

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	Victoria Street - 001	Issued on Date	23/02/2023
Assessment Reference	001	Prop Type Ref	Victoria Street - 001
Property			

SAP Rating	84 B	DER	17.30	TER	17.31
Environmental	86 B	% DER<TER	0.06		
CO ₂ Emissions (t/year)	1.42	DFEE	47.36	TFEE	51.62
General Requirements Compliance	Pass	% DFEE<TFEE	8.24		

Assessor Details	Mr. Steven Johnson, Steven Johnson, Tel: 0795607219, steven.johnson@twcconsulting.com	Assessor ID	Z708-0001
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Client	
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Orientation	South West
Property Tenure	Owner-occupied
Transaction Type	New dwelling
Terrain Type	Urban
1.0 Property Type	House, Semi-Detached
2.0 Number of Storeys	3
3.0 Date Built	2022
4.0 Sheltered Sides	1
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	17.35 m	37.54 m ²	2.60 m
1st Storey:	17.35 m	37.54 m ²	2.40 m
2nd Storey:	15.50 m	27.00 m ²	2.40 m

7.0 Living Area	12.00	m ²
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8.0 Thermal Mass Parameter	Simple calculation - Medium	
Thermal Mass	250.00	kJ/m ² K

9.0 External Walls

Description	Type	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall	Cavity Wall	0.23	100.19	86.19
Sheltered Wall	Cavity Wall	0.30	23.76	23.76

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall	Filled Cavity with Edge Sealing		0.00	57.46

10.0 External Roofs

Description	Type	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Slope Roof	External Slope Roof	0.15	27.00	26.60
Plane Roof	External Plane Roof	0.15	10.54	10.54

11.0 Heat Loss Floors

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Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Heat Loss Floor	Ground Floor - Solid		0.15	37.54

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Window Units	BFRC data	Window	Double Low-E Soft 0.1			0.73			1.33
Front Door	Manufacture	Solid Door							1.20
Roof Light	Manufacture	Roof Window	Double Low-E Soft 0.1			0.63		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Front Elevation	Window	[1] External Wall	South West	None	0.00					4.20	
Rear Elevation	Window	[1] External Wall	North East	None	0.00					7.70	
Roof Light	Roof Window	[1] Slope Roof	North East	None						0.40	
Front Door	Solid Door	[1] External Wall	South West							2.10	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Source Type	Bridge Type	Length	Psi	Imported
Table K1 - Approved	E2 Other lintels (including other steel lintels)	10.30	0.300	No
Table K1 - Approved	E3 Sill	7.70	0.040	No
Table K1 - Approved	E4 Jamb	23.70	0.050	No
Table K1 - Approved	E5 Ground floor (normal)	17.35	0.160	No
Table K1 - Approved	E6 Intermediate floor within a dwelling	34.70	0.070	No
Table K1 - Approved	E10 Eaves (insulation at ceiling level)	9.10	0.060	No
Table K1 - Approved	E12 Gable (insulation at ceiling level)	2.65	0.240	No
Table K1 - Approved	E13 Gable (insulation at rafter level)	5.60	0.040	No
Table K1 - Approved	E16 Corner (normal)	19.60	0.090	No
Table K1 - Approved	E18 Party wall between dwellings	14.80	0.060	No
Table K1 - Default	P1 Party wall - Ground floor	8.25	0.160	No
Table K1 - Default	P2 Party wall - Intermediate floor within a dwelling	13.85	0.000	No
Table K1 - Default	P5 Party wall - Roof (insulation at rafter level)	5.60	0.080	No
Table K1 - Default	R1 Head of roof window	0.90	0.080	No
Table K1 - Default	R2 Sill of roof window	0.90	0.060	No
Table K1 - Default	R3 Jamb of roof window	0.80	0.080	No
Table K1 - Default	R4 Ridge (vaulted ceiling)	4.50	0.080	No
Table K1 - Default	R8 Roof to wall (rafter)	9.90	0.060	No

Y-value	<input type="text" value="0.084"/>	W/m ² K
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18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="5.00"/>	m ³ /(h.m ²) @ 50 Pa
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Property Tested ?	<input type="text"/>
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As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa
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19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	<input type="text" value="Windows fully open"/>
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Cross ventilation possible	<input type="text" value="Yes"/>
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Night Ventilation	<input type="text" value="No"/>
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Air change rate

Mechanical Ventilation

Mechanical Ventilation System Present

20.0 Fans, Open Fireplaces, Flues

	MHS	SHS	Other	Total
Number of Chimneys	0		0	0
Number of open flues	0		0	0
Number of intermittent fans				4
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

22.0 Lighting

Internal

Total number of light fittings

Total number of L.E.L. fittings

Percentage of L.E.L. fittings %

External

External lights fitted

23.0 Electricity Tariff

24.0 Main Heating 1

Percentage of Heat %

Database Ref. No.

Fuel Type

Main Heating

SAP Code

In Winter

In Summer

Controls

PCDF Controls

Delayed Start Stat

Sap Code

Flue Type

Fan Assisted Flue

Is MHS Pumped

Heat Emitter

Flow Temperature

Combi boiler type

Combi keep hot type

25.0 Main Heating 2

Community Heating

28.0 Water Heating

Water Heating

Flue Gas Heat Recovery System

Waste Water Heat Recovery

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Instantaneous System 1	
Waste Water Heat Recovery	No
Instantaneous System 2	
Waste Water Heat Recovery	No
Storage System	
Solar Panel	No
Water use <= 125 litres/person/day	Yes
SAP Code	901

29.0 Hot Water Cylinder	None
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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
Solar water heating	£4,000 - £6,000	£32	B 85	
	Typical Cost	Typical savings per year	Ratings after improvement	
Solar photovoltaic panels, 2.5 kWp	£3,500 - £5,500	£411	A 94	