

L2A Compliance Report – As-Designed

16th July 2024

Mr Ian Sullivan
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101 Victoria Road
Swindon
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Ref: BRUKL0031 – 2685 Northcourt Lodge Care Home, 65 Northcourt Avenue, Reading, RG2 7HF

I am pleased to enclose your BRUKL rating calculations in accordance with Approved Document L2A. The Threshold figures are taken from Table 3 in the Approved Document L2A.

In order that compliance is met, the following values in the “**Specification**” column must be achieved.

Type:	Specification:
Building Class:	C2 Residential Institutions - Hospitals and Care Homes
Walls:	<u>Cavity Walls: U-value: 0.27 W/m²K</u> 103mm External Brickwork with a thermal conductivity of (0.770 W/m.K) 100mm Cavity with 50mm Celotex insulation (0.022 W/m.K) 100mm Thermalite Shield Blockwork (0.150 W/m.K) 12.5mm Plasterboard on dot & Dab <u>Roof Room – Stud Walls: U-value: 0.16 W/m²K</u> 100mm Kingspan Quadcore AWP Micro Rib Wall Composite Panel (0.018 W/m.K).
Roofs:	<u>Pitched Roof – Insulation at Joists: U-value: 0.11 W/m²K</u> 100mm of Rockwool insulation between joists @ (600mm Centres) with 300mm laid over, with a thermal conductivity of (0.044 W/m.K) <u>Pitched Roof – Insulation at Rafters: U-value: 0.16 W/m²K</u> 100mm of Celotex insulation between Rafters with 50mm laid under
Floors	<u>Suspended Block & Beam Floor: U-value: 0.11 W/m²K</u> 150mm Celotex insulation with a Thermal Conductivity of (0.022 W/m.K) over a Block & Beam Floor.
Windows & Doors	<u>Windows to achieve a minimum U-value: 1.40 W/m²K</u> Solar transmittance to achieve 0.72 (T Solar) and Light transmittance 0.80 (L Solar) Opaque Internal Shading to reduce solar gains on west facing Bedroom windows. <u>External Personal Doors to achieve a minimum U-value: 1.40 W/m²K</u> <u>Rooflights to achieve a minimum U-value: 1.40 W/m²K</u>

Pressure Test:	Air Pressure Test – Maximum Air permeability of 10 m ³ /(h.m ²) @ 50 Pa		
Exhaust:	Bedrooms & Toilet Exhaust systems to have a maximum Specific Fan Power (SFP) of 0.3 W/(l/s)		
HVAC System's:	Regular Mains Gas Boiler: Ideal – Logic Max Heat – H30IE <table border="1"> <tr> <td>Seasonal efficiency when used in non-domestic buildings</td><td>96.7</td></tr> </table>	Seasonal efficiency when used in non-domestic buildings	96.7
Seasonal efficiency when used in non-domestic buildings	96.7		
Water Heating:	500L Hot Water Cylinder with maximum declared losses of 2.80 kWh\day. 306.60 MJ/Month		
Lighting:	All Lighting to achieve a minimum of 80 lm/W		
Renewables:			

Calculations have been based on the information provided by the client.

Once the construction has been completed, the following evidence will be required in order to complete final calculations and EPC certificate:

Windows & Doors U-values – Certificate from manufacturer confirming the opening u-values Solar transmittance (T-Solar) and Light transmittance (L Solar)

Full Lighting Design - Plan showing the location for each installed lamp type and there make & model to support the lamp lumens per circuit watt (lm/W).

Ventilation - Mechanical Services Layout showing the location for each unit and there make & model, to support the Specific Fan Power W/(l/s)

Heating/Cooling Systems – Please provide the make and model number for each system installed.

Hot Water Systems – Please provide the make and model number for each system installed (if different from above).

Air Permeability – a certificate from an approved body (iATS) (ATTMA) confirming the result.

Please let me know if you have any queries or questions on the above information.

Paul

Paul Harrison (DipDEA 3) (DipOCEA 3) (DipNDEA 4)