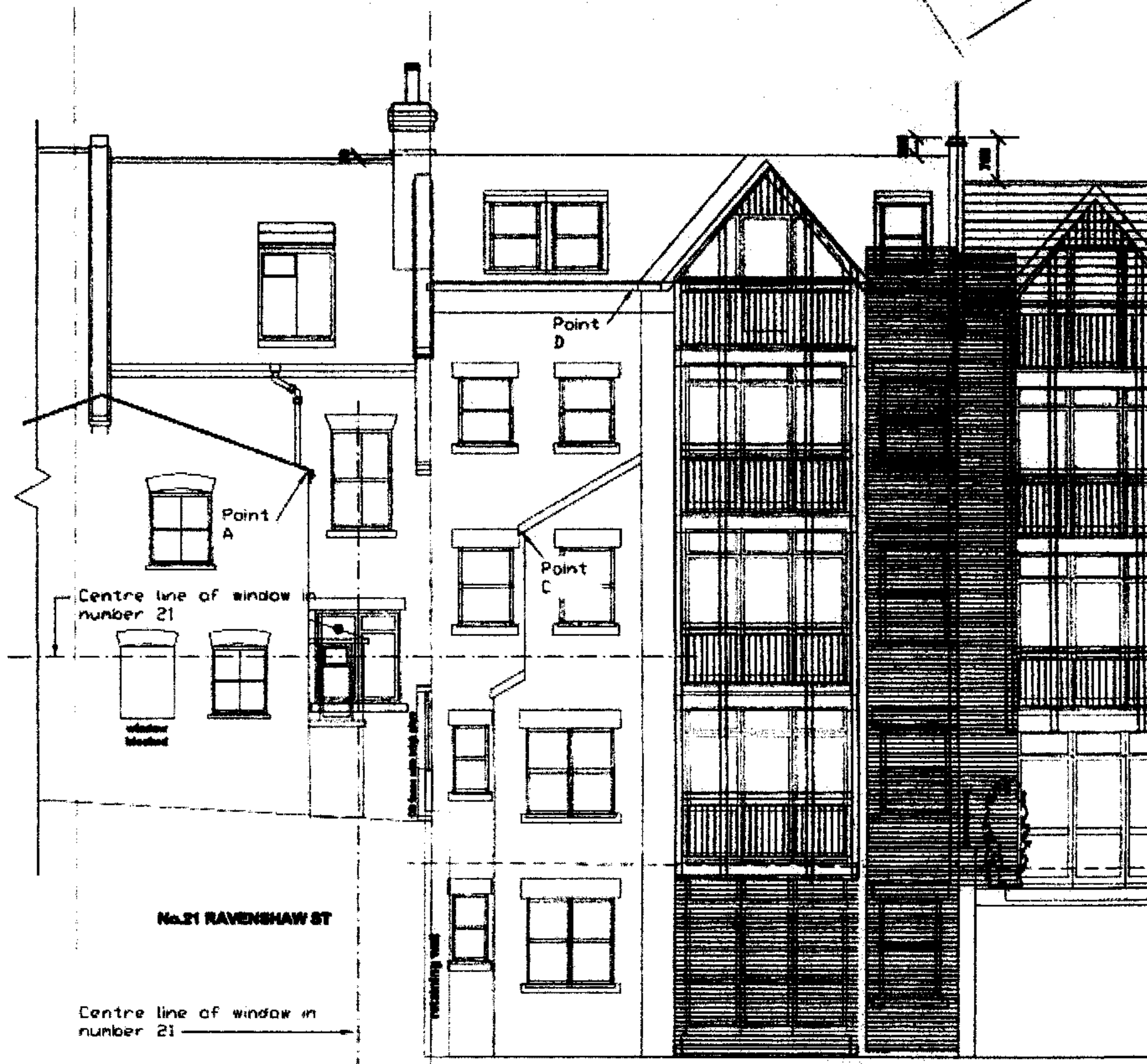




Geometric Data				
Point	d	h	d/h	Angle
A	7.2	3	2.33	7.32
C	4.7	2.1	2.23	34.9
D	6.8	6.0	1.13	40.3
F	4.3	1.0	4.3	30

Figure 2 Ground Floor with Sight Lines

25 Ravenshaw
Street



REAR ELEVATIC

Figure 3 Rear Elevation

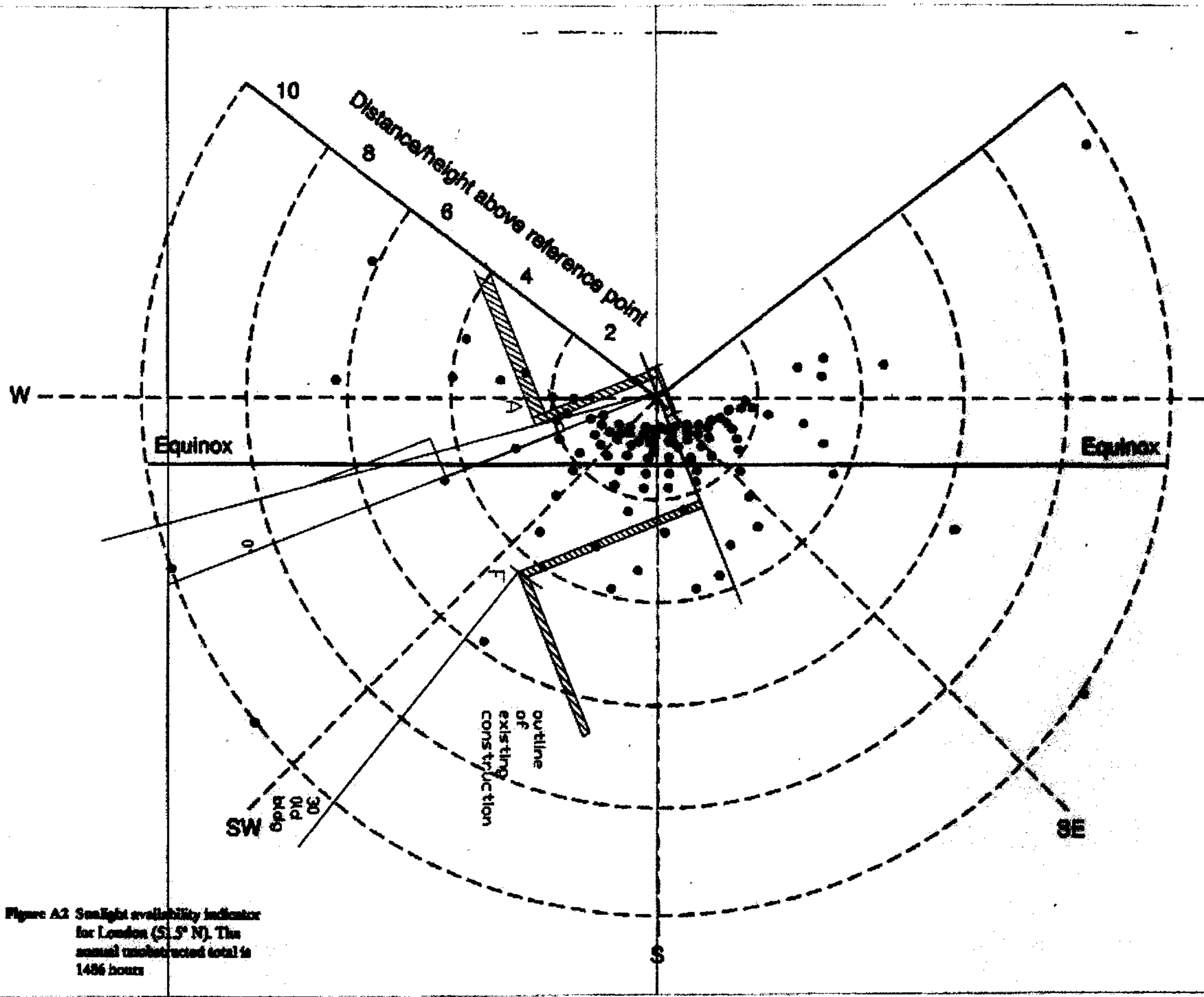


Figure A2 Sunlight availability indicator for London (51.5° N). The annual unobstructed total is 1486 hours

51 dots equals 51%

Figure 4 Waldron Diagram A2 Sunlight Availability Existing Building

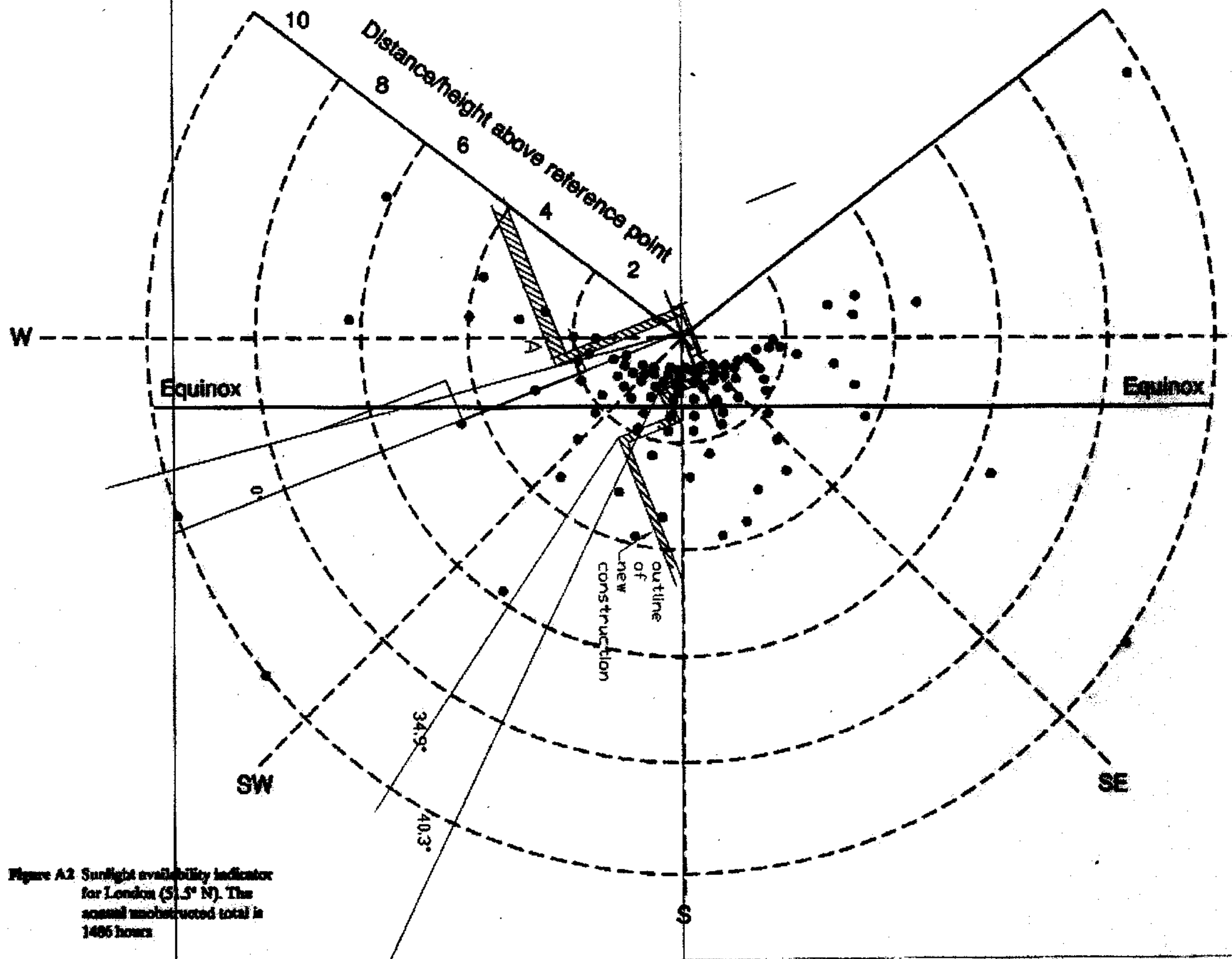
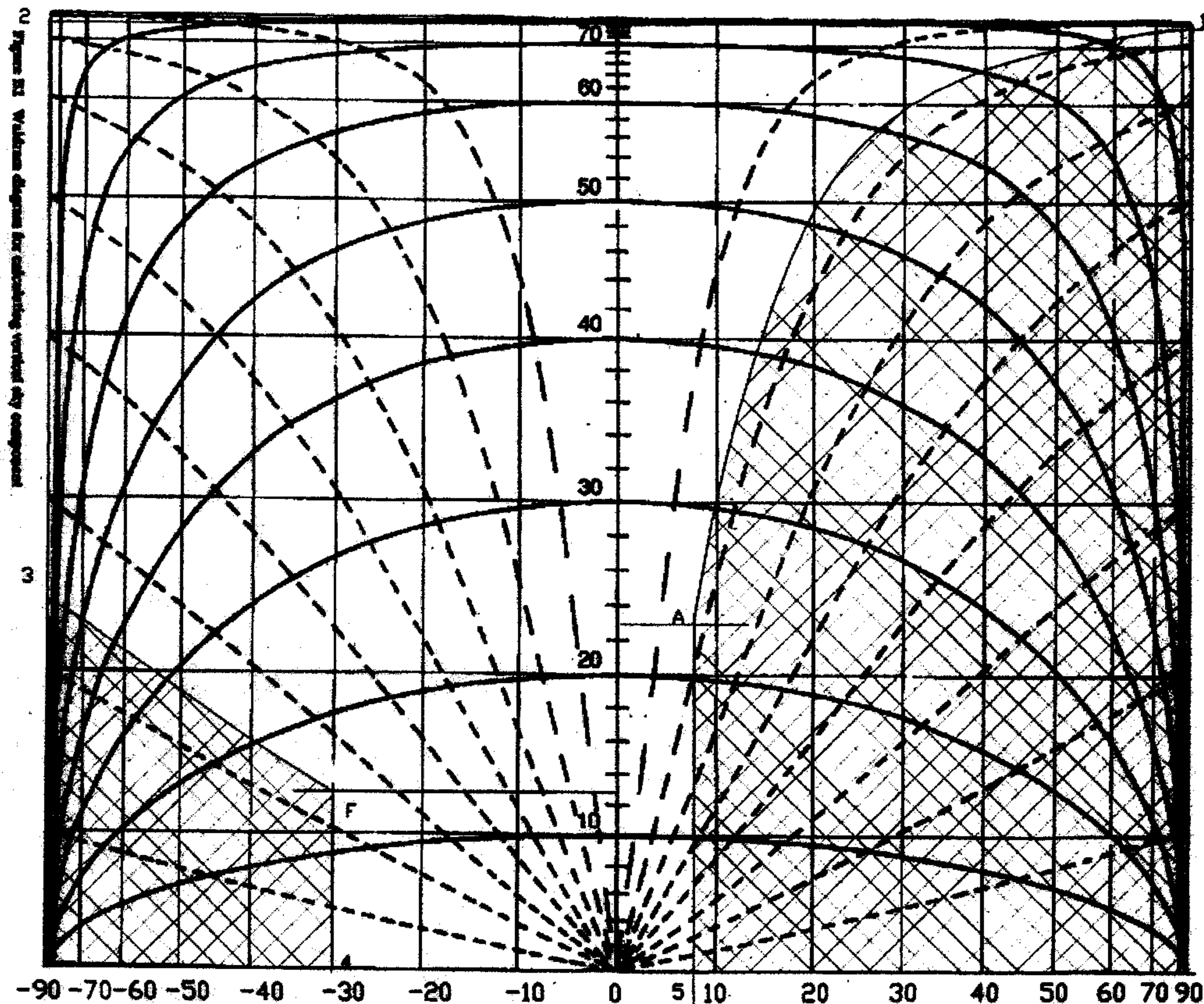


Figure 5 Waldram Diagram A2 Sunlight Availability New Building

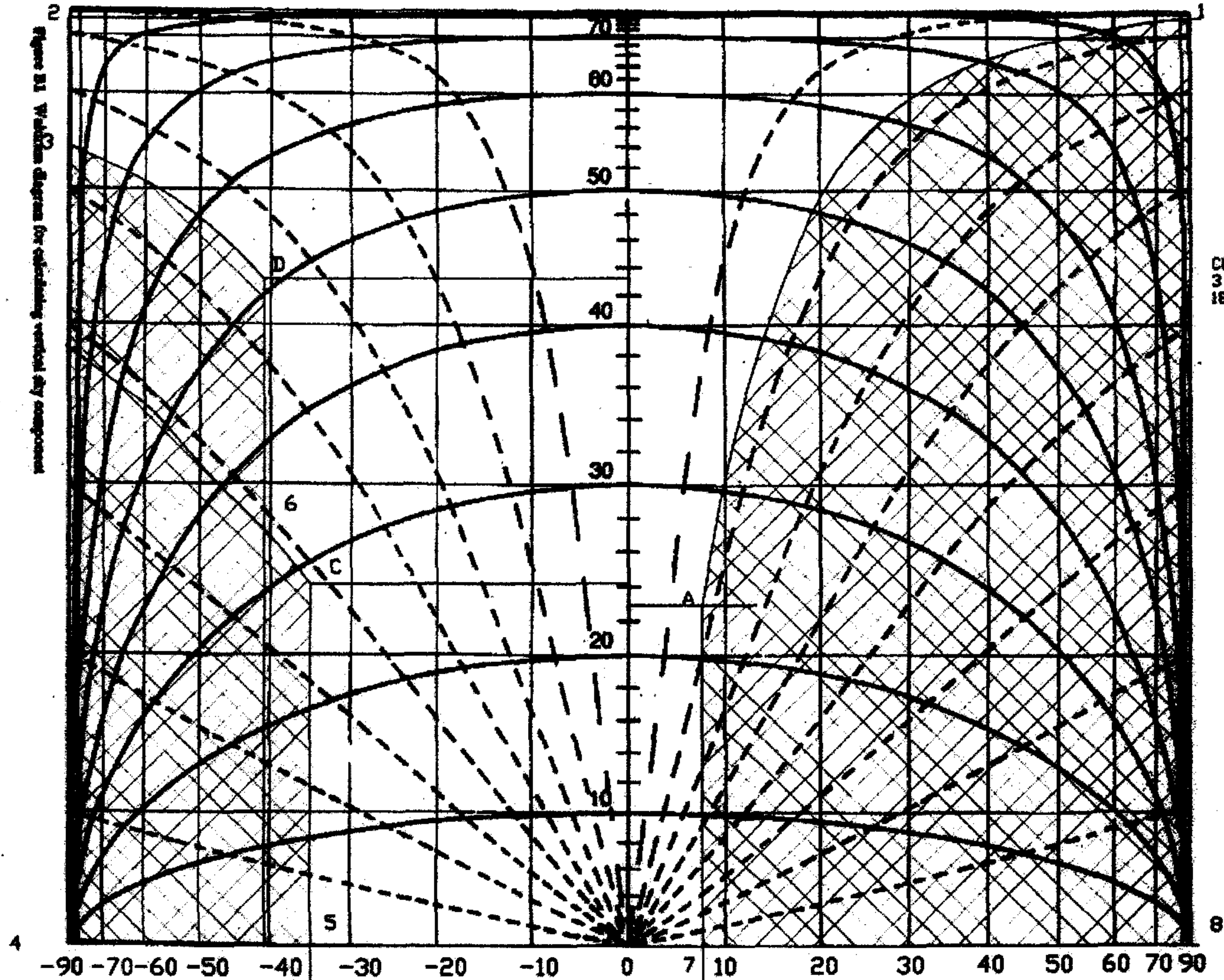


CLEAR SKY EXISTING
A 1 2 3 F 4 5 A
21.6%

21 RAVENSHAW
STREET LONDON NW6
WARDAM DIAGRAM
EXISTING
TAKEN AT WINDOW
NUMBER 21
2 METRES ABOVE
FLOOR LEVEL

FIGURE 6

Figure 21 Wardram diagram for calculating vertical sky component



CLEAR SKY PROPOSED 1 2
3 D 6 C 5 7 A 1
18.4%

21 RAVENSHAW
STREET LONDON
NW6
WARDRAM
DIAGRAM AS
PROPOSED
TAKEN AT
WINDOW NUMBER
21 2 METRES
ABOVE FLOOR
LEVEL

FIGURE 7