

Technical Guidance on BREL Report

Building Regulations England Part L (BREL) Compliance Report

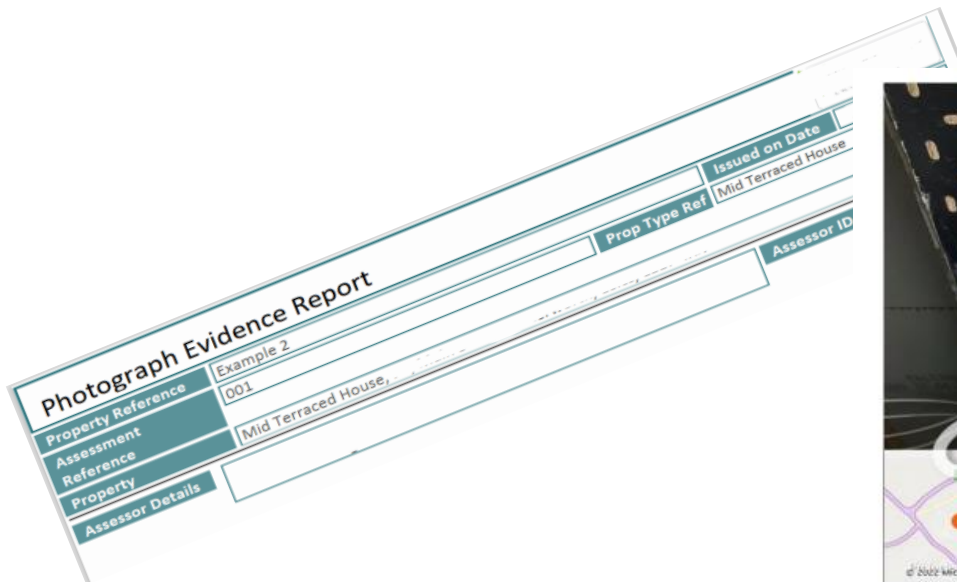
Approved Document L1 2021 Edition, England assessed by Array SAP 10 program, Array

Date:

Project Information			
Assessed By		Building Type	House, Detached
OCDEA Registration		Assessment Date	

Dwelling Details			
Assessment Type	As designed	Total Floor Area	
Site Reference		Plot Reference	
Address			

Client Details	
Name	
Company	
Address	



For all new dwellings, the Buildings Regulations England Part L (BREL) report and photographic evidence should be provided to the building control body and to the building owner to show that building work complies with energy efficiency requirements.

Two versions of the BREL report should be produced, using the approved software.

a. The first, the design stage BREL report, before works begin, to include all of the following.

- i. The target primary energy rate and dwelling primary energy rate.
- ii. The target emission rate and dwelling emission rate.
- iii. The target fabric energy efficiency rate and dwelling fabric energy efficiency rate.
- iv. A supporting list of specifications.

b. The second, the as-built BREL report, to include all of the following.

- i. The target primary energy rate and as-built dwelling primary energy rate.
- ii. The target emission rate and as-built dwelling emission rate.
- iii. The target fabric energy efficiency rate and as-built dwelling fabric energy efficiency rate.
- iv. A supporting list of specifications **and any changes** to the list of specifications that was provided at design stage.

The building control body can then use these reports to help check that what was designed has been built. The software includes a facility to compare the design stage and as-built data input files and automatically produce a schedule of changes.

As part of the as-built BREL report 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.

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.

Failure of builders/developers to provide this photographic evidence may delay or even prevent a completion certificate to be issued.

The following news article from LABC provides further information and guidance on BREL reports:

News



It is the government's intention to meet net zero by 2050. The latest guidance in the current Approved Document L Volume 1 in [England \(2021 edition\)](#) and [Wales \(2022 edition\)](#) aims to reduce carbon emissions by 32% and 37% respectively, with the target of 75% lower carbon emissions for new homes built from 2025 onwards.

It is important to establish that increasingly we need to focus on the 'as-built' standards to ensure they meet the design fabric U-values in floors, walls, windows, and roofs. The pressure posed by rising fuel prices also mean that it makes sense that the occupant lives in a dwelling that keeps them warm in the winter and cool in the summer.

Part L requires that any new dwelling built/started (A) (in England after 15 June 2023 and Wales after 23 November 2023) is provided with information from the contractor that key thermal details are shown to meet the required fabric efficiency standards. These are in addition to any inspections made by the Building Control Body (BCB).

These are part of the Building Regulations England Part L (BREL) and Building Regulations Wales Part L (BRWL) reports to improve the 'as-built' standards in new dwellings.

In this particular Building Bulletin, we will focus on photographic evidence as part of a series addressing the performance gap. In later editions we will consider the Home User Guide (in England) and Home Energy Guide (in Wales), along with the related topics as shown in Figure 1 below.

(A) Parts F, L, O (in England and Wales) and Part S (in England only) allow for transitional provisions on sites where the application for new dwelling(s) has been submitted to the BCB before 15 June 2022 and started work before 15 June 2023 (in England), and 23 November 2022 and 23 November (in Wales). For full details on your project please [contact your Local Authority Building Control Team](#) where the project is located.



Figure 1

The Building Regulations Part L (or 'BREL' or 'BRWL') reports will be produced by SAP assessments to show if homes use less energy and produce lower carbon emissions.

You must use your SAP assessment to get the following two BREL/BRWL reports for each new home:

1. The 'design' stage BREL/BRWL report – produced before any building work starts
2. The 'as-built' BREL/BRWL report – produced when the building work is completed and must be signed by both the SAP assessor to confirm that the calculations are accurate and the builder to confirm that the building has been constructed in accordance with the specification

You must also provide copies of each report to the homeowners to show their homes meet new energy efficiency regulations.

How is that photographic evidence provided and to who?

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.

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 closeup 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.

What details should the photographs capture?

Each of the following six key junctions will need to be photographed:

1) 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
- c) Below damp-proof course



Photo reference; P1/1a



Photo reference; P1/1b



Photo reference; P1/1c

2) 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.



Photo reference; P1/2a



Photo reference; P1/2b



Photo reference; P1/2b.1

Additional notes; Open cavity shown as blown insulation used

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



Photo reference; P1/3a



Photo reference; P1/3b.1



Photo reference; P1/3b.2

4) 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:

- a) Window positioning in relation to cavity closer or insulation line
- b) External door set positioning in relation to cavity closer or insulation line



Photo reference; P1/4a

5) Airtightness: additional photographs for all details 1–4 to show airtightness details (only if not included or visible in continuity of insulation image)



Photo reference: P1/5

6) 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
- c) Mechanical ventilation ductwork continuity of insulation (for duct sections outside the thermal envelope)

NOTE: Sample photos courtesy of the Future Homes Hub and Elmhurst Energy.



Photo reference; P1/5a



Photo reference; P1/5b.1



Photo reference; P1/5c

What type of photographs should be provided?

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 above. For example, Plot 1 eaves detail would be P1/3b. (i.e. Plot no. followed by the reference to eaves 3b as in the previous section)

The as-built BREL or BRWL report should be signed by the person carrying out the SAP assessment to confirm that the as-built calculations are accurate and that the supporting documentary evidence and photographs have been reviewed.