

As-Built Evidence Requirements for Approved Document Part L1 – New Build Dwellings

The updated Building Regulations Approved Document L, Volume 1, 2021, became effective in England on June 15, 2022. This update introduces more rigorous standards for thermal efficiency, energy use, and construction quality, as part of the transition toward the Future Homes Standard, set to be implemented in 2025. The goal of these changes is to reduce the gap between the predicted energy performance during design and the actual performance of completed buildings.

A significant update is the implementation of the SAP 10 methodology, now used to ensure compliance with Approved Document L and to generate Energy Performance Certificates (EPCs). This new calculation requires a higher level of detailed design input for each new property, with building contractors required to supply more comprehensive information to both SAP Assessors and Building Control.

These regulations apply in both England and Wales. In Wales, the Building Regulations Approved Document L, Volume 1, 2022, came into force on November 23, 2022.

With consideration to the above amendments, additional evidence and information is required to support the As-Built SAP calculations.

Below is an outline of the evidence required which will need to be provided at the as built stage for all developments.

1. Documentation Requirements:

Below is a list of required documentation needed to support the As-Built SAP calculations. *Note: not all the below will be applicable to your dwelling, please review and provide accordingly.*

- Air-test certificates (*required for each dwelling - type averaging is no longer applicable*)
- Confirmation of the registered addresses of each plot
- Completed sections 1 and 2 of the Part L report (*please see attached pdf*)
- Construction drawings (site plan, layout plans, sections and elevations) including build-up notes for all walls, floors and roofs)
- U-value calculations (*detailed calculations showing the construction and achieve U-value for each external element*)
- Confirmation of psi Values achieved- a library of thermal bridging details provided by Elmhurst for complaint details can be found on the linked [Spreadsheet](#) for masonry cavity, timber frame, metal frame and masonry solid wall schemes.

Failure to provide evidence of psi values will result in default figures being used, which renders it extremely difficult to achieve compliance.

- Evidence of U-Values and g-values achieved for window/ door schedule.
- Lighting (Power and efficacy per bulb type)- Written confirmation of the number of each type of bulb, proof of bulbs used, stating power (W) and efficacy (Lm/w) for each type of bulb)- detailed light schedule.
- Showers (type and flow rates)- Written confirmation of manufacturer and model- stating flow rate (l/min) of each shower required.
- Gas certificates (*if applicable*)
- Commissioning information for hot water cylinders (*if applicable*)
- MCS certificate for any renewables (*if applicable*)

- I. Battery Storage- Written confirmation of manufacturer and model of battery and usable capacity (kWh). (*if applicable*)

- II. Export Cable Meter- Written confirmation of manufacturer and model is required. *(If applicable)*
- III. PV Diverters- Written confirmation of manufacturer and model of diverter system is required. *(if applicable)*
- HETAS certificate for any log burners/biomass heaters *(if applicable)*
- Commissioning sheets for MVHR ventilation *(if applicable)*
 - I. Mechanical Ventilation Duct Insulation *(where insulated ducting is specified)*
- Community Heating and Heat Networks- *Detailed information from the network designer and installer or commissioning engineer*

2. Photographic Evidence:

Photograph evidence must be taken for each dwelling on a development as a record **during the construction of a property**. Photograph evidence must be unique to each plot / property and at least one photograph per detail should be recorded.

Photographs must be taken at appropriate construction stages for each detail when completed, but prior to closing-up works. Photographs should be digital and of sufficient quality and high enough resolution to allow a qualitative audit of the detail.

All photographs are required to display a geo-location to confirm location, date and time of each image. (Usually automatic with most smart phones with location settings enabled).

Evidence Required for Each Plot:

1. Foundation/ Substructure and Ground Floor	• At ground floor perimeter edge insulation. • At external door threshold. • Below damp-proof course on external walls.
2. External Walls (For each wall type)	• Ground Floor to wall junction • Structural penetrating elements • Blown fill- photos of clean cavities and clean brick ties with minimal mortar droppings
3. Roof (each roof type)	• Joists/ rafter level • Eaves and gable edges
4. Openings (for each type) One image per wall/ roof type is sufficient)	• Window positioning in relation to cavity closer or insulation line • External door set positioning in relation to cavity closer or insulation line

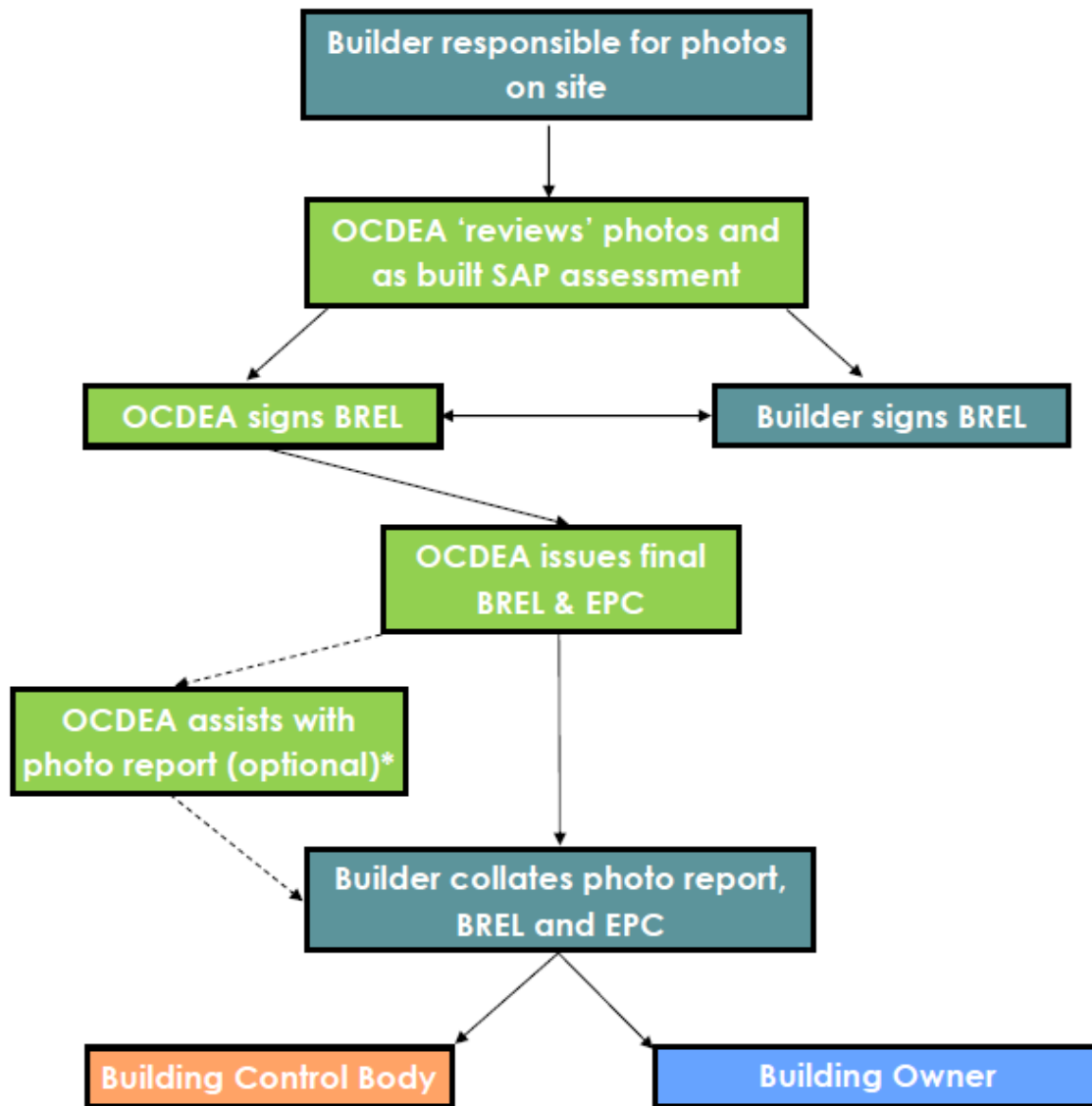
5. Air Tightness	Additional photographs for all details 1- 4 (above) to show airtightness details (only if not included or visible in continuity of insulation image)
6. Building Services	For all plant associated with space heating, hot water, ventilation and low or zero carbon technology equipment (e.g. PVs) within or on the building: - Plant Equipment identification label(s) including make & model & serial number - Primary pipework continuity of insulation - Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope).

As detailed in the Building Regulations Approved Document L, Volume 1, 2021, Appendix B7.

3. Acquiring Photographic Evidence

AD Part L1 does not specify who can take photographs, it is the builder's responsibility to organise who takes the photos.

Below is a diagram indicating the typical route for the photos.



4. Guidance on the Timeline for photographs to be taken:

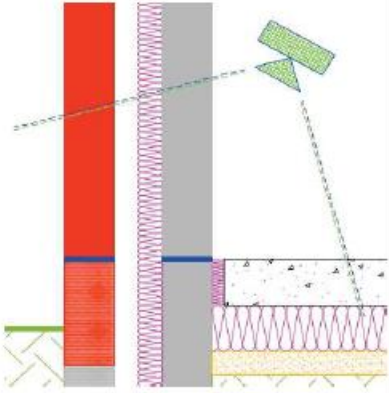
Volume 1 outlines several photographs that must be taken during the construction process, while others can be captured closer to the project's completion. It is essential for the builder to clearly understand both the requirements and the appropriate timing for taking these photographs. Below is a guide indicating the stages of construction at which each photo should be taken, based on typical build phases for a new dwelling:

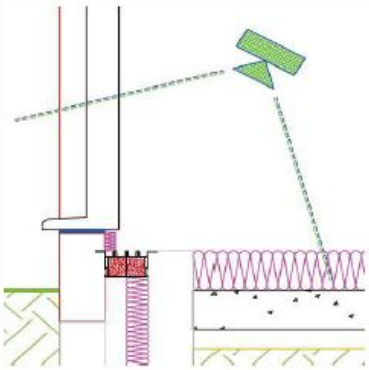
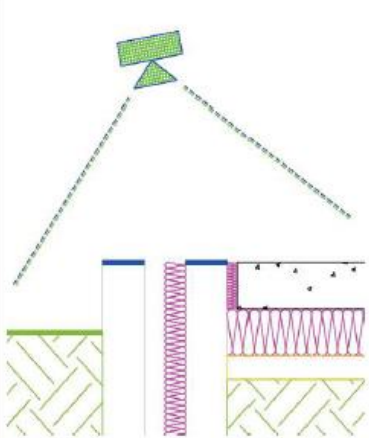
Building Stage	Typical Elements Constructed	AD L Photo Reference
Oversite	Foundations	1A, 1B, 1C
	Sub-Masonry	
	Drains	
	Oversite	
Roofed	Masonry to Joists	2A, 2B, 3A ,3B, 4A, 4B
	Joists	
	Second Floor	
	Third Floor	
	Masonry to Plate	
	Gable/ Roof carcass	
	Roof Coverings	
1 st Fix	1 st fix carpet	
	1 st fix plumbing	
	1 st fix electrics	
	plastering	
Completion	2 nd Fix Carpet	6A, 6B, 6C
	2 nd Fix Plumbing	
	2 nd Fix Electrics	
	Kitchen	
	Ceramics	

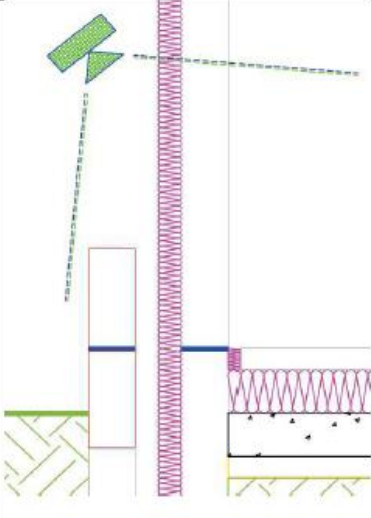
Building Stage	Typical Elements Constructed	AD L Photo Reference
	Decorations	
	Finals	
	QCFI	
	CML	
	Completion	

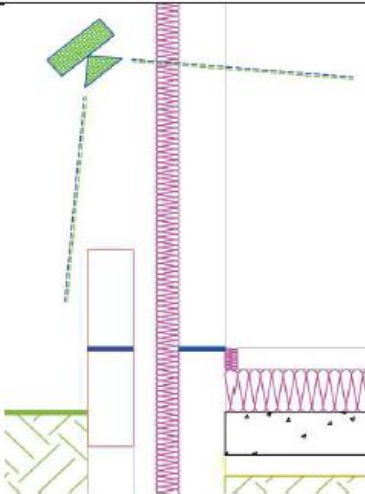
5. Photograph Guidance

This section reviews each photograph listed in Appendix B of AD L: Volume 1, specifying what should be captured in each image. High-quality photographs are essential for accurately assessing what has been delivered on-site and comparing it with the as-built SAP assessment. Below are examples of what photographs could represent for each category. For additional guidance on insulation continuity, reducing thermal bridging, and ensuring airtightness, refer to paragraphs 4.14–4.22 of AD L: Volume 1.

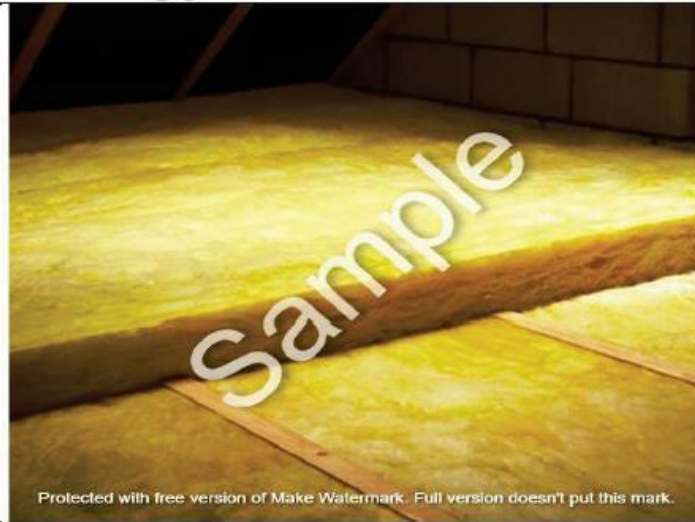
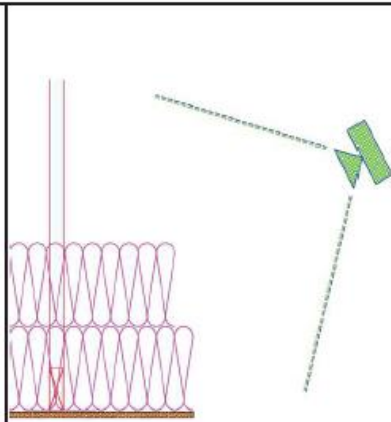
AD L Photo Reference	Direction of Photograph	Typical Example	AD L Guidance
1A – GF perimeter insulation (SAP junction reference E5)			Photograph should show a continuous strip of insulation in contact with the walls around the perimeter of the ground floor.

1B – Door threshold (SAP junction reference E3)			Photograph should show a strip of insulation or insulated cavity closer in the threshold zone.
1C – Below DPC on ext. walls			Moisture-resistant insulation should be fitted below damp-proof course level and extend to the foundation block/structure.

2A – GF to Ext. wall junction (SAP junction reference E5)		 Protected with free version of Make Watermark. Full version doesn't put this mark.	External or cavity wall insulation should extend below the dampproof course
2B – Structural penetrating elements (SAP junction reference E1/2)			There are a number of items this could cover but discussions with stakeholders suggests this would usually include lintels, and one photo is required per opening type.

2A – GF to Ext. wall junction (SAP junction reference E5)		 Protected with free version of Make Watermark. Full version doesn't put this mark.	External or cavity wall insulation should extend below the damp proof course
2B – Structural penetrating elements (SAP junction reference E1/2)			There are a number of items this could cover but discussions with stakeholders suggests this would usually include lintels, and one photo is required per opening type.

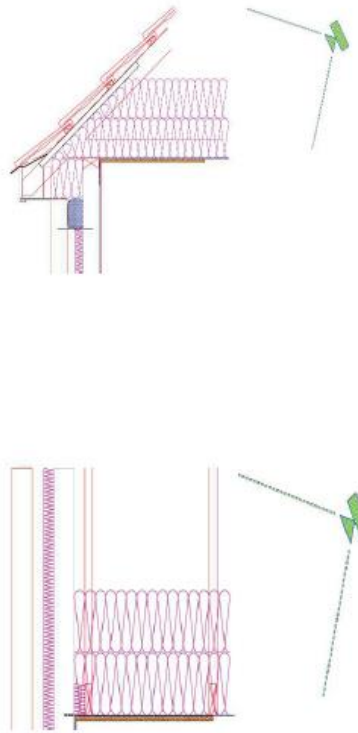
3A – Roof at
joist/rafter level



Insulation should be
installed tight to the
structure, without air
gaps, and should
extend to the wall
insulation

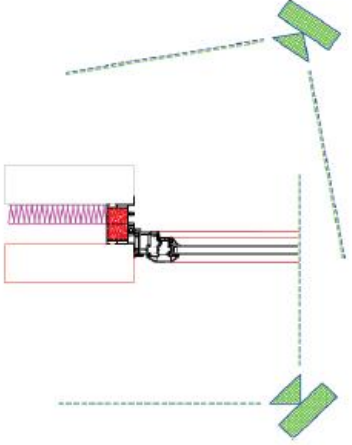
3B – Roof at eaves/gable edges

(SAP junction reference E10, E11, E12, E13)

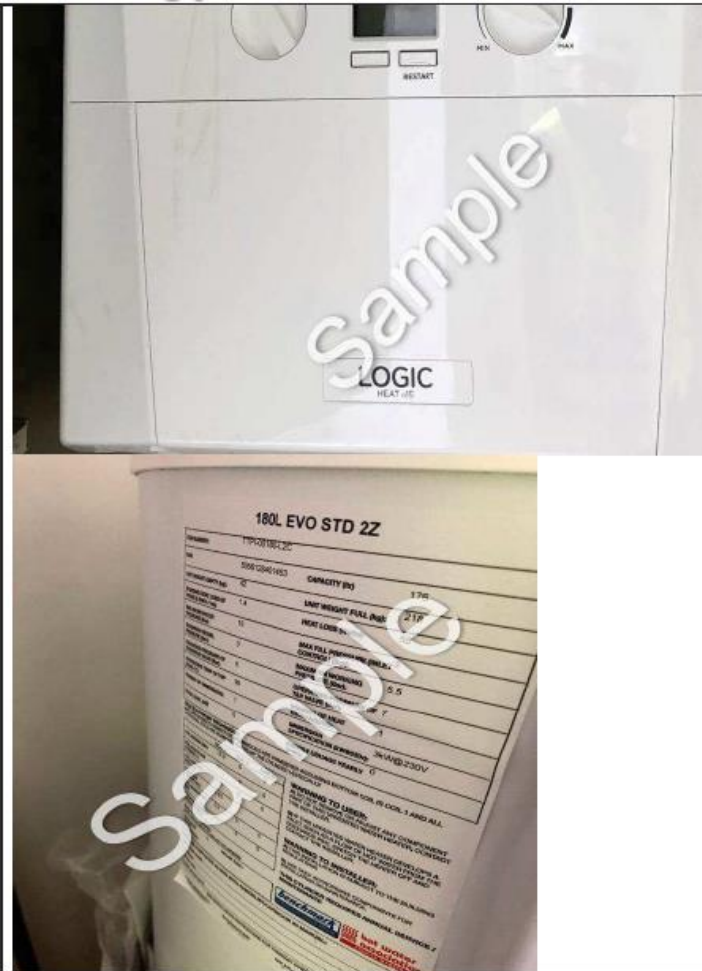


Eaves photograph should show loft insulation extending beyond the wall insulation to minimise cold bridging.

Gable photograph should show insulation against the inner surface of the external/party walls to minimise cold bridging.

4A/B – Window/door position to cavity closer/insulation line (SAP junction reference E4)			One photo per window/door type is sufficient here. Good practice would be to show a tape measure to check the window/door is in line with the cavity closer/insulation
5 – Airtightness issues			There is little guidance on what is required in this section currently. This could be to show how items that penetrate the air barrier, which are not covered by other photos, are sealed.

6A - Plant/equipment identification label(s), including make/model and serial number



Photos should show the labels clearly identifying make and model of heating system and hot water cylinder.

6B - Primary pipework insulation

6C- Ventilation
ductwork insulation



Only needed for
ductwork in
unheated spaces
and should show the
insulated ductwork
used.