

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 16:02:00

Project Information:

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

Dwelling Details:

NEW DWELLING DESIGN STAGE Total Floor Area: 40.7m²
Site Reference : DDC Contracts - Kimberley Close and Stockdale Garden **Plot Reference:** B - Plot 1 Stockdale Ground
Address : B - Plot 1 Stockdale Ground

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) 34.05 kg/m²
 Dwelling Carbon Dioxide Emission Rate (DER) 33.35 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 58.8 kWh/m²
 Dwelling Fabric Energy Efficiency (DFEE) 54.4 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	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	(no roof)		
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

Regulations Compliance Report

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):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: South West	0.7m ²	
Windows facing: South West	1.62m ²	
Windows facing: North West	1.62m ²	
Windows facing: North West	1.62m ²	
Windows facing: North East	0.7m ²	
Windows facing: North East	1.62m ²	
Ventilation rate:	3.00	

10 Key features

Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Photovoltaic array	

Thermal Bridge Report

Property Details: B - Plot 1 Stockdale Ground

Address: B - Plot 1 Stockdale Ground
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 = 0.1107

External Junctions Details:

Junction Type	PSI-Value	Length	Reference	Type
Other lintels (including other steel lintels)	0.3	6.74	E2	[A]
Sill	0.04	6.74	E3	[A]
Jamb	0.05	14.4	E4	[A]
Ground floor (normal)	0.16	19.08	E5	[A]
Party floor between dwellings (in blocks of flats)	0.07	19.08	E7	[A]
Corner (normal)	0.09	10.88	E16	[A]
Party wall between dwellings	0.06	5.44	E18	[A]

Party Junctions Details:

Ground floor	0.16	7.92	P1	[D]
Intermediate floor between dwellings (in blocks of flats)	0	7.92	P3	[D]

Predicted Energy Assessment



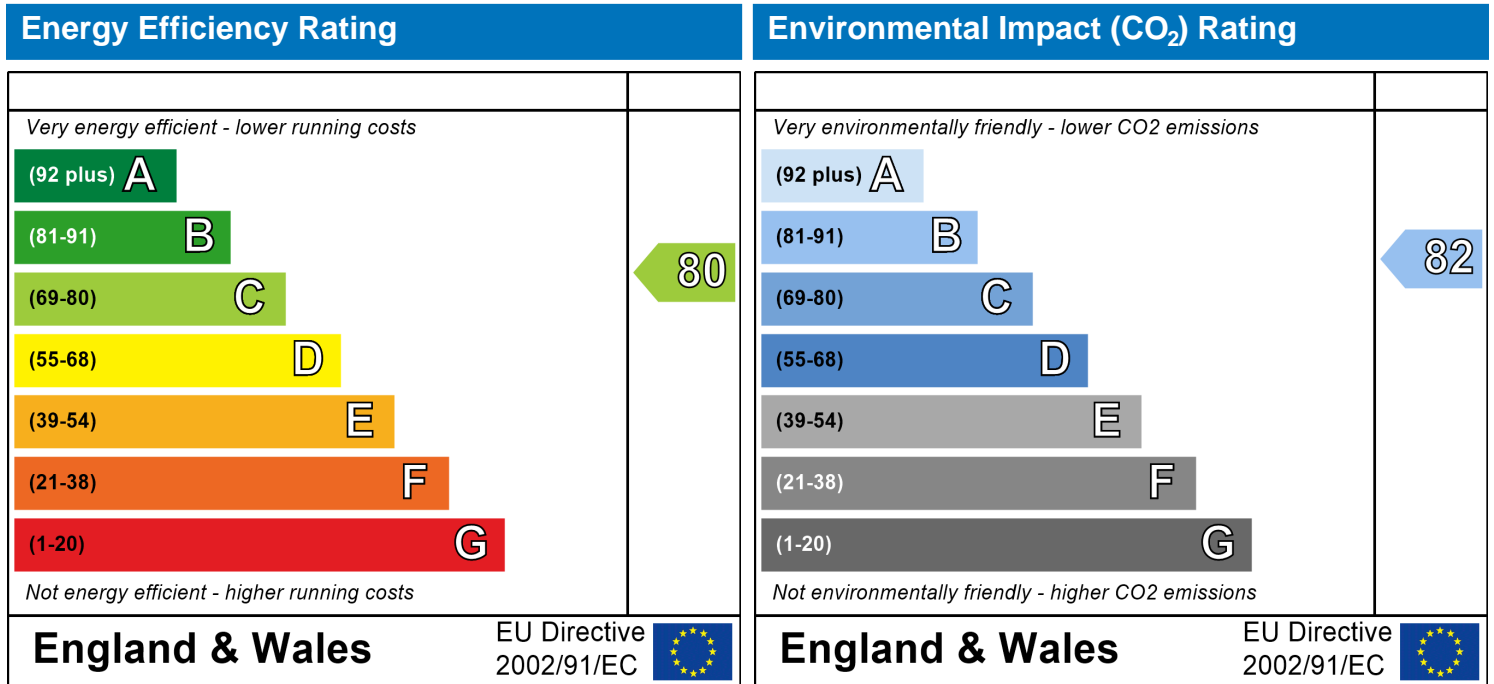
B - Plot 1 Stockdale Ground

Dwelling type:
Date of assessment:
Produced by:
Total floor area:

Ground floor Flat
12 April 2021
Thomas Owen
40.7 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.



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.

Property Details: B - Plot 1 Stockdale Ground

Address: B - Plot 1 Stockdale Ground
 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 40.7 m² 2.59 m
 Living area: 22.08 m² (fraction 0.543)
 Front of dwelling faces: South East

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
w4	Manufacturer	Windows	low-E, En = 0.05, soft coat	No	PVC-U
w5	Manufacturer	Windows	low-E, En = 0.05, soft coat	No	PVC-U
w6	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
w4	16mm or more	0.7	0.63	1.4	1.62	1
w5	16mm or more	0.7	0.63	1.4	0.7	1
w6	16mm or more	0.7	0.63	1.4	1.62	1

Name:	Type-Name:	Location:	Orient:	Width:	Height:
w1		Brick Walls	South West	0.67	1.05
w2		Brick Walls	South West	1.35	1.2
w3		Brick Walls	North West	1.35	1.2
w4		Brick Walls	North West	1.35	1.2
w5		Brick Walls	North East	0.67	1.05
w6		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:
<u>External Elements</u>							
Brick Walls	49.41	7.88	41.53	0.19	0	False	N/A

SAP Input

Ground Floor	40.7	0.12	N/A
<u>Internal Elements</u>			
<u>Party Elements</u>			
Party Walls	20.41		N/A
Party Ceiling	40.7		N/A

Thermal bridges:

Thermal bridges:	User-defined (individual PSI-values) Y-Value = 0.1107			
	Length	Psi-value		
[Approved]	6.74	0.3	E2	Other lintels (including other steel lintels)
[Approved]	6.74	0.04	E3	Sill
[Approved]	14.4	0.05	E4	Jamb
[Approved]	19.08	0.16	E5	Ground floor (normal)
[Approved]	19.08	0.07	E7	Party floor between dwellings (in blocks of flats)
[Approved]	10.88	0.09	E16	Corner (normal)
[Approved]	5.44	0.06	E18	Party wall between dwellings
	7.92	0.16	P1	Ground floor
	7.92	0	P3	Intermediate floor between dwellings (in blocks of flats)

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
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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

SAP Input



Low energy lights:	100%
Terrain type:	Low rise urban / suburban
EPC language:	English
Wind turbine:	No
Photovoltaics:	<u>Photovoltaic 1</u> Installed Peak power: 0.52 Tilt of collector: 45° Overshading: None or very little Collector Orientation: South East
Assess Zero Carbon Home:	No

SAP 2012 Overheating Assessment

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

Property Details: B - Plot 1 Stockdale Ground

Dwelling type:	Flat
Located in:	England
Region:	South East England
Cross ventilation possible:	Yes
Number of storeys:	1
Front of dwelling faces:	South East
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:	104.36	(P1)
Transmission heat loss coefficient:	33.2	
Summer heat loss coefficient:	137.55	(P2)

Overhangs:

Orientation:	Ratio:	Z_overhangs:
South West (w1)	0	1
South West (w2)	0	1
North West (w3)	0	1
North West (w4)	0	1
North East (w5)	0	1
North East (w6)	0	1

Solar shading:

Orientation:	Z blinds:	Solar access:	Overhangs:	Z summer:	
South West (w1)	1	0.9	1	0.9	(P8)
South West (w2)	1	0.9	1	0.9	(P8)
North West (w3)	1	0.9	1	0.9	(P8)
North West (w4)	1	0.9	1	0.9	(P8)
North East (w5)	1	0.9	1	0.9	(P8)
North East (w6)	1	0.9	1	0.9	(P8)

Solar gains:

Orientation	Area	Flux	g_g	FF	Shading	Gains
South West (w1)	0.9 x 0.7	126.97	0.63	0.7	0.9	31.75
South West (w2)	0.9 x 1.62	126.97	0.63	0.7	0.9	73.48
North West (w3)	0.9 x 1.62	105.45	0.63	0.7	0.9	61.02
North West (w4)	0.9 x 1.62	105.45	0.63	0.7	0.9	61.02
North East (w5)	0.9 x 0.7	105.45	0.63	0.7	0.9	26.37
North East (w6)	0.9 x 1.62	105.45	0.63	0.7	0.9	61.02
Total						314.66 (P3/P4)

Internal gains:

	June	July	August
Internal gains	250.2	240.65	244.67
Total summer gains	586.94	555.31	510.96 (P5)

SAP 2012 Overheating Assessment

Summer gain/loss ratio	4.27	4.04	3.71	(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	19.92	21.69	21.46	(P7)
Likelihood of high internal temperature	Not significant	Slight	Slight	

Assessment of likelihood of high internal temperature: Slight