

# LABC's guidance on solid roofs to conservatories or porches attached to dwellings

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## Introduction

Many conservatories are now reaching the end of their natural life or are costing substantially more to heat than previously. Homeowners are looking for a cost effective way of retaining existing floor space whilst improving the energy efficiency of the structure. To meet this need homeowners are choosing to replace obsolete translucent roofs with solid ones.

This guidance has been produced to advise and inform suppliers, builders, architects and design consultants on the Building Regulations that will apply to the replacement of a translucent roof to a conservatory or porch with a solid roof.

The preferred option for many homeowners is a lightweight composite solid roof. Some roofs have a LABC Registered Detail that provides an approved design, quality control and accredited installation. Other options may simply underdraw or overclad existing polycarbonate roofs. Or replace the existing roof with a traditional tiled roof that may not have taken into account the adequacy of the existing structure to carry increased loading.

## Definition of a conservatory

The Building Regulations in 2010 removed guidance on the definition of a conservatory. Conservatories and porches now share a common description with Regulation 9(1), 21(4) stating to meet the exemption status in Schedule 2 Class 7;

- They must be at ground level and have a floor area less than 30m<sup>2</sup>.
- They must be thermally separated from the dwelling by walls, windows or doors which meet the energy efficiency requirements, and
- The dwelling's heating system must not be extended into the conservatory or porch.

A Department of Communities and Local Government (DCLG) circular letter on 28 September 2010 stated that "Building Control Bodies will want to note that the definition of conservatory in terms of percentage translucent material as set out in previous editions of the Approved Documents no longer applies".

To address the lack of a suitable definition for a conservatory we produced a [Best Practice Guidance Note MG0010411 - Application of Part L to Conservatories attached to existing dwellings](#). This defined a conservatory and/or the type of structure that could meet the exemption criteria. We based this on what is generally considered to be key features of a typical conservatory; a lightweight structure comprising of predominantly glazed walls and roof that is thermally separated from the dwelling it is attached to.

Our [Best Practice Guidance Note MG0010411 - Application of Part L to Conservatories attached to existing dwellings](#) has also been accepted by the Building Control Alliance (BCA) and Association of Corporate Approved Inspectors (ACAI).

## The view of DCLG

While preparing this guidance we have taken into account the DCLG circular letter 'Conservatories and Porches' issued on 29 July 2013. The letter confirms that to benefit from exemption a conservatory or porch;

- Must have a significant proportion of the roof and walls glazed (no % given)
- It must be at ground level
- It must not exceed 30m<sup>2</sup>
- Comply with relevant sections of Part K
- Be thermally separated from the dwelling
- The buildings heating system must not to be extended into the conservatory or porch

The circular letter also stated if the amount of glazing to the walls or roof was significantly reduced the conservatory or porch could no longer be regarded as an exempt conservatory or porch. **The circular letter did not offer guidance as to what constitutes a conservatory but did state it should have a significant proportion of the roof and walls glazed.**

Importantly, the circular letter highlights:

"Where the relevant building control body decides that the extension is no longer an exempt conservatory or porch, regulations 4(1) and 4(3) of the Building Regulations would apply. This would mean that the work itself would need to comply with the applicable requirements of Schedule 1 (regulation 4(1)). It would also mean that the conservatory or porch must be no more unsatisfactory in relation to the requirements in Schedule 1 than before the work was carried out (regulation 4(3))".

## Our view

The recent DCLG letter indicated a conservatory must have a significant proportion of the roof and walls glazed to be considered exempt. This further validates the definition of a conservatory as set out by us in our [Best Practice Guidance Note MG0010411](#).

When work is carried out that significantly reduces the proportion of glazing, or level of translucence to the roof, the conservatory or porch can no longer be considered exempt.

The extension can no longer be considered of a kind described in Schedule 2 Class 7 and therefore has to comply with the applicable requirements of Regulation 4(1).

In which case the following regulations will apply:

- Regulation 3(c) applies as the work is a material alteration, but not a material change of use. To better understand the intent it is suggested the work is classed as a structural alteration to the roof, and as stated in the DCLG letter it is for the “work itself” i.e. the roof to comply with the regulations.
- Regulations 4(1) confirms building work shall be carried out so that it complies with the applicable parts of Schedule 1.
- Regulation 4(3) informs that after building work has been completed the work shall comply with the applicable requirements of Schedule 1 or where it did not previously comply it shall be no more unsatisfactory than before.
- Regulation 23 deals with requirements for the renovation or replacement of thermal elements
  - (1) Where the renovation of an individual thermal element—
    - (a) Constitutes a major renovation; or
    - (b) Amounts to the renovation of more than 50% of the element’s surface area;

the renovation must be carried out so as to ensure that the whole of the element complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

- (2) Where the whole or any part of an individual thermal element is proposed to be replaced and the replacement—
  - (a) Constitutes a major renovation; or
  - (b) (in the case of part replacement) amounts to the replacement of more than 50% of the thermal element’s surface area;

the whole of the thermal element must be replaced so as to ensure that it complies with paragraph L1(a)(i) of Schedule 1, in so far as that is technically, functionally and economically feasible.

The regulations are clear that when you carry out building work to a roof, the roof must comply with the regulations (subject to the caveats of 50% surface area). In other words, the roof must comply with Part L.

#### **What we would like to find on site**

The existing roof will either be glazed or polycarbonate and usually have uPVC window and doors. If the roof is glazed,

it is likely the vertical frames will have been designed to carry the roof load. In the case of a polycarbonate roof, the vertical frames may only have sufficient reinforcement to carry that particular load. To assess the suitability of the supporting framework it may be necessary to verify the type and extent of reinforcement on site by either drilling pilot holes or testing with a magnet to test for the incorporation of a steel core.

If there is no reinforcement new window frames may be needed to support the weight of the roof, or additional reinforcement installed abutting the existing frames. The typical loading of an existing glazed conservatory roof (not polycarbonate) is less than 10kN/m. A light-weight composite solid roof is only likely to add an additional 0.5kN/m.

The existing foundations should have trial holes excavated to ensure they are adequate to support the new loading. In most cases a 150mm thick concrete strip foundation or reinforced concrete slab which bears onto original ground will be adequate. Foundations passing over drains, close to tree roots or on filled ground may require further consideration.

#### **What you are likely to be asked for by LABC**

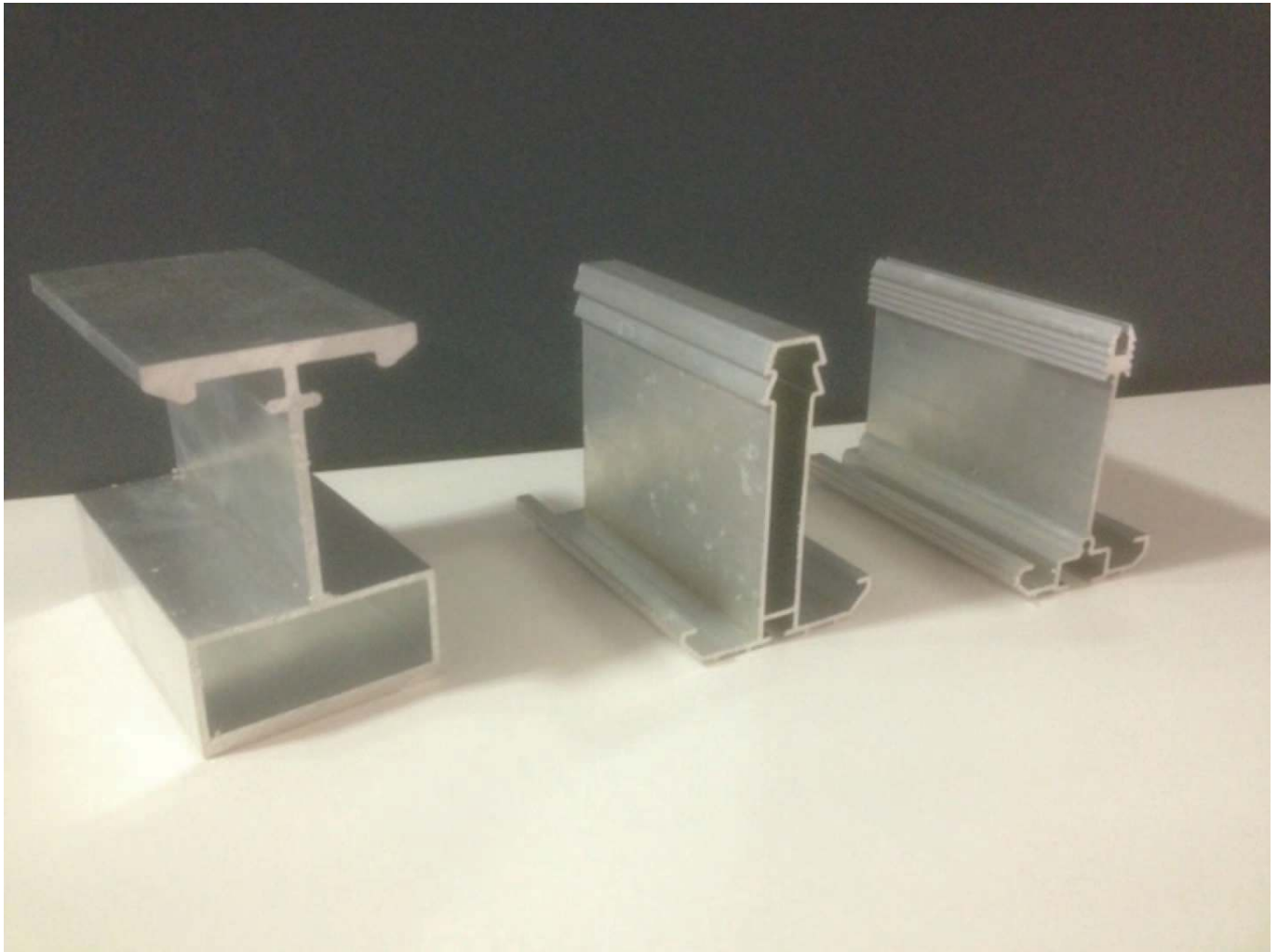
We assume that the building will remain thermally separated from the house; the house heating system has not been extended into the building; and suitable isolating valves and controls are installed within the conservatory or porch as described in our [Best Practice Guidance Note MG0010411](#).

Your local authority building control team is likely to ensure that the roof and supporting structure fully complies with the Building Regulations. They are also likely to view the remainder of the extension as being no worse than before with regard to compliance with the Building Regulations.

The Building Regulations that are likely to apply are:

- Approved Document A - Determination of adequacy of existing foundations by trial hole(s). If suitable vertical supports are not present then either new windows are required that comply with current Building Regulations, or additional structural posts installed.
- Approved Document C – Suitable weatherproofing of roof, abutments and rainwater goods
- Approved Document L - The new roof should comply with current Building Regulations as a new thermal element. The existing walls and floor should be considered as being no worse than before (Reg. 4(3)).

## Examples of typical roof profiles used for conservatories



The right and centre profiles are typically used for polycarbonate and glazed conservatory roofs. The left hand profile is used with a lightweight roofing system.

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LABC represents all local authority building control teams in England and Wales who work with industry and building professionals to ensure compliance with the Building Regulations. There are 3,000 surveyors working in LABC providing a consistent national service that is delivered at a local level.