

Overheating (Simplified Method) Report

(England Approved Document O (2021 edition) Building Regulations)

Project:	Beauchamps Cottage, Wyddial, SG9 0EP
Assessment Date:	13/12/2023
Assessor:	TM

The above project has **PASSED** the Part O simplified method based on the below.

For the purpose of this assessment, the "equivalent area" has been used - see key terms below.

It is strongly recommended that any proposed deviations to the design of the dwelling is communicated with the assessor to ensure compliance in perpetuity.

Property Details

Property Type	House
Total Floor Area	281.55
Cross Ventilation?	Yes
Risk	Moderate Risk

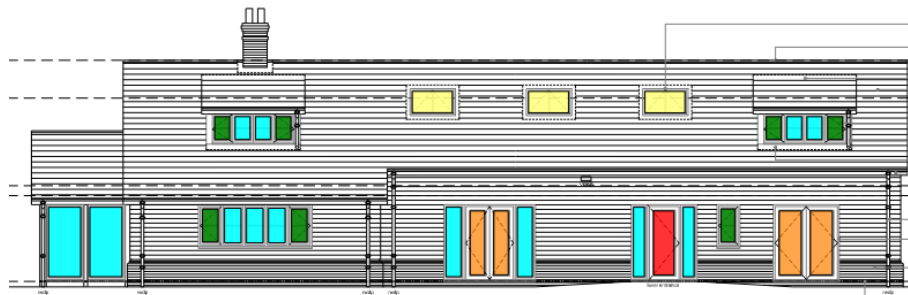
Executive Summary

Section 1: Limiting solar gains	
Maximum glazed area (pass/fail?)	Pass
Section 2: Removing excess heat	
Minimum free area (pass/fail?)	Pass
Limiting solar gains	
Is this building a high risk and shading strategy required?	No
Shading strategy included?	N/A

Floor, Glazing and Free Areas

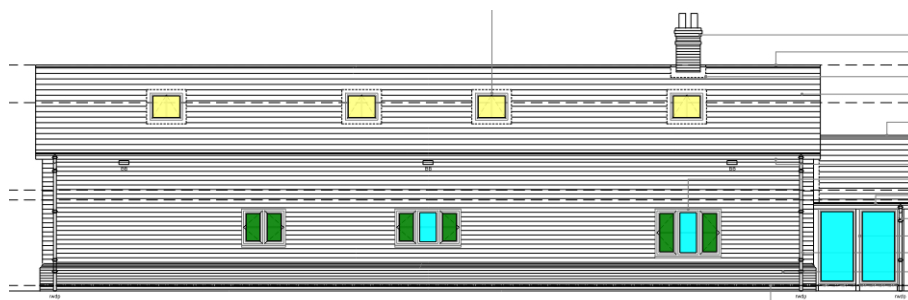
The following drawings have been used in this assessment:

- 20683-W-005-1st
- 20683-W-006-1st



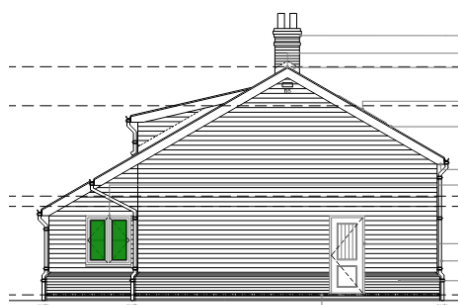
① FRONT ELEVATION
Scale: 1:50

EAST



② REAR ELEVATION
Scale: 1:50

WEST



③ FLANK ELEVATION
Scale: 1:50

NORTH



④ SIDE ELEVATION
Scale: 1:50

SOUTH

The elevations above indicate the opening type:

- Blue = Fixed glazing
- Green = Side hung openable windows
- Orange = French doors
- Pink = Bifold doors
- Yellow = Openable roof windows

Results

Section 1: Limiting solar gains

	Target		Proposed	
	%	EQ m ²	%	EQ m ²
Maximum area of glazing ¹ (% total floor area)	18%	50.68	14%	39.19
Maximum area of glazing in the most glazed room ¹ (% floor area)	30%	21.11	27%	19.32

¹ Glazing area The area of transparent material, not including the window frame

Section 1: Maximum glazed area (pass/fail?)	Pass
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Section 2: Removing excess heat

	Target Free Area		Proposed Equivalent Area	
	%	EQ m ²	%	EQ m ²
Total free area (% of the floor area)	9%	25.34	11%	30.00
Bedroom 1 (% room floor area)	4%	1.48	5%	1.72
Bedroom 2 (% room floor area)	4%	0.95	8%	1.79
Bedroom 3 (% room floor area)	4%	0.58	6%	0.81
Bedroom 4 (% room floor area)				
Bedroom 5 (% room floor area)				

Section 2: Minimum Free Area (pass/fail)	Pass
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Limiting solar gains

Is this building high risk and shading strategy required?	No
Shading strategy included?	

Key Terms

- *Cross ventilation - The ability to ventilate using openings on opposite facades of a dwelling. Having openings on facades that are not opposite is not allowing cross-ventilation, e.g. a corner flat.*
- *Effective area - The area through which air flows after the resistance of airflow has been taken into account.*
- *Equivalent area - A measure of the aerodynamic performance of an opening. It is the area of a sharp-edged circular orifice through which air would pass at the same volume rate, under an identical applied pressure difference, as through the opening under consideration.*
- *Floor area - The area of residential unit, measured to the internal face of the perimeter walls at each floor level (total floor area).*
- *Floor area of the room - The area of the room, measured to the internal face of the perimeter walls. Where a room serves more than one activity, e.g. open-plan kitchen and living room, the area with the largest glazing area should be assessed and the room area calculated based on a room depth of no greater than 4.5m from the glazed facade.*
- *Free area - The geometric open area of a ventilation opening.*
- *Glazing area - The area of transparent material, not including the window frame.*