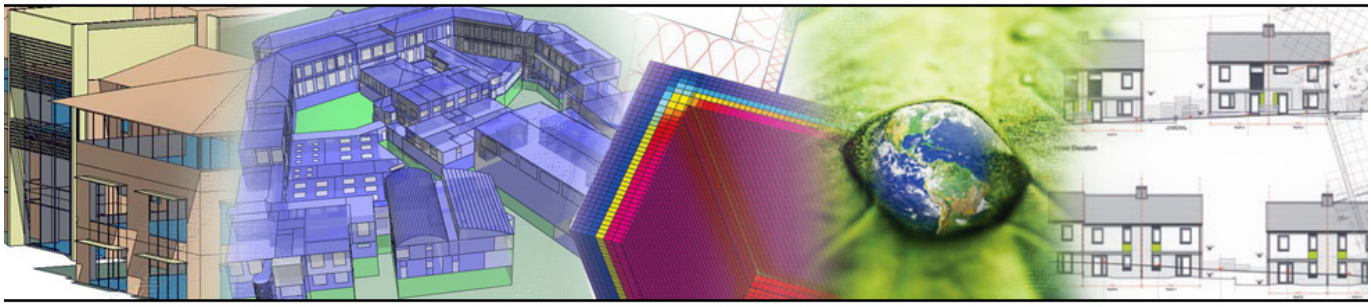
STROMA
BUILT ENVIRONMENT
A PHENNA GROUP COMPANY



Part L2a Compliance Report

226A, 226B & 226C Marsh Wall, London

'Shell Only'

'As-Designed'

Stroma Reference: 06-20-83403 S1 - Units
Date: 18/03/2025
Prepared for: Chalegrove Properties Limited

Contents

1. Summary

Building Regulations: Part L2a: 2013 (Eng)

Assessment Methodology: Level 5 DSM

Software: IES-VE v2023

Prepared by	Checked by
	
Richard de Fleury BEng (hons) MSc	Jonathan Teale BSc (hons)
Principal Sustainability Consultant	Senior Sustainability Consultant
Date: 18/03/2025	**Date:** 18/03/2025
File reference:	06-20-83403 S1 - Units

Version	Status	Date	Change Summary
S1	Design Stage	18/03/25	-

2. Results

2.1. Criterion 1 – Achieving the BER

Results show the shell & core development 'as-designed' has the potential to comply with the requirements of ADL2a Criterion 1; the Building Emission Rate is less than the Target Emission Rate.

Building area or, part	Unit 1 – 226A	Unit 2 – 226B	Unit 3 – 226C	
Notional Emissions Rate	47.3	46.8	14.9	kg.CO_2/m^2/yr
Target Emissions Rate (TER)	47.3	46.8	14.9	
Building Emissions Rate (BER)	33.1	31.5	12.3	
Compliance margin	30.0	32.7	17.4	%
Pass/Fail	**PASS**	**PASS**	**PASS**	

Table 1. Criterion 1 summary

As-designed Part L documentation is required by Building Control to confirm that the proposed design meets the requirements of Approved Document Part L prior to construction. Upon building completion or the first fit-out, the Part L calculation must be revised to represent the as-built and as-installed specification. Please refer to the appendix of this report for details of the as-built evidence requirements.

2.2. Criterion 2 – Limits on Design Flexibility

Design limits are outlined within Approved Document Part L2a and Non-domestic Building Services Compliance Guide. The appended BRUKL document outlines the building performance against each of the respective design limits.

The following parameters exceed the recommended design limits;

Parameter	Proposed Value	Limiting Value
N/A		

Table 2. Criterion 2 non-compliance summary

2.3. Criterion 3 – Limiting the Effects of Solar Gain in Summer

The cumulative solar gain for all applicable zones has been calculated and compared against the recommended limits. The appended BRUKL document outlines all results.

All applicable zones comply with the requirements of Criterion 3.

2.4. EPC Asset Rating

A preliminary EPC has been produced at this stage based upon the details outlined within this report.

Metric	Unit 1 – 226A	Unit 2 – 226B	Unit 3 – 226C
Asset Rating	30	30	26
Band	B	B	B

Table 3. EPC result

When the as-built assessment is completed a link to the Lodged EPC will be provided.

Upon practical completion, a final EPC must be produced representing the as-built and as-installed specification and lodged onto the central Landmark register. EPCs must be generated within the most recently Government approved software version irrespective of the version used for the Part L compliance assessment. Therefore, Stroma Technology cannot be held responsible for any variations within the EPC rating as a result of specification, software or, regulatory changes.

3. Building Regulations Summary

Part L2a: 2013 (England)

Approved Document Part L2a: 2013 came into force on 6th April 2014, superseding the former Part L2a: 2010. The 2013 Part L largely follows the same methodology as before with a number of key changes intended to reduce energy consumption and associated CO_2 emissions. The 2013 target emissions rate represents a 9% reduction in CO_2 emissions across an aggregated mix of non-domestic building types. This assessment considers the first 3 of 5 criteria, the key objectives of which are unchanged.

Criterion 1 – achieving the BER
Compliance is demonstrated where the Building Emission Rate (BER) is less than the Target Emission Rate (TER). Carbon dioxide emissions of the building are calculated using Government approved software encompassing the Architectural form, fabric and building services specifications. The TER is derived directly from the Notional building enabling a direct comparison between a *compliant* and the actual specification. A number of improvements have been made to the Notional building specification in order to achieve the targeted 9% reduction in CO_2 emissions.

Criterion 2 – limits on design flexibility
In order to guide the building specification towards higher levels of energy efficiency and in recognition of technical development, the minimum performance limits for building services have been improved. These are all set out within the 2013 Non-Domestic Building Services Compliance Guide. 'Backstop' or, 'limiting' U-values for building fabric and air permeability remain unchanged from 2010.

Criterion 3 – limiting the effects of solar gain in summer
Criterion 3 considers the cumulative solar gain for all occupied or mechanically cooled spaces. The objective is to steer design towards a reduction for the need or, the installed capacity of air conditioning systems. In order to demonstrate compliance, the solar gain aggregated over the period April to September must not exceed a limit derived for a room of the same size with a pre-defined area of glazing and glass specification. The respective solar gain limit is dependent upon whether the room type is considered 'top lit' or 'side lit'.

This development has been assessed by trained and accredited Energy Assessors using Government approved compliance software by Integrated Environmental Solutions (IES). This report details the basis of modelling and a summary of the results, including the BRUKL document included as an appendix.

Energy Performance Certificates must always be generated using the most up to date software version, in accordance with European legislation. Therefore, Stroma Technology cannot be held responsible for any change in result owning to building specification, legislative or software revisions.

4. Model Geometry

Architectural drawings have been provided by Zhana Yankova of Chalegrove.

Drawing type	Drawing by	Drawing reference	Revision
Ground Floor Plan	Design Delivery Unit	18942-DDU-225-00GL-DR-A-10001	C4
First Floor Plan	Design Delivery Unit	18942-DDU-225-01-DR-A-10001	C4
Second Floor Plan	Design Delivery Unit	18942-DDU-225-02-DR-A-10001	C5
46th Floor Plan	Design Delivery Unit	18942-DDU-225-46-DR-A-10001	C5
Elevation 1	Design Delivery Unit	YE-20025-XX-DR-00001	AB01
Elevation 2	Design Delivery Unit	YE-20025-XX-DR-00002	AB01
Elevation 3	Design Delivery Unit	YE-20025-XX-DR-00003	AB01
Elevation 4	Design Delivery Unit	YE-20025-XX-DR-00004	AB01
Section 1	Design Delivery Unit	18942-DDU-225-XX-DR-A-12001	C3
Section 2	Design Delivery Unit	18942-DDU-225-XX-DR-A-12002	C2
Section 3	Design Delivery Unit	18942-DDU-225-XX-DR-A-12003	C2
Section 4	Design Delivery Unit	18942-DDU-225-XX-DR-A-12004	C2

Table 4. Drawings used for model

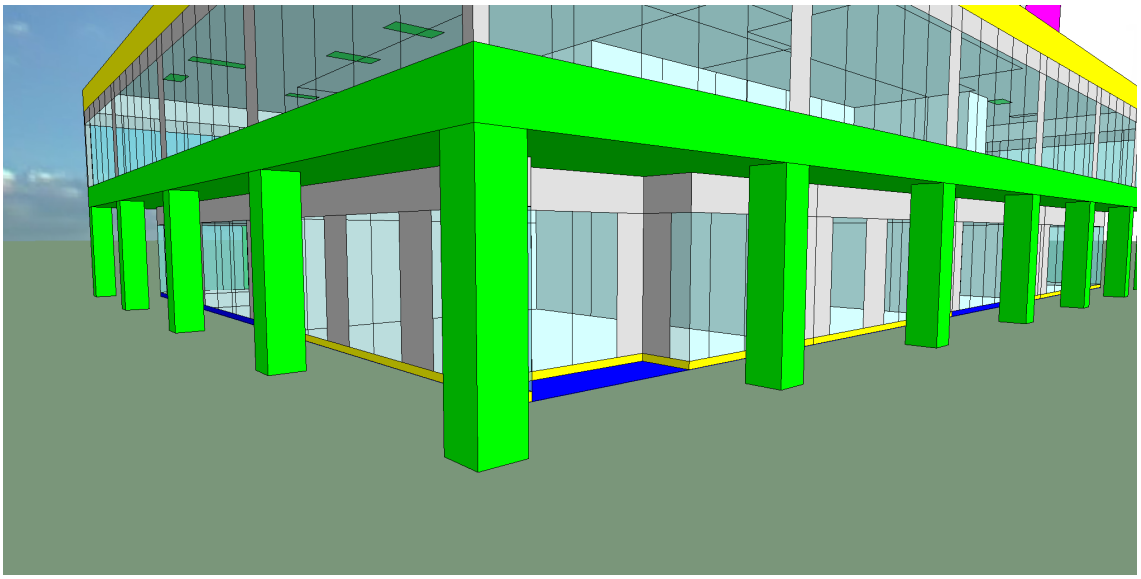


Figure 1. IES thermal model – Unit 1

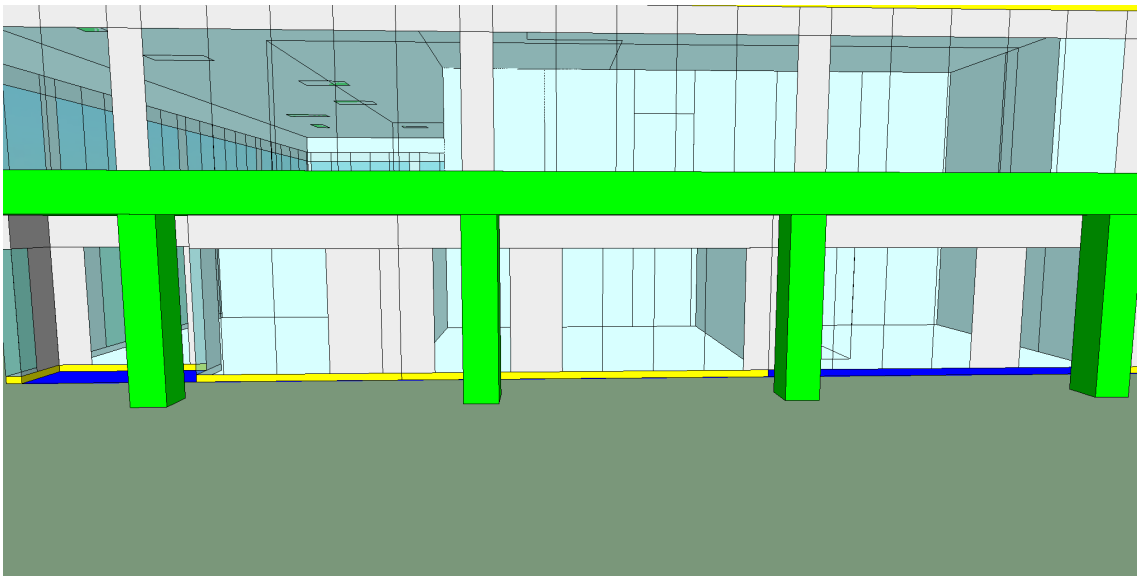


Figure 2. IES thermal model – Unit 2

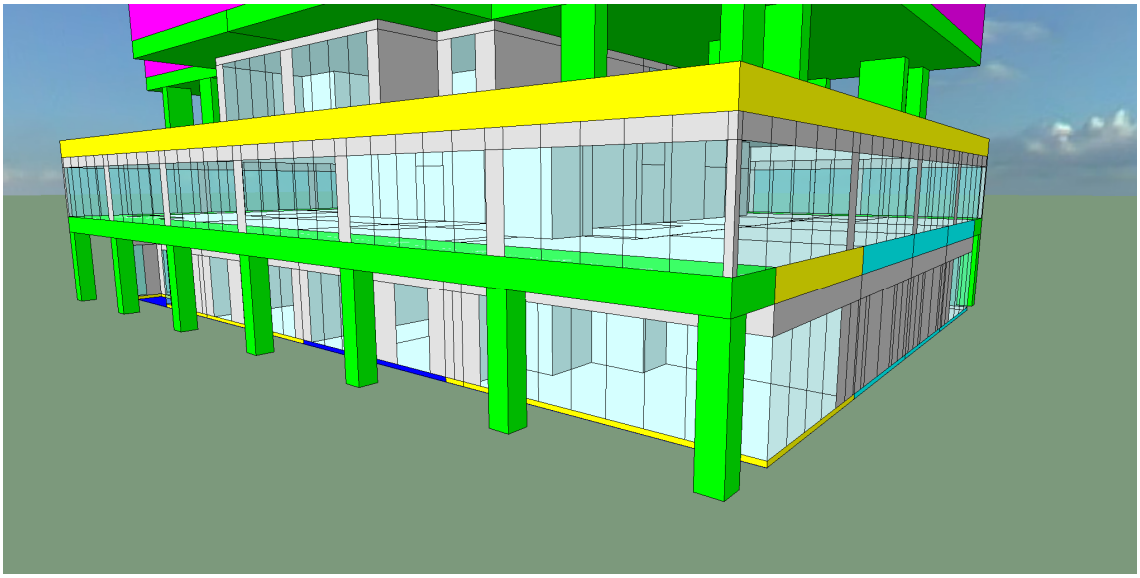


Figure 3. IES thermal model – Unit 3

5. Thermal Envelope

Construction information has been provided by Zhana Yankova of Chalegrove.

Opaque element	Construction (type and insulation)	U-value ($W/m^2.K$)	Metal Cladding		Assumption
Exposed Floor – to basement	Screed, insulation, concrete	**0.25**		NO	☐
Exposed Floor -	Screed, insulation, concrete	**0.25**		NO	☐
Curtain Wall – GF & 02	Metal, insulation, metal, plasterboard	0.79		NO	☐
Curtain Wall – 01	Metal, insulation, metal, plasterboard	0.77		NO	☐
Curtain Wall – 46	Metal, insulation, metal, plasterboard	0.70		NO	☐
Exposed Roof – to podium	Slabs, membrane, insulation, screed, concrete, (c/void, plasterboard)	**0.15**		NO	☐
Insulated Partition to unheated areas	Plasterboard, insulation, concrete	0.2		NO	☐

Table 5. Opaque building elements

Thermal bridging has been accounted for in accordance with the approved dynamic simulation modelling procedure.

Translucent element	Construction type	Overall U-value ($W/m^2.K$)	Solar g-value	Light trans.	Assumption
Windows – GF, 02 & 46 curtain walling	Triple Glazed	0.79	0.30	0.46	☐
Windows – 01, 02	Triple Glazed	0.77	0.34	0.54	☐
Windows – 46 casement style	Triple Glazed	0.70	0.34	0.54	☐

Table 6. Transparent building elements

Air permeability ($m^3/h.m^2$ @ 50 Pa)	Tested by	Date of test	Assumption
5	Target	N/A	☐

Table 7. Air infiltration

6. Mechanical and Electrical Services

6.1. Heating, Cooling and Ventilation

The mechanical performance specification and relevant drawings were provided by Zhana Yankova of Chalegrove.

VRF yes; MVHR will be fit-out

Parameters will be complied with by fit-out contractor

	System reference:	**s01 - Water source VRF MVHR**		
	Areas served:	Refer to Appendix A		
	Type:	**Water loop heat pump**		
Heating	**Source:**	**Heat pump (electric): ground or water source**	**Fuel:**	**Grid supplied electricity**
	Seasonal efficiency:	**5.98**	**Heating circulator pump:**	N/A
Cooling	**Source:**	**Heat pump (electric)**		
	Seasonal efficiency (SEER):	**7.42**	**Nominal Efficiency (EER):**	**5.60**
Ventilation	**Central AHU SFP:**	**1.20 W/l/s Unit 226A & 226B; 0.85 W/l/s Unit 226C**		
	AHU CEN leakage class:	**Class L2**	**Ductwork leakage class:**	**Untested - Use default**
	Heat recovery type:	**Cross plate**	**Heat recovery effectiveness:**	**0.85**
	Provision for energy metering:	**Yes**	**Alarms for 'out-of-range' values:**	**Yes**

Table 8. HVAC system parameters

Noted this will be worst case.

System reference:	**s02 - Instant Electric DHW**						
Areas served:	Refer to Appendix A						
Type:	**Instantaneous hot water only**						
Efficiency:	**100%**	**Fuel:**	**Grid supplied electricity**				
Storage volume:	**none**	**Storage insulation or losses:**	N/A				
Secondary circulation:	N/A	**Loop length (m):**	N/A	**Losses (W/m):**	N/A	**Pump Power (kW):**	N/A

Table 9. DHW system parameters

All assumptions **(in red)** must be reviewed by the design team and confirmed to Stroma Tech.

Variations made to the input parameters are likely to change the overall Building Emissions Rate and therefore may lead to non-compliance.

Accepted. Compliance will be a condition of tenant's lease agreement

6.2. Mechanical Ventilation

Mechanical ventilation details have been **assumed** and applied to the thermal model accordingly. Specific Fan Powers (SFPs) are reported within the appended BRUKL output document against the limiting value for each fan category.

Detail	Source	Assumption
Fan types	**Assumed – refer to Appendix A**	☒
Specific Fan Power	**Assumed – refer to Appendix A**	☒
Extract Flow Rate	**Assumed – refer to Appendix A**	☒

Table 10. Mechanical ventilation data source

All assumptions **(in red)** must be reviewed by the design team and confirmed to Stroma Technology.

Variations made to the input parameters are likely to change the overall Building Emissions Rate and therefore may lead to non-compliance.

Accepted. Compliance will be a condition of tenant's lease agreement

6.3. Internal Lighting

Internal fixed lighting details have been **assumed** and applied to the thermal model accordingly.

Principal information format: **Luminaire specification - No calculations carried out**

Detail	Information Source	Assumption
Luminaire Type/Performance	**Assumed – refer to Appendix A**	☒
Presence detection	**Assumed – refer to Appendix A**	☒
Daylight control	**Assumed – refer to Appendix A**	☒
Sensor parasitic power	**Assumed – refer to Appendix A**	☒

Table 11. Internal lighting details

All assumptions **(in red)** must be reviewed by the design team and confirmed to Stroma Technology.

Variations made to the input parameters are likely to change the overall Building Emissions Rate and therefore may lead to non-compliance.

Model input parameters are tabulated within Appendix A of this report.

Coonfirmed

6.4. BMS and Power Factor Correction

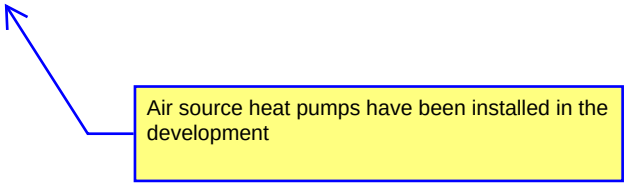
A BMS facility will be installed with the capacity for energy monitoring and targeting with alarms for out-of-range values.

A Power Factor Correction device will not or, has not been installed. Therefore, the default Factor of <0.9 has been applied.

Evidence of both the BMS functionality and achieved Power Factor will be required at as-built stage.

7. Renewable Energy Technology

No renewable energy technologies have been incorporated into this development.



Appendix A. Model Input Parameters

Room Name	Floor area (m²)	System			Mechanical Ventilation								Lighting and Controls												
		Heating / Cooling / Vent System	DHW System	Heating Plant Radiant Fraction	Supply	Specific Fan Power (W/(l/s))	Extract	Flow Rate (ACH^{-1})	Specific Fan Power (W/(l/s))	Is fan remote from room?	Heat Recovery Type	Heat Recovery Seasonal Efficiency	Lamp Efficacy (lm/W)	Light Output Ratio	Luminaire Efficacy (lm/W)	Display Lighting Uses Efficient Lamps?	Lamp Efficacy (lm)	Display Lighting Time Switching?	Daylight Control	Control Type	Sensor Type	Sensor Time-switch	Sensor Parasitic Power (W/m²)	Occupancy Sensing	Sensor Parasitic Power (W/m²)	Sensor Time-switch
226A (Unit 1)																									
0001 Unit 1	74.543	s01 - Water source VRF MVHR 1.20	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=1.20W/l/s						Plate	0.85	100	1	100	Yes	100	No	-	-	-	-	-	NONE	-	-
226B (Unit 2)																									
0002 Unit 2	55.82	s01 - Water source VRF MVHR 1.20	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=1.20W/l/s						Plate	0.85	100	1	100	Yes	100	No	-	-	-	-	-	NONE	-	-
226C (Unit 3)																									
0003 Unit 3 - GF Circulation	47.674	s01 - Water source VRF MVHR 0.85	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=0.85W/l/s						Plate	0.85	140	1	140	-	-	-	Yes	Dimming	Standalone	Yes	0.1	AUTO-ON-OFF	combined	Yes
0101 Unit 3 - FF - DL	523.973	s01 - Water source VRF MVHR 0.85	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=0.85W/l/s						Plate	0.85	140	1	140	-	-	-	Yes	Dimming	Standalone	Yes	0.1	AUTO-ON-OFF	combined	Yes
0101 Unit 3 - FF	59.441	s01 - Water source VRF MVHR 0.85	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=0.85W/l/s						Plate	0.85	140	1	140	-	-	-	-	-	-	-	-	AUTO-ON-OFF	0.1	Yes
0101 Unit 3 - FF	108.798	s01 - Water source VRF MVHR 0.85	s02 - Instant Electric DHW	0	Zonal Supply and Extract SFP=0.85W/l/s						Plate	0.85	140	1	140	-	-	-	-	-	-	-	-	AUTO-ON-OFF	0.1	Yes
0000 Unit 3 - Lift	4.108	None	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NONE	-	-
0001 Unit 3 - Riser	1.953	None	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NONE	-	-
0100 Unit 3 - Lift	4.108	None	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NONE	-	-

Appendix B. BRUKL Output Documents

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name **Shell and Core**

06-20-83403 S1_V2023520_226A Marsh Wall

As designed

Date: Tue Mar 18 13:42:55 2025

Administrative information

Building Details

Address: 226A Marsh Wall, London, E14 9NF

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.26

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.26

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Richard de Fleury

Telephone number: 01924 237 500

Address: 6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	47.3
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	47.3
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	47
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	-	-	UNKNOWN
Floor	0.25	0.24	0.24	00000017:Surf[35]
Roof	0.25	-	-	UNKNOWN
Windows***, roof windows, and rooflights	2.2	0.79	0.79	00000017:Surf[1]
Personnel doors	2.2	-	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No vehicle access doors in building
High usage entrance doors	3.5	-	-	No high usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** 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.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

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- s01 - Water source VRF MVHR 1.20

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	5.98	5.6	0	1.2	0.85
Standard value	2.5*	3.2	N/A	1.6^	0.5
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. For types <=12 kW output, refer to EN 14825 for limiting standards.

^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.

1- s02 - Instant Electric DHW

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

"No zones in project where local mechanical ventilation, exhaust, or terminal unit is applicable"

Shell and core configuration

Zone	**Assumed shell?**
0001 Unit 1	YES

General lighting and display lighting	**Luminous efficacy [lm/W]**			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
0001 Unit 1	-	100	100	751

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	**Solar gain limit exceeded? (%)**	**Internal blinds used?**
0001 Unit 1	NO (-60.9%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of 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?	NO
Are any such measures included in the proposed design?	YES

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m^2]	74.5	74.5
External area [m^2]	1337.3	159.7
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	5	5
Average conductance [W/K]	428.56	78.83
Average U-value [W/m^2K]	0.32	0.49
Alpha value* [%]	24.65	10

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

Building Use

% Area	Building Type
100	**A1/A2 Retail/Financial and Professional services**
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	C2 Residential Institutions: Universities and colleges
	C2A Secure Residential Institutions
	Residential spaces
	D1 Non-residential Institutions: Community/Day Centre
	D1 Non-residential Institutions: Libraries, Museums, and Galleries
	D1 Non-residential Institutions: Education
	D1 Non-residential Institutions: Primary Health Care Building
	D1 Non-residential Institutions: Crown and County Courts
	D2 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/m^2]

	Actual	Notional
Heating	3.39	5.14
Cooling	4.13	13.25
Auxiliary	43.38	20.27
Lighting	38.01	53.59
Hot water	1.7	1.86
Equipment*	20.26	20.26
TOTAL**	**90.62**	**94.11**

* 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/m^2]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	142.39	228.13
Primary energy* [kWh/m^2]	278.2	278.17
Total emissions [kg/m^2]	47	47.3

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

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] Water loop heat pump, [HS] Heat pump (electric): ground or water source, [HFT] Electricity, [CFT] Electricity										
	Actual	70.2	72.2	3.4	4.1	43.4	5.74	4.85	5.98	7.42
	Notional	47.4	180.8	5.1	13.3	20.3	2.56	3.79	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	-	UNKNOWN
Floor	0.2	0.24	00000017:Surf[35]
Roof	0.15	-	UNKNOWN
Windows, roof windows, and rooflights	1.5	0.79	00000017:Surf[0]
Personnel doors	1.5	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	No vehicle access doors in building
High usage entrance doors	1.5	-	No high usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name **Shell and Core**

06-20-83403 S1_V2023520_226B Marsh Wall

As designed

Date: Tue Mar 18 13:36:11 2025

Administrative information

Building Details

Address: 226B Marsh Wall, London, E14 9NF

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.26

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.26

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Richard de Fleury

Telephone number: 01924 237 500

Address: 6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	46.8
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	46.8
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	44
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	-	-	UNKNOWN
Floor	0.25	0.24	0.24	00000018:Surf[10]
Roof	0.25	-	-	UNKNOWN
Windows***, roof windows, and rooflights	2.2	0.79	0.79	00000018:Surf[3]
Personnel doors	2.2	-	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No vehicle access doors in building
High usage entrance doors	3.5	-	-	No high usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** 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.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

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- s01 - Water source VRF MVHR 1.20

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	5.98	5.6	0	1.2	0.85
Standard value	2.5*	3.2	N/A	1.6^	0.5
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. For types <=12 kW output, refer to EN 14825 for limiting standards.

^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.

1- s02 - Instant Electric DHW

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

"No zones in project where local mechanical ventilation, exhaust, or terminal unit is applicable"

Shell and core configuration

Zone	Assumed shell?
0002 Unit 2	YES

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
0002 Unit 2	-	100	100	571

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
0002 Unit 2	NO (-60%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of 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?	NO
Are any such measures included in the proposed design?	YES

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m^2]	55.8	55.8
External area [m^2]	1285.6	89.2
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	5	5
Average conductance [W/K]	387.67	36.77
Average U-value [W/m^2K]	0.3	0.41
Alpha value* [%]	26.2	10

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

Building Use

% Area	Building Type
100	**A1/A2 Retail/Financial and Professional services**
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
	B1 Offices and Workshop businesses
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	C2 Residential Institutions: Universities and colleges
	C2A Secure Residential Institutions
	Residential spaces
	D1 Non-residential Institutions: Community/Day Centre
	D1 Non-residential Institutions: Libraries, Museums, and Galleries
	D1 Non-residential Institutions: Education
	D1 Non-residential Institutions: Primary Health Care Building
	D1 Non-residential Institutions: Crown and County Courts
	D2 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/m^2]

	Actual	Notional
Heating	1.37	1.84
Cooling	3.9	13.15
Auxiliary	39.19	19.33
Lighting	38.52	56.9
Hot water	1.7	1.86
Equipment*	20.26	20.26
TOTAL**	**84.69**	**93.08**

* 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/m^2]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	96.56	196.32
Primary energy* [kWh/m^2]	259.98	275.08
Total emissions [kg/m^2]	44	46.8

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

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] Water loop heat pump, [HS] Heat pump (electric): ground or water source, [HFT] Electricity, [CFT] Electricity										
	Actual	28.3	68.2	1.4	3.9	39.2	5.74	4.85	5.98	7.42
	Notional	16.9	179.4	1.8	13.2	19.3	2.56	3.79	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	-	UNKNOWN
Floor	0.2	0.24	00000018:Surf[10]
Roof	0.15	-	UNKNOWN
Windows, roof windows, and rooflights	1.5	0.79	00000018:Surf[0]
Personnel doors	1.5	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	No vehicle access doors in building
High usage entrance doors	1.5	-	No high usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2013

Project name **Shell and Core**

06-20-83403 S1_V2023520_226C Marsh Wall

As designed

Date: Tue Mar 18 12:54:25 2025

Administrative information

Building Details

Address: 226C Marsh Wall, London, E14 9NF

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.26

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.26

BRUKL compliance check version: v5.6.b.0

Certifier details

Name: Richard de Fleury

Telephone number: 01924 237 500

Address: 6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ

Criterion 1: The calculated CO_2 emission rate for the building must not exceed the target

CO_2 emission rate from the notional building, $kgCO_2/m^2.annum$	14.9
Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	14.9
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	14.8
Are emissions from the building less than or equal to the target?	BER =< TER
Are as built details the same as used in the BER calculations?	Separate submission

Criterion 2: The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Values which do not achieve the standards in the Non-Domestic Building Services Compliance Guide and Part L are displayed in red.

Building fabric

Element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	Surface where the maximum value occurs*
Wall**	0.35	0.15	0.15	00000019:Surf[23]
Floor	0.25	0.23	0.25	0100000A:Surf[0]
Roof	0.25	0.15	0.15	0100000A:Surf[1]
Windows***, roof windows, and rooflights	2.2	0.77	0.79	00000019:Surf[0]
Personnel doors	2.2	-	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	-	No vehicle access doors in building
High usage entrance doors	3.5	-	-	No high usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$]
$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]
$U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

* There might be more than one surface where the maximum U-value occurs.
** 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.
N.B.: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air Permeability	Worst acceptable standard	This building
$m^3/(h.m^2)$ at 50 Pa	10	5

Building services

The standard values listed below are minimum values for efficiencies and maximum values for SFPs. Refer to the Non-Domestic Building Services Compliance Guide for details.

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- s01 - Water source VRF MVHR 0.85

	Heating efficiency	Cooling efficiency	Radiant efficiency	SFP [W/(l/s)]	HR efficiency
This system	5.98	5.6	0	0.85	0.85
Standard value	2.5*	3.2	N/A	1.6^	0.5
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. For types <=12 kW output, refer to EN 14825 for limiting standards.

^ Limiting SFP may be extended by the amounts specified in the Non-Domestic Building Services Compliance Guide if the system includes additional components as listed in the Guide.

1- s02 - Instant Electric DHW

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

"No zones in project where local mechanical ventilation, exhaust, or terminal unit is applicable"

Shell and core configuration

Zone	Assumed shell?
0003 Unit 3 - GF Circulation	YES
0101 Unit 3 - FF - DL	YES
0101 Unit 3 - FF	YES
0101 Unit 3 - FF	YES

General lighting and display lighting	Luminous efficacy [lm/W]			
Zone name	**Luminaire**	**Lamp**	**Display lamp**	**General lighting [W]**
Standard value	60	60	22	
0003 Unit 3 - GF Circulation	140	-	-	246
0101 Unit 3 - FF - DL	-	140	-	560
0101 Unit 3 - FF	-	140	-	64
0101 Unit 3 - FF	-	140	-	117

Criterion 3: The spaces in the building should have appropriate passive control measures to limit solar gains

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
0003 Unit 3 - GF Circulation	NO (-35.4%)	NO
0101 Unit 3 - FF - DL	NO (-15.2%)	NO
0101 Unit 3 - FF	NO (-47.4%)	NO
0101 Unit 3 - FF	NO (-52.6%)	NO

Criterion 4: The performance of the building, as built, should be consistent with the calculated BER

Separate submission

Criterion 5: The necessary provisions for enabling energy-efficient operation of the building should be in place

Separate submission

EPBD (Recast): Consideration of 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?	NO
Are any such measures included in the proposed design?	YES

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Area [m^2]	739.9	739.9
External area [m^2]	2501.3	1480.2
Weather	LON	LON
Infiltration [m^3/hm^2@ 50Pa]	5	3
Average conductance [W/K]	868.91	578.08
Average U-value [W/m^2K]	0.35	0.39
Alpha value* [%]	11.69	10

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

Building Use

% Area	Building Type
	A1/A2 Retail/Financial and Professional services
	A3/A4/A5 Restaurants and Cafes/Drinking Est./Takeaways
100	**B1 Offices and Workshop businesses**
	B2 to B7 General Industrial and Special Industrial Groups
	B8 Storage or Distribution
	C1 Hotels
	C2 Residential Institutions: Hospitals and Care Homes
	C2 Residential Institutions: Residential schools
	C2 Residential Institutions: Universities and colleges
	C2A Secure Residential Institutions
	Residential spaces
	D1 Non-residential Institutions: Community/Day Centre
	D1 Non-residential Institutions: Libraries, Museums, and Galleries
	D1 Non-residential Institutions: Education
	D1 Non-residential Institutions: Primary Health Care Building
	D1 Non-residential Institutions: Crown and County Courts
	D2 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/m^2]

	Actual	Notional
Heating	3.19	7.57
Cooling	2.96	3.77
Auxiliary	20.65	12.28
Lighting	1.61	5.72
Hot water	0.19	0.2
Equipment*	8.92	8.92
TOTAL**	**28.6**	**29.54**

* 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/m^2]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	117.33	121.07
Primary energy* [kWh/m^2]	87.79	88.05
Total emissions [kg/m^2]	14.8	14.9

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

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] Water loop heat pump, [HS] Heat pump (electric): ground or water source, [HFT] Electricity, [CFT] Electricity										
	Actual	64.5	52.9	3.2	3	20.7	5.61	4.96	5.98	7.42
	Notional	69.7	51.4	7.6	3.8	12.3	2.56	3.79	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	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

Key Features

The Building Control Body is advised to give particular attention to items whose specifications are better than typically expected.

Building fabric

Element	$U_{i\text{-}Typ}$	$U_{i\text{-}Min}$	Surface where the minimum value occurs*
Wall	0.23	0.15	00000019:Surf[23]
Floor	0.2	0.19	0100000A:Surf[249]
Roof	0.15	0.15	0100000A:Surf[1]
Windows, roof windows, and rooflights	1.5	0.77	0100000A:Surf[8]
Personnel doors	1.5	-	No personnel doors in building
Vehicle access & similar large doors	1.5	-	No vehicle access doors in building
High usage entrance doors	1.5	-	No high usage entrance doors in building

$U_{i\text{-}Typ}$ = Typical individual element U-values [W/(m²K)] $U_{i\text{-}Min}$ = Minimum individual element U-values [W/(m²K)]

* There might be more than one surface where the minimum U-value occurs.

Air Permeability	Typical value	This building
m³/(h.m²) at 50 Pa	5	5

Appendix C. Preliminary EPCs

The following EPC is based upon information outlined within this report.

Energy Performance Certificate

Non-Domestic Building

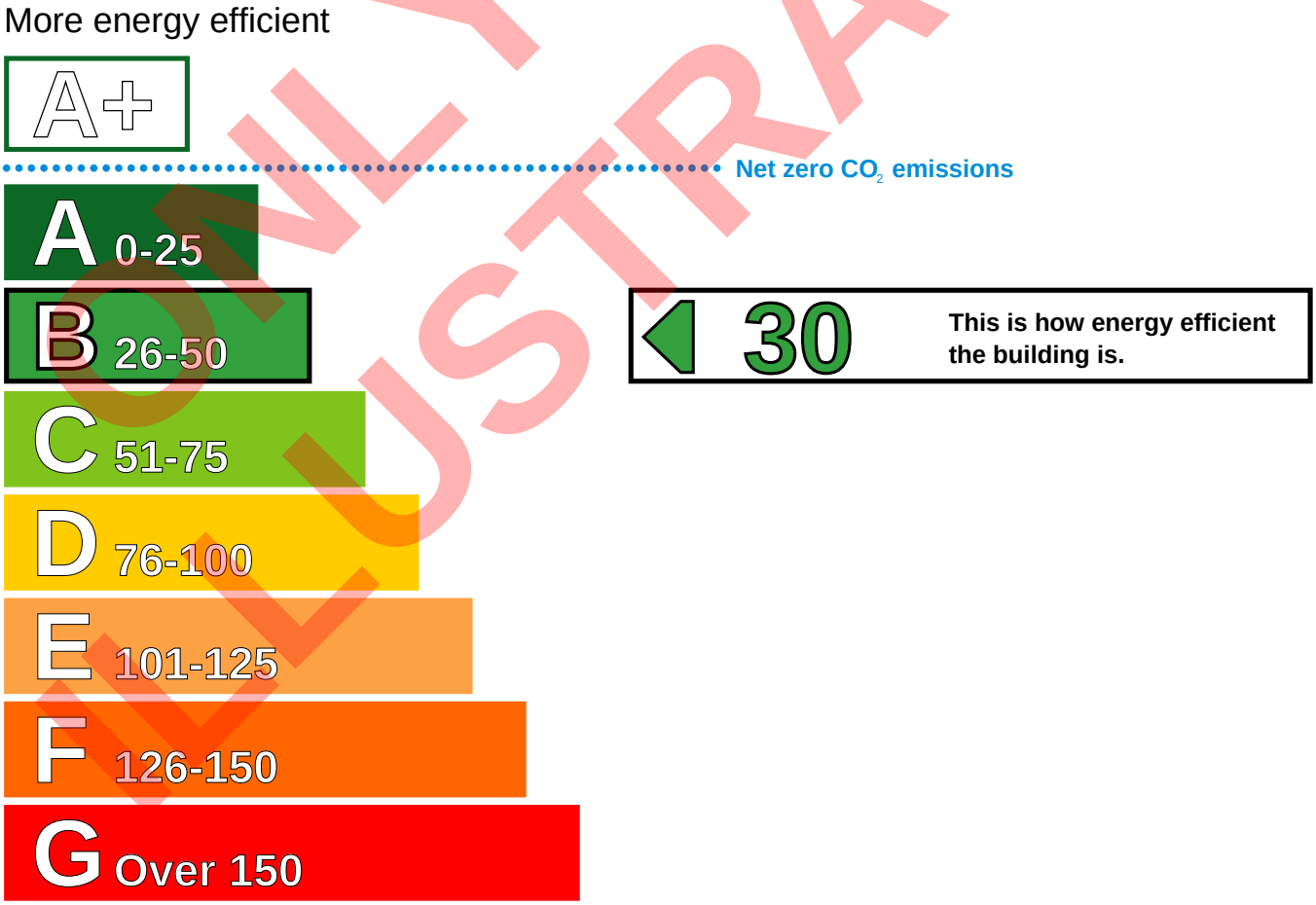
HM Government

226A Marsh Wall
London
E14 9NF

Certificate Reference Number:
8648-8598-2813-0539-6440

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating



Technical information

Main heating fuel:	Grid Supplied Electricity
Building environment:	Air Conditioning
Total useful floor area (m^2):	74.543
Building complexity:	Level 5
Building emission rate ($kgCO_2/m^2$ per year):	47.03
Primary energy use (kWh/m^2 per year):	278.2

Benchmarks

Buildings similar to this one could have ratings as follows:

30 If newly built

88 If typical of the existing stock

Administrative information

This is an Energy Performance Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software:	Virtual Environment v7.0.26 using calculation engine ApacheSim v7.0.26
Property Reference:	
Assessor Name:	Richard de Fleury
Assessor Number:	EES/028253
Accreditation Scheme:	Elmhurst Energy Systems
Assessor Qualifications:	NOS5
Employer/Trading Name:	Stroma Built Environment Limited
Employer/Trading Address:	6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ
Issue Date:	18 Mar 2025
Valid Until:	17 Mar 2035 (unless superseded by a later certificate)
Related Party Disclosure:	Not related to the owner

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report: 6299-4611-5261-0330-9061

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Elmhurst Energy Systems. You can obtain contact details of the Accreditation Scheme at www.elmhurstenergy.co.uk.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.ndepcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit www.ndepcregister.com. To opt out of having information about your building made publicly available, please visit www.ndepcregister.com/optout.

There is more information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document and advises on how to identify the authenticity of a certificate and how to make a complaint.

Opportunity to benefit from a Green Deal on this property

The Green Deal can help you cut your energy bills by making energy efficiency improvements at no upfront costs. Use the Green Deal to find trusted advisors who will come to your property, recommend measures that are right for you and help you access a range of accredited installers. Responsibility for repayments stays with the property - whoever pays the energy bills benefits so they are responsible for the payments.

To find out how you could use Green Deal finance to improve your property please call 0300 123 1234.

Energy Performance Certificate

Non-Domestic Building

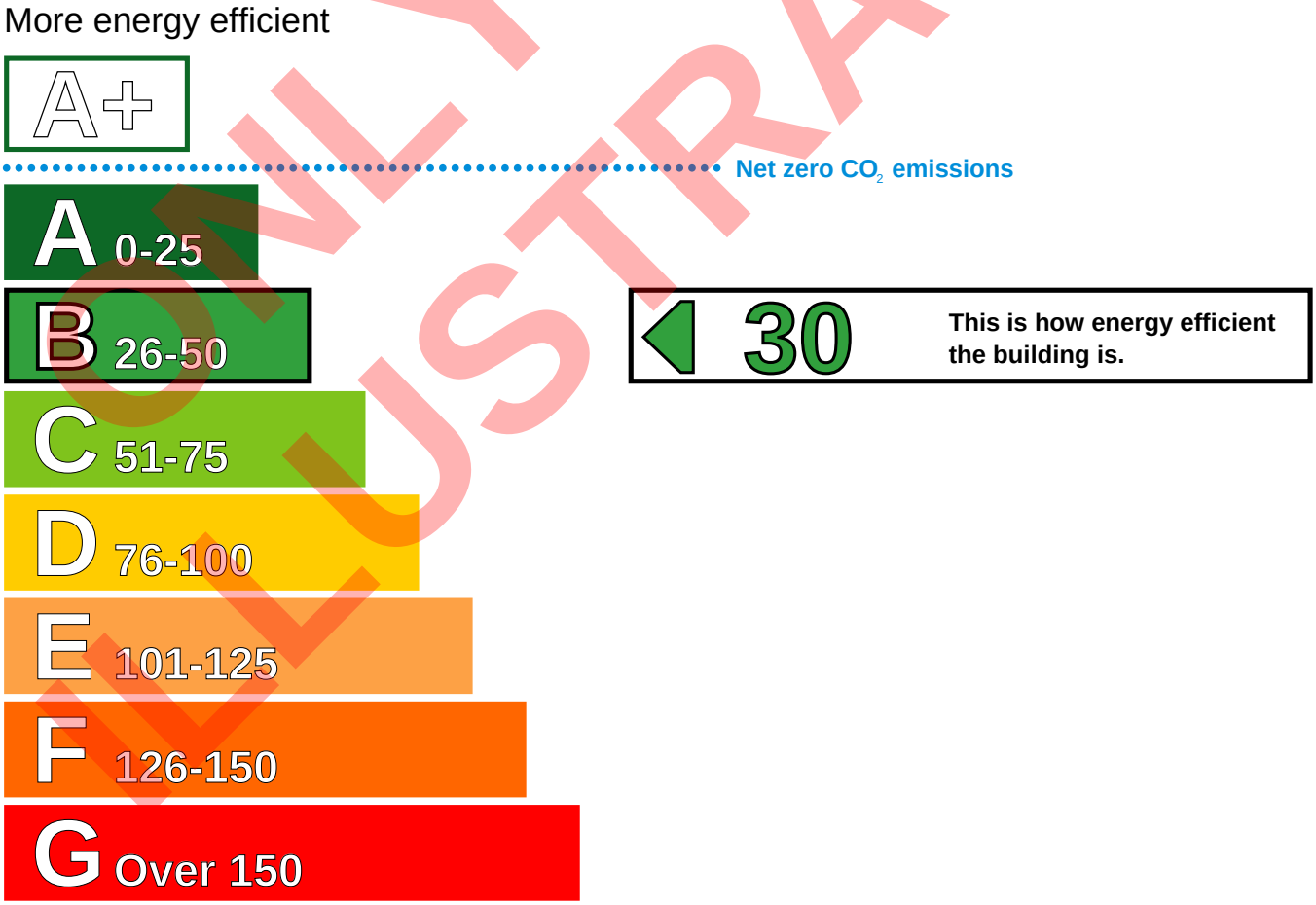
HM Government

226B Marsh Wall
London
E14 9NF

Certificate Reference Number:
3636-0899-7554-7964-6336

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating



Technical information

Main heating fuel:	Grid Supplied Electricity
Building environment:	Air Conditioning
Total useful floor area (m^2):	55.820
Building complexity:	Level 5
Building emission rate ($kgCO_2/m^2$ per year):	43.95
Primary energy use (kWh/m^2 per year):	259.98

Benchmarks

Buildings similar to this one could have ratings as follows:

32 If newly built

94 If typical of the existing stock

Administrative information

This is an Energy Performance Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software:	Virtual Environment v7.0.26 using calculation engine ApacheSim v7.0.26
Property Reference:	
Assessor Name:	Richard de Fleury
Assessor Number:	EES/028253
Accreditation Scheme:	Elmhurst Energy Systems
Assessor Qualifications:	NOS5
Employer/Trading Name:	Stroma Built Environment Limited
Employer/Trading Address:	6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ
Issue Date:	18 Mar 2025
Valid Until:	17 Mar 2035 (unless superseded by a later certificate)
Related Party Disclosure:	Not related to the owner

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report: 7955-5664-3661-4394-5914

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Elmhurst Energy Systems. You can obtain contact details of the Accreditation Scheme at www.elmhurstenergy.co.uk.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.ndepcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit www.ndepcregister.com. To opt out of having information about your building made publicly available, please visit www.ndepcregister.com/optout.

There is more information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document and advises on how to identify the authenticity of a certificate and how to make a complaint.

Opportunity to benefit from a Green Deal on this property

The Green Deal can help you cut your energy bills by making energy efficiency improvements at no upfront costs. Use the Green Deal to find trusted advisors who will come to your property, recommend measures that are right for you and help you access a range of accredited installers. Responsibility for repayments stays with the property - whoever pays the energy bills benefits so they are responsible for the payments.

To find out how you could use Green Deal finance to improve your property please call 0300 123 1234.

Energy Performance Certificate

Non-Domestic Building

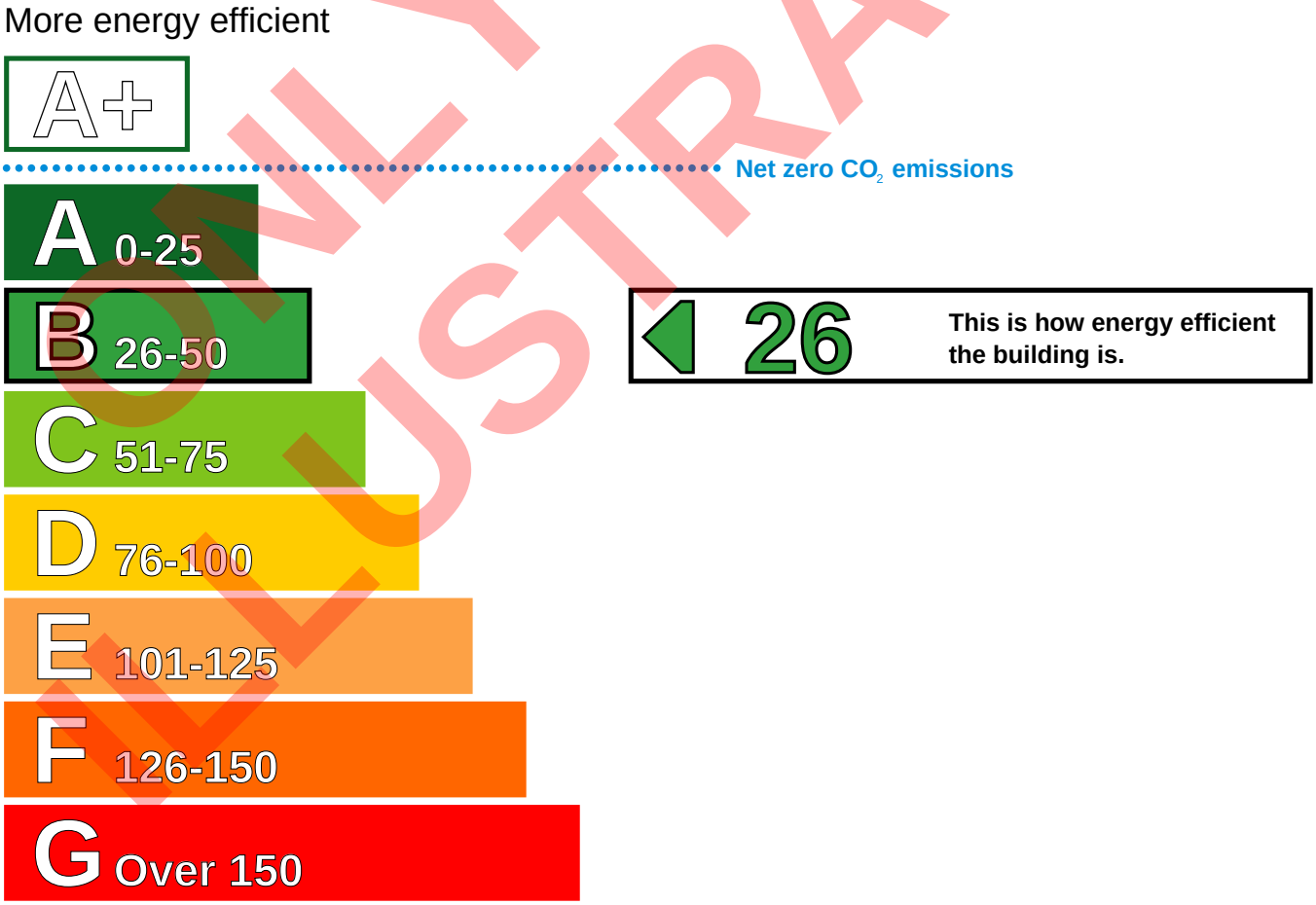
HM Government

226C Marsh Wall
London
E14 9NF

Certificate Reference Number:
3507-3664-0393-0355-1786

This certificate shows the energy rating of this building. It indicates the energy efficiency of the building fabric and the heating, ventilation, cooling and lighting systems. The rating is compared to two benchmarks for this type of building: one appropriate for new buildings and one appropriate for existing buildings. There is more advice on how to interpret this information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government's website at www.gov.uk/government/collections/energy-performance-certificates.

Energy Performance Asset Rating



Technical information

Main heating fuel:	Grid Supplied Electricity
Building environment:	Air Conditioning
Total useful floor area (m^2):	739.887
Building complexity:	Level 5
Building emission rate ($kgCO_2/m^2$ per year):	14.84
Primary energy use (kWh/m^2 per year):	87.79

Benchmarks

Buildings similar to this one could have ratings as follows:

26 If newly built

76 If typical of the existing stock

Administrative information

This is an Energy Performance Certificate as defined in the Energy Performance of Buildings Regulations 2012 as amended.

Assessment Software:	Virtual Environment v7.0.26 using calculation engine ApacheSim v7.0.26
Property Reference:	
Assessor Name:	Richard de Fleury
Assessor Number:	EES/028253
Accreditation Scheme:	Elmhurst Energy Systems
Assessor Qualifications:	NOS5
Employer/Trading Name:	Stroma Built Environment Limited
Employer/Trading Address:	6 Silkwood Business Park, Fryer's Way, Wakefield, WF5 9TJ
Issue Date:	18 Mar 2025
Valid Until:	17 Mar 2035 (unless superseded by a later certificate)
Related Party Disclosure:	Not related to the owner

Recommendations for improving the energy performance of the building are contained in the associated Recommendation Report: 4792-3767-4509-2499-1782

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Elmhurst Energy Systems. You can obtain contact details of the Accreditation Scheme at www.elmhurstenergy.co.uk.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.ndepcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit www.ndepcregister.com. To opt out of having information about your building made publicly available, please visit www.ndepcregister.com/optout.

There is more information in the guidance document *Energy Performance Certificates for the construction, sale and let of non-dwellings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document and advises on how to identify the authenticity of a certificate and how to make a complaint.

Opportunity to benefit from a Green Deal on this property

The Green Deal can help you cut your energy bills by making energy efficiency improvements at no upfront costs. Use the Green Deal to find trusted advisors who will come to your property, recommend measures that are right for you and help you access a range of accredited installers. Responsibility for repayments stays with the property - whoever pays the energy bills benefits so they are responsible for the payments.

To find out how you could use Green Deal finance to improve your property please call 0300 123 1234.

Appendix D. As-Built Requirements

Prior to the production of as-built Part L documentation and the final Energy Performance Certificate, the following information is required by the Assessor.

1. As-built drawings
2. Air permeability test report or certificate
3. MCS certificate for any renewable energy technology
4. Statement from the developer, or equivalent person who is working for the client who is in a position to provide a professional judgement, that the building has been constructed (services, fabric U-value and glazing g-value etc.) in line with the details provided.

Please copy the below text onto your company letter head, complete details and return to the Energy Assessor. A copy of the statement can be provided in a Word document by Stroma at client request.

Developer Statement

Dear Assessor,

Re: 226A, 226B & 226C Marsh Wall, London

In regards to As-Built Part L and EPC documentation, please find herewith confirmation of variations between the as-built specification and that outlined within your report reference: **06-20-83403 S1 - Units:**

Element	Variations
Thermal envelope	*Please provide details or write "none"*
Heating service	*Please provide details or write "none"*
Cooling service	*Please provide details or write "none"*
Domestic hot water service	*Please provide details or write "none"*
Mechanical ventilation	*Please provide details or write "none"*
Internal lighting	*Please provide details or write "none"*
BMS and PFC	*Please provide details or write "none"*
Renewable technology	*Please provide details or write "none"*

I hereby confirm that all information given is accurate to the best of my knowledge and understand that subsequent changes to Part L or EPC documentation will be at my cost.

Signature: Name:

Position: Date: