



Proposed dwelling at 1 The Drive, Blackmore End

James Turner

J E TURNER, 36 WEST LANE CLOSE, KEESTON, SA62 6EW

SAP Calculation Design Stage Summary

The Design Stage SAP calculation(s) which we have issued for the project below are based upon the following specifications as detailed within the drawings and specifications provided and any subsequent correspondence with you and your design team.

It is important that you adhere to the specification outlined below, as any deviation from these design parameters during the construction will more than likely have an immediate impact on the calculated SAP result(s).

If changes are to be made, subsequent enhancements may be required elsewhere within the specification in order to maintain overall Part L compliance. We would therefore urge you to contact us in a timely manner with details of any potential changes before they are adopted, so that we may model the overall effect on the SAP Assessment and advise you further.

In the event that the Design Stage specifications are altered without consultation, J E Turner shall accept no liability for any subsequent failure to comply with Part L1 of the Building Regulation upon completion of the project.

Please note that under current regulations, photographic evidence of all thermal bridge junctions is required at as built stage. Photographs should have time and date stamp, have geo location data and should be taken throughout the build process. It is advised that several photographs be taken of each junction for each plot. Failure to provide sufficient detailed photographs may result in a failure to comply with Part L1 of the Building Regulation upon completion of the project.

It is assumed that Part O - over heating calculations have already been carried out, either by the Simplified Method or by Dynamic Thermal Modelling.

Job Description	
Address:	1 The Drive, Blackmore End, Herts, AL4 8LE
Client Details:	K W Architectural Design
Reference Number:	7358-0001-KW-578
Date:	03/03/2025
Number of units:	1
Part L version	2021 Edition

Build Specifications

Thermal element	Target U value	Description
Ground floor	0.11W/m2.K	140mm Kingspan K103 on block and beam floor 65mm screed over
External wall main	0.18W/m2.K	Brick outer skin, 90mm Kingspan K106 cavity insulation in 100mm cavity, Fibolite 7.3N block inner skin with lambda value better than 0.28W/m.K, with plasterboard on dabs
Pitched roof-rafter	0.12W/m2.k	150mm Kingspan K107 between rafters, 50mm Kingspan below
Pitched roof-ceiling	0.11W/m2.K	150mm loft roll 40 between joists, 200mm loft roll over
Flat roof-bay window	0.12W/m2.K	150 Kingspan over ceiling joists/firrings,
Internal floors		Timber floor joists chipboard floor
Partition 1		Medium dense block with plasterboard on dabs
Partition 2		Plasterboard on timber studwork
Entrance doors	0.8 W/m2.K	Composite solid entrance door
Glazed doors	1.2 W/m2.K	Double/triple glazed, BFRC datasheet if possible
Windows	1.2 W/m2.K	Double/triple glazed, BFRC datasheet if possible
Roof Lights		
Roof Lantern		
Air tightness target	5.01	Air tightness testing is required for each property. Poor detailing and workmanship could result in a poor level of air tightness and result in an overall failure to show compliance to Approved Document L

Space and Hot water Controls	
Type of Space Heating:	Air Source Heat Pump
Make and Model:	Mitsubishi 14 Kw allowed for in calculations. Please get an appropriate heat pump that has been sized properly by an installer based on a room by room heat loss calculation. As soon as the make and model is known, please let me know. Some heat pump makes and models may require some solar PV panels to pass the sap calculations Bath and all showers from hot water cylinder, max flow rate of shower 9 litres/minute
Heating Flow Temperature:	35 degrees
Fuel:	Electricity
Heat emitters:	Underfloor heating and radiators
Heating Control:	Time and temperature zone control
Secondary Heating system	Wood burning stove
Hot Water cylinder	
Capacity of cylinder in litres:	300 litre with cylinder stat, independent time control, in heated space with fully insulated primary pipework
Declared heat loss in Kwh/day:	300 L – 2.25Kwh/day,
Ventilation	
Type:	MVHR unit with level 1 rigid ducting
Make and Model:	Vent Axia Sentinel Kenetic Plus BS
Number of wet rooms:	Bathrooms, WCs, Kitchen and utility
Lighting	
Power of light bulbs	8W
Efficacy of bulbs	80
Alternative Low or Zero Carbon Technologies	
Technology Type:	3.8 Kw solar PV located on Southwest elevation roof. Little or no over shading. Solar I boost/eddi system to assist with hot water, 10Kw solar battery capacity
System details and meters:	Export capable meter (Smets 2 smart meter) Connected to dwelling electricity meter Please check with local electricity board that this is appropriate
Thermal Bridging	
Lintels:	Insulated open backed lintels with no base plate Independent steels for large openings.
Accredited Construction Details:	Building alliance recognised construction details for hybrid fill cavity.