

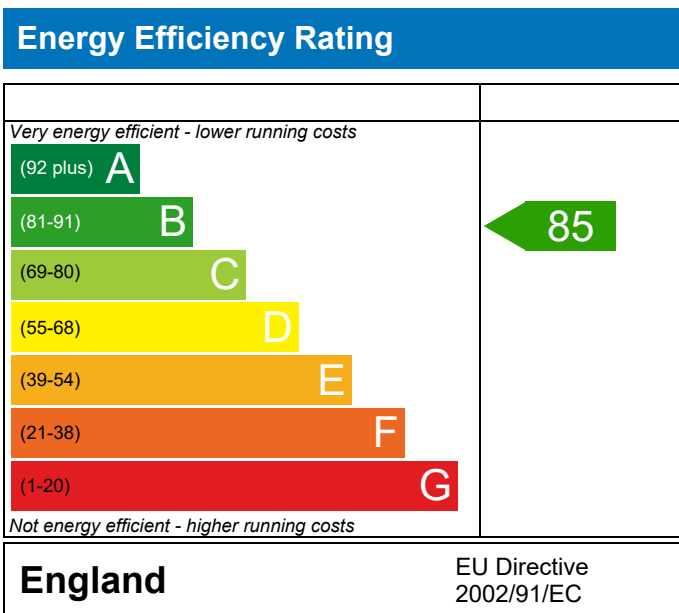
# PREDICTED ENERGY ASSESSMENT

Blk B Plot 7, St Michael's Road,  
Croydon,  
CR0 1UA

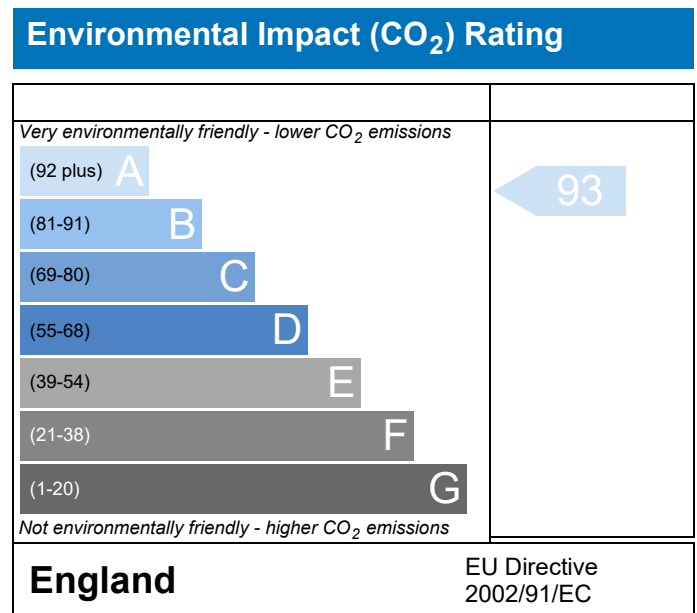
Dwelling type: Flat, Mid-Terrace  
Date of assessment: 04/08/2020  
Produced by: James Darby  
Total floor area: 69.78 m<sup>2</sup>  
DRRN: 0134-2108-0604

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 been produced by an accredited Elmhurst member whose work is subject to quality assurance audits. The data used to produce the report has been verified by the Elmhurst members' portal.



# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)

Property Reference	20LSSMB007		Issued on Date	04/08/2020	
Assessment Reference	PEA	Prop Type Ref	Plot B-007		
Property	Blk B Plot 7, St Michael's Road, Croydon, CR0 1UA				
SAP Rating	85 B	DER	9.86	TER	17.04
Environmental	93 A	% DER<TER	42.14		
CO <sub>2</sub> Emissions (t/year)	0.58	DFEE	45.32	TFEE	46.99
General Requirements Compliance	Pass	% DFEE<TFEE	3.56		
Assessor Details	Mr. Daniel Hilsdon, Hilsdon Holmes Limited, Tel: 01579 382202, danhilsdon@btinternet.com			Assessor ID	W966-0001
Client	London Square, LS				

### 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	Mains gas (c)			
Fuel factor	1.00 (mains gas)			
Target Carbon Dioxide Emission Rate (TER)	17.04	kgCO <sub>2</sub> /m <sup>2</sup>		
Dwelling Carbon Dioxide Emission Rate (DER)	9.86	kgCO <sub>2</sub> /m <sup>2</sup>		Pass
	-7.18 (-42.1%)	kgCO <sub>2</sub> /m <sup>2</sup>		

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	46.99	kWh/m <sup>2</sup> /yr		
Dwelling Fabric Energy Efficiency (DFEE)	45.32	kWh/m <sup>2</sup> /yr		
	-1.7 (-3.6%)	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	0.17 (max. 0.30)	0.17 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.20 (max. 0.25)	0.20 (max. 0.70)	Pass
Openings	1.36 (max. 2.00)	1.40 (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	5.00 (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	Community heating scheme	-
Secondary heating system	None	

##### 5 Cylinder insulation

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Hot water storage	Nominal cylinder loss: 0.12 kWh/day Permitted by DBSCG 0.32	Pass
Primary pipework insulated	No primary pipework	

### 6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	Pass
Hot water controls	No cylinderstat	

### 7 Low energy lights

Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass

### 8 Mechanical ventilation

Continuous extract system			
Specific fan power	0.17		
Maximum	0.7		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 North	13.14 m <sup>2</sup> , No overhang	
Windows facing East	6.35 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	5.00 (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
Door U-value	1.00	W/m <sup>2</sup> K
Community CHP, Mains gas	N/A	
Photovoltaic array	0.06	kW

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# RECOMMENDATIONS

	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
<b>Totals</b>	<b>£0</b>	<b>£0</b>	<b>B 85</b>	<b>A 93</b>	

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