

PART L COMPLIANCE REPORT

05-09-2026

Project: Worked example - rear extension, 22 Elm Ro **Client:** Example Client
Reference: EC-DEMO-GLAZE **Date:** 05-09-2026

EXTENSION COMPLIES - AREA-WEIGHTED U-VALUE METHOD
EXISTING ELEMENTS COMPLY

Openings 14.52 m² = 61% of the 24.00 m² floor area (allowance 9.00 m²) - area-weighted U 0.304 vs notional 0.322 W/m²K

1. Extension - area of windows, roof windows and doors (ADL1 para 10.10)

Item	Value
Floor area of the extension (internal)	24.00 m ²
25% of the floor area	6.00 m ²
Opening covered over / no longer exposed: Existing back door (no longer exposed)	+ 1.80 m ²
Opening covered over / no longer exposed: Kitchen window bricked up	+ 1.20 m ²
Allowance for openings	9.00 m ²
Proposed openings (windows, doors, roof windows, rooflights)	14.52 m ² (60.5% of floor area)
Reference method	Exceeds the allowance by 5.52 m ² - see the area-weighted comparison

2. New elements - limiting U-values (ADL1 Table 4.2, paras 10.1-10.2)

Element	Type	Qty	Each	Area	U W/m ² K	Limit	Check
Bifold doors (triple glazed)	External door	1	10.08 m ²	10.08 m ²	1.00	1.4	Meets
Side window (triple glazed)	Window	1	1.44 m ²	1.44 m ²	1.00	1.4	Meets
Rooflights	Rooflight / lantern (on upstand)	2	1.50 m ²	3.00 m ²	1.20	2.2	Meets
External wall	Opaque element	-	-	23.50 m ²	0.16	0.18	Meets
Roof	Opaque element	-	-	21.00 m ²	0.13	0.15	Meets
Ground floor	Opaque element	-	-	24.00 m ²	0.15	0.18	Meets

Windows and doors may alternatively comply by energy rating (WER band B; DSER band B, or band C where more than 60% glazed). Roof windows in the plane of the roof are assessed in the vertical position; rooflights on an upstand in the horizontal position. Whole-unit U-values (frame and glass), not centre-pane values.

3. Area-weighted U-value: proposed extension vs notional extension (ADL1 Section 10 optional approach)

Element	Proposed A (m ²)	Proposed U	U x A (W/K)	Notional A (m ²)	Notional U	U x A (W/K)
External wall (notional includes 4.38 m ² of excess openings)	23.50	0.16	3.76	27.88	0.18	5.02
Roof (notional includes 1.14 m ² of excess openings)	21.00	0.13	2.73	22.14	0.15	3.32
Ground floor	24.00	0.15	3.60	24.00	0.18	4.32
External door (notional 6.25 m ²)	10.08	1.00	10.08	6.25	1.40	8.75
Window (notional 0.89 m ²)	1.44	1.00	1.44	0.89	1.40	1.25
Rooflight / lantern (on upstand) (notional 1.86 m ²)	3.00	1.20	3.60	1.86	2.20	4.09
TOTAL / area-weighted U-value	83.02	0.304	25.21	83.02	0.322	26.75

The notional extension has the same floor area, wall, roof and floor areas as the proposed extension, with its openings limited to the para 10.10 allowance of 9.00 m² (each opening type kept in the proposed proportion, scaled to 62%). The excess vertical opening area (4.38 m²) is returned to wall at 0.18 W/m²K and the excess roof opening area (1.14 m²) to roof at 0.15 W/m²K; every notional element is at its Table 4.2 limiting value. Area-weighted U = $\sum(U \times A) / \sum(A)$.

Result: proposed 0.304 W/m²K ≤ notional 0.322 W/m²K - the extension COMPLIES by the area-weighted U-value method: its fabric heat loss (25.21 W/K) is no greater than that of the notional extension (26.75 W/K).

4. Work to existing elements: renovation, replacement, retained elements and controlled fittings (ADL1 paras 4.11-4.13, Section 11, Table 4.3)

Element	Type	Work	Area m ²	Existing U	Renov.	Threshold	Target	Proposed U	Result
Rear roof - re-covered and insulated	Roof	Renovating (new or replacement layer)	38.00	2.30	100%	0.35	0.16	0.16	Complies
Kitchen window replaced	Window	Replacement window / door / rooflight	1.50	3.10	-	-	1.40	1.30	Complies

- Rear roof - re-covered and insulated: Existing 2.30 > threshold 0.35; proposed 0.16 meets the improved value of 0.16 W/m²K.

- Kitchen window replaced: Proposed 1.30 meets the Table 4.2 limit of 1.4 W/m²K.

Basis: renovating a thermal element means providing a new layer or replacing an existing layer (including cavity fill). Where more than 50% of an individual element's surface, or more than 25% of the building envelope, is renovated, an element whose U-value is worse than the Table 4.3 threshold (column a) should be upgraded to the improved value (column b) where technically, functionally and economically feasible - a simple payback of 15 years or less; otherwise to the best that is feasible, generally not worse than 0.70 W/m²K (para 4.13, Appendix C). A replacement element must meet Table 4.2 and be no worse than the element it replaces. Replacement windows and doors must meet 1.4 W/m²K or the energy-rating bands, with the character-of-building exception in Table 4.2. A retained element that becomes part of the heated envelope (loft or garage conversion, change of energy status) is treated as a renovated element.

Basis of assessment

Method: Approved Document L, Volume 1: Dwellings, 2021 edition incorporating 2023 amendments (England). The energy efficiency requirements for work to an existing dwelling: new and replacement fabric elements to Table 4.2 (paras 10.1-10.2); the area of windows, roof windows and doors of an extension limited to 25% of its floor area plus openings that no longer exist or are no longer exposed (para 10.10), with the area-weighted U-value and whole-dwelling optional approaches where that is exceeded; conservatories and porches exempt only while at ground level, not more than 30 m², thermally separated, Part K glazed and unheated (para 0.14); renovated and retained thermal elements to Table 4.3 with the feasibility test in para 4.13. Areas and U-values were entered by the person preparing this report; U-values should be supported by manufacturer declarations or calculations to BS EN ISO 6946 / BR 443. Compliance is determined by the building control body. This report supports a Building Regulations application; it does not replace the building control body's judgement or a whole-dwelling SAP calculation where one is required.