

Project name

Silletts Funeral Services -Whole Building**As designed****Date:** Tue Jul 22 15:50:24 2025

Administrative information

Building Details

Address: Silletts Funeral Services, Radcliffe, Bury,
Manchester, M26 2TQ

Certifier details

Name: David Barsted**Telephone number:** 01625 315040**Address:** Suite F6.3b, Adelphi Mill, Grimshaw Lane,,
Bollington, SK10 5JB

Certification tool

Calculation engine: SBEM**Calculation engine version:** v6.1.e.2**Interface to calculation engine:** Virtual Environment**Interface to calculation engine version:** v7.0.28**BRUKL compliance module version:** v6.1.e.1**Foundation area [m²]:** 360.6The CO₂ emission and primary energy rates of the building must not exceed the targets**The building does not comply with England Building Regulations Part L 2021**

Target CO ₂ emission rate (TER), kgCO ₂ /m ² annum	7.68
Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum	17.22
Target primary energy rate (TPER), kWh _{PE} /m ² annum	49.45
Building primary energy rate (BPER), kWh _{PE} /m ² annum	107.99
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	0.38	0.6	FF000002_W-1
Floors	0.18	0.67	0.9	FF000002_F
Pitched roofs	0.16	0.15	0.15	FF000018_C
Flat roofs	0.18	0.15	0.15	FF000002_C
Windows** and roof windows	1.6	1.31	1.31	FF000003_W-1_O0
Rooflights***	2.2	1.4	1.4	FF00000B_C_O0
Personnel doors^	1.6	1.1	1.1	FF000009_W4_O0
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
m³/(h.m²) at 50 Pa	8	7

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	YES
Whole building electric power factor achieved by power factor correction	<0.9

1- Existing Gas Boiler

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0.89	-	-	-	-
Standard value	0.93*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
* Standard shown is for gas single boiler systems ≤2 MW output and overall for multi-boiler systems. For single boiler systems >2 MW or any individual boiler in a multi-boiler system, limiting efficiency is 0.88.					

2- Split System

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.8	5	-	-	-
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

1- SYST0000-DHW

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	Hot water provided by HVAC system	0.008
Standard value	N/A	N/A

2- SYST0001-DHW

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	1	-
Standard value	1	N/A

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			
GF: WC	0.3	-	-	-	-	-	-	-	-	-	-	N/A
FF: WC	0.3	-	-	-	-	-	-	-	-	-	-	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
GF: Brew	0.3	-	-	-	-	-	-	-	-	-	N/A
GF: WC	0.3	-	-	-	-	-	-	-	-	-	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
GF: Mortuary		120	-	-
GF: Cold Store 1		120	-	-
GF: Chapel 1		120	-	-
GF: WC		120	-	-
GF: Cold Store 2		120	-	-
GF: Lounge Consult 1		120	-	-
GF: Lounge Consult 2		120	-	-
GF: Lobby		120	-	-
FF: Staff Room		120	-	-
FF: Staff Room		120	-	-
FF: WC		120	-	-
FF: Store		120	-	-
FF: Changing Room		120	-	-
GF: Function Room		120	-	-
GF: Office		120	-	-
GF: Coffin Store Workshop		120	-	-
GF: Brew		120	-	-
GF: WC		120	-	-
GF: Circ		120	-	-
GF: Chapel 4		120	-	-
GF: Chapel 3		120	-	-
GF: Chapel 2		120	-	-
GF: Store		120	-	-
GF: Reception		120	-	-
FF		120	-	-
GF: Extension Circ		120	-	-
GF: Chapel 6		120	-	-
GF: Chapel 5		120	-	-

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?
GF: Mortuary	N/A	N/A
GF: Cold Store 1	N/A	N/A
GF: Chapel 1	NO (-83.5%)	NO
GF: Cold Store 2	N/A	N/A
GF: Lounge Consult 1	NO (-11.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
GF: Lounge Consult 2	NO (-72.1%)	NO
FF: Staff Room	N/A	N/A
FF: Staff Room	N/A	N/A
FF: Changing Room	N/A	N/A
GF: Function Room	NO (-83%)	NO
GF: Office	NO (-80.2%)	NO
GF: Coffin Store Workshop	NO (-79.5%)	NO
GF: Brew	N/A	N/A
GF: WC	N/A	N/A
GF: Circ	NO (-36.1%)	NO
GF: Chapel 4	NO (-58.4%)	NO
GF: Chapel 3	NO (-58.6%)	NO
GF: Chapel 2	NO (-59.3%)	NO
GF: Store	N/A	N/A
GF: Reception	NO (-70.5%)	NO
FF	NO (-43.5%)	NO
GF: Extension Circ	NO (-74.4%)	NO
GF: Chapel 6	NO (-80.3%)	NO
GF: Chapel 5	NO (-59.2%)	NO

Regulation 25A: Consideration of high efficiency alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	YES
Is evidence of such assessment available as a separate submission?	YES
Are any such measures included in the proposed design?	YES

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Floor area [m ²]	721.2	721.2
External area [m ²]	1940.3	1940.3
Weather	MAN	MAN
Infiltration [m ³ /hm ² @ 50Pa]	7	3
Average conductance [W/K]	837.37	550.14
Average U-value [W/m ² K]	0.43	0.28
Alpha value* [%]	19.55	28.51

* 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
59	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
25	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
16	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	73.54	37.81
Cooling	0.74	0.95
Auxiliary	1.63	0.82
Lighting	9.3	8.25
Hot water	3.28	2.14
Equipment*	17.63	17.63
TOTAL **	88.48	49.97

* 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	0	10.09
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>0</i>	<i>10.09</i>

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	321.52	213.19
Primary energy [kWh _{PE} /m ²]	107.99	49.45
Total emissions [kg/m ²]	17.22	7.68

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] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Natural Gas, [CFT] Electricity										
	Actual	285.2	27.8	99.8	0	2.5	0.79	0	0.89	0
	Notional	133.8	29.7	43.2	0	1.2	0.86	0	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	310.5	27	24.4	2.1	0.1	3.54	3.55	3.8	5
	Notional	263.2	43.1	27.7	2.7	0.1	2.64	4.4	----	----

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