

# Building Regulations England Part L (BREL) Compliance Report

Approved Document L1 2021 Edition, England assessed by Stroma SAP 10.2 SAP 10 program, 10.2

Date: Tue 16 Jul 2024 11:07:52

Project Information			
Assessed By	Sapdemo Maxfordham	Building Type	Flat, Semi-detached
OCDEA Registration	STRO037698	Assessment Date	2023-10-12

Dwelling Details			
Assessment Type	As designed	Total Floor Area	76 m <sup>2</sup>
Site Reference	House 2	Plot Reference	H2
Address	99 Frognal, NW3 6XR		

Client Details	
Name	99 Frognal
Company	Not Provided
Address	Not Provided, Not Provided, WF10 5QU

This report covers items included within the SAP calculations. It is not a complete report of regulations compliance.

1a Target emission rate and dwelling emission rate		
Fuel for main heating system	Electricity	
Target carbon dioxide emission rate	17.58 kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling carbon dioxide emission rate	7.94 kgCO <sub>2</sub> /m <sup>2</sup>	OK
1b Target primary energy rate and dwelling primary energy		
Target primary energy	92.77 kWh <sub>PE</sub> /m <sup>2</sup>	
Dwelling primary energy	83.62 kWh <sub>PE</sub> /m <sup>2</sup>	OK
1c Target fabric energy efficiency and dwelling fabric energy efficiency		
Target fabric energy efficiency	64.6 kWh/m <sup>2</sup>	
Dwelling fabric energy efficiency	56 kWh/m <sup>2</sup>	OK

2a Fabric U-values				
Element	Maximum permitted average U-Value [W/m <sup>2</sup> K]	Dwelling average U-Value [W/m <sup>2</sup> K]	Element with highest individual U-Value	
External walls	0.26	0.15	North GF (0.15)	OK
Party walls	0.2	0	House 1/2 Party Wall (0)	N/A
Curtain walls	1.6	0	N/A	N/A
Floors	0.18	0.1	Ground Floor (0.1)	OK
Roofs	0.16	0.12	Flat Roof GF (0.12)	OK
Windows, doors, and roof windows	1.6	1.2	1 (1.2)	OK
Rooflights	2.2	N/A	N/A	N/A

2b Envelope elements (better than typically expected values are flagged with a subsequent (!))		
Name	Net area [m <sup>2</sup> ]	U-Value [W/m <sup>2</sup> K]
Basement wall: North GF	6.59	0.15
Basement wall: North East GF	28.97	0.15
Exposed wall: East GF	5.74	0.15
Exposed wall: South GF	4.8392	0.15
Basement wall: West GF	13.36	0.15
Exposed wall: West GF	3.66	0.15
Exposed wall: North East FF	26.83	0.15
Exposed wall: East FF	8.58125	0.15
Exposed wall: South FF	16.1	0.15
Exposed wall: West FF	15.3075	0.15
Exposed wall: External Amenity Wall	4.125	0.15
Party wall: House 1/2 Party Wall	21.09	0 (!)
Ground floor: Ground Floor	31.41	0.1 (!)
Upper floor: First Floor Overhang	6.28	0.1 (!)
Exposed roof: Flat Roof GF	4.71	0.12
Exposed roof: Flat Roof FF	58.16	0.12

2c Openings (better than typically expected values are flagged with a subsequent (!))				
Name	Area [m <sup>2</sup> ]	Orientation	Frame factor	U-Value [W/m <sup>2</sup> K]
1, Doors	1.7808	South	0.8	1.2

Name	Area [m <sup>2</sup> ]	Orientation	Frame factor	U-Value [W/m <sup>2</sup> K]
2, Doors	2.7875	West	0.8	1.2
3, Windows (1)	7.06875	East	0.8	1.2
4, Windows (1)	3.4125	West	0.8	1.2
5, Windows (1)	2.8125	North	0.8	1.2
6, Windows (1)	2.925	West	0.8	1.2
7, Roof windows (1)	1.28	South	0.8	1.2
8, Roof windows (1)	1.21	South	0.8	1.2

### 2d Thermal bridging (better than typically expected values are flagged with a subsequent (!))

Building part 1 - **Main Dwelling**: SAP default y-value (0.2 W/m<sup>2</sup>K) used for thermal bridging

### 3 Air permeability (better than typically expected values are flagged with a subsequent (!))

Maximum permitted air permeability at 50Pa	8 m <sup>3</sup> /hm <sup>2</sup>	
Dwelling air permeability at 50Pa	2 m <sup>3</sup> /hm <sup>2</sup> , Design value (!)	OK
Air permeability test certificate reference	Not Provided	

### 4 Space heating

**Main heating system 1**: Heat pump with radiators or underfloor heating - Electricity

Efficiency	243.7%
Emitter type	Radiators
Flow temperature	45°C
System type	
Manufacturer	
Model	
Commissioning	

**Secondary heating system**: N/A

Fuel	N/A
Efficiency	N/A
Commissioning	

### 5 Hot water

**Cylinder/store** - type: Cylinder

Capacity	150 litres
Declared heat loss	1.61 kWh/day
Primary pipework insulated	Yes
Manufacturer	
Model	
Commissioning	

**Waste water heat recovery system 1** - type: N/A

Efficiency	
Manufacturer	
Model	

### 6 Controls

**Main heating 1** - type: Programmer and room thermostat

Function	
Ecodesign class	
Manufacturer	
Model	

**Water heating** - type: Cylinder thermostat and HW separately timed

Manufacturer	
Model	

### 7 Lighting

Minimum permitted light source efficacy	75 lm/W	
Lowest light source efficacy	80 lm/W	OK
External lights control	N/A	

8 Mechanical ventilation		
<b>System type:</b> Centralised mechanical extract		
Maximum permitted specific fan power	0.7 W/(l/s)	
Specific fan power	0.53 W/(l/s)	OK
Minimum permitted heat recovery efficiency	N/A	
Heat recovery efficiency	89%	N/A
Manufacturer/Model		
Commissioning	Not Provided / Not Provided	
9 Local generation		
N/A		
10 Heat networks		
N/A		
11 Supporting documentary evidence		
N/A		
12 Declarations		
a. Assessor Declaration		
This declaration by the assessor is confirmation that the contents of this BREL Compliance Report are a true and accurate reflection based upon the design information submitted for this dwelling for the purpose of carrying out the "As designed" assessment, and that the supporting documentary evidence (SAP Conventions, Appendix 1 (documentary evidence) schedules the minimum documentary evidence required) has been reviewed in the course of preparing this BREL Compliance Report.		
Signed:	Assessor ID:	
Name:	Date:	
b. Client Declaration		
N/A		