

# PREDICTED ENERGY ASSESSMENT

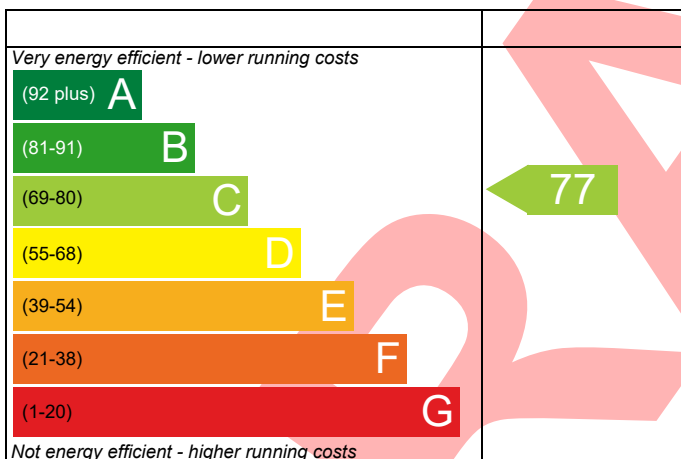
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 49.86 m<sup>2</sup>

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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

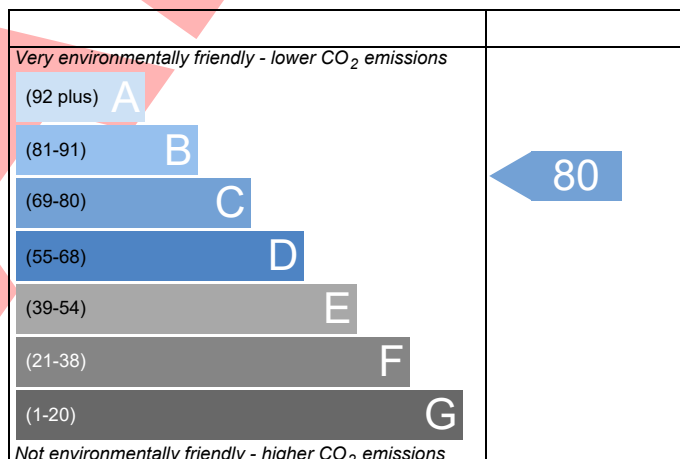


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.01	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	77 C	DER	30.48
Environmental	80 C	TER	31.61
CO <sub>2</sub> Emissions (t/year)	1.28	% DER<TER	3.57
General Requirements Compliance	Pass	DFEE	45.86
		TFEE	56.44
		% DFEE<TFEE	18.76
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk	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

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	31.61	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	30.48	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-1.13 (-3.6%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	56.44	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	45.86	kWh/m <sup>2</sup> /yr	
	-10.5 (-18.6%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.18 (max. 0.25)	0.18 (max. 0.70)	Pass
Openings	1.26 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing South	13.86 m <sup>2</sup> , No overhang	
Windows facing West	4.09 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	194.63	kWh/Year

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# PREDICTED ENERGY ASSESSMENT

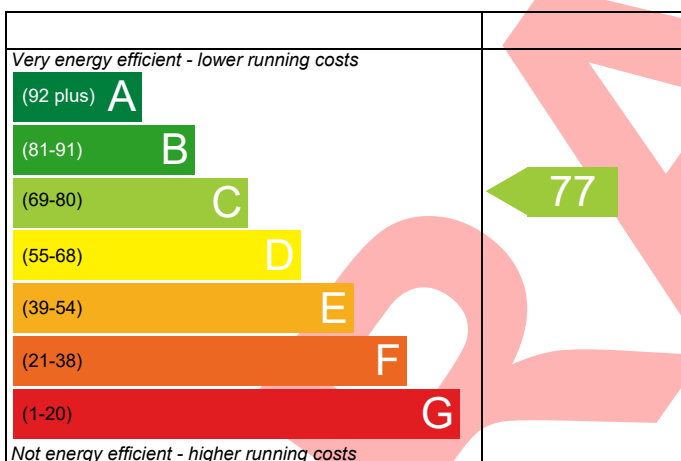
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 71.76 m<sup>2</sup>

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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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

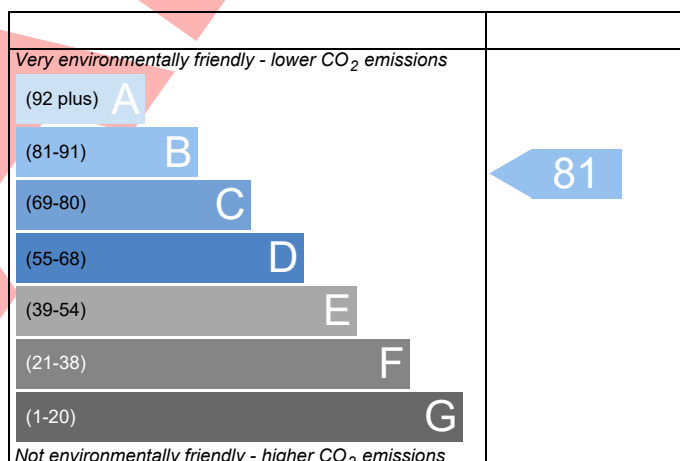


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) 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.02	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	77 C	DER	25.90
Environmental	81 B	TER	27.56
CO <sub>2</sub> Emissions (t/year)	1.55	% DER<TER	6.02
General Requirements Compliance	Pass	DFEE	45.28
		TFEE	53.28
		% DFEE<TFEE	15.03
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk		Assessor ID
Client	Harjeet Suri, 33244		y314-0001

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

#### Criterion 1 – Achieving the TER and TFEE rate

##### 1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	27.56	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	25.90	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-1.66 (-6.0%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	53.28	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	45.28	kWh/m <sup>2</sup> /yr	
	-8.0 (-15.0%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.18 (max. 0.25)	0.18 (max. 0.70)	Pass
Openings	1.23 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings

100 %

Minimum

75 %

Pass

### 8 Mechanical ventilation

Continuous supply and extract system

Specific fan power

0.62

Maximum

1.5

Pass

MVHR efficiency

94 %

Minimum

70 %

Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Windows facing East

19.76 m<sup>2</sup>, No overhang

Windows facing South

16.03 m<sup>2</sup>, 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/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

Air permeability

3.0

m<sup>3</sup>/m<sup>2</sup>h

Photovoltaic array

280.11

kWh/Year

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# PREDICTED ENERGY ASSESSMENT

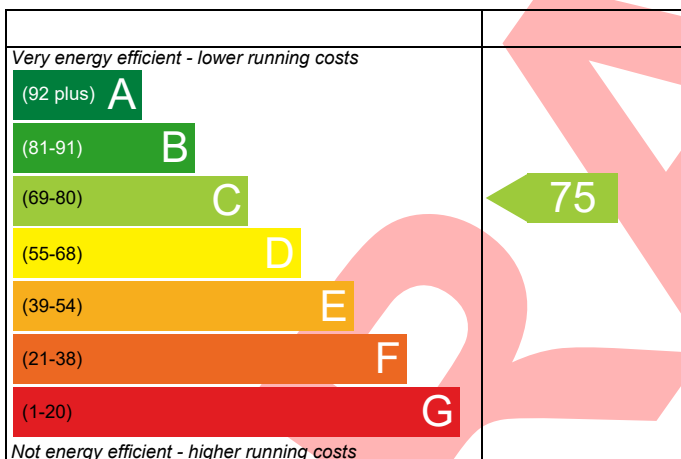
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 50.78 m<sup>2</sup>

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## Energy Efficiency Rating

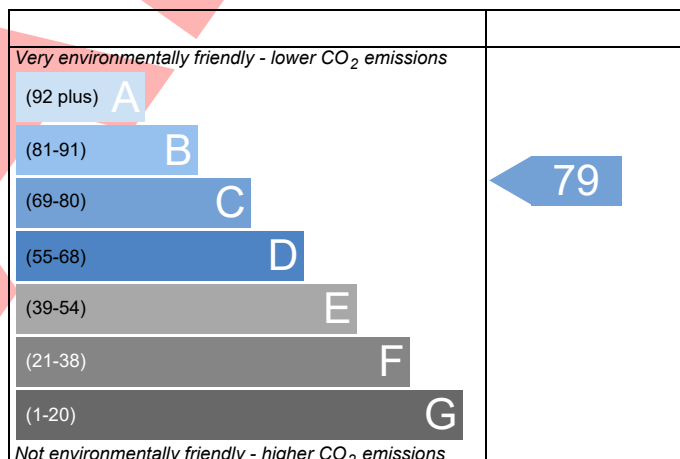


England

EU Directive  
2002/91/EC

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## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.03			Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build		
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY				
SAP Rating	75 C	DER	32.91	TER	31.96
Environmental	79 C	% DER<TER	-2.98		
CO <sub>2</sub> Emissions (t/year)	1.39	DFEE	51.92	TFEE	57.85
General Requirements Compliance	Fail	% DFEE<TFEE	10.25		
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk			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

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	31.96	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	32.91	kgCO <sub>2</sub> /m <sup>2</sup>	
Excess emissions	0.95 (3.0%)	kgCO <sub>2</sub> /m <sup>2</sup>	Fail

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	57.85	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	51.92	kWh/m <sup>2</sup> /yr	
	-6.0 (-10.4%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.25 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.18 (max. 0.25)	0.18 (max. 0.70)	Pass
Openings	1.31 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing East	13.81 m <sup>2</sup> , No overhang	
Windows facing South	4.09 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	198.22	kWh/Year

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# PREDICTED ENERGY ASSESSMENT

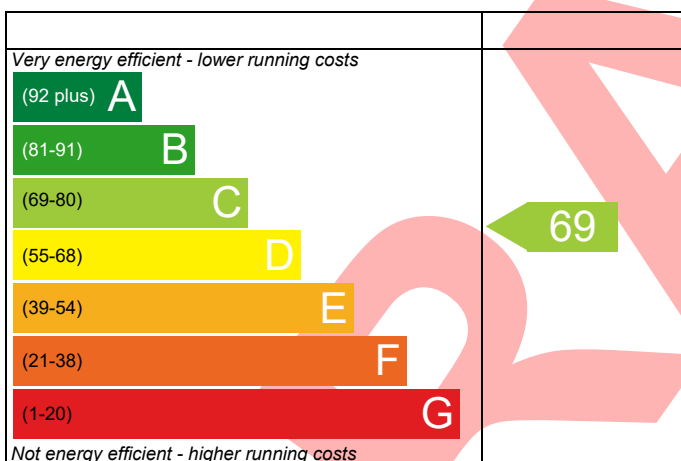
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 52.99 m<sup>2</sup>

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## Energy Efficiency Rating

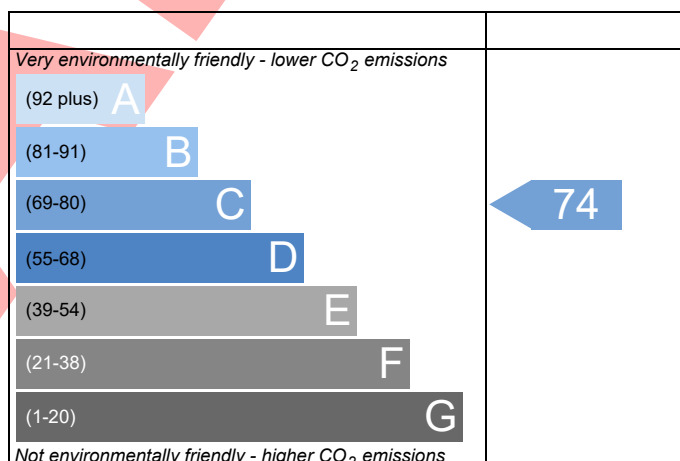


England

EU Directive  
2002/91/EC

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## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.04	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	69 C	DER	40.04
Environmental	74 C	% DER<TER	-13.42
CO <sub>2</sub> Emissions (t/year)	1.75	DFEE	66.89
General Requirements Compliance	Fail	% DFEE<TFEE	5.67
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk	Assessor ID	y314-0001
Client	Harjeet Suri, 33244		

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

#### Criterion 1 – Achieving the TER and TFE rate

##### 1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	35.30	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	40.04	kgCO <sub>2</sub> /m <sup>2</sup>	
Excess emissions	4.74 (13.4%)	kgCO <sub>2</sub> /m <sup>2</sup>	Fail

##### 1b TFE and DFEE

Target Fabric Energy Efficiency (TFEE)	70.91	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	66.89	kWh/m <sup>2</sup> /yr	
	-4.0 (-5.6%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.18 (max. 0.25)	0.18 (max. 0.70)	Pass
Openings	1.24 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing North	18.12 m <sup>2</sup> , No overhang	
Windows facing East	7.84 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	206.84	kWh/Year

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# PREDICTED ENERGY ASSESSMENT

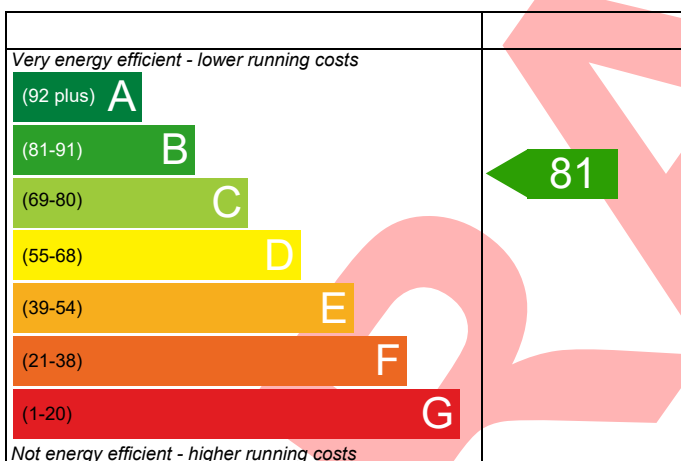
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 49.86 m<sup>2</sup>

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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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

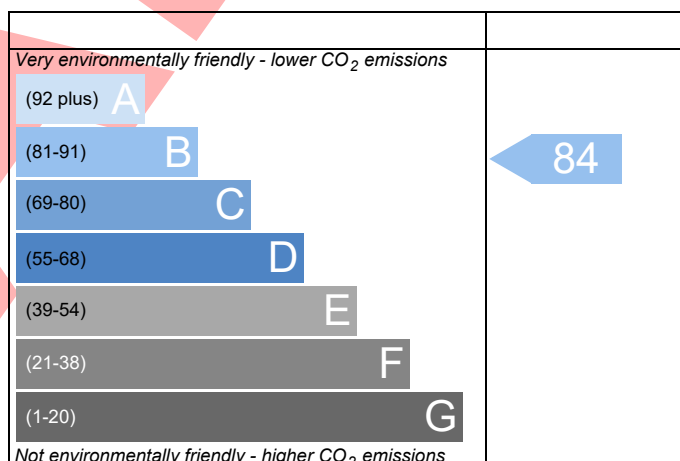


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.05	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	81 B	DER	24.13
Environmental	84 B	% DER<TER	9.12
CO <sub>2</sub> Emissions (t/year)	1.05	DFEE	32.38
General Requirements Compliance	Pass	% DFEE<TFEE	17.76
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk	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

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	26.55	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	24.13	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-2.42 (-9.1%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	39.37	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	32.38	kWh/m <sup>2</sup> /yr	
	-7.0 (-17.8%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.26 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings

100 %

Minimum

75 %

Pass

### 8 Mechanical ventilation

Continuous supply and extract system

Specific fan power

0.62

Maximum

1.5

Pass

MVHR efficiency

94 %

Minimum

70 %

Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Windows facing South

13.86 m<sup>2</sup>, No overhang

Windows facing West

4.09 m<sup>2</sup>, 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/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

Air permeability

3.0

m<sup>3</sup>/m<sup>2</sup>h

Photovoltaic array

194.63

kWh/Year

*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

# PREDICTED ENERGY ASSESSMENT

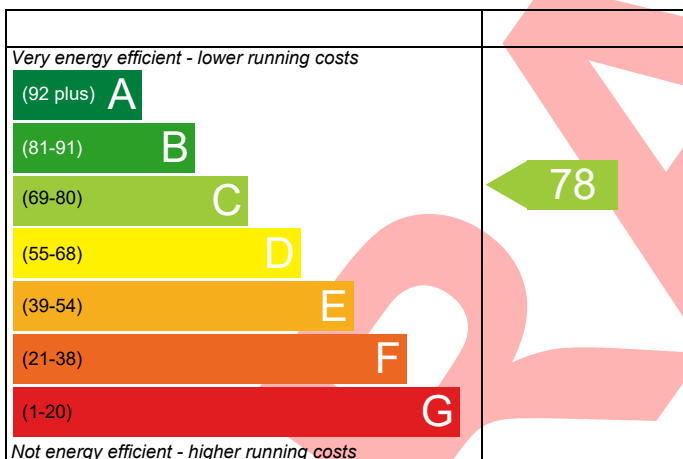
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 71.76 m<sup>2</sup>

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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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

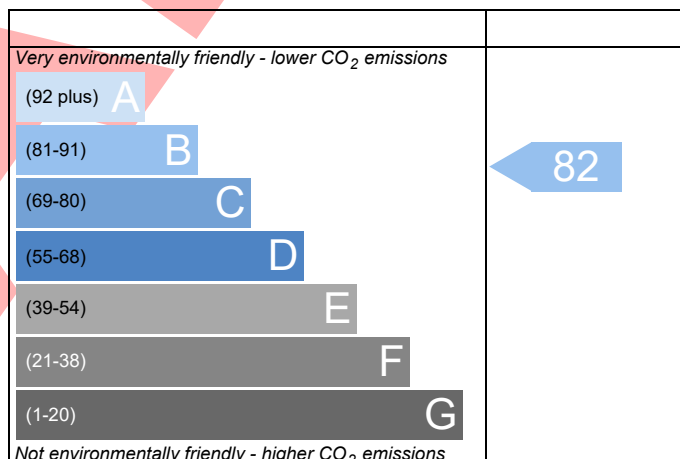


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) 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.06			Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build		
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY				
SAP Rating	78 C	DER	24.26	TER	23.42
Environmental	82 B	% DER<TER	-3.57		
CO <sub>2</sub> Emissions (t/year)	1.43	DFEE	39.70	TFEE	39.49
General Requirements Compliance	Fail	% DFEE<TFEE	-0.53		
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk			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

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	23.42	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	24.26	kgCO <sub>2</sub> /m <sup>2</sup>	
Excess emissions	0.84 (3.6%)	kgCO <sub>2</sub> /m <sup>2</sup>	Fail

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	39.49	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	39.70	kWh/m <sup>2</sup> /yr	
Excess energy	0.2 (0.5%)	kWh/m <sup>2</sup> /yr	Fail

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.23 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings

100 %

Minimum

75 %

Pass

### 8 Mechanical ventilation

Continuous supply and extract system

Specific fan power

0.62

Maximum

1.5

Pass

MVHR efficiency

94 %

Minimum

70 %

Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)

Slight

Pass

Based on:

Overshading

Average

Windows facing East

19.76 m<sup>2</sup>, No overhang

Windows facing South

16.03 m<sup>2</sup>, 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/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

Air permeability

3.0

m<sup>3</sup>/m<sup>2</sup>h

Photovoltaic array

280.11

kWh/Year

*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

# PREDICTED ENERGY ASSESSMENT

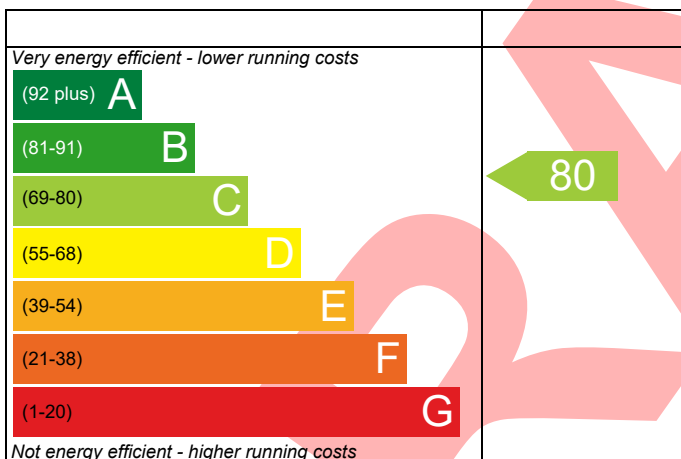
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 50.78 m<sup>2</sup>

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## Energy Efficiency Rating

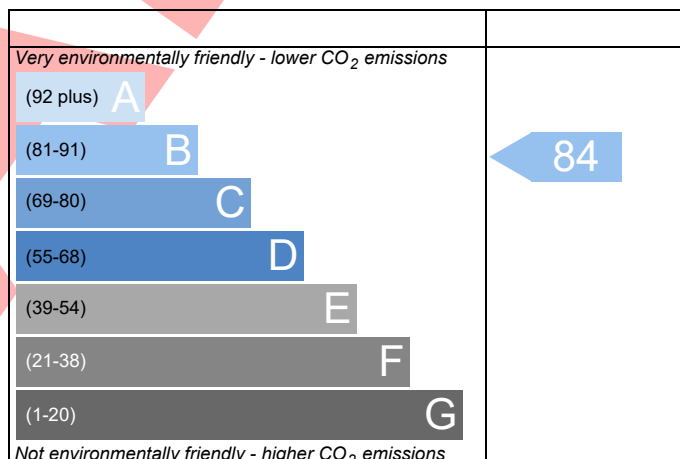


England

EU Directive  
2002/91/EC

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## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) 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.07	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	80 C	DER	25.28
Environmental	84 B	TER	26.44
CO <sub>2</sub> Emissions (t/year)	1.09	% DER<TER	4.38
General Requirements Compliance	Pass	DfEE	36.50
		TfEE	39.39
		% DfEE<TfEE	7.31
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk		Assessor ID
Client	Harjeet Suri, 33244		y314-0001

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

#### Criterion 1 – Achieving the TER and TfEE rate

##### 1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	26.44	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	25.28	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-1.16 (-4.4%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TfEE and DfEE

Target Fabric Energy Efficiency (TfEE)	39.39	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DfEE)	36.50	kWh/m <sup>2</sup> /yr	
	-2.9 (-7.4%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.25 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.31 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing East	13.81 m <sup>2</sup> , No overhang	
Windows facing South	4.09 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	198.22	kWh/Year

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# PREDICTED ENERGY ASSESSMENT

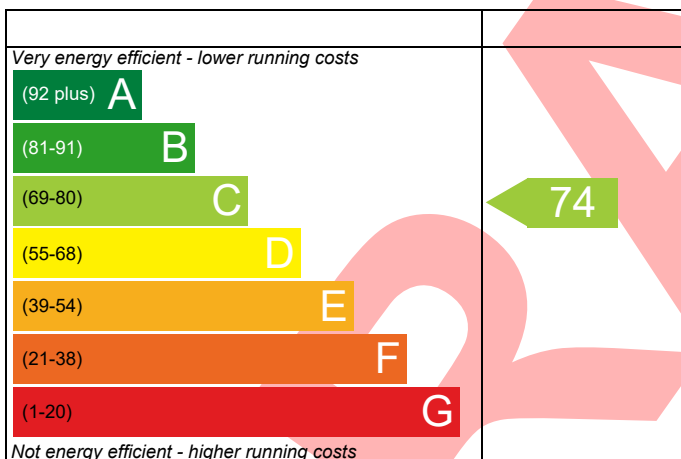
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 62.1 m<sup>2</sup>

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## Energy Efficiency Rating

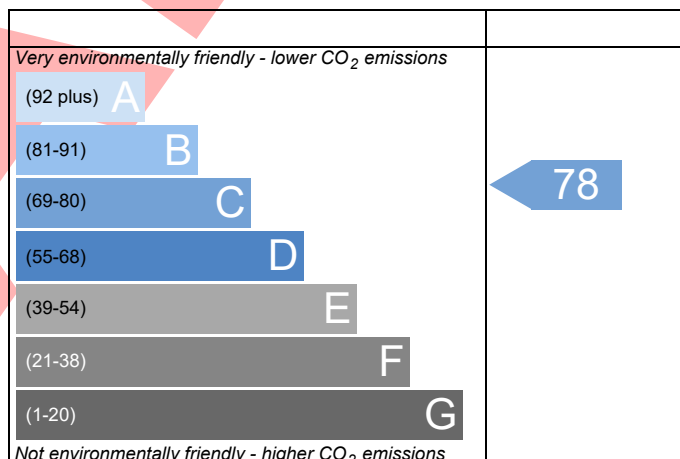


England

EU Directive  
2002/91/EC

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## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.08	Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	74 C	DER	31.59
Environmental	78 C	TER	29.15
CO <sub>2</sub> Emissions (t/year)	1.60	% DER<TER	-8.36
General Requirements Compliance	Fail	DLEE	53.07
		TLEE	54.71
		% DLEE<TLEE	3.00
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk		Assessor ID
Client	Harjeet Suri, 33244		y314-0001

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

#### Criterion 1 – Achieving the TER and TLEE rate

##### 1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	29.15	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	31.59	kgCO <sub>2</sub> /m <sup>2</sup>	
Excess emissions	2.44 (8.4%)	kgCO <sub>2</sub> /m <sup>2</sup>	Fail

##### 1b TLEE and DLEE

Target Fabric Energy Efficiency (TLEE)	54.71	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DLEE)	53.07	kWh/m <sup>2</sup> /yr	
	-1.6 (-2.9%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.25 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.24 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings

100 %

Minimum

75 %

Pass

### 8 Mechanical ventilation

Continuous supply and extract system

Specific fan power

0.62

Maximum

1.5

Pass

MVHR efficiency

94 %

Minimum

70 %

Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Windows facing North

22.17 m<sup>2</sup>, No overhang

Windows facing East

7.84 m<sup>2</sup>, 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/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

Thermal bridging y-value

0.029

W/m<sup>2</sup>K

Air permeability

3.0

m<sup>3</sup>/m<sup>2</sup>h

Photovoltaic array

242.40

kWh/Year

*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

# PREDICTED ENERGY ASSESSMENT

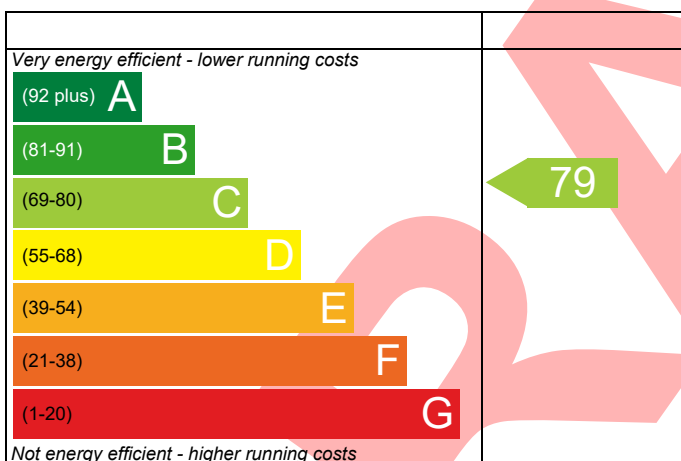
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 77.67 m<sup>2</sup>

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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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

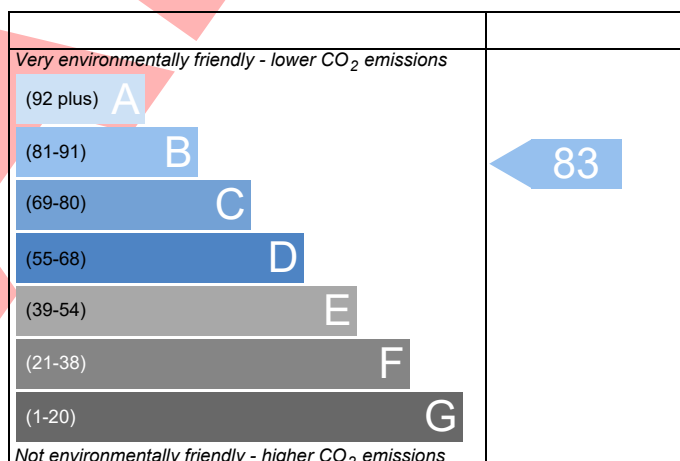


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) 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	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY		
SAP Rating	79 C	DER	22.28
Environmental	83 B	TER	24.99
CO <sub>2</sub> Emissions (t/year)	1.44	% DER<TER	10.85
General Requirements Compliance	Pass	DFEE	37.26
		TREE	46.57
		% DFEE<TFEE	20.00
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk	Assessor ID	y314-0001
Client	Harjeet Suri, 33244		

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

#### Criterion 1 – Achieving the TER and TEE rate

##### 1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	24.99	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	22.28	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-2.71 (-10.8%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TEE and DFEE

Target Fabric Energy Efficiency (TFEE)	46.57	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	37.26	kWh/m <sup>2</sup> /yr	
	-9.3 (-20.0%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.20 (max. 0.30)	0.20 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.24 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing East	12.11 m <sup>2</sup> , No overhang	
Windows facing South	20.21 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	303.18	kWh/Year

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# PREDICTED ENERGY ASSESSMENT

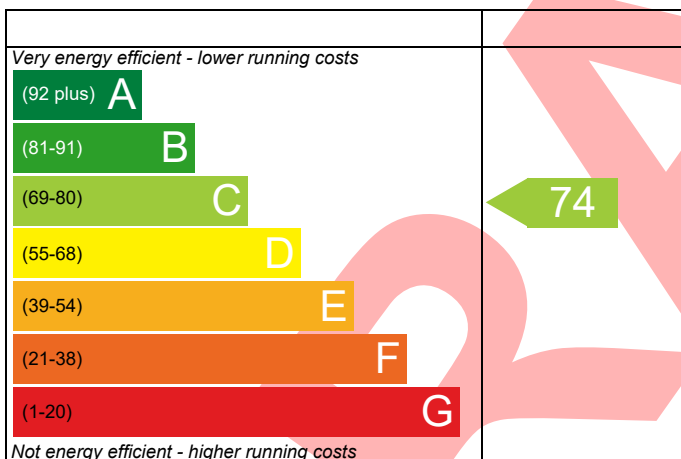
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

Dwelling type: Flat, Semi-Detached  
Date of assessment: 08/04/2022  
Produced by: Paul Whiffin  
Total floor area: 77.28 m<sup>2</sup>

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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 (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating

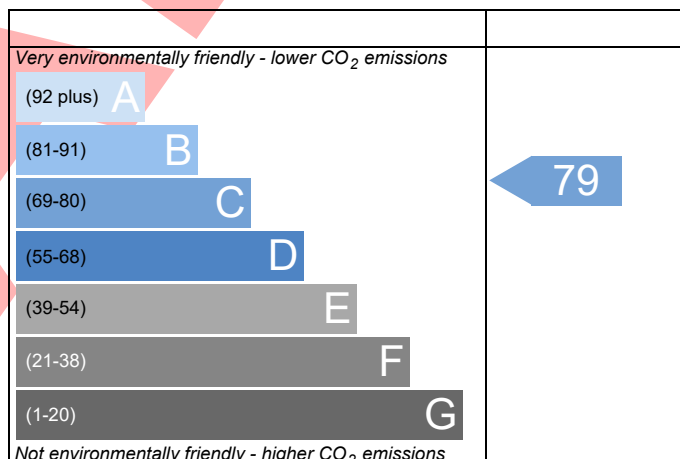


England

EU Directive  
2002/91/EC

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.

## Environmental Impact (CO<sub>2</sub>) Rating



England

EU Directive  
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	Q-03466 APT.10			Issued on Date	08/04/2022
Assessment Reference	P.V. Revision	Prop Type Ref	New Build		
Property	The Star, Uxbridge Road, Uxbridge, UB10 0LY				
SAP Rating	74 C	DER	28.70	TER	28.04
Environmental	79 C	% DER<TER	-2.34		
CO <sub>2</sub> Emissions (t/year)	1.79	DFEE	50.43	TFEE	56.66
General Requirements Compliance	Fail	% DFEE<TFEE	11.00		
Assessor Details	Mr. Paul Whiffin, Paul Whiffin, Tel: 01763 268685, pw@atspaceltd.co.uk			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

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	28.04	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	28.70	kgCO <sub>2</sub> /m <sup>2</sup>	
Excess emissions	0.66 (2.4%)	kgCO <sub>2</sub> /m <sup>2</sup>	Fail

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	56.66	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	50.43	kWh/m <sup>2</sup> /yr	
	-6.3 (-11.1%)	kWh/m <sup>2</sup> /yr	Pass

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

Element	Average	Highest	
External wall	0.20 (max. 0.30)	0.20 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.24 (max. 2.00)	1.80 (max. 3.30)	Pass

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

### 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 fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.62		
Maximum	1.5		Pass
MVHR efficiency	94	%	
Minimum	70	%	Pass

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing North	16.11 m <sup>2</sup> , No overhang	
Windows facing East	16.21 m <sup>2</sup> , 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/m <sup>2</sup> K	Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals	3.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

### 10 Key features

Party wall U-value	0.00	W/m <sup>2</sup> K
Air permeability	3.0	m <sup>3</sup> /m <sup>2</sup> h
Photovoltaic array	301.66	kWh/Year

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