

Project name

Steyning Cricket Club Main Building v1**As designed**

Date: Mon Jul 06 14:50:57 2026

Administrative information

Building Details

Address: Steyning Cricket Club Main Building,

Certifier details

Name: [REDACTED]

Telephone number: [REDACTED]

Address: 185 Lennard Road Beckenham BR3 1QN,
LONDON, BR3 1QN

Certification tool

Calculation engine: SBEM

Calculation engine version: v6.1.e.2

Interface to calculation engine: DesignBuilder SBEM

Interface to calculation engine version: v7.3.1

BRUKL compliance module version: v6.1.e.1

Foundation area [m²]: 379.51The CO₂ emission and primary energy rates of the building must not exceed the targets

Target CO ₂ emission rate (TER), kgCO ₂ /m ² annum	11.12
Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum	-2.15
Target primary energy rate (TPER), kWh _{PE} /m ² annum	120.01
Building primary energy rate (BPER), kWh _{PE} /m ² annum	-27.79
Do the building's emission and primary energy rates exceed the targets?	BER =< TER BPER =< TPER

The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Fabric element	U _{a-Limit}	U _{a-Calc}	U _{i-Calc}	First surface with maximum value
Walls*	0.26	0.1	0.1	Main - Bar_W_5
Floors	0.18	0.07	0.26	Main - Main Club_F_14
Pitched roofs	0.16	0.1	0.1	Main - Bar_R_10
Flat roofs	0.18	0.08	0.08	Main - Bar_R_4
Windows** and roof windows	1.6	0.8	0.8	Main - Bar_G_6
Rooflights***	2.2	-	-	No external rooflights
Personnel doors^	1.6	0.81	0.81	Main - Main Club_D_8
Vehicle access & similar large doors	1.3	-	-	No external vehicle access doors
High usage entrance doors	3	-	-	No external high usage entrance doors

U_{a-Limit} = Limiting area-weighted average U-values [W/(m²K)]U_{i-Calc} = Calculated maximum individual element U-values [W/(m²K)]U_{a-Calc} = Calculated area-weighted average U-values [W/(m²K)]

* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.

** Display windows and similar glazing are excluded from the U-value check. *** Values for rooflights refer to the horizontal position.

^ For fire doors, limiting U-value is 1.8 W/m²K

NB: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air permeability	Limiting standard	This building
m ³ /(h.m ²) at 50 Pa	8	1

Building services

For details on the standard values listed below, system-specific guidance, and additional regulatory requirements, refer to the Approved Documents.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	NO
Whole building electric power factor achieved by power factor correction	>0.95

1- reception split system

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.8	6.7	-	-	-
Standard value	2.5*	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

2- ashp

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	4.8	-	-	-	-
Standard value	2.5*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

1- heat pump HWS

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	4.5	0.001
Standard value	2*	N/A
* Standard shown is for all types except absorption and gas engine heat pumps.		

Zone-level mechanical ventilation, exhaust, and terminal units

ID	System type in the Approved Documents
A	Local supply or extract ventilation units
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal balanced supply and extract ventilation system
E	Local balanced supply and extract ventilation units
F	Other local ventilation units
G	Fan assisted terminal variable air volume units
H	Fan coil units
I	Kitchen extract with the fan remote from the zone and a grease filter
NB: Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.	

Zone name	SFP [W/(l/s)]										HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		Zone	Standard
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1			
Main - Bar	-	-	-	-	0.8	-	-	-	-		0.88	N/A
Main - Members	-	-	-	-	0.8	-	-	-	-		0.88	N/A
Main - Office	-	-	-	-	0.8	-	-	-	-		0.88	N/A
Main - Main Club	-	-	-	-	0.8	-	-	-	-		0.88	N/A
Main - DWC	0.1	-	-	-	-	-	-	-	-		-	N/A
Main - changing-1	0.2	-	-	-	-	-	-	-	-		-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
Main - changing-2	0.2	-	-	-	-	-	-	-	-	-	N/A
Main - wc-2	0.1	-	-	-	-	-	-	-	-	-	N/A
Main - wc-1	0.1	-	-	-	-	-	-	-	-	-	N/A

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
	Standard value	95	80	0.3
Main - Bar		165	-	-
Main - Members		165	-	-
Main - Office		165	-	-
Main - Main Club		165	-	-
store - Zone 1		165	-	-
Main - Corridor		165	-	-
Main - Cellar		165	-	-
Main - DWC		165	-	-
Main - changing-1		165	-	-
Main - changing-2		165	-	-
Main - wc-2		165	-	-
Main - wc-1		165	-	-
Main - Kitchen		165	-	-
Block 2 - Zone 1		165	-	-

The spaces in the building should have appropriate passive control measures to limit solar gains in summer

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
Main - Bar	NO (-86.2%)	NO
Main - Members	NO (-90%)	NO
Main - Office	NO (-64.5%)	NO
Main - Main Club	NO (-84.6%)	NO

Regulation 25A: Consideration of high efficiency alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Floor area [m ²]	379.5	379.5
External area [m ²]	1102.2	1102.2
Weather	SOU	SOU
Infiltration [m ³ /hm ² @ 50Pa]	1	3
Average conductance [W/K]	142.49	334.54
Average U-value [W/m ² K]	0.13	0.3
Alpha value* [%]	8.18	23.78

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional Services
	Restaurants and Cafes/Drinking Establishments/Takeaways
	Offices and Workshop Businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
	Residential Institutions: Hospitals and Care Homes
	Residential Institutions: Residential Schools
	Residential Institutions: Universities and Colleges
	Secure Residential Institutions
	Residential Spaces
	Non-residential Institutions: Community/Day Centre
	Non-residential Institutions: Libraries, Museums, and Galleries
	Non-residential Institutions: Education
	Non-residential Institutions: Primary Health Care Building
	Non-residential Institutions: Crown and County Courts
100	General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger Terminals
	Others: Emergency Services
	Others: Miscellaneous 24hr Activities
	Others: Car Parks 24 hrs
	Others: Stand Alone Utility Block

Energy Consumption by End Use [kWh/m²]

	Actual	Notional
Heating	4.21	15.97
Cooling	3.95	4.29
Auxiliary	4.43	7.57
Lighting	5.67	6.77
Hot water	17.71	46.31
Equipment*	42.9	42.9
TOTAL**	35.96	80.91

* Energy used by equipment does not count towards the total for consumption or calculating emissions.

** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m²]

	Actual	Notional
Photovoltaic systems	55.07	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	10.68	0
<i>Displaced electricity</i>	<i>55.07</i>	<i>0</i>

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	165.65	248.27
Primary energy [kWh _{PE} /m ²]	-27.79	120.01
Total emissions [kg/m ²]	-2.15	11.12

HVAC Systems Performance

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEFF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	8.1	129	0.5	7.2	4.6	4.71	5.01	4.8	6.7
Notional	83.9	123.1	8.8	7.8	2	2.64	4.4	----	----
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Natural Gas									
Actual	142.9	57.9	8.8	0	4.2	4.51	0	4.8	0
Notional	235.2	63.8	24.7	0	8.6	2.64	0	----	----

Key to terms

Heat dem [MJ/m2]	= Heating energy demand
Cool dem [MJ/m2]	= Cooling energy demand
Heat con [kWh/m2]	= Heating energy consumption
Cool con [kWh/m2]	= Cooling energy consumption
Aux con [kWh/m2]	= Auxiliary energy consumption
Heat SSEFF	= Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER	= Cooling system seasonal energy efficiency ratio
Heat gen SSEFF	= Heating generator seasonal efficiency
Cool gen SSEER	= Cooling generator seasonal energy efficiency ratio
ST	= System type
HS	= Heat source
HFT	= Heating fuel type
CFT	= Cooling fuel type