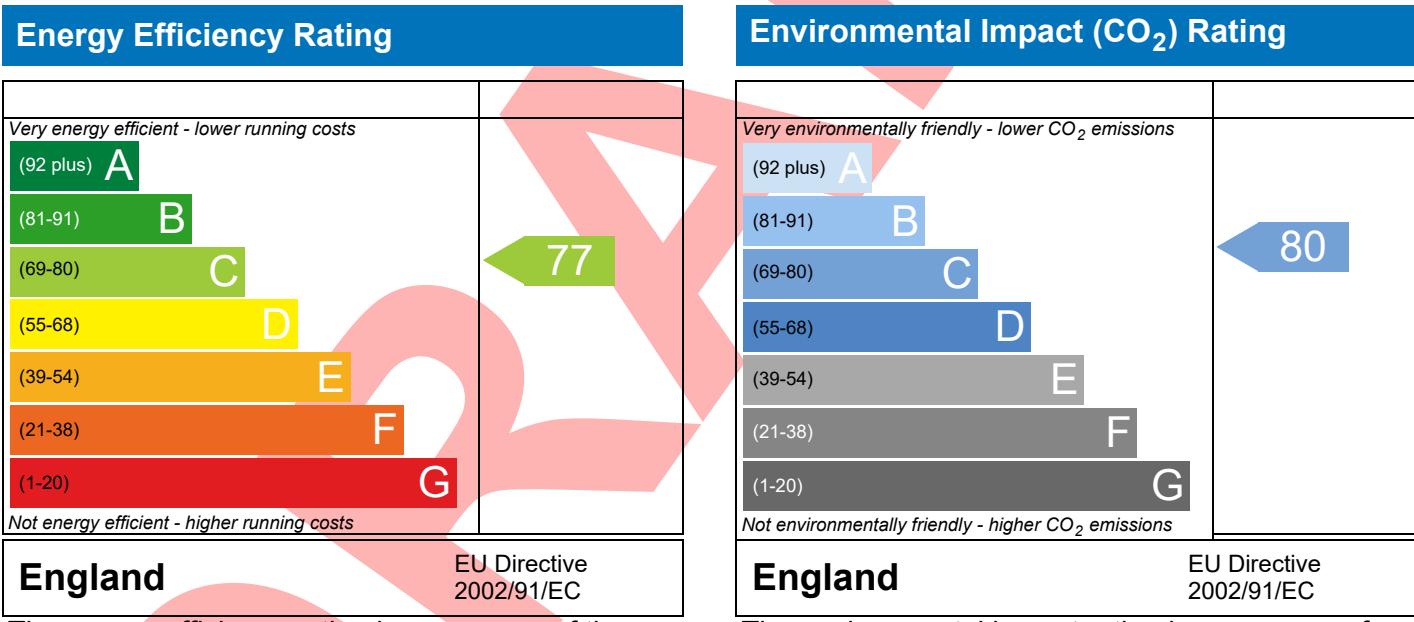


The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

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.



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 (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.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	% DER<TER	3.57
CO <sub>2</sub> Emissions (t/year)	1.28	DFEE	45.86
General Requirements Compliance	Pass	% 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>
	-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

#### 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

##### 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

0.62

Pass

Specific fan power

1.5

Maximum

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

Pass

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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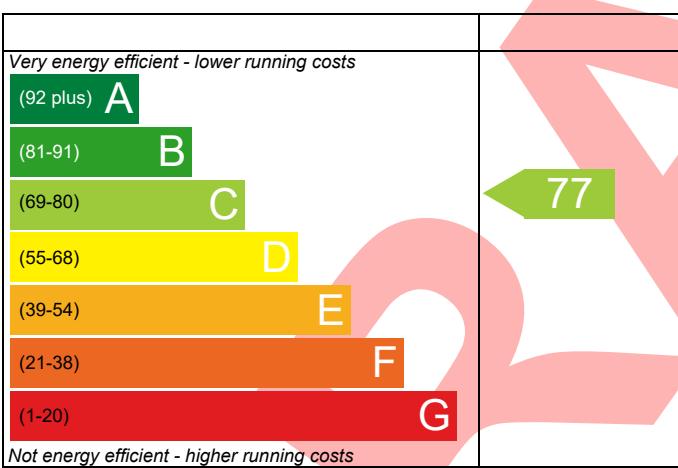
The Star, Uxbridge Road,  
Uxbridge,  
UB10 0LY

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

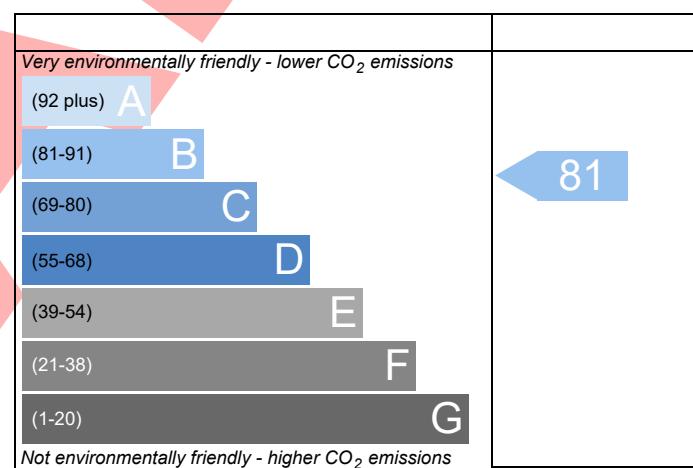
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The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO<sub>2</sub>) emissions.

## Energy Efficiency Rating



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

**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.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	% DER<TER	6.02
CO <sub>2</sub> Emissions (t/year)	1.55	DFEE	45.28
General Requirements Compliance	Pass	% DFEE<TFEE	15.03

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)	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>
	-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

#### 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

##### 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

0.62

Specific fan power

1.5

Maximum

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

Pass

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

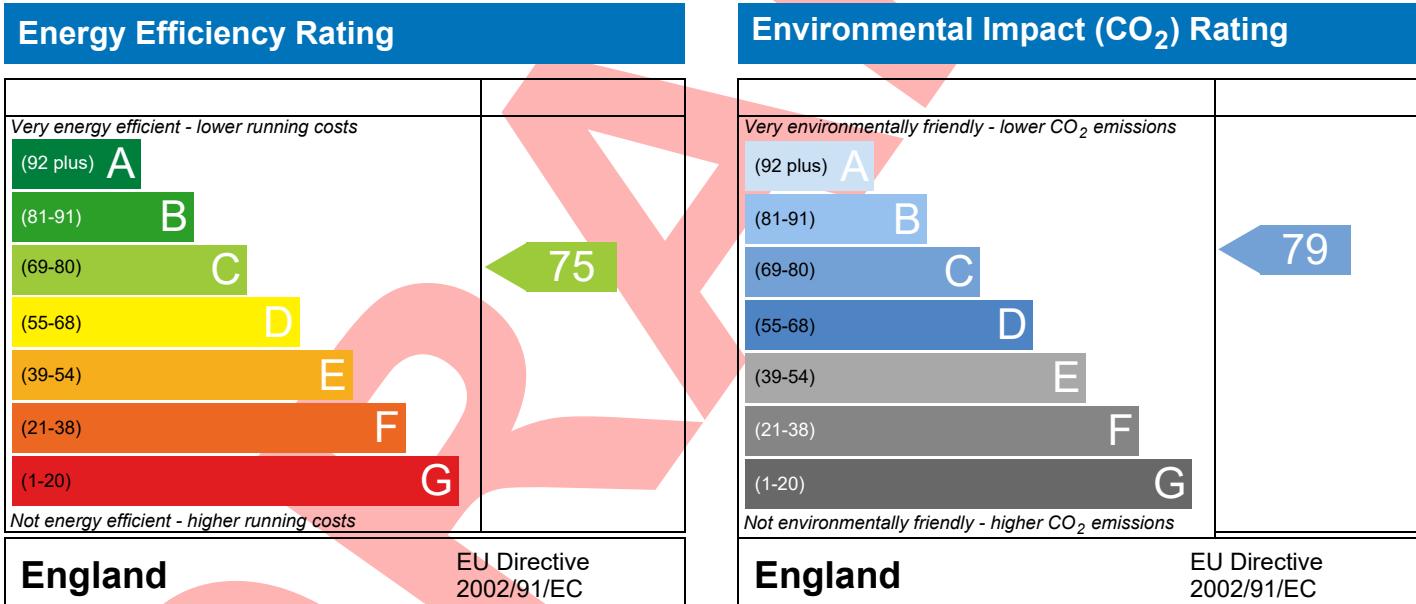
This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

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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# 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
Environmental	79 C	% DER<TER	-2.98
CO <sub>2</sub> Emissions (t/year)	1.39	DFEE	51.92
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>

##### 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

#### 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

##### 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

0.62

Specific fan power

1.5

Maximum

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

Pass

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

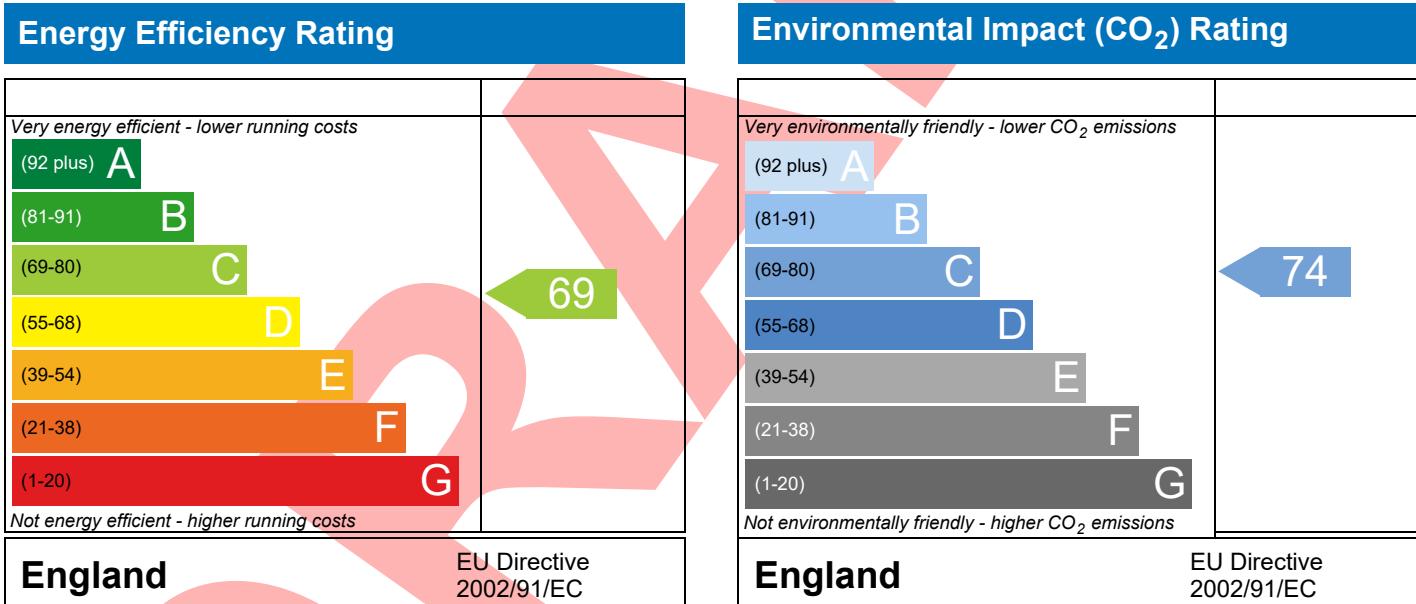
This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

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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*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.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 TFEE 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>

##### 1b TFEE 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

Fail

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	

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

0.62

Pass

Specific fan power

1.5

Maximum

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

Pass

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

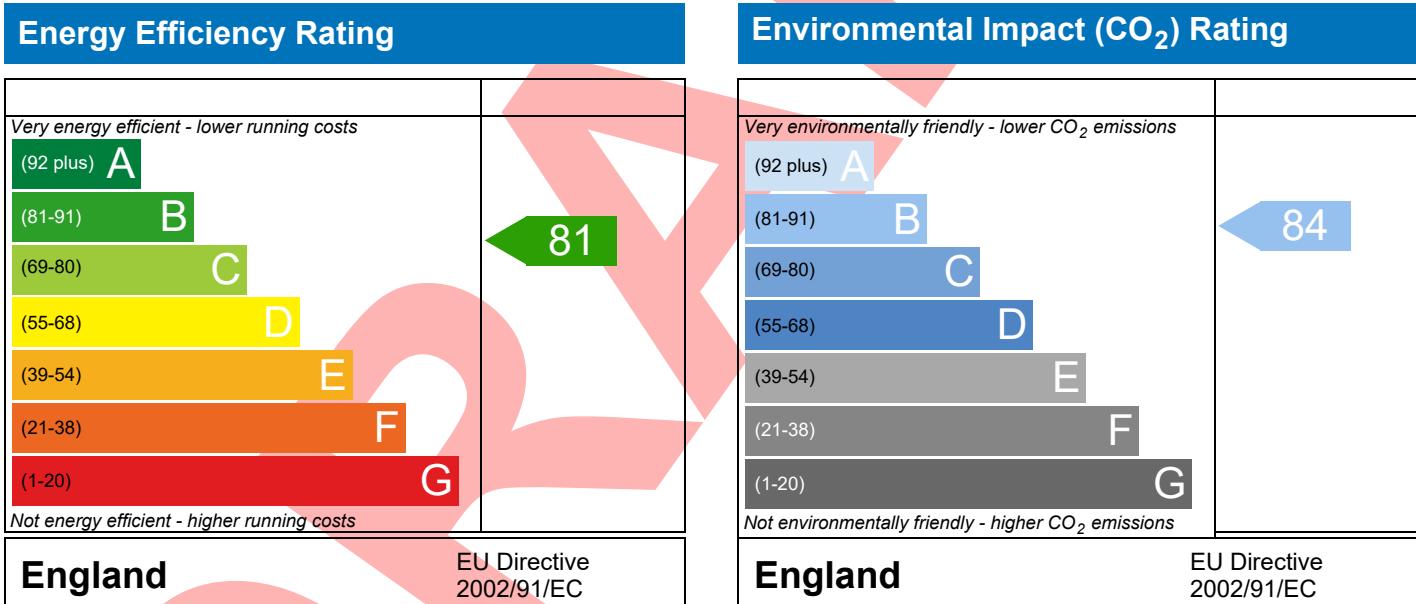
*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

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 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>
	-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

#### 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

##### 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

0.62

Pass

Specific fan power

1.5

Maximum

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

Pass

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

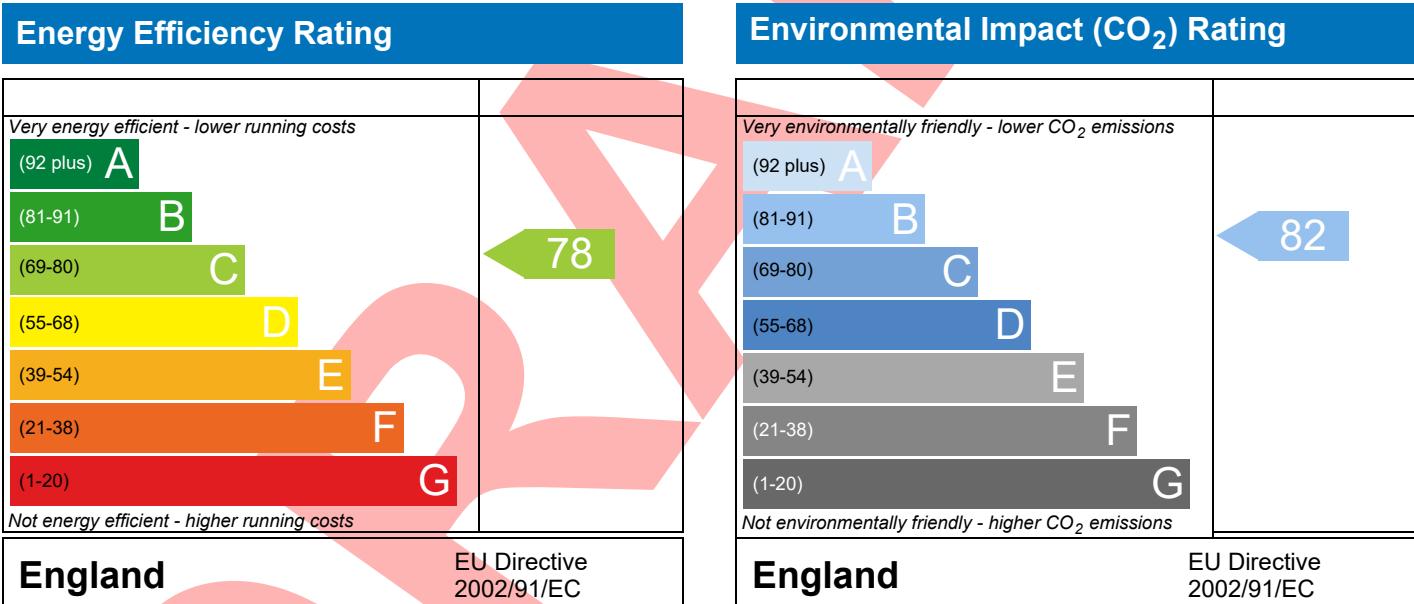
*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

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>

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.



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 (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.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
Environmental	82 B	% DER<TER	-3.57
CO <sub>2</sub> Emissions (t/year)	1.43	DFEE	39.70
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>

##### 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

#### 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

##### 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

0.62

Specific fan power

1.5

Maximum

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

Pass

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

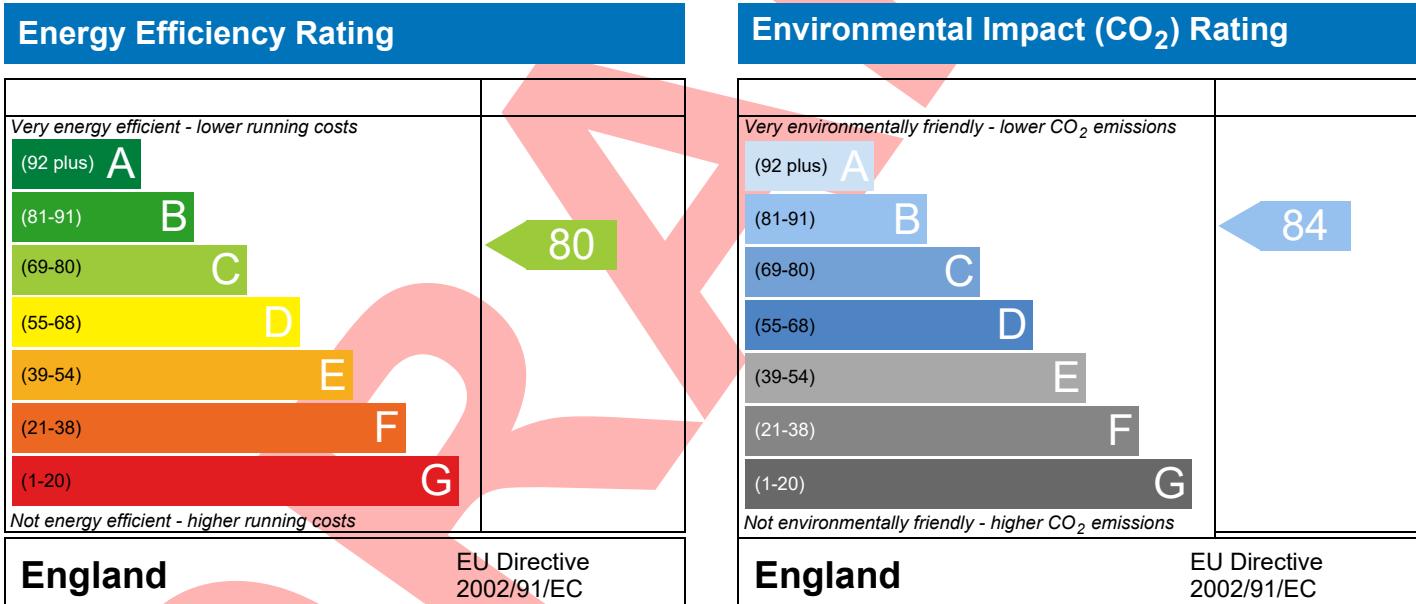
This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

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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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.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	% DER<TER	4.38
CO <sub>2</sub> Emissions (t/year)	1.09	DFEE	36.50
General Requirements Compliance	Pass	% DFEE<TFEE	7.31

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)	26.44	kgCO <sub>2</sub> /m <sup>2</sup>
Dwelling Carbon Dioxide Emission Rate (DER)	25.28	kgCO <sub>2</sub> /m <sup>2</sup>
	-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

#### 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

##### 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

0.62

Specific fan power

1.5

Pass

Maximum

94

MVHR efficiency

70

Minimum

Pass

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

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Pass

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

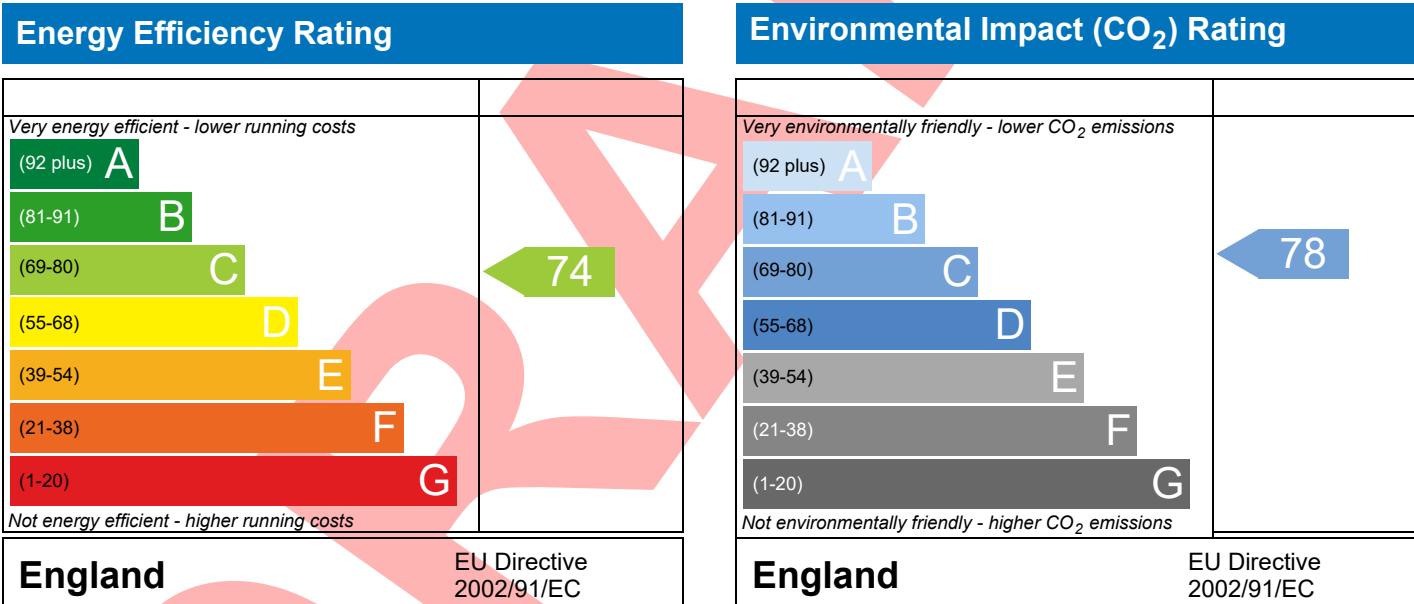
This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

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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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 (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	% DER<TER	-8.36
CO <sub>2</sub> Emissions (t/year)	1.60	DFEE	53.07
General Requirements Compliance	Fail	% DFEE<TFEE	3.00

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)	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>

##### 1b TFEE and DFEE

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

#### 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

##### 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

0.62

Specific fan power

1.5

Pass

Maximum

94

MVHR efficiency

70

Minimum

Pass

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

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Pass

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

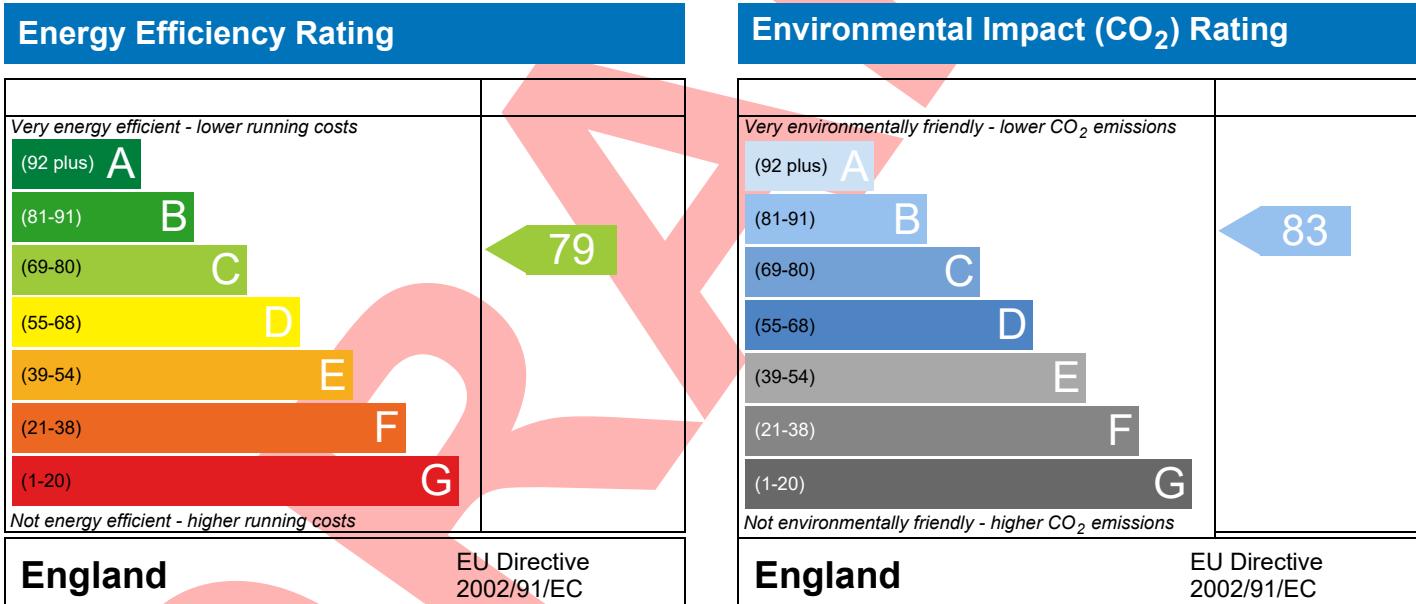
*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*

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 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 (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.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	% DER<TER	10.85
CO <sub>2</sub> Emissions (t/year)	1.44	DFEE	37.26
General Requirements Compliance	Pass	% 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 TFEE 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>
	-2.71 (-10.8%)	kgCO <sub>2</sub> /m <sup>2</sup>

##### 1b TFEE 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

#### 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

##### 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

0.62

Specific fan power

1.5

Pass

Maximum

94

MVHR efficiency

70

Minimum

Pass

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

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Pass

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

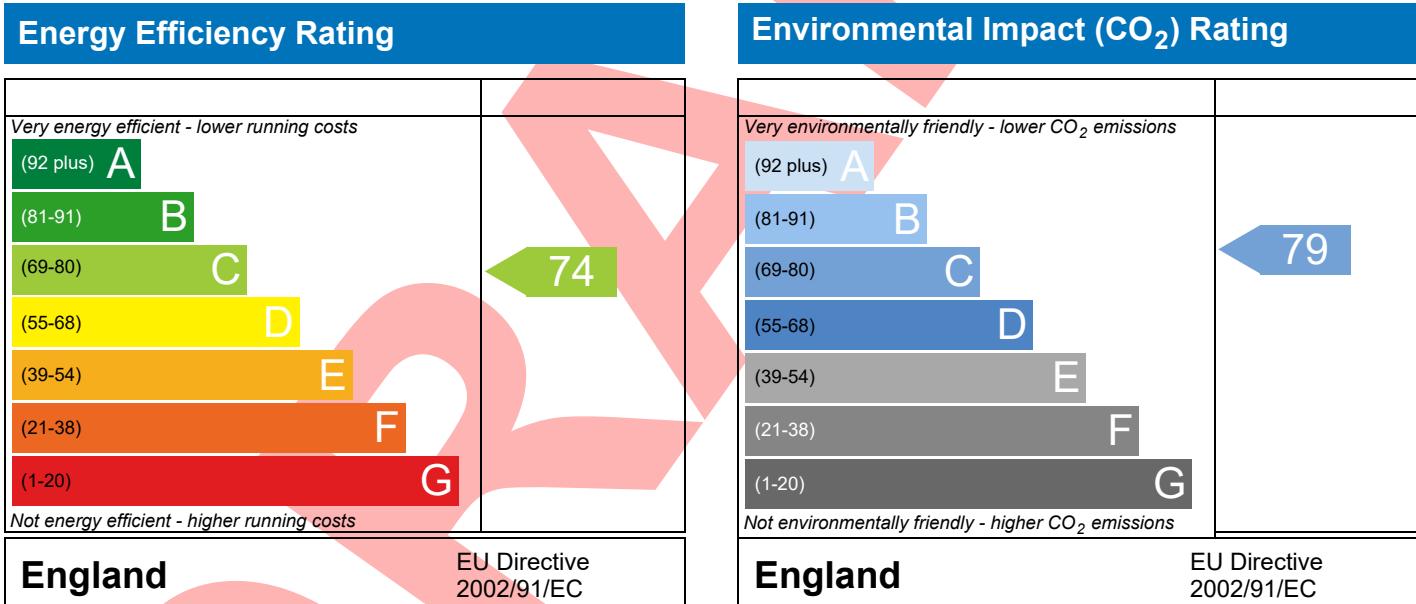
This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.

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>

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.



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# 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
Environmental	79 C	% DER<TER	-2.34
CO <sub>2</sub> Emissions (t/year)	1.79	DFEE	50.43
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>

##### 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

#### 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

##### 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

0.62

Specific fan power

1.5

Pass

Maximum

94

MVHR efficiency

70

Minimum

Pass

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

### 9 Summertime temperature

Overheating risk (Thames Valley)

Medium

Pass

Based on:

Overshading

Average

Pass

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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