



Proposed dwelling at 80 Mount Pleasant, Reading

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:	80 Mount Pleasant, Reading, RG1 2DT
Client Details:	Greg Farrell Building and Design Consultant
Reference Number:	7358-0001-GF-80MP
Date:	04/09/2024
Number of units:	1
Part L version	2021 Edition

Build Specifications		
Thermal element	Target U value	Description
Ground floor basement	0.12W/m2.K	150mm Celotex over 300mm reinforced concrete slab with 65mm screed over
Ground floor kitchen	0.12W/m2.K	150mm Celotex over beam and block floor with 65mm screed over
Party wall	0.00W/m2.K	The party wall to the existing external wall of 80 Mount Pleasant to be filled cavity wall construction with edge sealing.
External wall basement	0.21W/m2.K	300mm reinforced concrete solid wall with 100mm PIR insulation between studs internally, plasterboard
External wall main	0.18W/m2.K	90mm Celotex thermaclass 21 in 100mm cavity, insulation block inner with plasterboard on dabs
Pitched roof-ceiling	0.11W/m2.K	200mm mineral wool between joists, 200mm over
Pitched roof-rafter	0.14W/m2.K	120mm Celotex between the rafters, with 60mm below
Internal floors		Timber joists, chipboard floors
Partition 1		Dense block plasterboard on dabs
Partition 2		Timber frame walls to top floor
Entrance doors	1.4W/m2.K	Composite half glazed entrance door
Glazed doors	1.4W/m2.K	Double glazed, BFRC datasheet if possible
Windows	1.2W/m2.K	Double glazed, BFRC datasheet if possible
Roof Lights	1.3W/m2.K	Velux windows
Roof Lantern		
Air tightness target		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:	Generic heat pump data used, Please get an appropriately sized 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 confirmed, please let me know. Some heat pump makes/models may require more/less solar PV in order to pass. Max flow rate of showers 9 litres/minute fed from hot water cylinder.
Heating Flow Temperature:	45 degrees
Fuel:	Electricity
Heat emitters:	Underfloor heating and Radiators
Heating Control:	Time and temperature zone control
Secondary Heating system	None
Hot Water cylinder	
Capacity of cylinder in litres:	180 litre assumed
Make and model:	To be decided
Declared heat loss in Kwh/day:	Better than 1.4kwh/24 hours
Ventilation	
Type:	Intermittent extract fans
Make and Model:	To be decided
Lighting	
Power of light bulbs	8W
Efficacy of bulbs	80
Number of bulbs	To be decided
Alternative Low or Zero Carbon Technologies	
Technology Type:	2.0 Kw solar PV located on West elevation roof, In conjunction with heat pump to provide minimum 19% reduction in Co2 emissions through renewables. Little or no over shading
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:	I G Hi Therm lintels
Accredited Construction Details:	Building Alliance recognised construction details

