

Summary for Input Data

Property Reference	7358-0001-GF-80MP		Issued on Date	04/09/2024
Assessment Reference	Proposed	Prop Type Ref		
Property	Proposed dwelling adjacent, 80 Mount Pleasant, Reading, RG1 2DT			

SAP Rating	81 B	DER	4.07	TER	12.53
Environmental	96 A	% DER < TER			67.52
CO ₂ Emissions (t/year)	0.33	DFEE	39.03	TFEE	40.20
Compliance Check	See BREL	% DFEE < TFEE			2.91
% DPER < TPER	29.98	DPER	46.28	TPER	66.10

Assessor Details	Mr. James Turner	Assessor ID	7358-0001
Client	052, Greg Farrell		

SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	House, End-Terrace	
2.0 Number of Storeys	3	
3.0 Date Built	2024	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	189.20	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	Yes	
Smart gas meter fitted	No	

7.0 Measurements	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Basement:	14.95 m	27.79 m²	2.10 m
Ground floor:	25.54 m	44.60 m²	2.64 m
1st Storey:	15.64 m	30.36 m²	2.60 m

8.0 Living Area	37.03	m²
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Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Basement wall	Solid Wall	Other	0.21	10.37	23.16	23.16	0.00	None	0.00	Enter Gross Area
Basement cavity wall	Cavity Wall	Other	0.12	10.37	8.24	6.26	0.00	None	1.98	Enter Gross Area
Main cavity wall	Cavity Wall	Other	0.18	61.78	96.21	82.86	0.00	None	13.35	Enter Gross Area
Kitchen adjoining wall	Cavity Wall	Other	0.17	69.69	11.88	11.88	0.00	None	0.00	Enter Gross Area

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)	Shelter Res	Shelter
Basement party wall	Solid Wall	Other	0.00	10.37	14.58		None
Party Wall 2	Filled Cavity with Edge Sealing	Other	0.00	61.78	35.85		None

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall 1	Dense block, plasterboard on dabs	75.00	72.13
Internal Wall 2	Plasterboard on timber frame	9.00	59.54

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Plane Roof	Other	0.11	12.17	30.36	30.36	None	0.00	Enter Gross Area	0.00
External Roof 2	External Slope Roof	Other	0.14	12.17	16.36	15.07	None	0.00	Enter Gross Area	1.29

Summary for Input Data

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Basement	Plasterboard ceiling, carpeted chipboard floor	27.79
Internal Ceiling 2	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	30.36

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Basement floor	Basement Floor	Basement	Other	0.12	None	0.00	65.52	27.79
Kitchen floor	Ground Floor - Solid	Lowest occupied	Other	0.12	None	0.00	65.52	14.23

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	27.79
Internal Floor 2		Plasterboard ceiling, carpeted chipboard floor	9.00	30.36

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Entrance door	Manufacturer	Half Glazed Door	Double Low-E Soft 0.05			0.63		0.70	1.40
Glazed door	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.40
Windows	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20
Roof lights	Manufacturer	Roof Window	Double Low-E Soft 0.05			0.63		0.70	1.30

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Opening 1	Entrance door	Main cavity wall	East	1.91	
Opening 2	Glazed door	Main cavity wall	West	4.75	
Opening 3	Windows	Main cavity wall	West	2.32	
Opening 4	Windows	Main cavity wall	East	3.18	
Opening 5	Windows	Main cavity wall	South	1.19	
Opening 6	Windows	Basement cavity wall	East	1.50	
Opening 7	Windows	Basement cavity wall	West	0.48	
Opening 8	Roof lights	External Roof 2	South	1.29	30

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	10.44	0.05	0.05 IG Hi Therm	Yes
E3 Sill	Independently assessed	9.53	0.02	0.02 MHF-100-E3-01	Yes
E4 Jamb	Independently assessed	24.90	0.01	0.01 MHF-100-E4-01	Yes
E5 Ground floor (normal)	Independently assessed	14.95	0.06	0.06 MHF-100-E5-12	No
E6 Intermediate floor within a dwelling	Independently assessed	41.18	0.00	0.00 MHF-100-E6-01	Yes
E16 Corner (normal)	Independently assessed	14.40	0.04	0.04 MHF-100-E16-01	No
E18 Party wall between dwellings	Table K1 - Default	4.20	0.24	0.24	No
R1 Head of roof window	Independently assessed	1.65	0.06	0.06 U1-Gen-R1	Yes
R2 Sill of roof window	Independently assessed	1.65	0.06	0.06 U1-Gen-R2	Yes
R3 Jamb of roof window	Independently assessed	4.68	0.06	0.06 U1-gen-R3	Yes
E5 Ground floor (normal)	Independently assessed	12.77	0.06	0.06 MHF-100-E5-04	No
E16 Corner (normal)	Table K1 - Default	4.20	0.18	0.18	No
E10 Eaves (insulation at ceiling level)	Independently assessed	8.47	0.06	0.06 MHF-100-E10-01	No
E12 Gable (insulation at ceiling level)	Independently assessed	7.17	0.04	0.04 MHF-100-E12-01	No
E11 Eaves (insulation at rafter level)	Independently assessed	9.90	0.02	0.02 MHF-100-E11-01	No
E13 Gable (insulation at rafter level)	Independently assessed	2.88	0.04	0.04 MHF-100-E13-01	No
P1 Party wall - Ground floor	Independently assessed	6.94	0.04	0.04 MPW-P1-12	No
E18 Party wall between dwellings	Independently assessed	10.00	0.04	0.04 MHF-100-E18-02	No
P2 Party wall - Intermediate floor within a dwelling	Table K1 - Default	14.34	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)	Independently assessed	7.17	0.04	0.04 MPW-P4-01	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	2.40	-0.08	-0.08 MHF-100-E17-01	No
R6 Flat ceiling	Table K1 - Default	9.30	0.12	0.12	No
R10 All other roof or room-in-roof junctions	Table K1 - Default	3.30	0.32	0.32	No

Y-value W/m²K

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys

Number of open flues

Number of chimneys/flues attached to closed fire

Number of flues attached to solid fuel boiler

Summary for Input Data

Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	4
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No
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22.0 Pressure Testing	Yes	
Designed AP ₅₀	5.01	m ² /(h.m ²) @ 50 Pa
Test Method	Blower Door	

22.0 Lighting	No				
No Fixed Lighting	No				
	Name	Efficacy	Power	Capacity	Count
	Low energy Lighting	80.00	8.00	640.00	18

24.0 Main Heating 1	SAP table	
Description	Air source heat pump	
Percentage of Heat	100.00	%
Fuel Type	Electricity	
SAP Code	224	
In Winter	170.00	
In Summer	170.00	
Controls SAP Code	2207	
PCDF Controls	0	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators and Underfloor	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	45.00	

25.0 Main Heating 2	None
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26.0 Heat Networks	None
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	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1	None									
Heat source 2	None									
Heat source 3	None									
Heat source 4	None									
Heat source 5	None									

27.0 Secondary Heating	None
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28.0 Water Heating	Main Heating 1
Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
Waste Water Heat Recovery Instantaneous System 1	No
Waste Water Heat Recovery Instantaneous System 2	No
Waste Water Heat Recovery Storage System	No
Solar Panel	No
Water use <= 125 litres/person/day	Yes
Immersion Heater	Dual
Cold Water Source	From mains

Summary for Input Data



Bath Count	1
Supplementary Immersion	Yes
Immersion Only Heating Hot Water	Yes

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Over bath shower	Combi boiler or unvented hot water system	9.00		No	
Shower room	Combi boiler or unvented hot water system	9.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.40	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

32.0 Photovoltaic Unit

One Dwelling	
Export Capable Meter?	Yes
Connected To Dwelling	Yes
Diverter	No
Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
2.00	West	45°	None Or Little		No	1.00		

34.0 Small-scale Hydro

None

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
£4,000 - £6,000	£91	B 83	A 97
		0	0
		0	0

Thermal Bridging

Property Reference	7358-0001-GF-80MP		Issued on Date	04/09/2024
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% DPER < TPER	29.98	DPER	46.28	TPER	66.10

Assessor Details	Mr. James Turner	Assessor ID	7358-0001
Client	052, Greg Farrell		

	Junction details	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Independently assessed	0.050	10.44	0.52	IG Hi Therm
External wall	E3 Sill	Independently assessed	0.020	9.53	0.19	MHF-100-E3-01
External wall	E4 Jamb	Independently assessed	0.015	24.90	0.37	MHF-100-E4-01
External wall	E5 Ground floor (normal)	Independently assessed	0.060	14.95	0.90	MHF-100-E5-12
External wall	E6 Intermediate floor within a dwelling	Independently assessed	0.001	41.18	0.04	MHF-100-E6-01
External wall	E16 Corner (normal)	Independently assessed	0.041	14.40	0.59	MHF-100-E16-01
External wall	E18 Party wall between dwellings	Table K1 - Default	0.240	4.20	1.01	
External roof	R1 Head of roof window	Independently assessed	0.061	1.65	0.10	U1-Gen-R1
External roof	R2 Sill of roof window	Independently assessed	0.060	1.65	0.10	U1-Gen-R2
External roof	R3 Jamb of roof window	Independently assessed	0.056	4.68	0.26	U1-gen-R3
External wall	E5 Ground floor (normal)	Independently assessed	0.060	12.77	0.77	MHF-100-E5-04
External wall	E16 Corner (normal)	Table K1 - Default	0.180	4.20	0.76	
External wall	E10 Eaves (insulation at ceiling level)	Independently assessed	0.059	8.47	0.50	MHF-100-E10-01
External wall	E12 Gable (insulation at ceiling level)	Independently assessed	0.043	7.17	0.31	MHF-100-E12-01
External wall	E11 Eaves (insulation at rafter level)	Independently assessed	0.018	9.90	0.18	MHF-100-E11-01
External wall	E13 Gable (insulation at rafter level)	Independently assessed	0.042	2.88	0.12	MHF-100-E13-01
Party wall	P1 Party wall - Ground floor	Independently assessed	0.043	6.94	0.30	MPW-P1-12
External wall	E18 Party wall between dwellings	Independently assessed	0.043	10.00	0.43	MHF-100-E18-02
Party wall	P2 Party wall - Intermediate floor within a dwelling	Table K1 - Default	0.000	14.34	0.00	
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Independently assessed	0.040	7.17	0.29	MPW-P4-01
External wall	E17 Corner (inverted – internal area greater than external area)	Independently assessed	-0.076	2.40	-0.18	MHF-100-E17-01
External roof	R6 Flat ceiling	Table K1 - Default	0.120	9.30	1.12	
External roof	R10 All other roof or room-in-roof junctions	Table K1 - Default	0.320	3.30	1.06	

Thermal Bridging

Total: 226.42 W/mK:
Y-Value: 0.04 W/m²K: