

26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ

Condition 8. Prior to the beneficial occupation of the development to which this permission relates, evidence showing that the development has achieved at least a 19% improvement in CO2 emissions versus Part L of the Building Regulations.

Calculations under SAP 12

Flat	DER	TER	Living Area		
1.1	12.68	16.36	30.19	382.81	493.91
1.2	12.06	15.16	30.3	365.42	459.35
2.1	12.68	16.33	30.19	382.81	493.00
2.2	13.39	17.33	30.19	404.24	523.19
3.1	15.33	18.22	27.36	419.43	498.50
3.2	14.64	17.59	27.47	402.16	483.20
3.3	15.3	18.99	35.13	537.49	667.12
3.4	12.59	15.08	32.58	410.18	491.31
Totals			243.41	3304.54	4109.57
Area Weighted Average				13.58	16.88
Reduction DER/TER				19.59%	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118	Issued on Date	26/09/2023
Assessment Reference	Flat 1.1	Prop Type Ref	
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ		
SAP Rating	87 B	DER	12.68
Environmental	91 B	TER	16.36
CO ₂ Emissions (t/year)	0.63	% DER<TER	22.51
General Requirements Compliance	Pass	DFEE	29.17
		TFEE	37.21
		% DFEE<TFEE	21.60
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk	Assessor ID	BE70-0001
Client	Private Client, 00001		

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

Orientation	North
Property Tenure	Unknown
Transaction Type	None of the above
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Ground Floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
		20.80 m	64.29 m ²	2.65 m
7.0 Living Area	30.19		m ²	
8.0 Thermal Mass Parameter	Enter TMP value			
Thermal Mass	200.00			kJ/m ² K

9.0 External Walls

Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall 1	Cavity Wall	Other	0.17	45.04	30.87

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	54.45

10.1 Party Ceilings

Description	Construction	Area (m ²)
Party Ceilings 1	Concrete floor slab, carpeted	64.29

11.1 Party Floors

Description	Construction	Area (m ²)
Party Floor 1	Concrete floor slab, carpeted	64.29

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					4.31	
Opening 2	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					4.31	
Opening 3	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.49	
Opening 4	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					3.06	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	20.80	Yes
E16 Corner (normal)	5.30	Yes
E18 Party wall between dwellings	5.30	Yes

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	<input type="text" value="Windows fully open"/>
Cross ventilation possible	<input type="text" value="No"/>
Night Ventilation	<input type="text" value="Yes"/>
Air change rate	<input type="text" value="4.00"/>

Mechanical Ventilation

Mechanical Ventilation System Present	<input type="text" value="Yes"/>
Approved Installation	<input type="text" value="No"/>
Mechanical Ventilation data Type	<input type="text" value="Database"/>

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20
Total number of L.E.L. fittings	20
Percentage of L.E.L. fittings	100.00 %

External

External lights fitted: No

23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database
Description	Gas Boiler
Percentage of Heat	100 %
Database Ref. No.	18119
Fuel Type	Mains gas
Main Heating	BGW
SAP Code	104
In Winter	90.0
In Summer	87.0
Controls	CBI Time and temperature zone control
PCDF Controls	0
Delayed Start Stat	No
Sap Code	2110
Flue Type	Balanced
Fan Assisted Flue	Yes
Is MHS Pumped	Pump in heated space
Heat Emitter	Radiators
Flow Temperature	Normal (> 45°C)
Combi boiler type	Standard Combi
Combi keep hot type	None

25.0 Main Heating 2

None

Community Heating: None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

28.0 Water Heating	HWP From main heating 1
Water Heating	Main Heating 1
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
SAP Code	901

29.0 Hot Water Cylinder	None
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32.0 Photovoltaic Unit	One Dwelling			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	Modest	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118	Issued on Date	26/09/2023
Assessment Reference	Flat 1.2	Prop Type Ref	
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ		
SAP Rating	87 B	DER	12.06
Environmental	92 A	TER	15.16
CO ₂ Emissions (t/year)	0.65	% DER<TER	20.43
General Requirements Compliance	Pass	DFEE	27.10
		TFEE	32.80
		% DFEE<TFEE	17.39
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk	Assessor ID	BE70-0001
Client	Private Client, 00001		

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

Orientation	West
Property Tenure	Unknown
Transaction Type	None of the above
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Ground Floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
		31.00 m	68.55 m ²	2.65 m

7.0 Living Area m²

8.0 Thermal Mass Parameter
 Thermal Mass kJ/m²K

9.0 External Walls

Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall 1	Cavity Wall	Other	0.17	46.81	29.10

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	61.45

10.1 Party Ceilings

Description	Construction	Area (m ²)
Party Ceilings 1	Concrete floor slab, carpeted	64.29

11.1 Party Floors

Description	Construction	Area (m ²)
Party Floor 1	Concrete floor slab, carpeted	68.55

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					1.81	
Opening 2	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					1.81	
Opening 3	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.85	
Opening 4	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.85	
Opening 5	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					1.12	
Opening 6	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					0.56	
Opening 7	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.51	
Opening 8	Door to Corridor	[1] External Wall 1	South West							2.20	

14.0 Conservatory

15.0 Draught Proofing

%

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	31.00	No
E18 Party wall between dwellings	8.10	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	Windows fully open
Cross ventilation possible	No
Night Ventilation	Yes
Air change rate	4.00

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted	No
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23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18119	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.0	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Fan Assisted Flue	Yes
Is MHS Pumped	Pump in heated space
Heat Emitter	Radiators
Flow Temperature	Normal (> 45°C)
Combi boiler type	Standard Combi
Combi keep hot type	None
25.0 Main Heating 2	None

Community Heating	None
28.0 Water Heating	HWP From main heating 1
Water Heating	Main Heating 1
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
SAP Code	901

29.0 Hot Water Cylinder	None
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32.0 Photovoltaic Unit	One Dwelling			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	Modest	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118	Issued on Date	26/09/2023
Assessment Reference	Flat 2.1	Prop Type Ref	
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ		
SAP Rating	87 B	DER	12.68
Environmental	92 A	TER	16.33
CO ₂ Emissions (t/year)	0.61	% DER<TER	22.35
General Requirements Compliance	Pass	DFEE	28.43
		TFEE	36.31
		% DFEE<TFEE	21.70
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk	Assessor ID	BE70-0001
Client	Private Client, 00001		

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

Orientation	North
Property Tenure	Unknown
Transaction Type	None of the above
Terrain Type	Suburban
1.0 Property Type	Flat, Mid-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements		Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	Ground Floor:	20.80 m	62.48 m ²	2.65 m

7.0 Living Area	30.19	m ²
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8.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	250.00	kJ/m ² K

9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
	External Wall 1	Cavity Wall	Other	0.17	30.87	14.50

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
	Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	54.45

10.1 Party Ceilings	Description	Construction	Area (m ²)
	Party Ceilings 1	Concrete floor slab, carpeted	62.48

11.1 Party Floors	Description	Construction	Area (m ²)
	Party Floor 1	Concrete floor slab, carpeted	62.48

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					4.31	
Opening 2	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					4.31	
Opening 3	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.49	
Opening 4	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					3.06	
Opening 5	Door to Corridor	[1] External Wall 1	South							2.20	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	20.80	No
E18 Party wall between dwellings	10.60	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	<input type="text" value="Windows fully open"/>
Cross ventilation possible	<input type="text" value="No"/>
Night Ventilation	<input type="text" value="Yes"/>
Air change rate	<input type="text" value="4.00"/>

Mechanical Ventilation

Mechanical Ventilation System Present	<input type="text" value="Yes"/>
Approved Installation	<input type="text" value="No"/>
Mechanical Ventilation data Type	<input type="text" value="Database"/>

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted: No

23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18120	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.1	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
Combi boiler type	Standard Combi	
Combi keep hot type	None	

25.0 Main Heating 2

None

Community Heating: None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

28.0 Water Heating	HWP From main heating 1
Water Heating	Main Heating 1
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
SAP Code	901

29.0 Hot Water Cylinder	None
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32.0 Photovoltaic Unit	One Dwelling			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	Modest	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118		Issued on Date	27/09/2023	
Assessment Reference	Flat 2.2	Prop Type Ref			
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ				
SAP Rating	87 B	DER	13.39	TER	17.33
Environmental	91 B	% DER<TER	22.74		
CO ₂ Emissions (t/year)	0.68	DFEE	33.64	TFEE	41.69
General Requirements Compliance	Pass	% DFEE<TFEE	19.29		
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk			Assessor ID	BE70-0001
Client	Private Client, 00001				

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

Orientation	West
Property Tenure	Unknown
Transaction Type	None of the above
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Heavy overshadowing

6.0 Measurements

	Ground Floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
		17.80 m	68.55 m ²	2.65 m
7.0 Living Area	30.19		m ²	
8.0 Thermal Mass Parameter	Enter TMP value			
Thermal Mass	250.00			kJ/m ² K

9.0 External Walls

Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall 1	Cavity Wall	Other	0.17	49.94	32.10

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber frame with/without sheathing board	0.00	61.45

10.1 Party Ceilings

Description	Construction	Area (m ²)
Party Ceilings 1	Concrete floor slab, carpeted	68.55

11.1 Party Floors

Description	Construction	Area (m ²)
Party Floor 1	Concrete floor slab, carpeted	68.55

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					1.81	
Opening 2	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					1.81	
Opening 3	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.85	
Opening 4	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.85	
Opening 5	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					1.64	
Opening 6	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.68	
Opening 7	Door to Corridor	[1] External Wall 1	South							2.20	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	17.80	No
E18 Party wall between dwellings	10.60	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Cross ventilation possible	No
Night Ventilation	Yes
Air change rate	4.00

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted	No
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23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18119	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.0	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Combi boiler type	Standard Combi			
Combi keep hot type	None			
<hr/>				
25.0 Main Heating 2	None			
<hr/>				
Community Heating	None			
28.0 Water Heating	HWP From main heating 1			
Water Heating	Main Heating 1			
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			
SAP Code	901			
<hr/>				
29.0 Hot Water Cylinder	None			
<hr/>				
32.0 Photovoltaic Unit	One Dwelling			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	None Or Little	Yes
<hr/>				

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118		Issued on Date	27/09/2023	
Assessment Reference	Flat 3.1	Prop Type Ref			
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ				
SAP Rating	86 B	DER	15.33	TER	18.22
Environmental	89 B	% DER<TER	15.87		
CO ₂ Emissions (t/year)	0.83	DFEE	42.76	TFEE	46.61
General Requirements Compliance	Pass	% DFEE<TFEE	8.24		
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk			Assessor ID	BE70-0001
Client	Private Client, 00001				

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

Orientation	South
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Heavy overshadowing

6.0 Measurements

	Ground Floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
		21.00 m	69.81 m ²	2.42 m

7.0 Living Area	27.36	m ²
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8.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m ² K

9.0 External Walls

Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall 1	Cavity Wall	Other	0.17	48.52	22.72

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber frame with/without sheathing board	0.00	49.24

10.0 External Roofs

Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof	0.11	69.81	69.81

11.1 Party Floors

Description	Construction	Area (m ²)
Party Floor 1	Concrete floor slab, carpeted	69.81

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	South	Net curtain (covering whole window)	0.00					4.00	
Opening 2	Window	[1] External Wall 1	South	Net curtain (covering whole window)	0.00					4.00	
Opening 3	Window	[1] External Wall 1	South	Net curtain (covering whole window)	0.00					4.00	
Opening 4	Window	[1] External Wall 1	South	Net curtain (covering whole window)	0.00					4.00	
Opening 5	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					1.90	
Opening 6	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					1.90	
Opening 7	Door to Corridor	[1] External Wall 1	North West							2.20	
Opening 8	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					1.90	
Opening 9	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					1.90	

14.0 Conservatory

15.0 Draught Proofing

%

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	30.00	No
E18 Party wall between dwellings	10.60	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

18.0 Pressure Testing	Yes	
Designed AP ₅₀	3.00	m ³ /(h.m ²) @ 50 Pa
Property Tested ?		
As Built AP ₅₀		m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	Windows fully open
Cross ventilation possible	No
Night Ventilation	Yes
Air change rate	4.00

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	4

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System	No
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22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted	No
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23.0 Electricity Tariff	Standard
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24.0 Main Heating 1	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18120	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.1	
In Summer	87.0	
Controls	CBI Time and temperature zone control	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

PCDF Controls	0
Delayed Start Stat	No
Sap Code	2110
Flue Type	Balanced
Fan Assisted Flue	Yes
Is MHS Pumped	Pump in heated space
Heat Emitter	Radiators
Flow Temperature	Normal (> 45°C)
Combi boiler type	Standard Combi
Combi keep hot type	None

25.0 Main Heating 2

Community Heating	<input type="text" value="None"/>
28.0 Water Heating	<input type="text" value="HWP From main heating 1"/>
Water Heating	<input type="text" value="Main Heating 1"/>
Flue Gas Heat Recovery System	<input type="text" value="No"/>
Waste Water Heat Recovery Instantaneous System 1	<input type="text" value="No"/>
Waste Water Heat Recovery Instantaneous System 2	<input type="text" value="No"/>
Waste Water Heat Recovery Storage System	<input type="text" value="No"/>
Solar Panel	<input type="text" value="No"/>
Water use <= 125 litres/person/day	<input type="text" value="Yes"/>
SAP Code	<input type="text" value="901"/>

29.0 Hot Water Cylinder

32.0 Photovoltaic Unit	<input type="text" value="One Dwelling"/>			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	None Or Little	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118		Issued on Date	27/09/2023	
Assessment Reference	Flat 3.2	Prop Type Ref			
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ				
SAP Rating	86 B	DER	14.64	TER	17.59
Environmental	89 B	% DER<TER	16.75		
CO ₂ Emissions (t/year)	0.99	DFEE	40.45	TFEE	48.86
General Requirements Compliance	Pass	% DFEE<TFEE	17.22		
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk			Assessor ID	BE70-0001
Client	Private Client, 00001				

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

Orientation	South East
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Heavy overshadowing

6.0 Measurements		Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	Ground Floor:	17.60 m	88.12 m ²	2.42 m

7.0 Living Area	27.47	m ²
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8.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m ² K

9.0 External Walls			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Wall 1	Cavity Wall	Other	0.17	57.31	36.71

9.1 Party Walls			U-Value (W/m ² K)	Area (m ²)
Description	Type	Construction		
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber frame with/without sheathing board	0.00	51.87

10.0 External Roofs			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof	0.11	88.12	88.12

11.1 Party Floors			Area (m ²)
Description	Construction		
Party Floor 1	Concrete floor slab, carpeted		88.12

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					3.80	
Opening 2	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					3.80	
Opening 3	Window	[1] External Wall 1	South East	Net curtain (covering whole window)	0.00					3.80	
Opening 4	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					3.20	
Opening 5	Window	[1] External Wall 1	North East	Net curtain (covering whole window)	0.00					3.80	
Opening 6	Door to Corridor	[1] External Wall 1	West							2.20	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	30.00	No
E18 Party wall between dwellings	10.60	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	<input type="text" value="Windows fully open"/>
Cross ventilation possible	<input type="text" value="No"/>
Night Ventilation	<input type="text" value="Yes"/>
Air change rate	<input type="text" value="4.00"/>

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.33
Duct Type	Semi rigid
Wet Rooms	4

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted: No

23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18120	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.1	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
Combi boiler type	Standard Combi	
Combi keep hot type	None	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

25.0 Main Heating 2

Community Heating

28.0 Water Heating

Water Heating

Flue Gas Heat Recovery System

Waste Water Heat Recovery

Instantaneous System 1

Waste Water Heat Recovery

Instantaneous System 2

Waste Water Heat Recovery

Storage System

Solar Panel

Water use <= 125 litres/person/day

SAP Code

29.0 Hot Water Cylinder

32.0 Photovoltaic Unit

PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	None Or Little	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118	Issued on Date	27/09/2023
Assessment Reference	Flat 3.3	Prop Type Ref	
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ		

SAP Rating	86 B	DER	15.30	TER	18.99
Environmental	89 B	% DER<TER	19.43		
CO ₂ Emissions (t/year)	0.87	DFEE	42.10	TFEE	50.74
General Requirements Compliance	Pass	% DFEE<TFEE	17.03		

Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk	Assessor ID	BE70-0001
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Client	Private Client, 00001
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SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	North
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	Flat, Mid-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Heavy overshadowing

6.0 Measurements		Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	Ground Floor:	27.00 m	74.57 m ²	2.42 m

7.0 Living Area	35.13	m ²
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8.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m ² K

9.0 External Walls			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Wall 1	Cavity Wall	Other	0.17	61.13	46.33

9.1 Party Walls			U-Value (W/m ² K)	Area (m ²)
Description	Type	Construction		
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber frame with/without sheathing board	0.00	41.93

10.0 External Roofs			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Top Floor Roof	External Flat Roof	Plasterboard, insulated flat roof	0.11	75.42	75.42

11.1 Party Floors			Area (m ²)
Description	Construction		
Party Floor 1	Concrete floor slab, carpeted		74.57

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	North East	Net curtain (covering whole window)	0.00					1.36	
Opening 2	Window	[1] External Wall 1	East	Net curtain (covering whole window)	0.00					3.80	
Opening 3	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					3.80	
Opening 4	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.04	
Opening 5	Door to Corridor	[1] External Wall 1	North							2.20	
Opening 6	Window	[1] External Wall 1	North West	Net curtain (covering whole window)	0.00					1.60	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	27.00	No
E18 Party wall between dwellings	9.68	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	<input type="text" value="Windows fully open"/>
Cross ventilation possible	<input type="text" value="No"/>
Night Ventilation	<input type="text" value="Yes"/>
Air change rate	<input type="text" value="4.00"/>

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted: No

23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18119	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.0	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
Combi boiler type	Standard Combi	
Combi keep hot type	None	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

25.0 Main Heating 2

Community Heating

28.0 Water Heating

Water Heating

Flue Gas Heat Recovery System

Waste Water Heat Recovery

Instantaneous System 1

Waste Water Heat Recovery

Instantaneous System 2

Waste Water Heat Recovery

Storage System

Solar Panel

Water use <= 125 litres/person/day

SAP Code

29.0 Hot Water Cylinder

32.0 Photovoltaic Unit

PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	None Or Little	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Property Reference	000118		Issued on Date	27/09/2023	
Assessment Reference	Flat 3.4	Prop Type Ref			
Property	26-27, Victoria Road, Surbiton, Kingston Upon Thames, KT6 4JZ				
SAP Rating	88 B	DER	12.59	TER	15.08
Environmental	90 B	% DER<TER	16.52		
CO ₂ Emissions (t/year)	0.84	DFEE	33.54	TFEE	37.79
General Requirements Compliance	Pass	% DFEE<TFEE	11.24		
Assessor Details	Mr. Alex Matovu, Alex Matovu, Tel: 02088927947, alexmatovu@ingine.co.uk			Assessor ID	BE70-0001
Client	Private Client, 00001				

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

Orientation	West
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements		Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	Ground Floor:	40.20 m	86.77 m ²	2.42 m

7.0 Living Area	32.58	m ²
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8.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m ² K

9.0 External Walls			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Wall 1	Cavity Wall	Other	0.17	54.56	34.52

9.1 Party Walls			U-Value (W/m ² K)	Area (m ²)
Description	Type	Construction		
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber frame with/without sheathing board	0.00	56.92

10.0 External Roofs			U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Description	Type	Construction			
External Top Floor Roof	External Flat Roof	Plasterboard, insulated flat roof	0.11	86.77	86.77

11.1 Party Floors			Area (m ²)
Description	Construction		
Party Floor 1	Concrete floor slab, carpeted		86.77

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
Opening Type 1	Manufacturer	Door to Corridor							1.00
Opening Type 2	Manufacturer	Window	Double Low-E Hard 0.2			0.40		0.70	1.10

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Opening 1	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					0.64	
Opening 2	Window	[1] External Wall 1	West	Net curtain (covering whole window)	0.00					1.60	
Opening 3	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.40	
Opening 4	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					3.40	
Opening 5	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.40	
Opening 6	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					2.40	
Opening 7	Door to Corridor	[1] External Wall 1	North East							2.20	
Opening 8	Window	[1] External Wall 1	South West	Net curtain (covering whole window)	0.00					4.00	

14.0 Conservatory

15.0 Draught Proofing

%

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Length	Imported
E7 Party floor between dwellings (in blocks of flats)	40.20	No
E18 Party wall between dwellings	4.84	No

Y-value	<input type="text" value="0.050"/>	W/m ² K
Description	<input type="text" value="Thermal Bridging"/>	

18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
Property Tested ?	<input type="text"/>	
As Built AP ₅₀	<input type="text"/>	m ³ /(h.m ²) @ 50 Pa

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather	Windows fully open
Cross ventilation possible	No
Night Ventilation	Yes
Air change rate	4.00

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - centralised
MV Reference Number	500233
Configuration	0
Manufacturer SFP	0.31
Duct Type	Semi rigid
Wet Rooms	3

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				0
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

No

22.0 Lighting

Internal

Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	%

External

External lights fitted	No
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23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Description	Database	
Description	Gas Boiler	
Percentage of Heat	100	%
Database Ref. No.	18119	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.0	
In Summer	87.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Fan Assisted Flue	Yes
Is MHS Pumped	Pump in heated space
Heat Emitter	Radiators
Flow Temperature	Normal (> 45°C)
Combi boiler type	Standard Combi
Combi keep hot type	None
25.0 Main Heating 2	None

Community Heating	None
28.0 Water Heating	HWP From main heating 1
Water Heating	Main Heating 1
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
SAP Code	901

29.0 Hot Water Cylinder	None
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32.0 Photovoltaic Unit	One Dwelling			
PV Cells kWp	Orientation	Elevation	Overshading	Connected to Dwelling
0.42	South	45°	None Or Little	Yes

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None