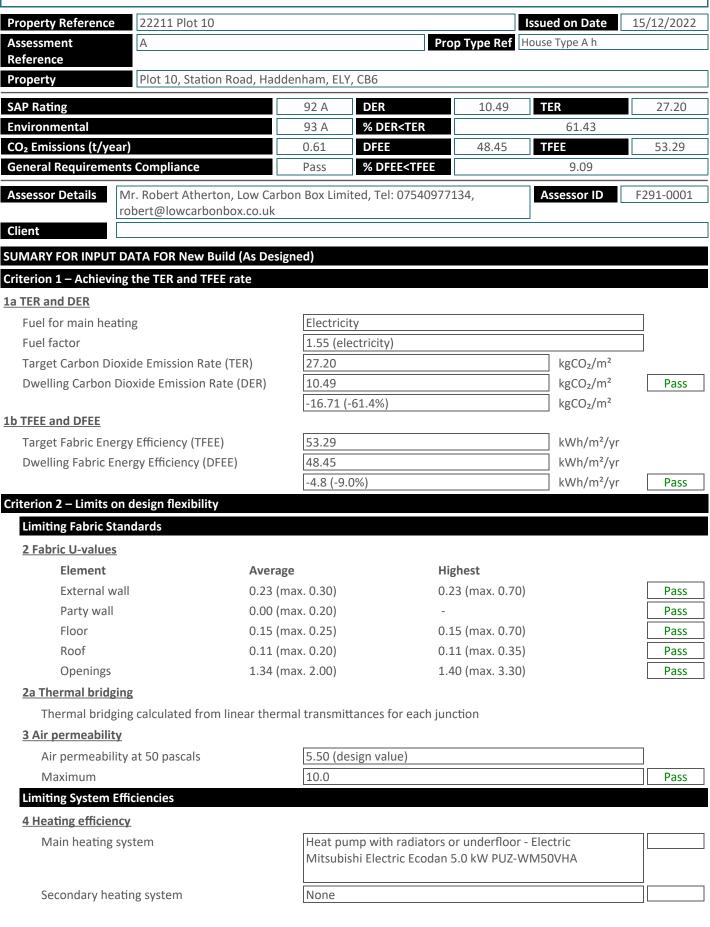
BASIC COMPLIANCE REPORT Calculation Type: New Build (As Designed)





LOW CARBON BOX

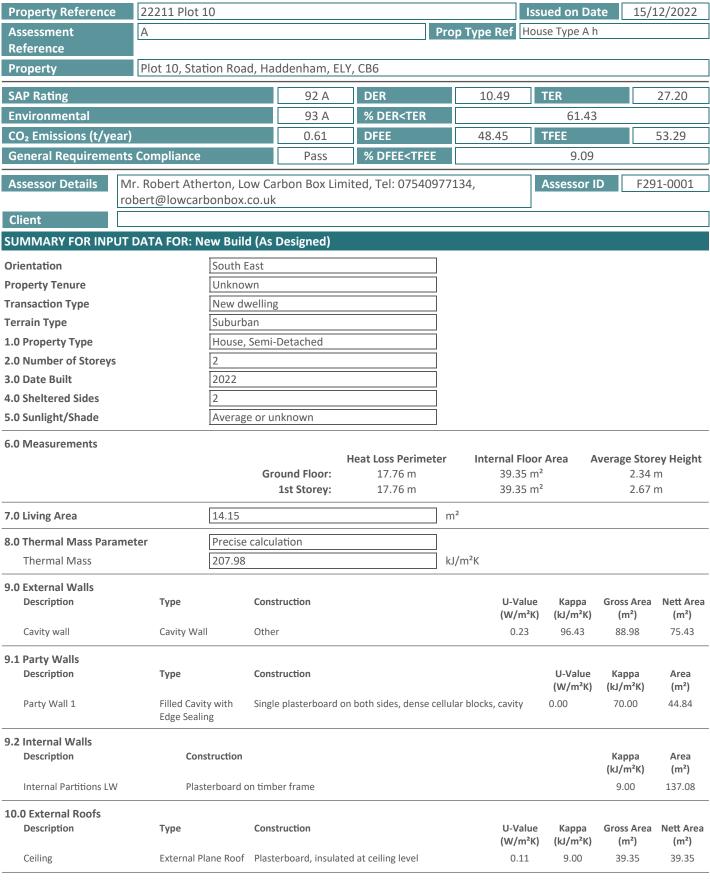
BASIC COMPLIANCE REPORT Calculation Type: New Build (As Designed)



5 Cylinder insulation			
Hot water storage	Measured cylinder loss: 1.23 kWh/day Permitted by DBSCG 2.03		Pass
Primary pipework insulated	Yes		Pass
6 Controls			
Space heating controls	Programmer, TRVs and bypass		Pass
Hot water controls	Cylinderstat		Pass
	Independent timer for DHW		Pass
7 Low energy lights			J []
Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass
8 Mechanical ventilation			
Continuous extract system (decentralised)			
Specific fan power	0.1600 0.1600		7
Maximum	0.7		Pass
Criterion 3 – Limiting the effects of heat gains in su	mmer		
<u>9 Summertime temperature</u>			
Overheating risk (East Anglia)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing North East	1.80 m ² , No overhang		7
Windows facing South East	3.95 m ² , No overhang		
Windows facing North West	3.52 m ² , No overhang		
Air change rate	4.00 ach		
Blinds/curtains	None		
Criterion 4 – Building performance consistent with	DER and DFEE rate		
Party Walls			
Туре	U-value		
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass
Air permeability and pressure testing <u>3 Air permeability</u>			
Air permeability at 50 pascals	5.50 (design value)		
Maximum	10.0		Pass
<u>10 Key features</u>			
Party wall U-value	0.00	W/m²K	
Roof U-value	0.11	W/m²K	
Photovoltaic array	1.00	kW	

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





10.2 Internal Ceilings



LOW CARBON BOX



Description		C	Construction							Kappa (kJ/m²K)	Area (m²)
Internal Ceiling	1	Plasterboard ceiling, carpeted chipboard floor					9.00	39.35			
1.0 Heat Loss Flo Description		уре	Cons	truction					U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)
Ground floor	(Ground	d Floor - Solid Susp	ended concrete	floor, carp	peted			0.15	75.00	39.35
1.2 Internal Floo	rs										
Description		C	Construction							Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Р	Plasterboard ceiling,	carpeted chipbo	oard floor					18.00	39.35
2.0 Opening Typ Description	es Data So	urce	Туре	Glazing		Glazing Gap	Argon Filled	G-value		Frame Factor	U Valu (W/m²k
Front / Utility D	oor Manufa r	cture	Solid Door			Gap	rilleu		Туре	Factor	1.20
Windows		cture	Window	Double Low-E	Soft 0.05			0.70		0.70	1.40
Glazed Sidelight	: Manufa r	cture	Window	Double Low-E	Soft 0.05			0.70		0.70	1.30
Opaque panels	Manufa r	cture	Window	Double Low-E	Soft 0.05			0.30		0.70	1.30
HG door	Manufa r	cture	Half Glazed Door	Double Low-E	Soft 0.05			0.70		0.70	1.20
Rooflight	Manufa r	cture	Roof Window	Double Low-E	Soft 0.05			0.63		0.70	1.40
3.0 Openings	Opening Type			Orientation	Curtain	Querhang	\A/ido	\\/:dth	laight Cours	A.r.o.o.	Curtoir
Name	Opening Type		ocation	Orientation	Curtain Type	Overhang Ratio	Wide Overhang		leight Coun (m)	t Area (m²)	Curtair Closed
Front Door	Solid Door		1] Cavity wall	South East						2.14	
Front Windows			1] Cavity wall	South East	None	0.00				3.95	
Rear win	Window		1] Cavity wall	North West	None	0.00				3.52	
Side win Rear	Window Half Glazed Do	-	1] Cavity wall 1] Cavity wall	North East North West	None	0.00				1.80 2.14	
4.0 Conservatory	V		None								
5.0 Draught Prod	, ofing		100				%				
.6.0 Draught Lobi	0		No				70				
.7.0 Thermal Brid	lging		Calculate Bri	idges							
.7.1 List of Bridge	2S		L								
Source Type	В	ridge T	Гуре			Length	Psi	Imported			
Independently a			lintel with perforat	ed steel base pla	ite	10.10	0.358	No			
Independently a		3 Sill				8.06	0.015	No			
Independently a		1 Jamb				28.80	0.010	No			
Independently a			Ind floor (normal)			17.76	0.094	No			
Independently a			mediate floor within	-		17.76	0.000	No			
Table K1 - Appro Independently a			es (insulation at ceil ble (insulation at ceil			8.81 8.95	0.060 0.084	No No			
Independently a			ner (normal)	ing ievel		8.95 10.02	0.084	No			
Independently a			ty wall between dwe	ellings		10.02	-0.003	No			
Table K1 - Defau			/ wall - Ground floor	-		8.95	0.160	No			
Table K1 - Defau		-	/ wall - Intermediate			8.95	0.000	No			
Independently a		welling 4 Party	g / wall - Roof (insulat	ion at ceiling lev	el)	8.95	0.041	No			
Y-value			0.056				W/m²K				





, · · ·		• •
Designed AP ₅₀	5.50	m³/(h.m²) @ 50 Pa
Property Tested ?		
As Built AP ₅₀		m³/(h.m²) @ 50 Pa
19.0 Mechanical Ventilation		
Summer Overheating		
Windows open in hot weat	ther Windows half open	
Cross ventilation possible	Yes	
Night Ventilation	No	
Air change rate	4.00	
Mechanical Ventilation		
Mechanical Ventilation System	n Present Yes	
Approved Installation	No	
Mechanical Ventilation dat	ta Type Database	
Туре	Mechanical extract venti decentralised	lation -
MV Reference Number	500229	
Duct Type	Rigid	
19.1 Mechanical extract ventilation SFP Fan/Room Type 0.16 Through Wall Fan Kitchen	Count 1	
0.16 Through Wall Fan Other Wet Room		
20.0 Fans, Open Fireplaces, Flues		
Number of Chimneys Number of open flues Number of intermittent fans Number of passive vents Number of flueless gas fires	MHS SHS 0 0	Other Total 0 0 0 0 0 0 0 0 0 0 0 0
21.0 Fixed Cooling System	No	
22.0 Lighting Internal Total number of light fittin		
Total number of L.E.L. fitting		
Percentage of L.E.L. fittings	s 100.00	%
External	No	
External lights fitted	No	
23.0 Electricity Tariff	Standard	
24.0 Main Heating 1	Database	
Description	ASHP	
Percentage of Heat	100	%
Database Ref. No.	104568	
Fuel Type	Electricity	
Main Heating	PET	
SAP Code	224	





25.0 Main Heating 2	None	
Flow Temperature	Normal (> 45°C)	
Heat Emitter	Radiators	
Is MHS Pumped	Pump in heated space	
Sap Code	2206	
PCDF Controls	0	
Controls	CHG Programmer, TRVs and bypass	
In Summer	0.0	
In Winter	0.0	

Community Heating	None			
28.0 Water Heating	HWP From m	ain heating 1		
Water Heating	Main Heating	g 1		
Flue Gas Heat Recovery System	No			
Waste Water Heat Recovery Instantaneous System 1	No			
Waste Water Heat Recovery Instantaneous System 2	No			
Waste Water Heat Recovery Storage System	No			
Solar Panel	No			
Water use <= 125 litres/person/day	Yes			
SAP Code	901			
Immersion Only Heating Hot Water	No			
29.0 Hot Water Cylinder	Hot Water C	/linder		
Cylinder Stat	Yes			
Cylinder In Heated Space	Yes			
Independent Time Control	Yes			
Insulation Type	Measured Lo	SS		
Cylinder Volume	170.00			L
Loss	1.23			kWh/day
Pipes insulation	Fully insulate	d primary pipewo	ork	
31.0 Thermal Store	None			
32.0 Photovoltaic Unit	One Dwelling			
	ientation	Elevation	Overshading	
1.00 So	uth East	30°	None Or Litt	le Yes
Recommendations				
Lower cost measures				
None				
Further measures to achieve even hi	gher standards			

Typical CostTypical savingsRatings after improvementSolar water heating£4,000 - £6,000£58A 93



ASSESSMENT NOTES Calculation Type: New Build (As Designed)



Property Reference	22211 Plot 10	22211 Plot 10						
Assessment Reference	A Plot 10 Station Road, Ha	A Prop Type Ref House Type A h Plot 10, Station Road, Haddenham, ELY, CB6						
Property Plot 10, Station Road, Haddenham, ELY, CB6								
SAP Rating		92 A	DER	10.49	TER	27.20		
Environmental		93 A	% DER <ter< th=""><th colspan="4">R 61.43</th></ter<>	R 61.43				
CO ₂ Emissions (t/year) 0.61 DFEE 48.45 TFEE					53.29			
General Requireme	General Requirements Compliance Pass % DFEE <tfee 9.09<="" th=""></tfee>							
Assessor Details	or Details Mr. Robert Atherton, Low Carbon Box Limited, Tel: 07540977134, robert@lowcarbonbox.co.uk				Assessor ID	F291-0001		
Client								
ASSESSMENT NOTE	ASSESSMENT NOTES - Last time updated on: 15.12.2022							



THERMAL BRIDGING Calculation Type: New Build (As Designed)



Property Reference	e 22211 Plot 10				Issued on Date	15/12/2022		
Assessment	А	A Prop Type Re				House Type A h		
Reference								
Property	Plot 10, Station Road, Ha	Plot 10, Station Road, Haddenham, ELY, CB6						
SAP Rating		92 A	DER	10.49	TER	27.20		
Environmental		93 A	% DER <ter< th=""><th colspan="4">61.43</th></ter<>	61.43				
CO ₂ Emissions (t/y	ear)	0.61	DFEE	48.45	TFEE	53.29		
General Requirements Compliance Pass % DFEE <tfee 9.09<="" th=""><th></th></tfee>								
Assessor Details	essor Details Mr. Robert Atherton, Low Carbon Box Limited, Tel: 07540977134, Assessor ID F29 robert@lowcarbonbox.co.uk				F291-0001			
Client								

	Junction detail	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E1 Steel lintel with perforated steel base plate	Independently assessed	0.358	10.10	3.62	
External wall	E3 Sill	Independently assessed	0.015	8.06	0.12	
External wall	E4 Jamb	Independently assessed	0.010	28.80	0.29	
External wall	E5 Ground floor (normal)	Independently assessed	0.094	17.76	1.67	
External wall	E6 Intermediate floor within a dwelling	Independently assessed	0.000	17.76	0.00	
External wall	E10 Eaves (insulation at ceiling level)	Table K1 - Approved	0.060	8.81	0.53	
External wall	E12 Gable (insulation at ceiling level)	Independently assessed	0.084	8.95	0.75	
External wall	E16 Corner (normal)	Independently assessed	0.062	10.02	0.62	
External wall	E18 Party wall between dwellings	Independently assessed	-0.003	10.02	-0.03	
Party wall	P1 Party wall - Ground floor	Table K1 - Default	0.160	8.95	1.43	
Party wall	P2 Party wall - Intermediate floor within a dwelling	Table K1 - Default	0.000	8.95	0.00	
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Independently assessed	0.041	8.95	0.37	

 Total:
 9.36
 W/mK:

 Y-Value:
 0.056
 W/m²K:

