S.E.A Building Compliance Ltd
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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.33
Printed on 12 April 2021 at 15:40:52

Project Information:

Assessed By: Thomas Owen (STRO029908) **Building Type:** Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE Total Floor Area: 19.93m²
Site Reference : DDC Contracts - Kimberley Close and Stockdale Garden **Plot Reference:** A - Plot 5 Kimberly Close First Fl
Address : A - Plot 5 Kimberly Close First Floor

Client Details:

Name:
Address :

This report covers items included within the SAP calculations.
It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity
Fuel factor: 1.55 (electricity)

Target Carbon Dioxide Emission Rate (TER)	48.7 kg/m²	
Dwelling Carbon Dioxide Emission Rate (DER)	45.88 kg/m²	OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	61.2 kWh/m²	
Dwelling Fabric Energy Efficiency (DFEE)	59.9 kWh/m²	
		OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.19 (max. 0.30)	0.19 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	(no floor)		
Roof	0.10 (max. 0.20)	0.10 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

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)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Room heaters - electric Panel, convector or radiant heaters
Secondary heating system:	None

5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls	Programmer and room thermostats	OK
Hot water controls:	No cylinder thermostat No cylinder	

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7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	**OK**

8 Mechanical ventilation

Continuous extract system (decentralised)		
Specific fan power:	0.16 0.16	
Maximum	0.7	**OK**

9 Summertime temperature

Overheating risk (South East England):	Medium	**OK**

Based on:

Overshading:	Average or unknown
Windows facing: North West	0.7m²
Windows facing: North West	1.62m²
Windows facing: North East	1.62m²
Ventilation rate:	3.00

10 Key features

Roofs U-value	0.1 W/m²K
Party Walls U-value	0 W/m²K
Photovoltaic array	

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Thermal Bridge Report

Property Details: A - Plot 5 Kimberly Close First Floor

Address:	A - Plot 5 Kimberly Close First Floor
Located in:	England
Region:	South East England

Thermal bridges:

Thermal bridges:

User-defined = UD
Default = D
Approved = A
User-defined (individual PSI-values) Y-Value = 0.1415

External Junctions Details:

Junction Type	PSI-Value	Length	Reference	Type
Other lintels (including other steel lintels)	0.3	3.37	E2	[A]
Sill	0.04	3.37	E3	[A]
Jamb	0.05	7.2	E4	[A]
Party floor between dwellings (in blocks of flats)	0.07	9.42	E7	[A]
Corner (normal)	0.09	5.34	E16	[A]
Party wall between dwellings	0.06	5.34	E18	[A]
Eaves (insulation at ceiling level)	0.06	4.87	E10	[A]
Gable (insulation at ceiling level)	0.24	4.53	E12	[A]

Party Junctions Details:

Intermediate floor between dwellings (in blocks of flats)	0	8.48	P3	[D]
Roof (insulation at ceiling level)	0.24	8.48	P4	[D]

Predicted Energy Assessment

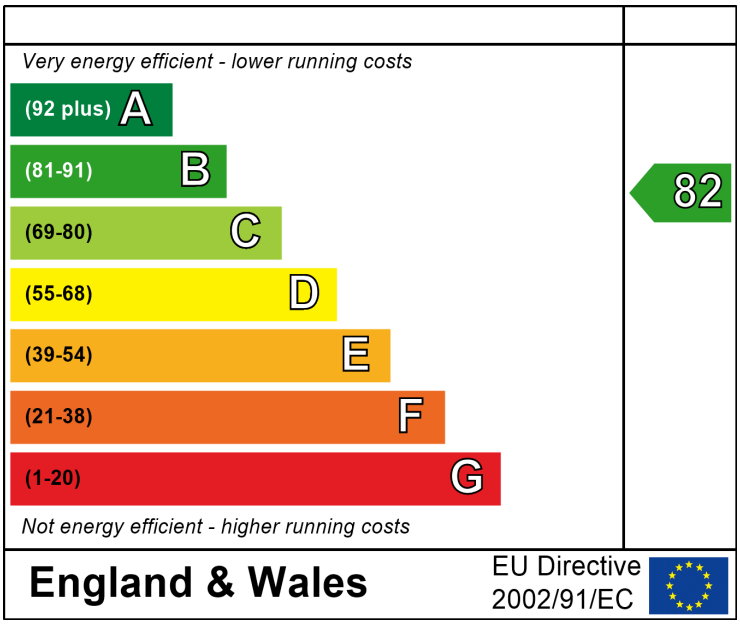
A - Plot 5 Kimberly Close First Floor

Dwelling type:	Top floor Flat
Date of assessment:	12 April 2021
Produced by:	Thomas Owen
Total floor area:	19.93 m²

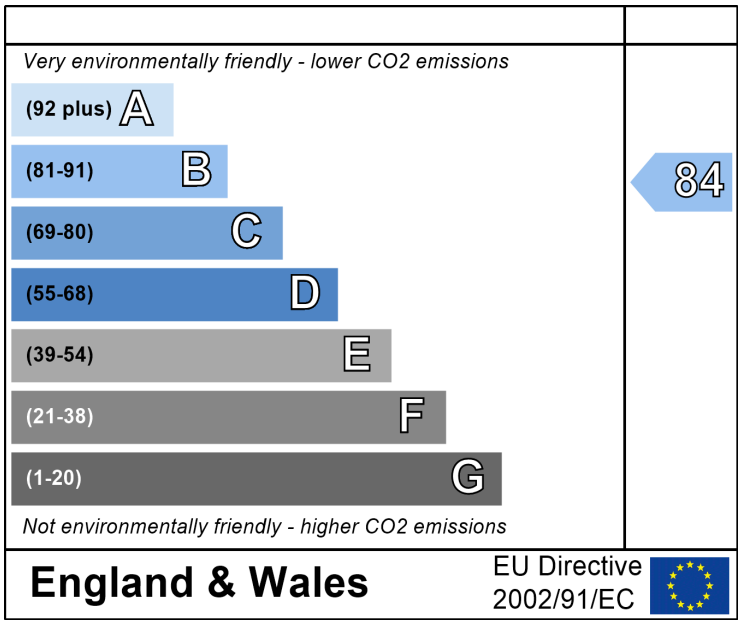
This is a Predicted Energy Assessment for a property which is not yet complete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, an Energy Performance Certificate is required providing information about the energy performance of the completed property.

Energy performance has been assessed using the SAP 2012 methodology and is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO2) emissions.

Energy Efficiency Rating



Environmental Impact (CO_2) Rating



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

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

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SAP Input

Property Details: A - Plot 5 Kimberly Close First Floor

Address:	A - Plot 5 Kimberly Close First Floor
Located in:	England
Region:	South East England
UPRN:	
Date of assessment:	12 April 2021
Date of certificate:	12 April 2021
Assessment type:	New dwelling design stage
Transaction type:	New dwelling
Tenure type:	Unknown
Related party disclosure:	No related party
Thermal Mass Parameter:	Indicative Value Medium
Water use <= 125 litres/person/day:	True
PCDF Version:	476

Property description:

Dwelling type:	Flat
Detachment:	
Year Completed:	2021

Floor Location:	Floor area:	Storey height:
Floor 0	19.93 m²	2.59 m

Living area:	15.91 m² (fraction 0.798)
Front of dwelling faces:	South West

Opening types:

Name:	Source:	Type:	Glazing:	Argon:	Frame:
w1	Manufacturer	Windows	low-E, En = 0.05, soft coat	No	PVC-U
w2	Manufacturer	Windows	low-E, En = 0.05, soft coat	No	PVC-U
w3	Manufacturer	Windows	low-E, En = 0.05, soft coat	No	PVC-U

Name:	**Gap:**	**Frame Factor:**	**g-value:**	**U-value:**	**Area:**	**No. of Openings:**
w1	16mm or more	0.7	0.63	1.4	0.7	1
w2	16mm or more	0.7	0.63	1.4	1.62	1
w3	16mm or more	0.7	0.63	1.4	1.62	1

Name:	Type-Name:	Location:	Orient:	Width:	Height:
w1		Brick Walls	North West	0.67	1.05
w2		Brick Walls	North West	1.35	1.2
w3		Brick Walls	North East	1.35	1.2

Overshading: Average or unknown

Opaque Elements:

Type:	Gross area:	Openings:	Net area:	U-value:	Ru value:	Curtain wall:	Kappa:
External Elements							
Brick Walls	25.15	3.94	21.21	0.19	0	False	N/A
Insulated ceiling	19.93	0	19.93	0.1	0		N/A
Internal Elements							
Party Elements							
Party Walls	22.04						N/A
Party Floor	19.93						N/A

Thermal bridges:

Thermal bridges: User-defined (individual PSI-values) Y-Value = 0.1415

	Length	**Psi-value**		
[Approved]	3.37	0.3	E2	Other lintels (including other steel lintels)

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[Approved]	3.37	0.04	E3	Sill
[Approved]	7.2	0.05	E4	Jamb
[Approved]	9.42	0.07	E7	Party floor between dwellings (in blocks of flats)
[Approved]	5.34	0.09	E16	Corner (normal)
[Approved]	5.34	0.06	E18	Party wall between dwellings
[Approved]	4.87	0.06	E10	Eaves (insulation at ceiling level)
[Approved]	4.53	0.24	E12	Gable (insulation at ceiling level)
	8.48	0	P3	Intermediate floor between dwellings (in blocks of flats)
	8.48	0.24	P4	Roof (insulation at ceiling level)

Ventilation:

Pressure test: Yes (As designed)

Ventilation: Decentralised whole house extract
Number of fans in Wetroom: Kitchen 1 Other 1
Ductwork: ,
Approved Installation Scheme: False

Number of chimneys: 0
Number of open flues: 0
Number of fans: 0
Number of passive stacks: 0
Number of sides sheltered: 2
Pressure test: 5

Main heating system:

Main heating system: Room heaters
Electric (direct acting) room heaters
Fuel: Electricity
Info Source: SAP Tables
SAP Table: 691
Panel, convector or radiant heaters

Main heating Control:

Main heating Control: Programmer and room thermostats
Control code: 2605

Secondary heating system:

Secondary heating system: None

Water heating:

Water heating: Electric instantaneous at point of use
Water code: 909
Fuel :Electricity
No hot water cylinder
Solar panel: False

Others:

Electricity tariff: Standard Tariff
In Smoke Control Area: Unknown
Conservatory: No conservatory
Low energy lights: 100%
Terrain type: Low rise urban / suburban
EPC language: English
Wind turbine: No
Photovoltaics: Photovoltaic 1
Installed Peak power: 0.15
Tilt of collector: 45°
Overshading: None or very little
Collector Orientation: North East
Assess Zero Carbon Home: No

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SAP 2012 Overheating Assessment

Calculated by Stroma FSAP 2012 program, produced and printed on 12 April 2021

Property Details: A - Plot 5 Kimberly Close First Floor

Dwelling type:	Flat
Located in:	England
Region:	South East England
Cross ventilation possible:	Yes
Number of storeys:	1
Front of dwelling faces:	South West
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	Indicative Value Medium
Night ventilation:	False
Blinds, curtains, shutters:	
Ventilation rate during hot weather (ach):	3 (Windows open half the time)

Overheating Details:

Summer ventilation heat loss coefficient:	51.1	**(P1)**
Transmission heat loss coefficient:	17.6	
Summer heat loss coefficient:	68.73	**(P2)**

Overhangs:

Orientation:	**Ratio:**	**Z_overhangs:**
North West (w1)	0	1
North West (w2)	0	1
North East (w3)	0	1

Solar shading:

Orientation:	**Z blinds:**	**Solar access:**	**Overhangs:**	**Z summer:**	
North West (w1)	1	0.9	1	0.9	**(P8)**
North West (w2)	1	0.9	1	0.9	**(P8)**
North East (w3)	1	0.9	1	0.9	**(P8)**

Solar gains:

Orientation		**Area**	**Flux**	**g_**	**FF**	**Shading**	**Gains**	
North West (w1)	0.9 x	0.7	105.45	0.63	0.7	0.9	26.37	
North West (w2)	0.9 x	1.62	105.45	0.63	0.7	0.9	61.02	
North East (w3)	0.9 x	1.62	105.45	0.63	0.7	0.9	61.02	
						Total	148.41	**(P3/P4)**

Internal gains:

	June	**July**	**August**	
Internal gains	176.42	170.02	173.18	
Total summer gains	336.7	318.43	293.25	**(P5)**
Summer gain/loss ratio	4.9	4.63	4.27	**(P6)**
Mean summer external temperature (South East England)	15.4	17.4	17.5	
Thermal mass temperature increment	0.25	0.25	0.25	
Threshold temperature	20.55	22.28	22.02	**(P7)**
Likelihood of high internal temperature	**Slight**	**Medium**	**Medium**	

Assessment of likelihood of high internal temperature: Medium