

## AD-L and AD-0 2021

# Lessons learnt and an introduction to Photographic Evidence

Presented by Jon Ponting 19<sup>th</sup> July 2023

### Contents

#### AD-L and AD-O 2021

- Who Are We
- The Future Homes Standard
- SAP and SBEM compliance
- AD-O compliance
- Photographic Evidence



### Who Are We

#### We deliver developments fit for the future.

We focus on building performance – cutting through the complexities of policy, regulations and sustainable design principles to ensure our clients deliver high quality developments.

#### We understand the challenges you face.

In a fast-changing regulatory environment, you want clarity and confidence. And with competing priorities around costs, compliance and energy efficiency, you need to strike a fine balance too.

#### Independent building performance specialists



PLANNING STAGE (RIBA 0-3)



DESIGN &
CONSTRUCTION
(RIBA 4-5)



COMPLETION &
POST COMPLETION
(RIBA 6-7)

- BREEAM
- London Plan Energy Strategy
- London Plan Overheating
- Energy Statement
- Sunlight and Daylight Impact Assessments
- Ecology Assessment
- AD O Overheating Risk
- Circular Economy Statement
- Whole Life Cycle Assessments (WLC or LCA)
- SAP 10 Analysis
- Air Quality Assessments
- Home Quality Mark
- Noise Impact Assessments

- Acoustic Design Advice
- AD-O Overheating Risk
- BREEAM
- Circular Economy Statement
- Condensation Risk Analysis
- Home User Guise
- Photographic Evidence
- SAP Calculations
- SBEM Calculations
- Thermal Bridging
- Water Efficiency Calculations
- Whole Life Cycle Assessments (WLC or LCA)

- Acoustic Testing
- Air Leakage Testing
- Commercial EPC
- Thermographic Survey







#### What is it?

The Government's ambitious plan to change our approach to sustainable housebuilding as part of the UK's commitment to achieve net zero by 2050.

The Future Homes Standard was initially released in 2019 with the aim of:

- Reducing the amount of carbon dioxide produced by new buildings
- Ensuring new homes are comfortable to live in during summer months
- Keeping fuel bills down by designing low energy buildings

And to achieve all the above in a financially and technically viable way for the construction industry.



Ministry of Housing, Communities & Local Government

#### The Future Homes Standard

2019 Consultation on changes to Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for new dwellings: Impact Assessment

**ENE**RGIST

### When do these changes apply?

As of June 15th, 2023, all unstarted buildings in England\* must comply with the new regulations, even if the site was registered under 2013 Approved Documents.

Note the word 'Buildings', not 'Sites'.

Larger sites are having to comply with both old and new requirements, depending on when each individual building was started.

Commencement of work is defined as:

- Excavation for strip or trench foundations or for pad footings
- Digging out and preparation of ground for raft foundations
- Vibro-floatation, stone columns, piling, boring, pile driving
- Draining works specific to the building concerned

\*In Wales, the cut-off date is November 23<sup>rd</sup> for domestic, and March 2024 for non-domestic buildings.





#### Is there much difference?

The 2021 changes to the Approved Documents are significant, with brand-new requirements and tougher targets on existing requirements.

This means every new building must now:

- Meet the more stringent targets of SAP / SBEM
- Dwellings require a library of photographic evidence
- Comply with the requirements of AD-O for overheating
- Improve insulation standards to meet lower U-Value targets
- Achieve a minimum B Rated EPC (Wales only)





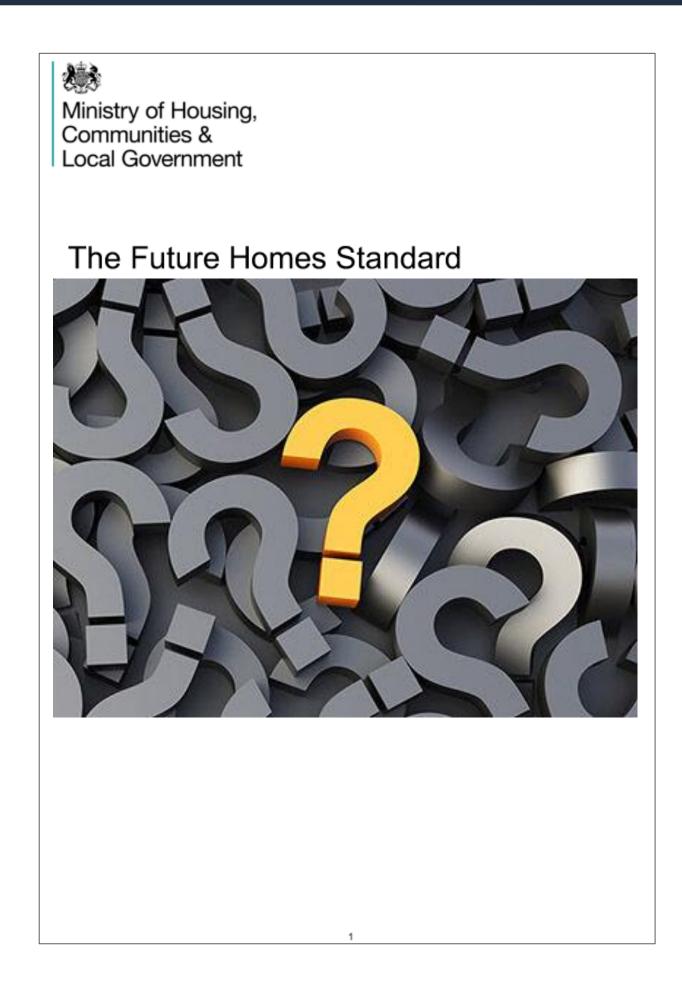
#### Part Two is still to come

Last year's updates were the first of two phases. The full Future Homes Standard will go live in 2025.

Government consultations are due this summer, which will first indicate how Building Regulations will look in just a few years.

#### We are expecting:

- Fossil fuel heating systems, including gas boilers, will not be feasible for compliance
- New homes will be built to such high standards that they will never need to be upgraded to improve fabric performance.
- Heat pumps, PV panels and triple glazing will become part of a normal specification for house builders.





#### One year on

It has been more than a year since these regulatory changes were introduced.

Developers have been getting used to the new requirements, although many still need to settle on their best method to comply with the current targets.

The Energist Technical Team has been keeping track of common questions and obstacles.

The following highlights some key considerations for compliance with the new regulations.









### **AD-L Targets**

Every new dwelling needs to pass SAP to prove compliance with AD-L.

Under 2021 regulations, this means more focus on limiting heat loss through the fabric, using low energy and high efficiency heating systems, and making the most of renewable technology.

With a 31% uplift on emissions targets, the step up to meet AD-L 2021 requires a rethink about how our homes are insulated and heated.





### **Model Design**

For SAP compliance in England, the targets are calculated using this Model Design specification.

To meet the primary energy and emission targets, your specification must perform better overall when compared to the Model Design.

Element	U-Value
Heat loss floors	0.13
Heat loss external walls	0.18
Heat loss corridor walls	0.18
Party walls	0.00
Heat loss roofs & ceilings	0.11
Windows	1.20
Rooflights	1.20
External doors	1.00

Element	Details
Air permeability	5.0
Thermal bridging	High performance psi-values
Ventilation	Intermittent extraction fans
Lighting	Average 80 lumens per watt
Heating & Hot Water	Gas boiler. 89.5%. Zoned controls
Heat recovery systems	WWHRS to all showers
Showers	8 I/min mains showers
PV panels	40% of building footprint



### **Model Design**

For SAP compliance in England, the targets are calculated using this Model Design specification.

To meet the primary energy and emission targets, your specification must perform better overall when compared to the Model Design.

Element	<b>U-Value</b>
Heat loss floors	0.13
Heat loss external walls	0.18
Heat loss corridor walls	0.18
Party walls	0.00
Heat loss roofs & ceilings	0.11
Windows	1.20
Rooflights	1.20
External doors	1.00

Element	Details
Air permeability	5.0
Thermal bridging	High performance psi-values
Ventilation	Intermittent extraction fans
Lighting	Average 80 lumens per watt
Heating & Hot Water	Gas boiler. 89.5%. Zoned controls
Heat recovery systems	WWHRS to all showers
Showers	8 I/min mains showers
PV panels	40% of building footprint



### **Model Design**

For SAP compliance in England, the targets are calculated using this Model Design specification.

To meet the primary energy and emission targets, your specification must perform better overall when compared to the Model Design.

Element	U-Value
Heat loss floors	0.13
Heat loss external walls	0.18
Heat loss corridor walls	0.18
Party walls	0.00
Heat loss roofs & ceilings	0.11
Windows	1.20
Rooflights	1.20
External doors	1.00

Element	Details
Air permeability	5.0
Thermal bridging	High performance psi-values
Ventilation	Intermittent extraction fans
Lighting	Average 80 lumens per watt
Heating & Hot Water	Gas boiler. 89.5%. Zoned controls
Heat recovery systems	WWHRS to all showers
Showers	8 I/min mains showers
PV panels	40% of building footprint



### **Model Design**

Under AD-L (2021), the Target Fabric Energy Efficiency has been tightened to follow the same Model Design.

This means the fabric performance of all dwellings must show an overall improvement when compared to this specification:

U-Value
0.13
0.18
0.18
0.00
0.11
1.20
1.20
1.00

Element	Details
Air permeability	5.0
Thermal bridging	High performance psi-values
Lighting	Average 80 lumens per watt
Heat recovery systems	WWHRS to all showers
PV panels	40% of building footprint



### How to comply

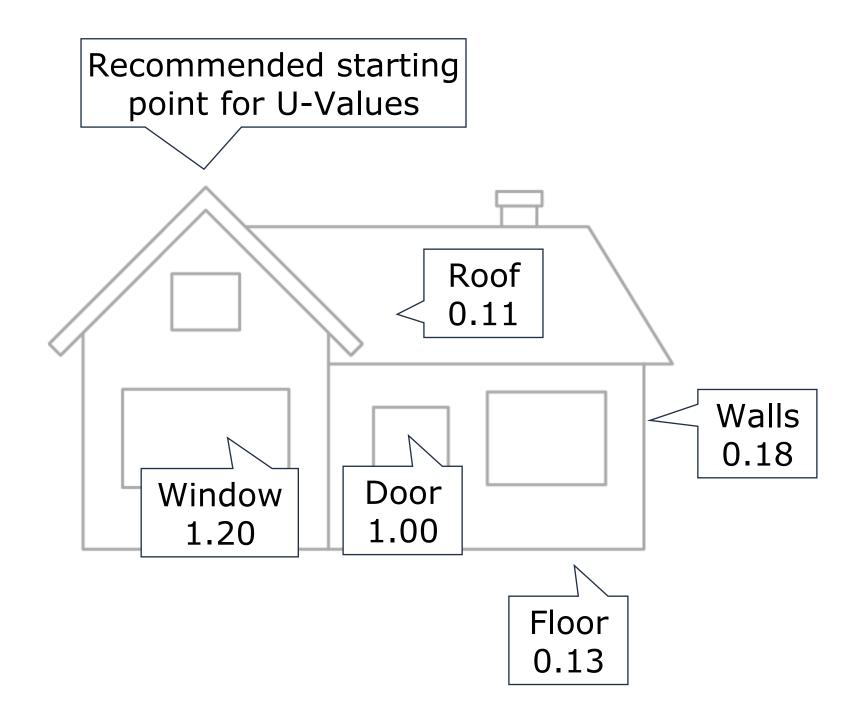
Always start with the fabric when planning a specification to comply with the 2021 targets.

In England, the combined performance of the dwelling's U-Values, thermal bridging losses and air permeability must be no worse than the Model Design.

This is a mandatory target. If the dwelling fails at this stage, the inclusion of PV panels or heat pumps is irrelevant until the fabric performance is improved.

In Wales, the fabric performance is not targeted separately; however, stricter U-Values force designers to include higher insulation levels as standard.

When the fabric stage is checked for compliance, the designer can then start to consider building services...





### Two routes to compliance

We have seen Developers settling into one of two camps for achieving compliance with AD-L (2021).

On one side, designers are using the Model Design as their template.

They use gas boilers, waste water heat recovery and PV panels as standard.

Their specification may not follow the Model Design precisely, but solutions are reached by improving elements to offset those that do not perform well.

For example, using a worse-performing window could be offset by installing a more advanced ventilation system.

#### Route 1





#### Two routes to compliance

We have seen Developers settling into one of two camps for achieving compliance with AD-L (2021).

In Camp 2, developers are working towards the full Future Homes Standard ideology early.

This means they are building houses without reliance on fossil fuels and using low-energy heating systems.

Heat pumps are usually used instead of gas boilers and PV panels.

One disadvantage of this approach, especially in Wales, is that the cost of electricity means heat pumps generate a worse EPC rating.

Developers chasing A or B-rated EPC certificates as standard will need PV panels, even if they take the heat pump route.

#### Route 2





### Is there another way?

While most developers are happy to proceed with the Gas+PV or Heat Pump routes, some are looking for a third option.

Option 3 does exist but is considered far less viable when compared to the other two options.

Compliance can be achieved by adopting a Passivhaus-style design, with U-Values around 0.10-0.15, triple glazing, heat recovery ventilation, waste water heat recovery, and an air permeability target around 2.0.

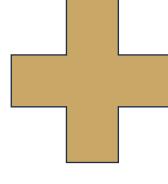
A similar specification can comply with a gas boiler or electric panel heater and, in most cases, will not require solar panels.

Given the additional cost of meeting such strict building fabric targets, only a minority of designers consider taking this alternative route to compliance.

### Route 3



19











energistuk.co.uk

## SBEM Compliance

#### **Future Buildings Standard**

Where SAP is being steered by the Future Homes Standard, SBEM is following a similar route through the Future Buildings Standard.

This separate Government policy is pushing non-domestic buildings on a similar route to compliance, focusing on heat pumps and PV panels.

As different types of buildings use energy in different ways, it's best to choose compliance routes on an individual basis.

For example, the most viable route for an office would be a heat pump for heating and cooling. A warehouse would see a greater benefit from PV panels.







#### **AD-O Targets**

This new Building Regulation aims to standardise overheating targets for new developments.

But by adding regional variations to targets, and creating a calculation method that's influenced by the safety and security of residents, AD-O has had a rocky introduction with many rules open to interpretation.

There are two Methods available for showing AD-O compliance.

- Simplified is quicker and cheaper, but compliance options are restrictive.
- **Dynamic** is far more accurate and gives more movement for compliance, but requires 3D modelling, so is more expensive to complete.
- At planning stage, if TM59 modelling has been completed, this can be used for proving AD-O compliance without new calculations being required.

We are often asked which method is the most appropriate route to use...



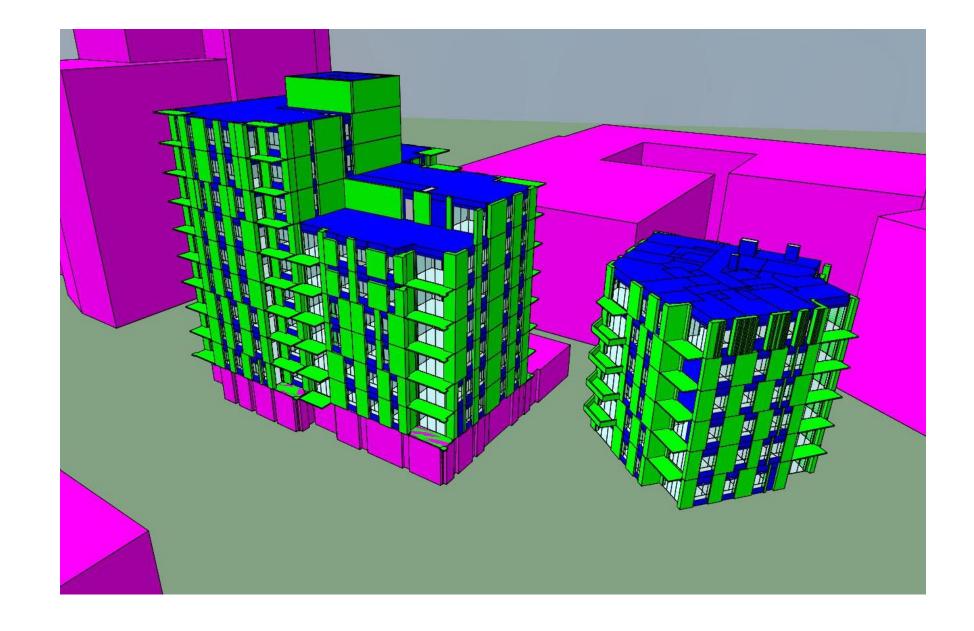


### **Simplified or Dynamic**

We would advise Dynamic is used if the free movement of air around the dwelling is limited. This may apply to:

- Apartment blocks with single façade dwellings
- Bungalows
- Dwellings with ground-floor bedrooms
- Dwellings which contain large rooms with little or no natural light
- Dwellings with lots of unopenable windows
- Any development in central London or Manchester

In these cases, compliance with the Simplified route can be difficult. More openable windows are required.



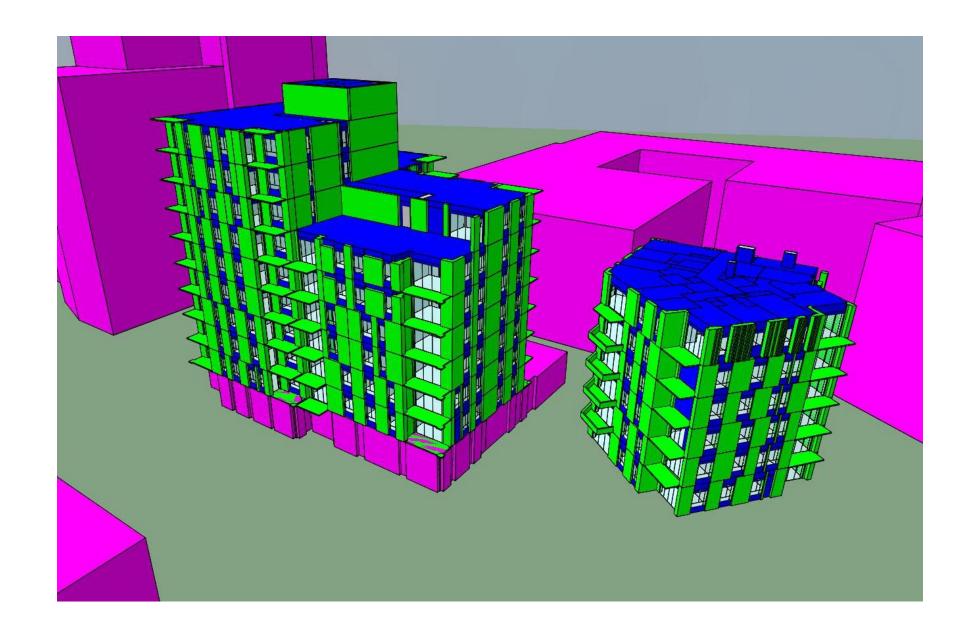


### **Simplified or Dynamic**

We would advise Dynamic is used if windows can't be left open due to concerns over security, safety or noise:

- Dwellings where rear access isn't secure
- Lower level apartments where balconies are not secure
- Dwellings close to busy roads, railways or nightclubs
- Dwellings where opening windows would cause a risk of falling

If openings cannot be left open for any of these reasons, the Simplified Method assumes these windows will remain closed, which often causes the calculation to fail.



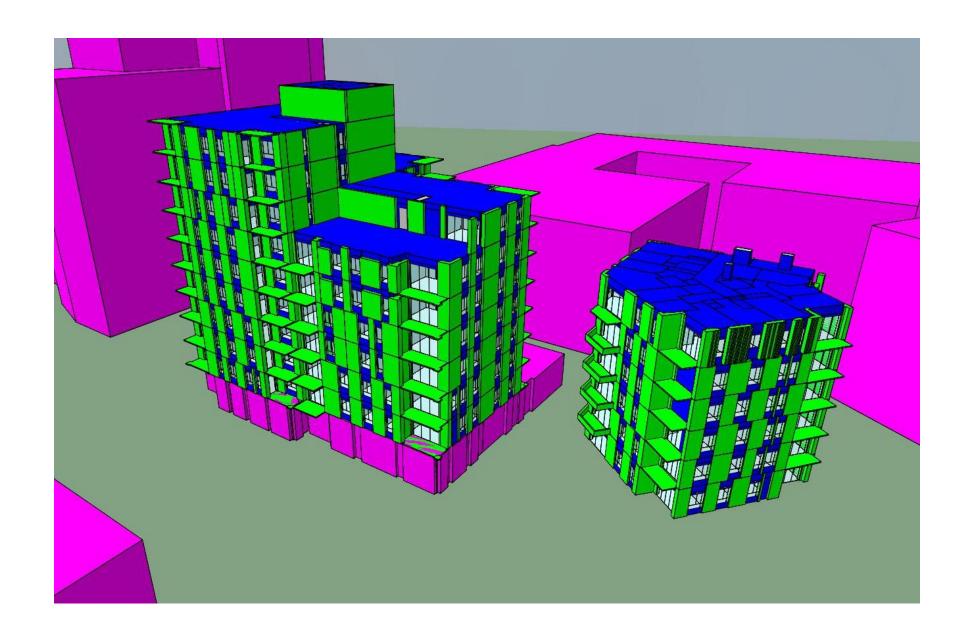


### **Simplified or Dynamic**

We would advise Dynamic is used if the dwelling or main living space has high levels of solar gains:

- Dwellings with a glass façade
- Narrow rooms with a large proportion of glazing
- Curtain walling

If the glazing ratio is too high, the Simplified calculation will not comply. The only way to pass using Simplified is to reduce the amount of glazing.





#### The devil is in the detail

AD-O has introduced new technical requirements for openings, leading to confusion compared to AD-K.

To protect people from falling through upper-floor windows, the lowest point of the opening must be a certain distance above the floor level.

- AD-O says this level must be 1.1m
- AD-K lists a lower height of 0.8m.
- AD-O over-rules AD-K.

This rule can be bypassed if the design includes fixed safety guarding, such as shutters or vertical bars.





#### The devil is in the detail

AD-O calculations assume any window that cannot be opened securely, will not be left open at all.

This includes any opening that could be used by an 'opportunistic burglar'.

As part of the AD-O assessment, the safety and security of each opening is assessed.

A dwelling with too many closed windows will struggle to pass, whether using Simplified and Dynamic routes.

The Developer can get around this by installing shutters or security grilles.

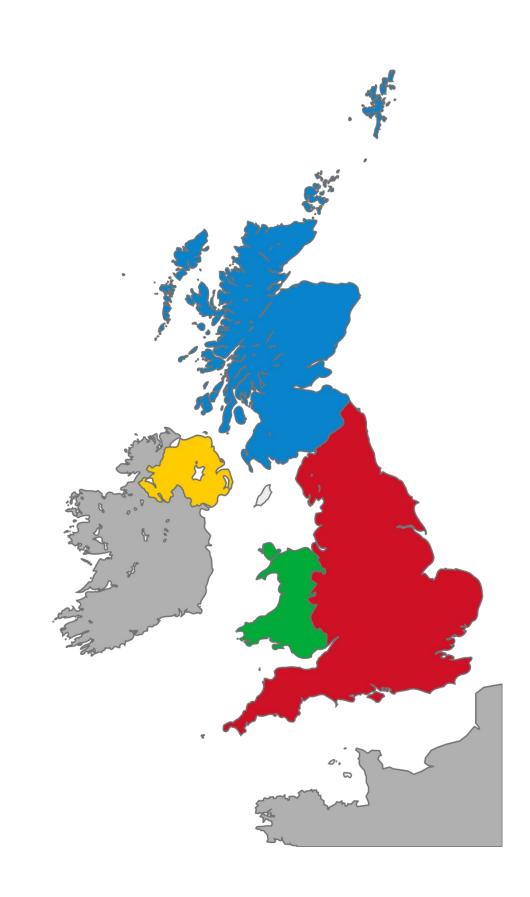




### Regional differences

The requirements of AD-O do not apply nationwide, with different targets depending on the location of the development.

- In England and Scotland, all dwellings must be assessed.
- In Wales, houses are exempt if they are multi-storey, have openings on opposite walls, and have no known noise or security risks.
- For the Simplified method, there are different targets used in England, Wales and Scotland, with specific targets for London and Manchester.
- For the Dynamic method, regional weather data is used, which means a site in the south east of England will face stricter targets than a similar site in north Scotland.







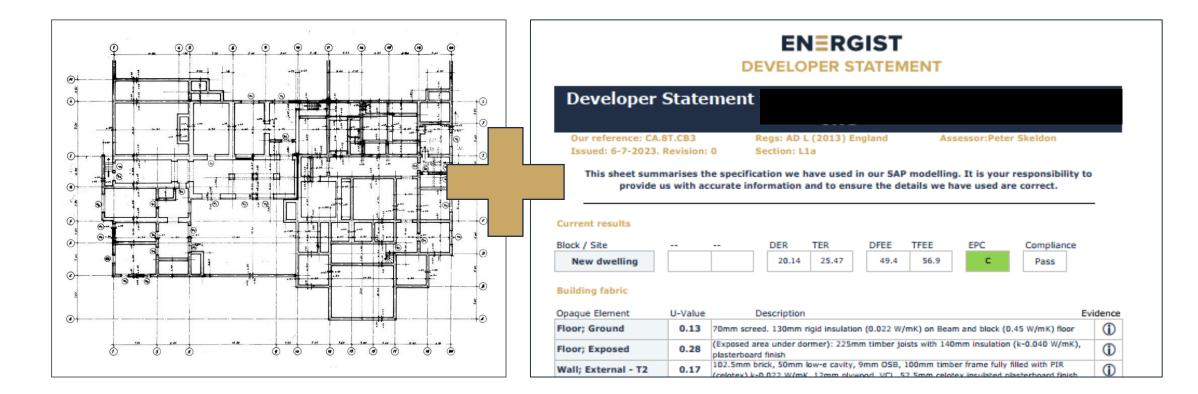


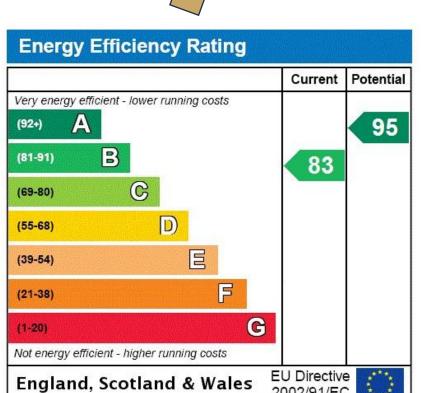
#### **Improving the Performance Gap**

When completing a SAP, the assessor uses the designer's plans and information. They do not visit the site to check the accuracy of the SAP compared to real life.

This missing link in the verification process is believed to contribute to the Performance Gap – the term used to explain the difference between EPC data and the actual dwelling.

AD-L (2021) has introduced the requirement for Photographic Evidence to better connect the SAP model to the final construction.







#### What the regulations say

The requirement to collect Photographic Evidence applies to every new dwelling constructed to the new AD-L in England and Wales.

- Every dwelling needs its own set of photographs.
- Anyone can take the photos.
- Photos should be accessible by the SAP assessor and Building Control.
- Photos should be digital, with a high enough resolution to clearly show the image.
- Geotagging should be used to record the time, date and location of the photo.
- The photos should be provided to the building owner.

#### ONLINE VERSION



#### Photographic evidence

- B6 Photographs should be taken for each dwelling on a development as a record during the construction of a property. The photographs should be made available to the energy assessor and the building control body. Anyone may take the photographs.
- B7 Photographs should be taken of typical details as listed below and should be unique to each property. One photograph per detail should be recorded. Additional images, such as a close-up detail, should be provided only when necessary (see below). Photographs should be taken at appropriate construction stages for each detail when completed, but prior to closing-up works.
- Foundations/substructure and ground floor, to show thermal continuity and quality of insulation in the following places.
- a. At ground floor perimeter edge insulation.
- b. At external door threshold.
- Below damp-proof course on external walls.
- External walls: for each main wall type, to show thermal continuity and quality of insulation for the following.
- a. Ground floor to wall junction.
- b. Structural penetrating elements.

**NOTE**: For blown fill, photos should show clean cavities and clean brick ties with very limited mortar droppings.

- 3. Roof: for each main roof type, to show thermal continuity and quality of insulation at the following.
- Joist/rafter level.
- b. Eaves and gable edges.
- Openings: for each opening type (one image per wall or roof type is sufficient), to show thermal
  continuity and quality of insulation with photographs of the following.
- Window positioning in relation to cavity closer or insulation line.
- b. External doorset positioning in relation to cavity closer or insulation line
- Airtightness: additional photographs for all details 1-4 to show airtightness details (only if not included or visible in continuity of insulation image).
- Building services: for all plant associated with space heating, hot water, ventilation and low or zero carbon technology equipment within or on the building, show the following.
- a. Plant/equipment identification label(s), including make/model and serial number.
- b. Primary pipework continuity of insulation.
- Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope).
- Photographs should be digital and of sufficient quality and high enough resolution to allow a qualitative audit of the subject detail. Close-up photographs may be needed where a long shot image provides insufficient detail. More than one image of each detail may be needed. Geolocation should be enabled to confirm the location, date and time of each image. Each image file name should include a plot number and detail reference according to the numbers used in paragraph B7. For example, Plot 1 eaves detail would be P1/3b.

**Building Regulations 2010** 

Approved Document L Volume 1, 2021 edition
ONLINE VERSION

79

energistuk.co.uk 31



#### Who uses the images, and why

The images should be made available to four parties - each party will have a different reason for reviewing the photos.

The **Building Control** inspector can use these images to check that good practice has been followed between their site visits.

The **SAP** assessor can use the images to confirm that the SAP model matches the construction and adjust the SAP if discrepancies are noted.

The **homeowner** can review the images to confirm that the insulation and building services were installed correctly.

The **site team** can share the images to improve workmanship and use them as training aids.

#### ONLINE VERSION



#### Photographic evidence

- B6 Photographs should be taken for each dwelling on a development as a record during the construction of a property. The photographs should be made available to the energy assessor and the building control body. Anyone may take the photographs.
- B7 Photographs should be taken of typical details as listed below and should be unique to each property. One photograph per detail should be recorded. Additional images, such as a close-up detail, should be provided only when necessary (see below). Photographs should be taken at appropriate construction stages for each detail when completed, but prior to closing-up works.
- Foundations/substructure and ground floor, to show thermal continuity and quality of insulation in the following places.
- a. At ground floor perimeter edge insulation.
- b. At external door threshold.
- Below damp-proof course on external walls.
- External walls: for each main wall type, to show thermal continuity and quality of insulation for the following.
- a. Ground floor to wall junction.
- b. Structural penetrating elements.

**NOTE**: For blown fill, photos should show clean cavities and clean brick ties with very limited mortar droppings.

- 3. Roof: for each main roof type, to show thermal continuity and quality of insulation at the following.
- a. Joist/rafter level.
- b. Eaves and gable edges.
- Openings: for each opening type (one image per wall or roof type is sufficient), to show thermal
  continuity and quality of insulation with photographs of the following.
- Window positioning in relation to cavity closer or insulation line.
- b. External doorset positioning in relation to cavity closer or insulation line
- Airtightness: additional photographs for all details 1-4 to show airtightness details (only if not included or visible in continuity of insulation image).
- Building services: for all plant associated with space heating, hot water, ventilation and low or zero carbon technology equipment within or on the building, show the following.
- a. Plant/equipment identification label(s), including make/model and serial number.
- b. Primary pipework continuity of insulation.
- Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope).
- Photographs should be digital and of sufficient quality and high enough resolution to allow a qualitative audit of the subject detail. Close-up photographs may be needed where a long shot image provides insufficient detail. More than one image of each detail may be needed. Geolocation should be enabled to confirm the location, date and time of each image. Each image file name should include a plot number and detail reference according to the numbers used in paragraph B7. For example, Plot 1 eaves detail would be P1/3b.

**Building Regulations 2010** 

ONLINE VERSION

79



### **How Energist can help**

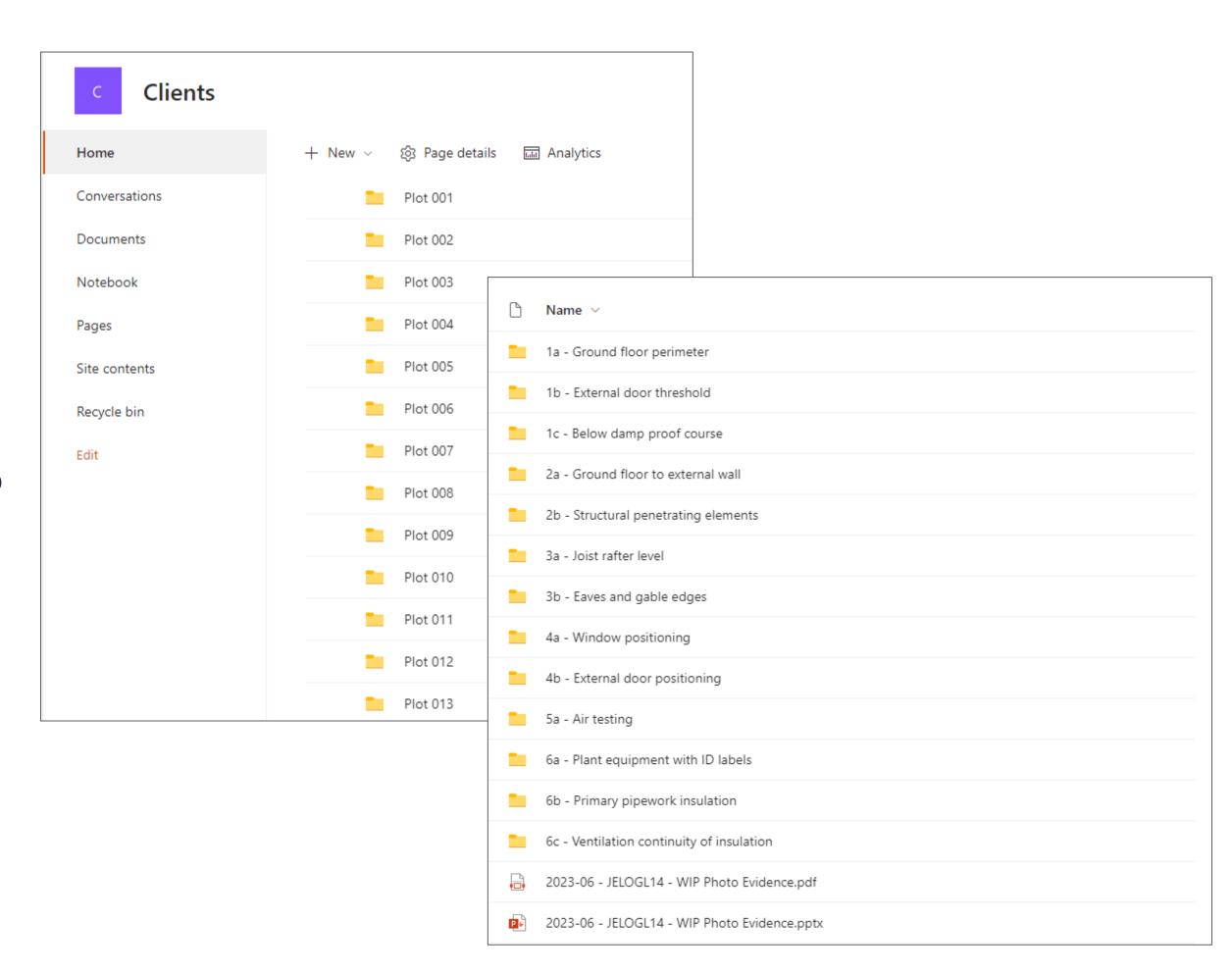
The SAP assessor is required to check photos before signing the As Built BREL report.

Images therefore need to be saved on a cloud-based portal, where files can be easily accessed by various parties.

One solution is to use Energist's Sharepoint portal.

We will set up a secure, site-specific photograph folder for any client who wishes to use it.

Alternatively, third-party portals are available. Energist will still need permission to access and view images.





#### **Photographic categories**

**AD-L** outlines thirteen categories for Photographic Evidence, split into six sections.

Sections 1-4 are to show evidence of the continuity of insulation. Section 5 is to show evidence of air tightness preparation. Section 6 is to show the installed building services.

Not all dwellings will need evidence in all categories.

The following slides give examples of 'What Good Looks Like' for supplying photographic evidence.

- Foundations/substructure and ground floor, to show thermal continuity and quality of insulation in the following places.
  - a. At ground floor perimeter edge insulation.
  - b. At external door threshold.
  - Below damp-proof course on external walls.
- External walls: for each main wall type, to show thermal continuity and quality of insulation for the following.
- a. Ground floor to wall junction.
- Structural penetrating elements.

**NOTE**: For blown fill, photos should show clean cavities and clean brick ties with very limited mortar droppings.

- Roof: for each main roof type, to show thermal continuity and quality of insulation at the following.
  - a. Joist/rafter level.
  - Eaves and gable edges.
- Openings: for each opening type (one image per wall or roof type is sufficient), to show thermal
  continuity and quality of insulation with photographs of the following.
  - Window positioning in relation to cavity closer or insulation line.
  - b. External doorset positioning in relation to cavity closer or insulation line
- Airtightness: additional photographs for all details 1-4 to show airtightness details (only if not included or visible in continuity of insulation image).
- Building services: for all plant associated with space heating, hot water, ventilation and low or zero carbon technology equipment within or on the building, show the following.
  - a. Plant/equipment identification label(s), including make/model and serial number.
  - b. Primary pipework continuity of insulation.
  - Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope).



### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 1A: The ground floor with perimeter edge insulation

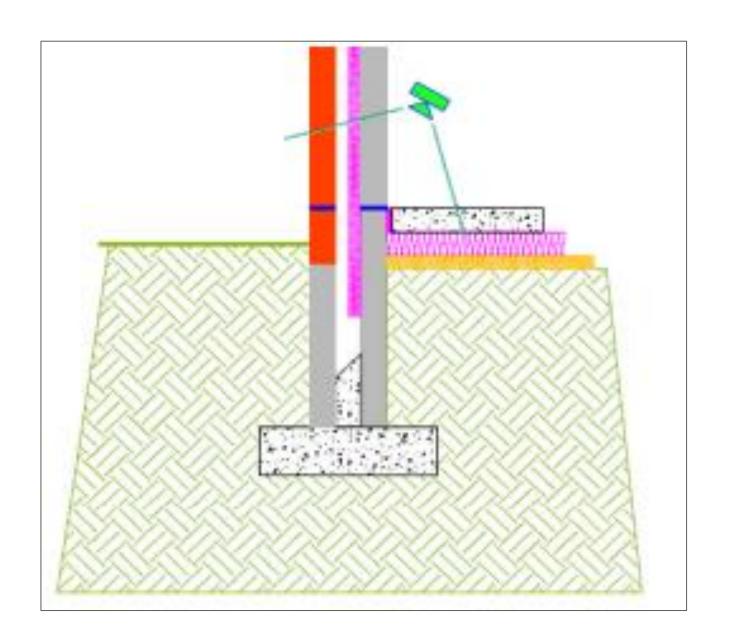




Image provided with thanks to:
Mike Jelf
Bell Homes



Technical drawing from SAP10 Conventions / BRE



### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 1B: External door threshold

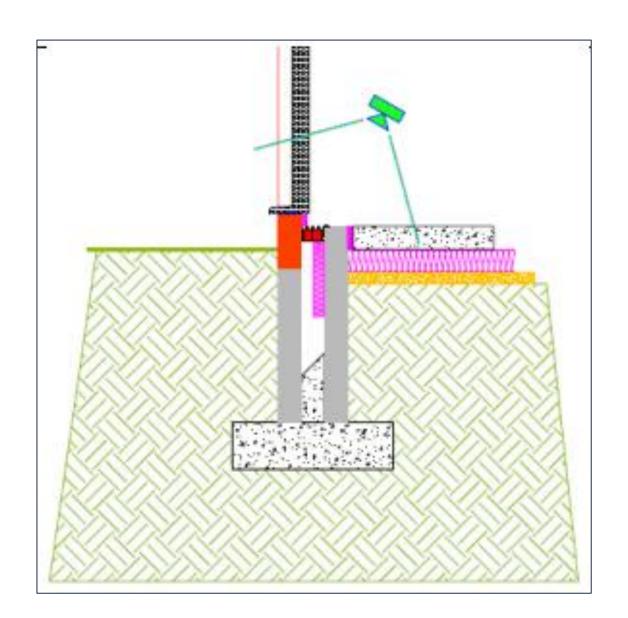




Image provided with thanks to:
Gerrian Baker
Redcliffe Homes



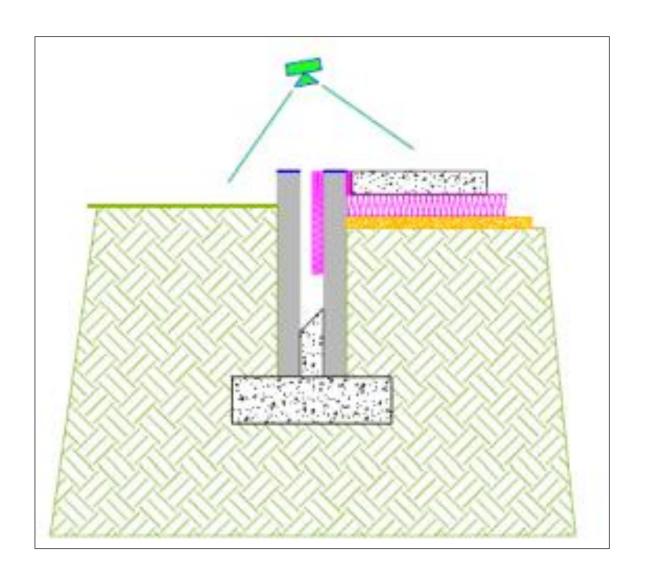
Technical drawing from SAP10 Conventions / BRE



### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 1C: Insulation at DPM level



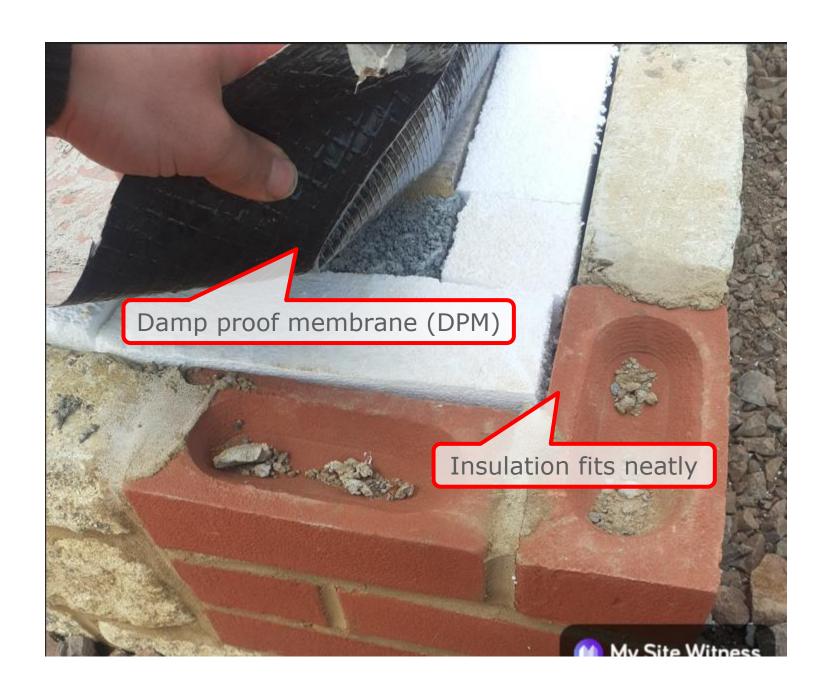


Image provided with thanks to: Mike Jelf Bell Homes



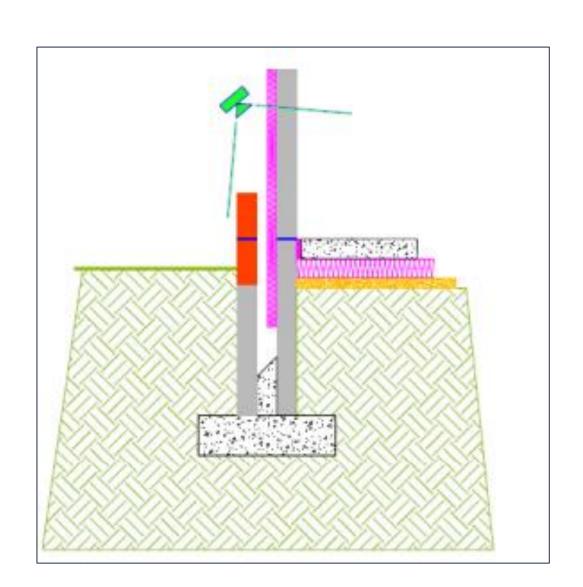
Technical drawing from SAP10 Conventions / BRE



#### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 2A: Ground floor to external wall



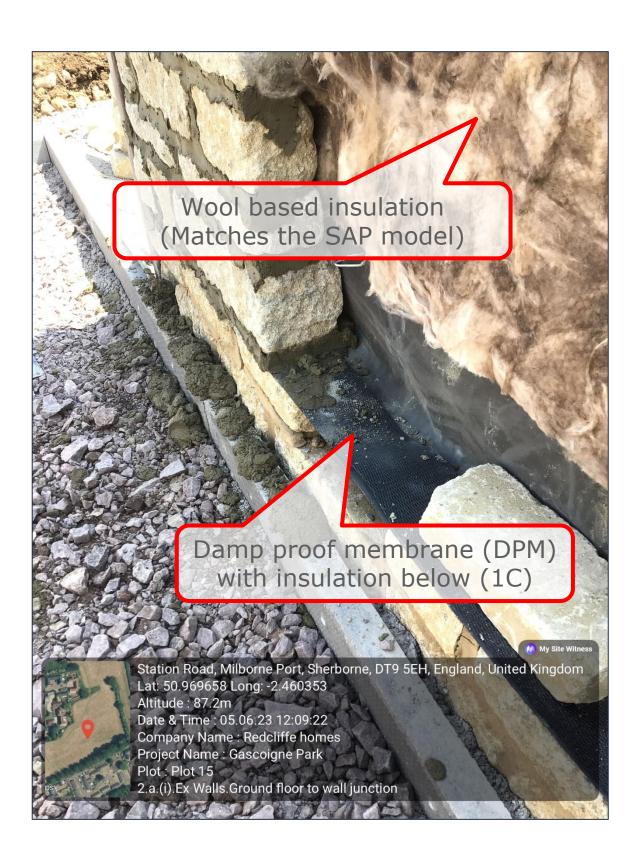


Image provided with thanks to:
Gerrian Baker
Redcliffe Homes



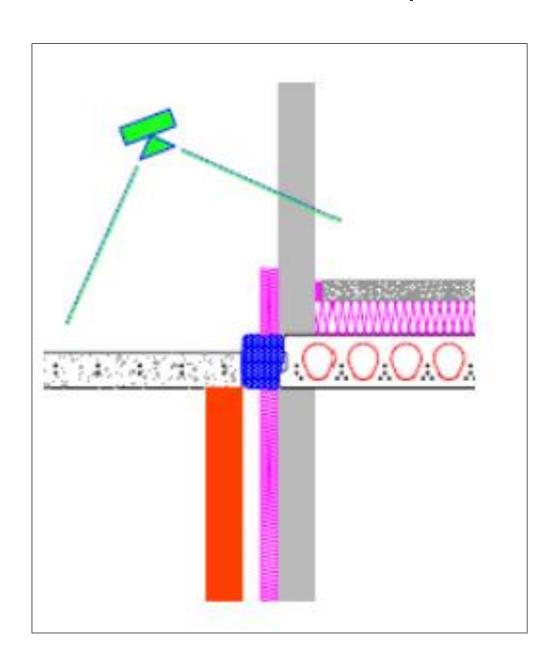
Technical drawing from SAP10 Conventions / BRE



#### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 2B: Structural penetrating elements



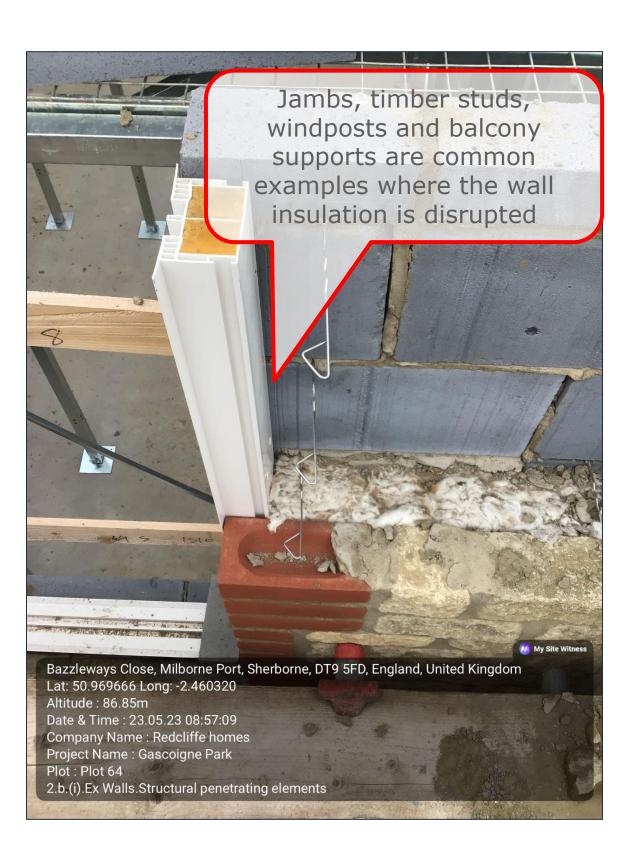


Image provided with thanks to:
Gerrian Baker
Redcliffe Homes



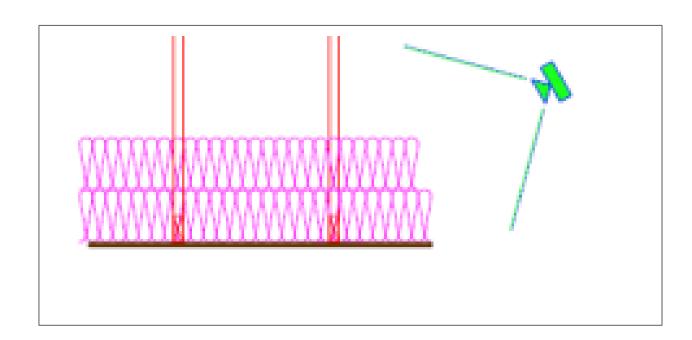
Technical drawing from SAP10 Conventions / BRE



#### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 3A: Insulation between joists or rafters



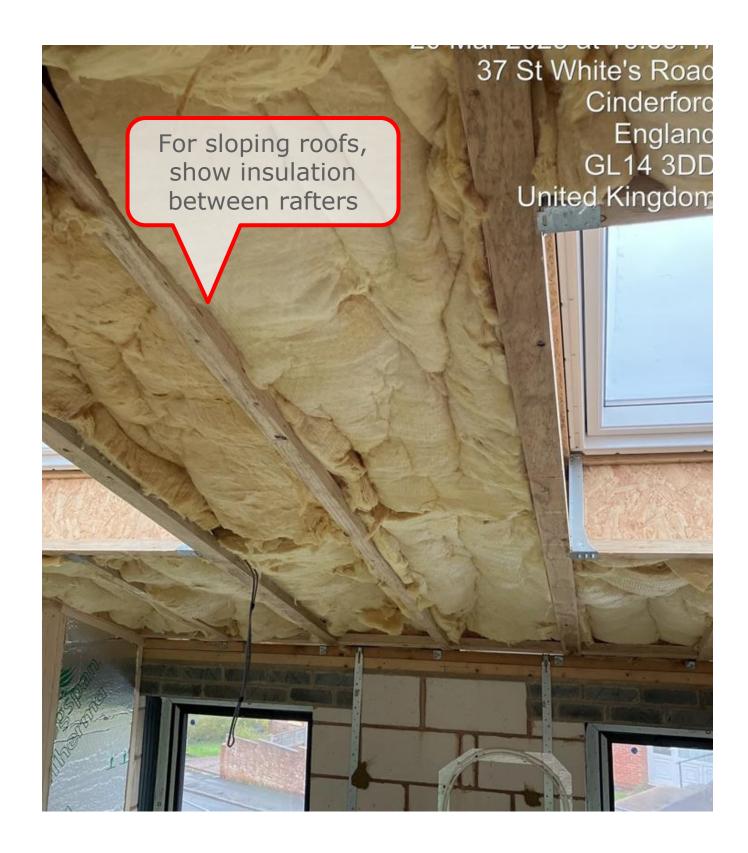


Image provided with thanks to:
Mike Jelf
Bell Homes



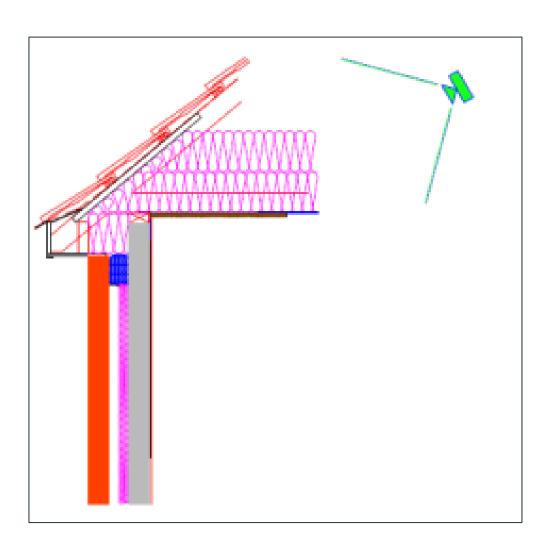
Technical drawing from SAP10 Conventions / BRE

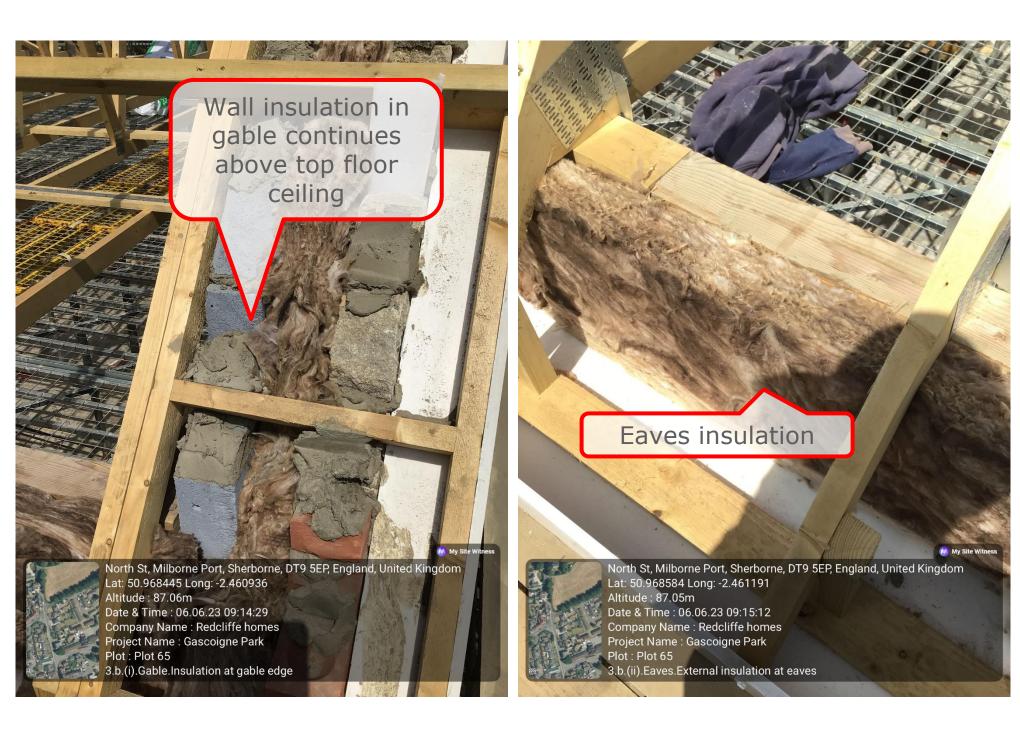


### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 3B: Eaves and gable edges





Images provided with thanks to:
Gerrian Baker
Redcliffe Homes



Technical drawing from SAP10 Conventions / BRE



#### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 4A: Positioning of window frame Section 4B: Positioning of the door frame

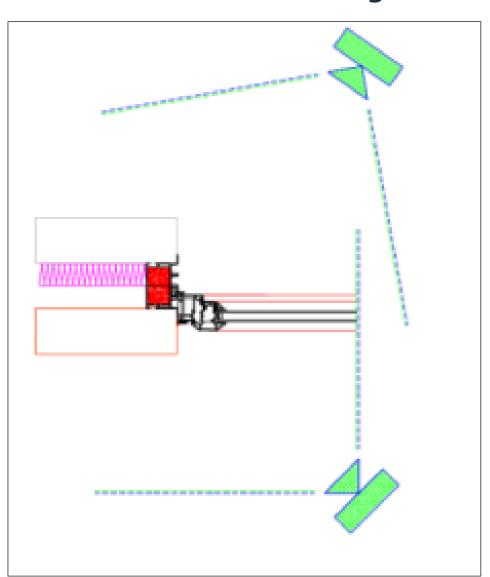




Image provided with thanks to:
Mike Jelf
Bell Homes



Technical drawing from SAP10 Conventions / BRE



### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 6A: Plant equipment







Images provided with thanks to: Mike Jelf Bell Homes





constructed to AD-L (2021). Used with kind permission.

### What good looks like

These photos are from dwellings currently being

Section 6A: Plant equipment







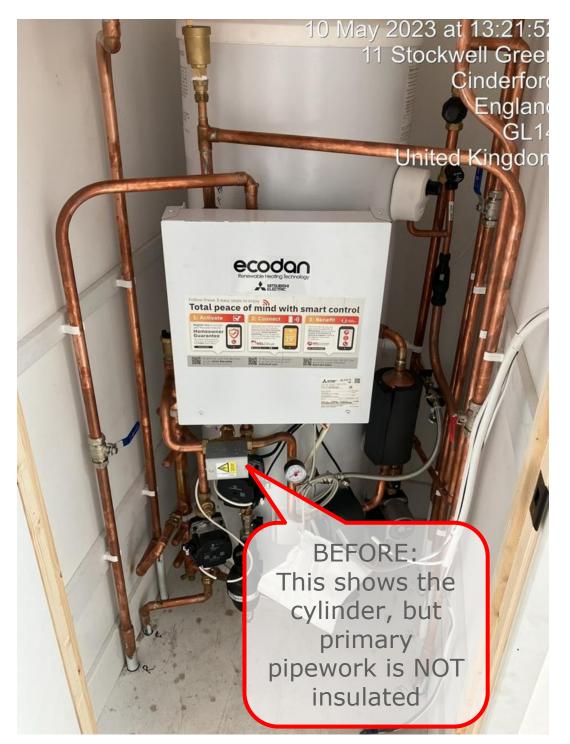




### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 6B: Insulated pipework





Images provided with thanks to: Mike Jelf Bell Homes





### What good looks like

These photos are from dwellings currently being constructed to AD-L (2021). Used with kind permission.

Section 6C: Ventilation ductwork



Images provided with thanks to: Mike Jelf Bell Homes









### Q&A

### **Photographic Evidence**

### What happens if photo evidence is not provided to the SAP assessor?

We can still issue the EPC and SAP reports without affecting the scores, but we cannot sign the BREL report.

#### How many photos are required per dwelling?

We would expect a minimum of 12 photos for a standard house type.

#### Can we use the same image for multiple dwellings?

No. The only exemption to this rule is in Section 6, when dwellings use a communal heating system.

### Will the SAP assessor raise issues with Building Control?

No. The role of the SAP assessor is to ensure their calculation is aligned with the images provided. All other matters are dealt with separately by Building Control.

#### SAP and AD-O

#### **Could SAP fail because of bad photo evidence?**

Only if the images show us different information to the proposed specification. For example, a gas boiler instead of a heat pump.

#### Will a dwelling that fails AD-O Simplified pass Dynamic?

Not a guarantee, but Dynamic is usually more forgiving because the calculation is based on more detailed, accurate data.

#### Will a lower g-value help my AD-O results?

For Dynamic, yes. For Simplified, no. Lower g-values have a negative impact on SAP, so it's possible to fix AD-O compliance while simultaneously losing AD-L compliance.

## When can we begin to test our specification in SAP11 / AD-L 2025? We are expecting the Government to release a beta calculator towards the end of 2023. This will not be a final version for compliance purposes, but

end of 2023. This will not be a final version for compliance purposes, but will give us a good indication about what to expect from 2025.





# Thank you.

Any questions?

Contact us:

enquiries@energistuk.co.uk

+44 (0)8458 386 387

energistuk.co.uk