

Project name

**THE MOUNT NURSING HOME,
WARGRAVE - P02**

As designed

Date: Thu Apr 24 09:27:21 2025

Administrative information

Building Details

Address: RG10 8DY

Certifier details

Name: Harniss Building Services Solutions

Telephone number: 01933656850

Address: 1 Weekley Wood Avenue, Kettering, NN14 1UQ

Certification tool

Calculation engine: TAS

Calculation engine version: "v9.5.6"

Interface to calculation engine: TAS

Interface to calculation engine version: v9.5.6

BRUKL compliance module version: v6.1.e.0

Foundation area [m²]: 1128.96The 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	8.53
Building CO ₂ emission rate (BER), kgCO ₂ /m ² annum	8.14
Target primary energy rate (TPER), kWh _{PE} /m ² annum	92.69
Building primary energy rate (BPER), kWh _{PE} /m ² annum	88.02
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	0.21	0.21	External Wall
Floors	0.18	0.16	0.16	Ground Floor
Pitched roofs	0.16	0.15	0.15	Roof
Flat roofs	0.18	-	-	No flat roofs in project
Windows** and roof windows	1.6	1.4	1.4	W08 - 0.798 x 1.190 x 1.120 (o)
Rooflights***	2.2	1.42	1.42	RL.03 - 1200x1200
Personnel doors^	1.6	-	-	No personnel doors in project
Vehicle access & similar large doors	1.3	-	-	No vehicle access or similar large doors in project
High usage entrance doors	3	-	-	No high usage entrance doors in project

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	5

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	<0.9

1- UFH, HRU-003 [1.2] (2 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.7
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

2- UFH, CEF EXTRACT [0.2] (79 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	-
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

3- UFH, EF-001 [0.4] (0-Sluice/ Cleaners 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	-	-	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

4- UFH, EF-101 [0.4] (1-Sluice/ Cleaners 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	-	-	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

5- UFH, HRU-004 [1.2] (0-Private Dining)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	-	-	-	0.73
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

6- UFH, HRU-005 [1.6] (3 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	-	-	-	0.73
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

7- UFH, HRU-006 [1.2] (0-Circ. 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

8- UFH, HRU-007 [1.2] (0-Circ. 03)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

9- UFH, HRU-009 [1.4] (0-Circ. 05)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

10- UFH, HRU-101 [1.4] (1-Circ. 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

11- UFH, HRU-103 [1.2] (1-Circ. 03)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	1.1	0.73
Standard value	0.93*	N/A	N/A	1.5^	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.					
^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.					

12- UFH, HRU-104 [1.2] (2 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	-	-	-	0.73
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

13- UFH, HRU-105 [1.2] (1-Circ. 04)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

14- UFH, HRU-107 [1.4] (1-Circ. 06)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

15- CON-301, HRU-001 & 102 [1.4] (0-Cafe/Rec/Circ)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.59	5.94	-	-	0.7
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

16- UFH, NATURAL VENT

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	-
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

17- CON-302, HRU-008 [1.2] (0-Lounge)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	0.73
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

18- CON-303, HRU-009 [1.4] (0-Dining Room)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	0.73
Standard value	N/A	3	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

19- CON-302, HRU-106 [1.2] (1-Lounge 02)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	0.73
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

20- CON-303, HRU-107 [1.4] (1-Dining 02)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	0.73
Standard value	N/A	3	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

21- CON-306 & 307, HRU-201 [1.4] (2-Laundry)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	0.73
Standard value	N/A	3	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

22- CON-304 & 305, EF-201 [0.4] (2-Dry Store)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	-	-
Standard value	N/A	3	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

23- UFH, SF-201 [0.5] (2-Kit. Off.)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	-
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

24- UFH, HRU-202 [1.4] (4 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

25- UFH, HRU-301 [1.4] (3 Zones)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.3	-	-	-	0.73
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					NO
* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.					

26- CON-301, NO VENT (0-Comms)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	5.94	-	-	-
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

27- CON-301, CEF EXTRACT [0.2] (1-Medication St.)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	5.94	-	-	-
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

28- ODH, NO VENT

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	1	-	-	-	-
Standard value	N/A	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

29- CON-301, HRU-101 [1.6] (1-Lounge 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	5.94	-	-	0.73
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

30- CON-301, HRU-102 [1.2] (1-Dining 01)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	5.94	-	-	0.73
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

31- CON-301, HRU-004 [1.2] (0-Cinema)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	3.59	5.94	-	-	0.73
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.					

32- CON-301, CEF EXTRACT [0.2] (0-Medication St.)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	5.94	-	-	-
Standard value	N/A	5	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

33- CON-304 & 305, KEF-201 [1.0] (2-Kitchen)

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	0	6.1	-	1	-
Standard value	N/A	3	N/A	1.5^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO
^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.					

1- HWS-ASHP [3.64]

	Water heating efficiency	Storage loss factor [kWh/litre per day]
This building	3.64	0
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			
0-Cafe/Rec/Circ	-	-	-	1.4	-	-	-	-	-		-	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	
0-Bar/Activity	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Vis. WC	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Cinema	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Private Dining	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Hair Salon	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-GF Gym	-	-	-	1.6	-	-	-	-	-	-	N/A	
0-Medication St.	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Circ. 02/Nurse	-	-	-	1.6	-	-	-	-	-	-	N/A	
0-Ensuite 02	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 01	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 03	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 06 K	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 07	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 08	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 05	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 04	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 09	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 10	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 11	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 12	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 13	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 14	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 15	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 16 K	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 17	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 18	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 19	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 20	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 21	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 22	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 23	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 24	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 25	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 26	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 27	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 28	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ensuite 29 K	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Nurse Off.	-	-	-	1.6	-	-	-	-	-	-	N/A	
0-Circ. 01	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Circ. 04/Nurse	-	-	-	-	1.4	-	-	-	-	-	N/A	
0-Circ. 03	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Circ. 05	-	-	-	1.4	-	-	-	-	-	-	N/A	
1-Circ. 01	-	-	-	1.4	-	-	-	-	-	-	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	
0-Ass. WC01	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ass. WC02	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Ass. WC03	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Wheelchair St.	0.2	-	-	-	-	-	-	-	-	-	N/A	
0-Lounge	-	-	-	1.2	-	-	-	-	-	-	N/A	
0-Dining Room	-	-	-	1.4	-	-	-	-	-	-	N/A	
0-Sluice/ Cleaners 01	-	-	0.4	-	-	-	-	-	-	-	N/A	
0-Sluice/ Cleaners 02	-	-	-	-	1.4	-	-	-	-	-	N/A	
0-Assisted Spa	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 39	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 38	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 37	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 36	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 35	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 34	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 33	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 32	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 31	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 30	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 40	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 41	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 42	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 43 K	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 44	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 45	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 46	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 47	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 48	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 49	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 50	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 51	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 52	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 53 K	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 54	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 55	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 56	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 57	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 58	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 59	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 60	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 61	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 62	0.2	-	-	-	-	-	-	-	-	-	N/A	
1-Ensuite 63	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
1-Ensuite 64		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Ensuite 65 K		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Lounge 01		-	-	-	1.6	-	-	-	-	-	-	N/A
1-Dining 01		-	-	-	1.2	-	-	-	-	-	-	N/A
1-Lounge 02		-	-	-	1.2	-	-	-	-	-	-	N/A
1-Dining 02		-	-	-	1.4	-	-	-	-	-	-	N/A
1-Circ. 02		-	-	-	1.2	-	-	-	-	-	-	N/A
1-Circ. 04		-	-	-	1.2	-	-	-	-	-	-	N/A
1-Circ. 05		-	-	-	-	1.4	-	-	-	-	-	N/A
1-Circ. 06		-	-	-	1.4	-	-	-	-	-	-	N/A
1-Medication St.		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Wheelchair St.		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Sluice/ Cleaners 01		-	-	0.4	-	-	-	-	-	-	-	N/A
1-Sluice/ Cleaners 02		-	-	-	-	1.4	-	-	-	-	-	N/A
1-Assisted Bath		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Assisted Spa		0.2	-	-	-	-	-	-	-	-	-	N/A
1-Nurse Off.		-	-	-	1.2	-	-	-	-	-	-	N/A
1-A. WC 01		0.2	-	-	-	-	-	-	-	-	-	N/A
1-A. WC 02		0.2	-	-	-	-	-	-	-	-	-	N/A
1-A. WC 03		0.2	-	-	-	-	-	-	-	-	-	N/A
2-Change 01		-	-	-	-	1.4	-	-	-	-	-	N/A
2-Change 02		-	-	-	-	1.4	-	-	-	-	-	N/A
2-Kit. Change		-	-	-	-	1.4	-	-	-	-	-	N/A
2-Kit. Off.		-	0.5	-	-	-	-	-	-	-	-	N/A
2-Maintenace St.		0.2	-	-	-	-	-	-	-	-	-	N/A
2-Laundry		-	-	-	1.6	-	-	-	-	-	-	N/A
2-Dry Store		-	-	0.4	-	-	-	-	-	-	-	N/A
2-Kitchen		-	-	-	-	-	-	-	-	1	-	N/A
2-Staff Room		0.2	-	-	-	-	-	-	-	-	-	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
0-Cafe/Rec/Circ		-	-	-
0-Managers Off.		-	-	-
0-Lobby		-	-	-
0-Comms		-	-	-
0-Main Stair		-	-	-
0-Office		-	-	-
0-Admin Off.		-	-	-
0-Bar/Activity		-	-	-
0-Vis. WC		-	-	-
0-Store 01		-	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
0-Cinema		-	-	-
0-Private Dining		-	-	-
0-Hair Salon		-	-	-
0-GF Gym		-	-	-
0-PPE Store		-	-	-
0-Medication St.		-	-	-
0-Circ. 02/Nurse		-	-	-
0-Store 02		-	-	-
0-Bedroom 02		-	-	-
0-Bedroom 01		-	-	-
0-Bedroom 03		-	-	-
0-Bedroom 06 Suite		-	-	-
0-Bedroom 07		-	-	-
0-Bedroom 08		-	-	-
0-Bedroom 05		-	-	-
0-Bedroom 04		-	-	-
0-Bedroom 09		-	-	-
0-Bedroom 10		-	-	-
0-Bedroom 11		-	-	-
0-Bedroom 12		-	-	-
0-Bedroom 13		-	-	-
0-Bedroom 14		-	-	-
0-Bedroom 15		-	-	-
0-Bedroom 16 Suite		-	-	-
0-Bedroom 17		-	-	-
0-Bedroom 18		-	-	-
0-Bedroom 19		-	-	-
0-Bedroom 20		-	-	-
0-Bedroom 21		-	-	-
0-Bedroom 22		-	-	-
0-Bedroom 23		-	-	-
0-Bedroom 24		-	-	-
0-Bedroom 25		-	-	-
0-Bedroom 26		-	-	-
0-Bedroom 27		-	-	-
0-Bedroom 28		-	-	-
0-Bedroom 29 Suite		-	-	-
0-Ensuite 02		-	-	-
0-Ensuite 01		-	-	-
0-Ensuite 03		-	-	-
0-Ensuite 06 K		-	-	-
0-Ensuite 07		-	-	-
0-Ensuite 08		-	-	-

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
0-Ensuite 05		-	-	-
0-Ensuite 04		-	-	-
0-Ensuite 09		-	-	-
0-Ensuite 10		-	-	-
0-Ensuite 11		-	-	-
0-Ensuite 12		-	-	-
0-Ensuite 13		-	-	-
0-Ensuite 14		-	-	-
0-Ensuite 15		-	-	-
0-Ensuite 16 K		-	-	-
0-Ensuite 17		-	-	-
0-Ensuite 18		-	-	-
0-Ensuite 19		-	-	-
0-Ensuite 20		-	-	-
0-Ensuite 21		-	-	-
0-Ensuite 22		-	-	-
0-Ensuite 23		-	-	-
0-Ensuite 24		-	-	-
0-Ensuite 25		-	-	-
0-Ensuite 26		-	-	-
0-Ensuite 27		-	-	-
0-Ensuite 28		-	-	-
0-Ensuite 29 K		-	-	-
2-Plantroom		-	-	-
0-Nurse Off.		-	-	-
0-Stair 02		-	-	-
0-Stair 03		-	-	-
0-Circ. 01		-	-	-
0-Circ. 04/Nurse		-	-	-
0-Circ. 03		-	-	-
0-Circ. 05		-	-	-
1-Circ. 01		-	-	-
0-Lift Lobby		-	-	-
0-Ass. WC01		-	-	-
0-Ass. WC02		-	-	-
0-Ass. WC03		-	-	-
0-Store 03		-	-	-
0-Store 04		-	-	-
1-Store 01		-	-	-
0-Wheelchair St.		-	-	-
0-Lounge		-	-	-
0-Dining Room		-	-	-
0-Sluice/ Cleaners 01		-	-	-

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
0-Sluice/ Cleaners 02		-	-	-
0-Assisted Spa		-	-	-
1-Bedroom 39		-	-	-
1-Bedroom 38		-	-	-
1-Bedroom 37		-	-	-
1-Bedroom 36		-	-	-
1-Bedroom 35		-	-	-
1-Bedroom 34		-	-	-
1-Bedroom 33		-	-	-
1-Bedroom 32		-	-	-
1-Bedroom 31		-	-	-
1-Bedroom 30		-	-	-
1-Bedroom 40		-	-	-
1-Bedroom 41		-	-	-
1-Bedroom 42		-	-	-
1-Bedroom 43 Suite		-	-	-
1-Bedroom 44		-	-	-
1-Bedroom 45		-	-	-
1-Bedroom 46		-	-	-
1-Bedroom 47		-	-	-
1-Bedroom 48		-	-	-
1-Bedroom 49		-	-	-
1-Bedroom 50		-	-	-
1-Bedroom 51		-	-	-
1-Bedroom 52		-	-	-
1-Bedroom 53 Suite		-	-	-
1-Bedroom 54		-	-	-
1-Bedroom 55		-	-	-
1-Bedroom 56		-	-	-
1-Bedroom 57		-	-	-
1-Bedroom 58		-	-	-
1-Bedroom 59		-	-	-
1-Bedroom 60		-	-	-
1-Bedroom 61		-	-	-
1-Bedroom 62		-	-	-
1-Bedroom 63		-	-	-
1-Bedroom 64		-	-	-
1-Bedroom 65 Suite		-	-	-
1-Ensuite 39		-	-	-
1-Ensuite 38		-	-	-
1-Ensuite 37		-	-	-
1-Ensuite 36		-	-	-
1-Ensuite 35		-	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
1-Ensuite 34		-	-	-
1-Ensuite 33		-	-	-
1-Ensuite 32		-	-	-
1-Ensuite 31		-	-	-
1-Ensuite 30		-	-	-
1-Ensuite 40		-	-	-
1-Ensuite 41		-	-	-
1-Ensuite 42		-	-	-
1-Ensuite 43 K		-	-	-
1-Ensuite 44		-	-	-
1-Ensuite 45		-	-	-
1-Ensuite 46		-	-	-
1-Ensuite 47		-	-	-
1-Ensuite 48		-	-	-
1-Ensuite 49		-	-	-
1-Ensuite 50		-	-	-
1-Ensuite 51		-	-	-
1-Ensuite 52		-	-	-
1-Ensuite 53 K		-	-	-
1-Ensuite 54		-	-	-
1-Ensuite 55		-	-	-
1-Ensuite 56		-	-	-
1-Ensuite 57		-	-	-
1-Ensuite 58		-	-	-
1-Ensuite 59		-	-	-
1-Ensuite 60		-	-	-
1-Ensuite 61		-	-	-
1-Ensuite 62		-	-	-
1-Ensuite 63		-	-	-
1-Ensuite 64		-	-	-
1-Ensuite 65 K		-	-	-
1-Lounge 01		-	-	-
1-Dining 01		-	-	-
1-Lounge 02		-	-	-
1-Dining 02		-	-	-
1-Circ. 03		-	-	-
1-Circ. 02		-	-	-
1-Circ. 04		-	-	-
1-Circ. 05		-	-	-
1-Circ. 06		-	-	-
1-Stair 02		-	-	-
1-Stair 03		-	-	-
1-Main Stair		-	-	-

General lighting and display lighting		General luminaire	Display light source	
Zone name		Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m ²]
	Standard value	95	80	0.3
1-Store 02		-	-	-
1-Store 03		-	-	-
1-Medication St.		-	-	-
1-Wheelchair St.		-	-	-
1-Sluice/ Cleaners 01		-	-	-
1-Sluice/ Cleaners 02		-	-	-
1-Assisted Bath		-	-	-
1-Assisted Spa		-	-	-
1-PPE Store		-	-	-
1-Lift Lobby		-	-	-
1-Nurse Off.		-	-	-
1-A. WC 01		-	-	-
1-A. WC 02		-	-	-
1-A. WC 03		-	-	-
2-Change 01		-	-	-
2-Change 02		-	-	-
2-Kit. Change		-	-	-
2-Kit. Off.		-	-	-
2-Main Stair		-	-	-
2-BOH Circ. 01		-	-	-
2-BOH Circ. 02		-	-	-
2-Store 01		-	-	-
2-Store 02		-	-	-
2-Maintenance St.		-	-	-
2-Laundry		-	-	-
2-Store 03		-	-	-
2-COSHH		-	-	-
2-Dry Store		-	-	-
2-Kitchen		-	-	-
2-Cold St.		-	-	-
2-Stair 02		-	-	-
2-Staff Room		-	-	-
2-Tank Room		-	-	-
0-Elec Intake		-	-	-

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?
0-Cafe/Rec/Circ	NO (-58%)	NO
0-Managers Off.	NO (-63%)	NO
0-Comms	N/A	N/A
0-Office	NO (-45%)	NO
0-Admin Off.	NO (-53%)	NO
0-Bar/Activity	NO (-47%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
0-Cinema	NO (-32%)	NO
0-Private Dining	NO (-13%)	NO
0-Hair Salon	NO (-58%)	NO
0-GF Gym	NO (-26%)	NO
0-Medication St.	N/A	N/A
0-Bedroom 02	NO (-13%)	NO
0-Bedroom 01	NO (-36%)	NO
0-Bedroom 03	NO (-16%)	NO
0-Bedroom 06 Suite	NO (0%)	NO
0-Bedroom 07	NO (-51%)	NO
0-Bedroom 08	NO (-55%)	NO
0-Bedroom 05	NO (-14%)	NO
0-Bedroom 04	NO (-9%)	NO
0-Bedroom 09	NO (-18%)	NO
0-Bedroom 10	NO (-38%)	NO
0-Bedroom 11	NO (-38%)	NO
0-Bedroom 12	NO (-13%)	NO
0-Bedroom 13	NO (-27%)	NO
0-Bedroom 14	NO (-38%)	NO
0-Bedroom 15	NO (-27%)	NO
0-Bedroom 16 Suite	NO (-27%)	NO
0-Bedroom 17	NO (-38%)	NO
0-Bedroom 18	NO (-27%)	NO
0-Bedroom 19	NO (-13%)	NO
0-Bedroom 20	NO (-37%)	NO
0-Bedroom 21	NO (-36%)	NO
0-Bedroom 22	NO (-21%)	NO
0-Bedroom 23	NO (-40%)	NO
0-Bedroom 24	NO (-69%)	NO
0-Bedroom 25	NO (-39%)	NO
0-Bedroom 26	NO (-8%)	NO
0-Bedroom 27	NO (-5%)	NO
0-Bedroom 28	NO (-5%)	NO
0-Bedroom 29 Suite	NO (-5%)	NO
0-Nurse Off.	N/A	N/A
0-Lounge	NO (-50%)	NO
0-Dining Room	NO (-23%)	NO
1-Bedroom 39	NO (-52%)	NO
1-Bedroom 38	NO (-63%)	NO
1-Bedroom 37	NO (-63%)	NO
1-Bedroom 36	NO (-47%)	NO
1-Bedroom 35	NO (-65%)	NO
1-Bedroom 34	NO (-40%)	NO
1-Bedroom 33	NO (-58%)	NO
1-Bedroom 32	NO (-49%)	NO
1-Bedroom 31	NO (-40%)	NO
1-Bedroom 30	NO (-47%)	NO
1-Bedroom 40	NO (-38%)	NO
1-Bedroom 41	NO (-23%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
1-Bedroom 42	NO (-35%)	NO
1-Bedroom 43 Suite	NO (-31%)	NO
1-Bedroom 44	NO (-66%)	NO
1-Bedroom 45	NO (-68%)	NO
1-Bedroom 46	NO (-41%)	NO
1-Bedroom 47	NO (-57%)	NO
1-Bedroom 48	NO (-56%)	NO
1-Bedroom 49	NO (-40%)	NO
1-Bedroom 50	NO (-50%)	NO
1-Bedroom 51	NO (-56%)	NO
1-Bedroom 52	NO (-50%)	NO
1-Bedroom 53 Suite	NO (-50%)	NO
1-Bedroom 54	NO (-57%)	NO
1-Bedroom 55	NO (-50%)	NO
1-Bedroom 56	NO (-40%)	NO
1-Bedroom 57	NO (-56%)	NO
1-Bedroom 58	NO (-56%)	NO
1-Bedroom 59	NO (-43%)	NO
1-Bedroom 60	NO (-39%)	NO
1-Bedroom 61	NO (-47%)	NO
1-Bedroom 62	NO (-59%)	NO
1-Bedroom 63	NO (-34%)	NO
1-Bedroom 64	NO (-34%)	NO
1-Bedroom 65 Suite	NO (-35%)	NO
1-Lounge 01	NO (-63%)	NO
1-Dining 01	NO (-41%)	NO
1-Lounge 02	NO (-44%)	NO
1-Dining 02	NO (-59%)	NO
1-Medication St.	N/A	N/A
1-Nurse Off.	N/A	N/A
2-Kit. Off.	N/A	N/A
2-Laundry	N/A	N/A
2-Dry Store	N/A	N/A
2-Kitchen	NO (-60%)	NO
2-Staff Room	NO (-42%)	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]	3462	3462
External area [m ²]	5427	5427
Weather	SWI	SWI
Infiltration [m ³ /hm ² @ 50Pa]	5	3
Average conductance [W/K]	1465	1655
Average U-value [W/m ² K]	0.27	0.3
Alpha value* [%]	29.9	14.9

* 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

100 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
 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	4.56	4.44
Cooling	3.88	5.61
Auxiliary	10.48	10.3
Lighting	21.87	13.46
Hot water	23.68	29
Equipment*	83.13	83.13
TOTAL **	64.47	62.81

* 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	6.58	0.08
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
<i>Displaced electricity</i>	<i>6.58</i>	<i>0.08</i>

Energy & CO₂ Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m ²]	137.48	137.52
Primary energy [kWh _{PE} /m ²]	88.02	92.69
Total emissions [kg/m ²]	8.14	8.53

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 SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	23.9	3.14	0	3.3	0	
Notional	0	0	0	0	14.8	0	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	131.4	0	11.6	0	7.9	3.14	0	3.3	0	
Notional	149.5	0	15.7	0	11.7	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	1.6	0	0	0	0	
Notional	0	0	0	0	1.6	0	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	1.6	0	0	0	0	
Notional	0	0	0	0	1.6	0	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	28.5	0	0	0	0	
Notional	0	0	0	0	16.7	0	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	27.2	0	0	0	0	
Notional	0	0	0	0	23.3	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	7.8	0	0.7	0	15.4	3.14	0	3.3	0	
Notional	34.6	0	3.6	0	22.5	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	5	0	0.4	0	15.4	3.14	0	3.3	0	
Notional	5	0	0.5	0	24.3	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	19.7	0	1.8	0	17.4	3.14	0	3.3	0	
Notional	15	0	1.6	0	24.9	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0.1	0	0	0	17.4	3.14	0	3.3	0	
Notional	0	0	0	0	22.1	2.64	0	----	----	
[ST] Central heating using water: radiators, [HS] LTHW boiler, [HFT] Electricity, [CFT] Electricity										
Actual	7.4	0	0.7	0	13.6	3.14	0	3.3	0	
Notional	21.8	0	2.3	0	24.1	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	0	0	0	0	15.3	0	0	0	0	
Notional	0	0	0	0	19.6	0	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	9.3	0	0.8	0	15.4	3.14	0	3.3	0	
Notional	5.4	0	0.6	0	24.6	2.64	0	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	29.7	0	2.6	0	17.4	3.14	0	3.3	0	
Notional	15.3	0	1.6	0	25.3	2.64	0	----	----	
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	2.9	228.9	0.2	10.7	13.9	3.59	5.94	3.59	5.94	
Notional	7.6	159.5	0.8	10.1	17.9	2.64	4.4	----	----	
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
Actual	54.2	0	4.8	0	2.5	3.14	0	3.3	0	
Notional	50.6	0	5.4	0	1.9	2.62	0	----	----	

HVAC Systems Performance (cont.)

System Type	Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	131.1	0	6	26.1	0	6.1	0	6.1
Notional	0	295.3	0	18.6	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Electricity, [CFT] Electricity									
Actual	0	152.4	0	6.9	30.4	0	6.1	0	6.1
Notional	0	303.1	0	19.1	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	154.4	0	7	26.1	0	6.1	0	6.1
Notional	0	291.3	0	18.4	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Electricity, [CFT] Electricity									
Actual	0	170.8	0	7.8	30.4	0	6.1	0	6.1
Notional	0	301.8	0	19.1	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Electricity, [CFT] Electricity									
Actual	0	622.5	0	28.4	11.5	0	6.1	0	6.1
Notional	0	563.2	0	35.6	4.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] LTHW boiler, [HFT] Electricity, [CFT] Electricity									
Actual	0	306.9	0	14	2.2	0	6.1	0	6.1
Notional	0	174.9	0	11	10	0	4.4	----	----
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0.1	0	0	0	7	3.14	0	3.3	0
Notional	0	0	0	0	11.5	0	0	----	----
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	5.7	0	0.5	0	16.9	3.14	0	3.3	0
Notional	4.6	0	0.5	0	21.3	2.64	0	----	----
[ST] Central heating using water: floor heating, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	1.3	0	0.1	0	32.4	3.14	0	3.3	0
Notional	0	0	0	0	40.7	0	0	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	1869	0	87.4	0	0	5.94	0	5.94
Notional	0	1836.1	0	115.9	0	0	4.4	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	239.7	0	11.2	1.1	0	5.94	0	5.94
Notional	0	138	0	8.7	10	0	4.4	----	----
[ST] Other local room heater - fanned, [HS] Air heater, [HFT] Electricity, [CFT] Electricity									
Actual	177.5	0	49.3	0	0	1	0	1	0
Notional	194.2	0	20.7	0	0	2.61	0	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	151.1	0	7.1	34.8	0	5.94	0	5.94
Notional	0	281.6	0	17.8	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	199.1	0	9.3	26.1	0	5.94	0	5.94
Notional	0	322	0	20.3	14.9	0	4.4	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	1.6	732	0.1	34.2	21.9	3.59	5.94	3.59	5.94
Notional	0.4	742.9	0	46.9	32.9	2.64	4.4	----	----
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity									
Actual	0	204.9	0	9.6	1.1	0	5.94	0	5.94
Notional	0	186.4	0	11.8	10	0	4.4	----	----

HVAC Systems Performance (cont.)

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] LTHW boiler, [HFT] Electricity, [CFT] Electricity									
Actual	0	2892.5	0	131.7	27.9	0	6.1	0	6.1
Notional	0	2744.7	0	173.3	50.2	0	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