



ENERGYREPORT

building certification | compliance | testing

Part O Simplified Method

46 Station Road, Netley Abbey, Southampton, SO31 5AF
B&B Homes Southern Ltd
J03790
21st November 2025

Registry of Amendments

Revision	Date	Amendment Details	Prepared by
1	21/11/25	Draft	S Hughes

About Energy Report Limited

A specialist building energy and sustainability consultancy offering expertise and experience to our clients within the construction and building sectors, offering a full, inclusive service from design to completion for any energy efficiency or sustainability issue.

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1. EXECUTIVE SUMMARY

Energy Report Limited has been commissioned to provide an Overheating Analysis report in support of the Part O – Overheating regulations requirement for the proposed development of a 4-bedroom detached dwelling at 46 Station Road, Netley. The simplified Method has been undertaken to demonstrate compliance with Part O – Overheating regulations and is aimed at minimising overheating risk.

MITIGATION MEASURES

The overheating analysis shows that the dwelling achieves compliance without any mitigation measures beyond the initial design.

2. INTRODUCTION

Overheating risk has been a growing concern amongst the domestic design, construction, and provider community for at least a decade. Domestic overheating has not always been a problem in the UK, but climate change, increased urbanisation, construction of high-rise apartment blocks and winter energy efficiency measures have all contributed to the amplification of high internal temperatures.

Homes that overheat cause significant discomfort and stress to the occupants and can ultimately lead to litigation and costly mitigation measures for the owners/developers. Yet overheating is subjective — the point at which ‘hot’ becomes ‘too hot’ will vary from person to person and depend upon a variety of factors.

Whilst this means that not all occupants will be satisfied all the time and that, in a heatwave, it may still be very warm in a naturally ventilated dwelling, there should be a reasonable limit set on how much warmer a dwelling can be inside than outside. There should also be a standard that precludes the worst levels of overheating and enables designers to find cost-effective options to limit overheating risk whilst also delivering all the other aspects occupants look for in their homes (e.g. daylight, insulation, view, etc). The methodology described here attempts to define that threshold.

3. METHODOLOGY

The methodology used within this report is used to establish the thermal comfort levels in occupied spaces, using a simplified calculation and a response with suitable passive design measures to mitigate solar gains, provide adequate ventilation and increase thermal mass. National regulations have set high standards, and numerous iterations have been undertaken to determine suitable fabric improvements.

This portion of work is part 2 of the new Overheating regulations, this is a potential 2-stage process of carrying out Overheating Risk Analysis: -

1. Simplified Method
2. Dynamic Simulation modelling using an approved energy modelling software – not carried out

Energy Report has been instructed to carry out the simplified method portion of the work for the proposed building. The calculation has been carried out using the Future Homes simplified Calculator (FHH-SM-V2) in line with the building's regulation approved document O.

To comply with the overheating standards, the building must comply with the following two criteria.
The building should not exceed the maximum glazing areas below:

MODERATE RISK WITH CROSS VENTILATION

LARGEST GLAZED FAÇADE ORIENTATION	MAXIMUM AREA OF GLAZING (% OF FLOOR AREA)	MAXIMUM AREA OF GLAZING IN THE MOST GLAZED ROOM (% FLOOR AREA OF ROOM)
North	18	37
East	18	37
South	15	30
West	11	22

The building should equal or exceed the minimum free areas below:

MODERATE RISK WITH CROSS VENTILATION

	FREE AREA
Total minimum free area	The greater of the following: a. 9% of the floor area a. 55% of the glazing area
The bedroom's minimum free area	4% of the floor area of the room

4. OVERHEATING ANALYSIS RESULTS

BASELINE RESULTS

Where necessary and appropriate, the design team should utilise these results to incorporate changes to the design.

BUILDING REGULATIONS PART O 2021 (ENGLAND), SIMPLIFIED METHOD - RESULTS

Is dwelling in a location where external noise may be an issue?	No
Is dwelling located near to significant local pollution sources?	No
Direction of house type plan 'clock face 6' on site wide plan	North

A SITE DATA						
Company		B&B Homes Sourthern Ltd				
Site		46 Station Road				
House type		4 Bed Detached				
Plot number		Plot 1				
B HOME DATA						
Location risk category		Moderate Risk				
Shading provided?		None				
Cross ventilation?		Yes				
Total GIA of home (m²)		140.67				
Largest glazed façade orientation		South				
C RESULTS		VALUE	PERCENTAGE	TARGET	RESULTS	✓✗
LIMITING SOLAR GAINS:						
Total glazing area for home		20.86 m²	14.83 %	15 %	Target met	✓
Glazing area for most glazed room:		9.50 m²	25.32 %	30 %	Target met	✓
LIVING/ KITCHEN/ DINING						
Shading		None		Not required		✓
REMOVAL OF EXCESS HEAT:						
Total equivalent area (% of floor area)		16.77 m²	11.93 %	9 %	Target met	✓
Total equivalent area (% of glazed area)		16.77 m²	80.40 %	55 %	Target met	✓
Bedroom 1 equivalent area		0.64 m²	12.01 %	4 %	Target met	✓
Bedroom 2 equivalent area		1.15 m²	13.44 %	4 %	Target met	✓
Bedroom 3 equivalent area		0.79 m²	8.14 %	4 %	Target met	✓
Bedroom 4 equivalent area		1.15 m²	7.57 %	4 %	Target met	✓
Bedroom 5 equivalent area		m²	%	%	Target met	✓
Bedroom 6 equivalent area		m²	%	%		

5. DISCLAIMER

Energy Report Ltd disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. Energy Report Ltd disclaims any responsibility to the Client if plans and building information provided at the time of producing the reports differ from what is presented on site. Energy Report Ltd accepts no responsibility whatsoever to other parties to whom this report, or any part thereof, is made known. Any such parties rely upon the report at their own risk.

APPENDIX A

BUILDING REGULATIONS PART O – COMPLIANCE CHECKLIST

A copy of this checklist may be submitted to the building control body as evidence that the building has been constructed as designed to reduce the risk of overheating.

COMPLIANCE CHECKLIST - BUILDING REGULATIONS PART O (ENGLAND), SIMPLIFIED METHOD

PART 1 - BUILDING DETAILS AND DECLARATIONS

1.1 BUILDING DETAILS AND DECLARATIONS	
Residential building name/number	46
Street	Station Road
Town	Southampton
Country	
Postcode	SO31 5AF
Proposed building use/type of building	4 Bed Detached
Are there any security, noise or pollution issues?	No
1.2 DESIGNER'S DETAILS	
Designer's name	Stephanie Hughes
Company	Energy Report
Address line 1	25 Barnes Wallis Road
Address line 2	Fareham
Postcode	PO15 5TT
Telephone number	01489 883231
Email address	stephanie@energyreport.co.uk

PART 2 - DESIGN DETAILS, SIMPLIFIED METHOD

2a.1 SITE DETAILS			
Site location, assigned using paragraph 1.3		Moderate Risk	
Building category, assigned using paragraph 1.4			
2a.2 DESIGNED OVERHEATING MITIGATION STRATEGY			
Details of standards selected:	This dwelling		Target
	m ²	%	%
a. Maximum area of glazing	20.86	14.83%	15% ✓
b. Maximum area of glazing in the most glazed room	9.50	25.32%	30% ✓
c. Shading strategy			
d1. Total minimum free area - as % of total floor area	16.77	11.93%	9% ✓
d2. Total minimum free area - as % of glazed area	16.77	80.40%	55% ✓
e1. Bedroom 1 minimum free area	0.64	12.01%	4% ✓
e2. Bedroom 2 minimum free area	1.15	13.44%	4% ✓
e3. Bedroom 3 minimum free area	0.79	8.14%	4% ✓
e4. Bedroom 4 minimum free area	1.15	7.57%	4% ✓
e5. Bedroom 5 minimum free area			
e6. Bedroom 6 minimum free area			
2a.3 DESIGNER'S DECLARATION			
Designer's name		Stephanie Hughes	
Designer's organisation		Energy Report	
Designer's signature		S Hughes	
Registration number (if applicable)			
Date of design		21/11/2025	

PART 3 - COMPLETION DETAILS

3.1 BUILDER'S DECLARATION		
Has the residential building been constructed and completed according to the specifications set out in Parts 1 and 2 of this checklist?	Yes	No
Builder's name		
Builder's organisation		
Builder's signature		
Date of signature		
3.2 BUILDING CONTROL BODY INSPECTOR'S DECLARATION		
Is the residential building's construction consistent with the details provided in Parts 1 and 2 of this checklist?	Yes	No
Inspector's name		
Inspector's organisation		
Inspector's signature		
Registration number (if applicable)		
Date of inspection		

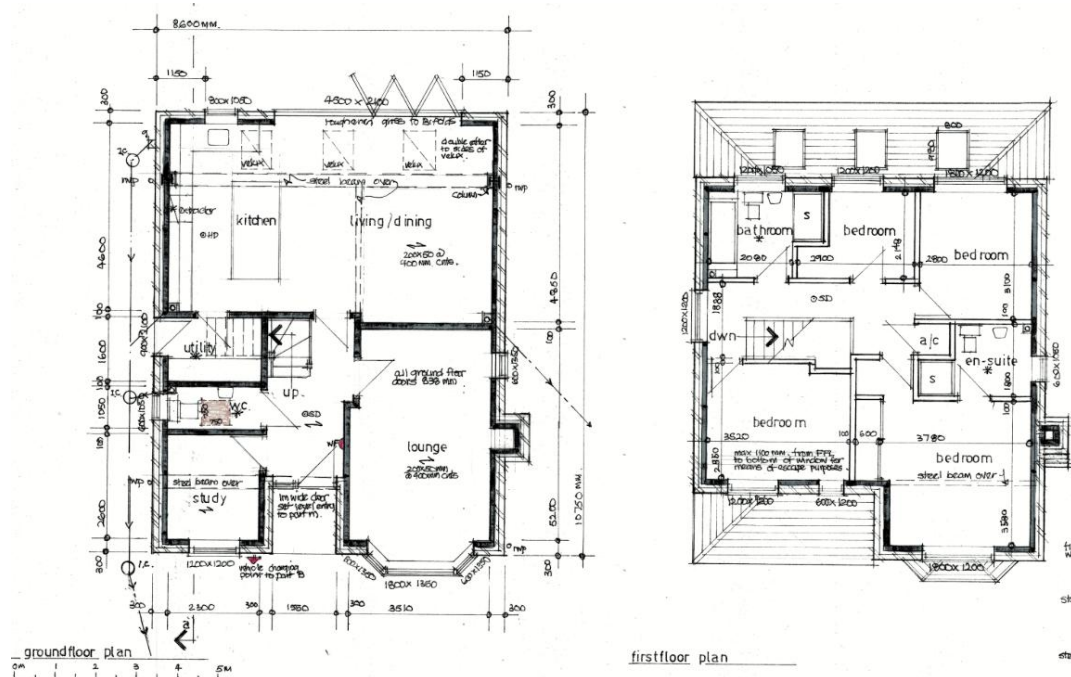
Note: All references to paragraphs are to Approved Document Part O

APPENDIX B

FULL SITE PLANS AND NOTES

The previous simplified method was carried out with the following plans and building information.

Floor plan



Elevations

