

Specification Summary

New Build

Project Address - 40-42 Bulmershe Road, Reading, RG1 5RJ	
Thermal Mass Parameter (TMP)	Precise Calculation
Orientation (When stood facing out of the front door)	Varies dependant on flat
Dwelling designed to achieve a water use < 125 L/person/day	Yes

General Construction	Calculated U-Value (W/m ² K)
Ground floor – Beam & Block Concrete beam & block, 175mm Celotex GA4000, 50mm Screed	0.10
External Wall 1 – Cavity Wall Brick outer leaf, 150mm Dritherm 32 cavity insulation, Dense concrete block	0.20
External Wall 2 – Unheated Corridor (Sheltered Factor Applied) Brick outer leaf, 150mm Dritherm 32 cavity insulation, Dense concrete block	0.19
External Wall 3 – Basement Wall Brick outer leaf, 150mm Dritherm 32 cavity insulation, Dense concrete block	0.12
Party Wall Construction – Cavity with effective edge sealing applied.	0.00
Roof 1 – Plane Roof (Insulated at Joists) 100mm Rockwool Roll between timber joists, 300mm laid over on top	0.11
Roof 2 – Warm Flat Roof Single ply membrane, 210mm Celotex PIR, 18mm ply, timber firings, 18mm ply, 150mm timber rafters, plasterboard	0.10

Openings (<i>U-value and G-value must meet the specifications below</i>)	g-value	U-value
Windows – Double Glazed (<i>BFRC required</i>)	0.6	1.2
Doors – Solid	NA	1

*Window U-value – This value must reflect the 'whole' window rather than just the centre pane

Heating and Ventilation	Specification
Main Heating System	Mains gas combination boiler to rads Brand Name: Ideal Model Name: LOGIC COMBI Model Qualifier: ESP1 24
Secondary Heating System	N/A
Water Heating	From main heating: Combination boiler Shower flow rate restricted to 9 [litres/min]
Heating Controls	Time and temperature zone control
Ventilation	Natural, extractor fans to wet rooms.

Other	Specification
Lighting	100% low energy lighting
Air Tightness and Infiltration	< 5 m3/m2h
Renewables	Waste Water Heat Recovery: Showersave, QB1
Thermal Bridging	See below for details
Summer Overheating	Assessed separately as per Part O requirements

Thermal Bridging

Property Reference	Plot A	Issued on Date	26/04/2024
Assessment Reference	As Designed (Gas Boiler + WWH)	Prop Type Ref	End-Terrace Flat
Property	40, Bulmershe Road, Reading, RG1 5RJ		

SAP Rating	85 B	DER	14.19	TER	15.56
Environmental	91 B	% DER < TER			8.80
CO ₂ Emissions (t/year)	0.56	DFEE	39.54	TFEE	40.79
Compliance Check	See BREL	% DFEE < TFEE			3.05
% DPER < TPER	2.90	DPER	80.14	TPER	82.53

Assessor Details	Mr. Lee Robbins	Assessor ID	U322-0001
Client			

	Junction details	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Independently assessed	0.014	7.08	0.10	
External wall	E3 Sill	Independently assessed	0.021	2.40	0.05	
External wall	E4 Jamb	Independently assessed	0.016	20.46	0.33	
External wall	E5 Ground floor (normal)	Table K1 - Default	0.320	21.22	6.79	
External wall	E22 Basement floor	Table K1 - Default	0.220	5.24	1.15	
External wall	E7 Party floor between dwellings (in blocks of flats)	Independently assessed	0.038	18.36	0.70	
External wall	E24 Eaves (insulation at ceiling level - inverted)	Table K1 - Default	0.150	5.24	0.79	
External wall	E14 Flat roof	Table K1 - Default	0.160	8.10	1.30	
External wall	E16 Corner (normal)	Independently assessed	0.054	11.50	0.62	
External wall	E17 Corner (inverted – internal area greater than external area)	Independently assessed	-0.093	2.30	-0.21	
External wall	E18 Party wall between dwellings	Independently assessed	0.041	2.30	0.09	
External wall	E25 Staggered party wall between dwellings	Table K1 - Default	0.240	4.60	1.10	
Party wall	P1 Party wall - Ground floor	Table K1 - Default	0.320	3.56	1.14	
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	3.56	0.00	

Total: 115.92 W/mK:
Y-Value: 0.12 W/m²K:

Thermal Bridging

Property Reference	Plot B	Issued on Date	26/04/2024
Assessment Reference	As Designed (Gas Boiler + WWH)	Prop Type Ref	End-Terrace Flat
Property	40, Bulmershe Road, Reading, RG1 5RJ		

SAP Rating	86 B	DER	12.95	TER	15.45
Environmental	92 A	% DER < TER			16.18
CO ₂ Emissions (t/year)	0.43	DFEE	30.41	TFEE	35.19
Compliance Check	See BREL	% DFEE < TFEE			13.59
% DPER < TPER	10.16	DPER	73.77	TPER	82.12

Assessor Details	Mr. Lee Robbins	Assessor ID	U322-0001
Client			

	Junction details	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Independently assessed	0.014	5.78	0.08	
External wall	E3 Sill	Independently assessed	0.021	4.88	0.10	
External wall	E4 Jamb	Independently assessed	0.016	18.36	0.29	
External wall	E7 Party floor between dwellings (in blocks of flats)	Independently assessed	0.038	41.96	1.59	
External wall	E24 Eaves (insulation at ceiling level - inverted)	Table K1 - Default	0.150	5.24	0.79	
External wall	E16 Corner (normal)	Independently assessed	0.054	9.60	0.52	
External wall	E18 Party wall between dwellings	Independently assessed	0.041	2.40	0.10	
External wall	E25 Staggered party wall between dwellings	Table K1 - Default	0.240	4.80	1.15	
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	7.12	0.00	

Total: 100.14 W/mK:
Y-Value: 0.08 W/m²K:

Thermal Bridging

Property Reference	Plot C	Issued on Date	26/04/2024
Assessment Reference	As Designed (Gas Boiler + WWH)	Prop Type Ref	End-Terrace Flat
Property	40, Bulmershe Road, Reading, RG1 5RJ		

SAP Rating	84 B	DER	16.22	TER	17.15
Environmental	90 B	% DER < TER			5.42
CO ₂ Emissions (t/year)	0.54	DFEE	44.39	TFEE	42.85
Compliance Check	See BREL	% DFEE < TFEE			-3.59
% DPER < TPER	-0.04	DPER	91.35	TPER	91.31

Assessor Details	Mr. Lee Robbins	Assessor ID	U322-0001
Client			

	Junction details	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Independently assessed	0.014	5.78	0.08	
External wall	E3 Sill	Independently assessed	0.021	5.78	0.12	
External wall	E4 Jamb	Independently assessed	0.016	18.48	0.30	
External wall	E7 Party floor between dwellings (in blocks of flats)	Independently assessed	0.038	23.60	0.90	
External wall	E16 Corner (normal)	Independently assessed	0.054	10.08	0.54	
External wall	E18 Party wall between dwellings	Independently assessed	0.041	2.52	0.10	
External wall	E25 Staggered party wall between dwellings	Table K1 - Default	0.240	5.04	1.21	
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	3.56	0.00	
External wall	E10 Eaves (insulation at ceiling level)	Independently assessed	0.068	9.06	0.62	
External wall	E12 Gable (insulation at ceiling level)	Independently assessed	0.175	10.46	1.83	
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Table K1 - Default	0.480	7.64	3.67	

Total: 102.00 W/mK:
Y-Value: 0.10 W/m²K:

Declaration	
As the responsible person for the above-named site, we confirm the accredited details have been implemented in line with the named construction detail references. I confirm that, to the best of my knowledge, the above as built specification has been implemented on site and understand that any deviation from this can affect the calculations.	
Name	
Signed	
Date	