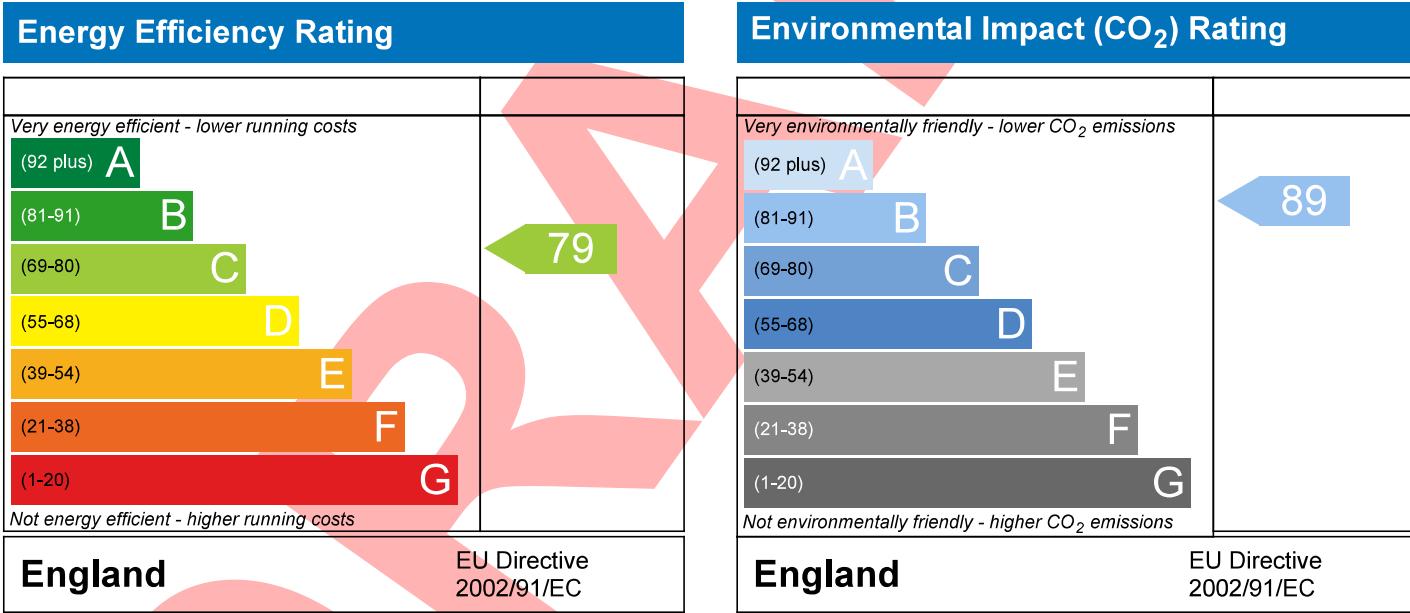


The Star, Uxbridge Road,
Uxbridge,
UB10 0LY

Dwelling type: Flat, Semi-Detached
Date of assessment: 21/07/2022
Produced by: Paul Whiffin
Total floor area: 77.67 m²

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.

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BUILDING REGULATION COMPLIANCE

Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.09		Issued on Date	21/07/2022																
Assessment Reference	Design V3		Prop Type Ref	New Build																
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY																			
SAP Rating	79 C	DER	14.81	TER	24.99															
Environmental	89 B	% DER<TER	40.74																	
CO ₂ Emissions (t/year)	0.87	DFEE	36.60	TFEE	46.57															
General Requirements Compliance	Pass	% DFEE<TFEE	21.40																	
Assessor Details	Mr. Paul Whiffin, Tel: 01763 268685, paul.whiffin@atspaceltd.com			Assessor ID	y314-0001															
Client	Harjeet Suri, 33244																			
SUMMARY FOR INPUT DATA FOR New Build (As Designed)																				
Criterion 1 – Achieving the TER and TFEE rate																				
1a TER and DER	<table border="1"> <tr> <td>Electricity</td> </tr> <tr> <td>1.55 (electricity)</td> </tr> <tr> <td>24.99</td> <td>kgCO₂/m²</td> </tr> <tr> <td>14.81</td> <td>kgCO₂/m²</td> </tr> <tr> <td>-10.18 (-40.7%)</td> <td>kgCO₂/m²</td> </tr> </table>					Electricity	1.55 (electricity)	24.99	kgCO ₂ /m ²	14.81	kgCO ₂ /m ²	-10.18 (-40.7%)	kgCO ₂ /m ²							
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Fuel for main heating																				
Fuel factor																				
Target Carbon Dioxide Emission Rate (TER)																				
Dwelling Carbon Dioxide Emission Rate (DER)																				
1b TFEE and DFEE	<table border="1"> <tr> <td>46.57</td> <td>kWh/m²/yr</td> </tr> <tr> <td>36.60</td> <td>kWh/m²/yr</td> </tr> <tr> <td>-10.0 (-21.5%)</td> <td>kWh/m²/yr</td> </tr> </table>					46.57	kWh/m ² /yr	36.60	kWh/m ² /yr	-10.0 (-21.5%)	kWh/m ² /yr									
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Target Fabric Energy Efficiency (TFEE)																				
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Criterion 2 – Limits on design flexibility																				
Limiting Fabric Standards																				
2 Fabric U-values	<table border="1"> <thead> <tr> <th>Element</th> <th>Average</th> <th>Highest</th> </tr> </thead> <tbody> <tr> <td>External wall</td> <td>0.17 (max. 0.30)</td> <td>0.20 (max. 0.70)</td> </tr> <tr> <td>Party wall</td> <td>0.00 (max. 0.20)</td> <td>-</td> </tr> <tr> <td>Roof</td> <td>0.16 (max. 0.20)</td> <td>0.16 (max. 0.35)</td> </tr> <tr> <td>Openings</td> <td>1.24 (max. 2.00)</td> <td>1.80 (max. 3.30)</td> </tr> </tbody> </table>					Element	Average	Highest	External wall	0.17 (max. 0.30)	0.20 (max. 0.70)	Party wall	0.00 (max. 0.20)	-	Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Openings	1.24 (max. 2.00)	1.80 (max. 3.30)
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2a Thermal bridging	Thermal bridging calculated from linear thermal transmittances for each junction																			
3 Air permeability	<table border="1"> <tr> <td>Air permeability at 50 pascals</td> <td>3.00 (design value)</td> <td>m³/(h.m²) @ 50 Pa</td> </tr> <tr> <td>Maximum</td> <td>10.0</td> <td>m³/(h.m²) @ 50 Pa</td> </tr> </table>					Air permeability at 50 pascals	3.00 (design value)	m ³ /(h.m ²) @ 50 Pa	Maximum	10.0	m ³ /(h.m ²) @ 50 Pa									
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Limiting System Efficiencies																				
4 Heating efficiency	<table border="1"> <tr> <td>Main heating system</td> <td colspan="2">Boiler system with radiators or underfloor - Electric</td> <td></td> </tr> <tr> <td></td> <td colspan="2">Direct-acting boiler</td> <td></td> </tr> </table>					Main heating system	Boiler system with radiators or underfloor - Electric				Direct-acting boiler									
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BUILDING REGULATION COMPLIANCE

Calculation Type: New Build (As Designed)

Secondary heating system

None

5 Cylinder insulation

Hot water storage

Measured cylinder loss: 1.90 kWh/day
Permitted by DBSCG 2.24

Pass

Primary pipework insulated

No primary pipework

6 Controls

Space heating controls

Time and temperature zone control

Pass

Hot water controls

Cylinderstat

Pass

7 Low energy lights

Percentage of fixed lights with low-energy

100 %

fittings

75 %

Pass

Minimum

8 Mechanical ventilation

Continuous supply and extract system

0.62

Specific fan power

1.5

Pass

Maximum

94 %

MVHR efficiency

70 %

Pass

Minimum

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Based on:

Overshading

Average

Windows facing East

12.11 m², No overhang

Windows facing South

20.21 m², No overhang

Air change rate

6.00 ach

Blinds/curtains

None

Criterion 4 – Building performance consistent with DER and DFEE rate

Party Walls

Type

U-value

Filled Cavity with Edge Sealing

0.00 W/m²K

Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals

3.00 (design value) m³/(h.m²) @ 50 Pa

Maximum

10.0 m³/(h.m²) @ 50 Pa

Pass

10 Key features

External wall U-value

0.13 W/m²K

Party wall U-value

0.00 W/m²K

Air permeability

3.0 m³/m²h

Photovoltaic array

1374.95 kWh/Year

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SUMMARY FOR INPUT DATA

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Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY								
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Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, paul.whiffin@atspaceltd.com			Assessor ID	y314-0001				
Client	Harjeet Suri, 33244								
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, Semi-Detached								
2.0 Number of Storeys	1								
3.0 Date Built	2022								
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					
		32.04 m	77.67 m ²	2.41 m					
7.0 Living Area	28.19		m ²						
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	Timber Frame		0.20	60.61	26.20				
Sheltered Wall	Cavity Wall		0.13	16.60	16.60				
9.1 Party Walls									
Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)					
Party Wall 1	Filled Cavity with Edge Sealing		0.00	15.52					
10.0 External Roofs									
Description	Type		U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)				
Flat Roof	External Flat Roof		0.16	77.67	77.67				
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)
Glazing	BFRC data	Window	Double Low-E Soft 0.1			0.50			1.20
Solid Door	Manufacturer	Door to Corridor							1.80

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
FSD	Door to Corridor	[1] External Wall	North							2.09	
LSW	Window	[1] External Wall	East	None	0.00					12.11	
RW	Window	[1] External Wall	South	None	0.00					20.21	

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	Reference:
Independently assessed	E2 Other lintels (including other steel lintels)	14.44	0.040	No	LABC
Independently assessed	E3 Sill	13.44	0.027	No	LABC
Independently assessed	E4 Jamb	32.97	0.029	No	LABC
Independently assessed	E7 Party floor between dwellings (in blocks of flats)	32.04	0.039	No	
Table K1 - Default	E14 Flat roof	32.04	0.080	No	
Independently assessed	E16 Corner (normal)	9.64	0.050	No	LABC
Independently assessed	E17 Corner (inverted – internal area greater than external area)	2.52	-0.091	No	
Table K1 - Approved	E18 Party wall between dwellings	2.52	0.060	No	
Table K1 - Default	E25 Staggered party wall between dwellings	2.52	0.120	No	
Table K1 - Default	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	6.44	0.000	No	
Table K1 - Default	P4 Party wall - Roof (insulation at ceiling level)	6.44	0.240	No	

Y-value	<input type="text" value="0.051"/>	W/m ² K
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18.0 Pressure Testing

Designed AP ₅₀	<input type="text" value="Yes"/>	
Property Tested ?	<input type="text" value="3.00"/>	m ³ /(h.m ²) @ 50 Pa
As Built AP ₅₀	<input type="text" value=""/>	
	<input type="text" value=""/>	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="Yes"/>
Night Ventilation	<input type="text" value="No"/>
Air change rate	<input type="text" value="6.00"/>

Mechanical Ventilation

Mechanical Ventilation System Present	<input type="text" value="Yes"/>
Approved Installation	<input type="text" value="Yes"/>
Mechanical Ventilation data Type	<input type="text" value="Database"/>
Type	<input type="text" value="Balanced mechanical ventilation with heat recovery"/>
MV Reference Number	<input type="text" value="500502"/>
Configuration	<input type="text" value="1"/>
MVHR Duct Insulated	<input type="text" value="Yes"/>
Manufacturer SFP	<input type="text" value="0.62"/>
Duct Type	<input type="text" value="Rigid"/>
MVHR Efficiency	<input type="text" value="94.00"/>
Wet Rooms	<input type="text" value="1"/>

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

20.0 Fans, Open Fireplaces, Flues

	MHS	SHS	Other	Total
Number of Chimneys	0	0	0	0
Number of open flues	0	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	Yes
Light and motion sensor	Yes

23.0 Electricity Tariff

Standard

24.0 Main Heating 1

Percentage of Heat	SAP table
Main Heating	100 %
SAP Code	BEE
Efficiency (SAP Table)	191
Controls	100.0 %
PCDF Controls	CBI Time and temperature zone control
Delayed Start Stat	0
Sap Code	Yes
Is MHS Pumped	2110
Heat Emitter	Pump in heated space
Underfloor Heating	Underfloor
	Yes - Pipes in thin screed

25.0 Main Heating 2

None

28.0 Water Heating

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

29.0 Hot Water Cylinder

Hot Water Cylinder

Regs Region: England

Elmhurst Energy Systems

SAP2012 Calculator (Design)

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Designed)

Cylinder In Heated Space	Yes
Insulation Type	Measured Loss
Cylinder Volume	200.00
Loss	1.90
	L
31.0 Thermal Store	None
32.0 Photovoltaic Unit	More Dwellings, One Block
Apportioned	1374.95
	kWh/Year

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None