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Date
24 July 2019

Your reference

Our reference
CH/

2 GASWORKS COTTAGE, STATION ROAD, BOREHAMWOOD:
INTERNAL DAYLIGHT ASSESSMENT

TFT Consultants have been appointed by Artform Group to undertake a daylight assessment of the habitable spaces within the proposed development at Station Road, Borehamwood.

Daylight Guidance

The technical assessment has been undertaken in accordance with the methodology outlined in The Building Establishment Report *"Site Layout for Daylight and Sunlight 2011"* (BRE209). This BRE document is the principle guidance note when considering daylight and sunlight.

This is the document widely used by local authorities to help determine planning application. The advice given is not mandatory, although it gives numerical guidelines, these should be interpreted flexibly as natural lighting is only one of many factors in site layout design.

National Planning Policy Framework: Adopted July 2018

Since the initial daylight and sunlight report was submitted in June 2018, the updated National Planning Policy Framework (NPPF) has been adopted. The document sets out the Government's planning policies and how these are intended to be applied, providing a framework for local authorities to use when producing their own distinctive local and neighbourhood plans.

Section 4 of the NPPF relates to decision making, setting out the principles to consider when determining applications. Paragraph 38 states that *"Local planning authorities should approach decisions on proposed development in a positive and creative way".*

Paragraph 123 (c) mentions daylight and sunlight stating that local planning authorities *"when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight".*

Average Daylight Factor (ADF)

The BRE guide recommends that the Average Daylight Factor (ADF) method of assessment is used to measure the overall amount of daylight within proposed habitable spaces.

The ADF measures the overall amount of daylight in a space. The calculation considers the VSC value, the size and number of windows serving the space, the overall size of the room and its intended use to give an overall percentage value. BS 8206-02 *Code of practise for daylighting* recommends ADF values of 2% in kitchens, 1.5% in living rooms and 1% in bedroom.

To calculate the ADF levels the following values have been applied:

- Diffuse glass transmission (T): 0.68 for clear double glazing;
- Maintenance factor for dirt on glass (M): 8% loss for vertical glazing;
- Window Aperture Area (Aw): 0.8% for frame correction factor;
- Area-weighted surface reflectance (R): Ceilings: 0.85, Walls: 0.81, Floors: 0.4.

Source Information

The assessment has been undertaken using the following information:

- Existing and Surrounding Buildings: White Red Architects: Building Heights Model provided 11 July 2019
- Proposed Scheme: White Red Architects: Dwg No: 5286_00_001 rev P2, 100 rev P2, 101 rev P2, 102 rev P2, 103 rev P1, 104 rev P1 & 200-201;

Existing Site

The site currently contains a detached residential property which is surrounded by residential properties to the east, west and south. The gasworks site directly to north is currently being developed to create two residential blocks.

Proposed Scheme

The proposed scheme will consist of demolishing the two-storey detached house and constructing a four-storey residential block as shown in the image below.

Average Daylight Factor Results

The summary table below shows the detailed ADF results for the ground and first floors. For the purposes of this assessment, only the ground and first floor habitable rooms have been considered to show compliance with the BRE guidelines. The layouts used for the assessment are shown on attached drawings 190525/DA/401.

Average Daylight Factor: Summary Table

				Average Daylight Factor (ADF)	
Floor Level	Room Name	Room use	Window No.	Proposed	Room Pass Rate
Station Road					
Ground	R1	LKD	W1	3.76	2.00
			W11		
			W12		
	R2	LKD	W2	6.22	2.00
			W3		
			W4		
			W5		
	R3	Bedroom	W6	4.24	1.00
	R4	Bedroom	W7	5.50	1.00
	R5	LKD	W8	4.05	2.00
			W9		
			W10		
First	R1	Bedroom	W1	5.60	1.00
			W13		
	R2	Bedroom	W2	3.83	1.00
	R3	Bedroom	W3	3.25	1.00
	R4	Bedroom	W4	4.28	1.00
	R5	Bedroom	W5	2.88	1.00
	R6	Bedroom	W6	3.93	1.00
	R7	LKD	W7	2.25	2.00
			W8		
			W9		
	R8	Bedroom	W10	3.30	1.00
	R9	Bedroom	W11	4.30	1.00
	R10	Bedroom	W12	2.15	1.00

The Internal Daylight Adequacy results indicate that all habitable rooms within the proposed development will fully comply with the BRE target values and therefore the proposed habitable rooms will benefit from sufficient levels of light.

Overall, the findings indicate that White Red scheme massing is in accordance with the aims of the Hertsmere Council planning policy in daylight terms.

I trust the above is sufficient but if you have any questions please do not hesitate to contact me.

Yours faithfully

Chris Harris BSc
Technical Partner

For and on behalf of Tuffin Ferraby Taylor LLP

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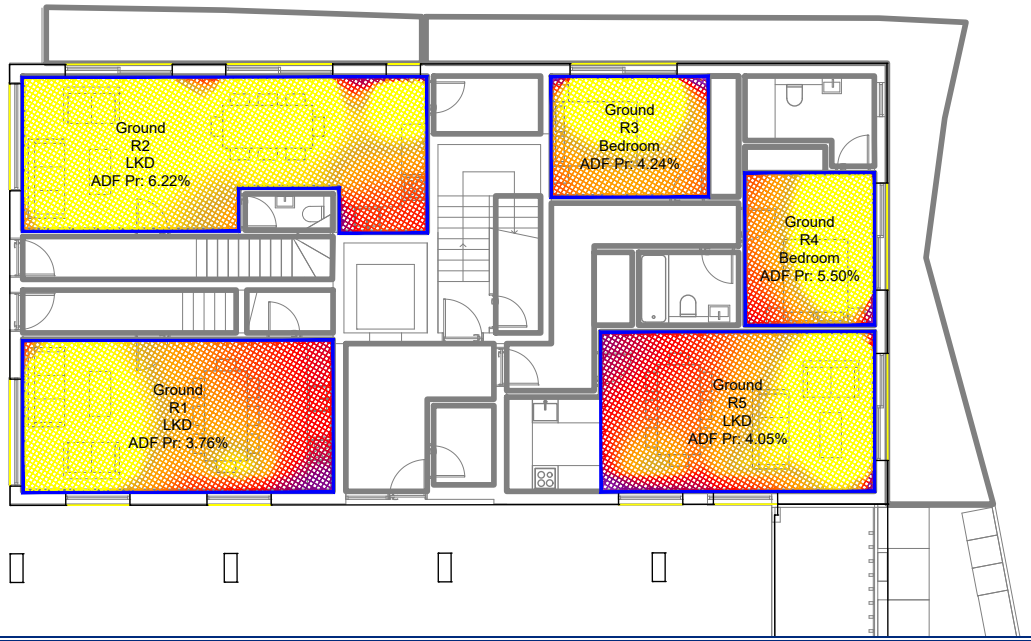
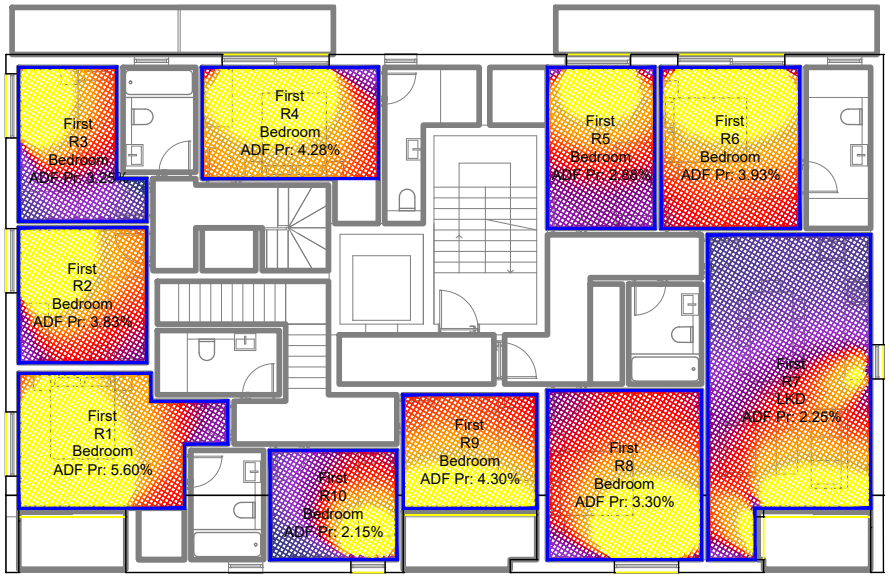


Ground Floor



First Floor

Room Number/ADF Result

Non-Compliant Rooms

Rev	Date	Details	By

Source Information

Proposed Model:
White Red Architects:
Dwg No: Building Heights Model provided 11 July 2019 and 5286_00_001 rev P2, 100 rev P2, 101 rev P2, 102 rev P2, 103 rev P1, 104 rev P1 and 200-201.

Notes

Client: Artform Group

Project: 2 Gasworks Cottage
Station Road
Borehamwood

Drawing Title: Daylight Adequacy Assessment

Drawn:	Date:	Scale:
CH	24/07/19	1:125@A3

Dwg No: 190525/DA/401

Rev: -

TFT