



Traditional Farm Building Conversions - The Implications of Part L

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Background

In April 2002 some radical changes were introduced to Approved Document Part L of the Building Regulations – Conservation of Fuel & Power (see Countryside Building Vol2 Issue3 – The Implications of the Revised Part L Building Regulations upon Farm Conversions).

Essentially, the main thrust of these changes was to make buildings more energy efficient by improving levels of thermal insulation to walls, floors and roofs as well as improvements to air tightness. Whilst this does not present any significant problems with new-build projects, special consideration now needs to be given when traditional historic farm buildings are converted into alternative uses.

When the proposed revisions to Part L were first made public by the DLTR, English Heritage submitted a lengthy objection which resulted in an invitation for them to join the Building Regulations Advisory Committee. Following constructive dialogue, a number of clauses were included in the Interim Draft which was published in April 2001.

To summarise, the published document now acknowledges that special consideration can be given to historic buildings – note, the definition is 'Historic' not 'Listed'. Paragraph 4.10 of the Approved Document defines an historic building as:

- Listed Buildings
- Buildings situated within a Conservation Area
- Buildings which are of architectural and historical interest and which are referred to as a material consideration in a Local Authority's Development Plan
- Buildings of architectural and historic interest within National Parks, Areas of Outstanding Natural Beauty, and World Heritage Sites.

These definitions are supplemented by the statement in Paragraph 4.11 of Part L which states:

"The need to conserve the special characteristics of such historic buildings needs to be recognised (see BS 7913 'The Principles of the Conversion of Historic Buildings'). In such work, the aim should be to improve energy efficiency where and to the extent that it is practically possible, always provided that the work does not prejudice the character of the historic building, or increase the risk of long-term deterioration to the building fabric or fittings. In arriving at an appropriate balance between historic building conservation and energy conservation, it would be appropriate to take into account the advice of the Local Planning Authority's conservation officer".

It is generally accepted that Local Authorities will actively discourage large numbers of new openings through the existing fabric when planning applications for barn conversions are being considered. Accordingly, the design detailing of new windows and doors is critical so as to pay due regard to the vernacular, whilst not detracting from the character of the original building. With the recent changes to Part L, it would first appear that this could be somewhat difficult to achieve.

Alternative Approaches

When submitting proposals for Building Regulations consent, the designer can prove compliance with Part L by using one of three alternative methods:

- Elemental Method – this stipulates maximum permissible U-values for different construction elements;
- Target U-Value Method – this provides greater flexibility thus allowing designers to consider other factors. However, consideration needs to be given to providing satisfactory daylighting which, as stated above, is often a problem with barn conversions;
- Carbon Index Method – the aim of this method is to provide more flexibility with the design however a whole host of factors need to be considered and lengthy calculations are necessary to prove compliance. This includes factors such as solar gain, boiler specification, heating efficiency etc.

As far as the Elemental Method is concerned, the maximum U-value permissible in Part L for windows and doors (with timber frames) is now 2.0W/m²K. As a single-glazed window has a U-value 4.8W/m²K, for those of us involved with the conversion of historic farm buildings, this can present a problem where traditional joinery details are the preferred option.

As stated at the beginning of this article, when the revised Part L was finally published, the DLTR acknowledged that special consideration could be given to historic buildings - the onus being on the designer to submit a convincing argument.

Case History

A recent case which may be of interest to readers is the conversion of an historic farm building into residential use in the Forest of Bowland in Lancashire. Whilst the building is not Listed, it is within an Area of Outstanding Natural Beauty. In this instance, we were instructed by our client to prepare scheme proposals for the extension of the farmhouse into an adjacent 18th Century barn. Given the form of the existing structure, and materials used, we were mindful that the design detailing of the proposed windows would have a significant impact on the principal elevation of the building.

Our client was subsequently advised that it would be appropriate if single-glazed horizontal-sliding timber sash windows - often referred to as 'Yorkshire sashes' - were specified, as these are typical of the vernacular. However, we were mindful that if the requirements of Part L were applied literally to the proposals, double-glazing with inappropriately wide glazing bars would have to be specified in order to comply. In addition, we were also of the opinion that the inclusion of trickle ventilators in the top rail of the windows (often specified to comply with Part F) would be visually obtrusive.

In support of our proposals, we submitted to the Local Authority that special consideration should be given so as to permit the installation of single-glazed sash windows. The supporting statement submitted to the Local Authority cited the following issues as being of particular relevance:

- Paragraph 2.10 of Part L1 states that "*The need to conserve the special characteristics of historic buildings needs to be recognised*" and "*in such work the aim should be to improve energy efficiency where and to the extent that it is practically possible*". The proposed windows incorporate draught proofing to the frames, parting and staff beads which has been tested to achieve Exposure Category 2000 of BS 6375.
- Planning Policy Guidance Note 15 (Planning & The Historic Environment) sets out Government Policy on planning issues with specific reference to Listed and Historic Buildings. Paragraph C.50 states that "*it is usually impossible to install double-glazed units...or to replicate existing frames with new sealed units without making noticeable changes to the profiles of glazing bars, styles, and rails....weather stripping and draught proofing are visually more innocuous changes as well as thermally efficient and cost-effective.*"
- In accordance with paragraph 2.10 of Part L, and prior to submitting the application, we sought the opinion of the Council's Conservation Officer concerning the window specification. The Conservation Officer agreed that the design detailing as submitted was significantly more thermally efficient than conventional sash windows, whilst paying due regard to traditional joinery detailing.
- Background ventilation to habitable rooms was achieved by the provision of ducts through the external wall, in discrete locations, with buff-coloured air bricks externally and "hit and miss" ventilators internally as is permissible by paragraph 1.2(b) of Part F – Ventilation.

Reassuringly, Building Regulations consent was subsequently granted in February of this year without any conditions attached.

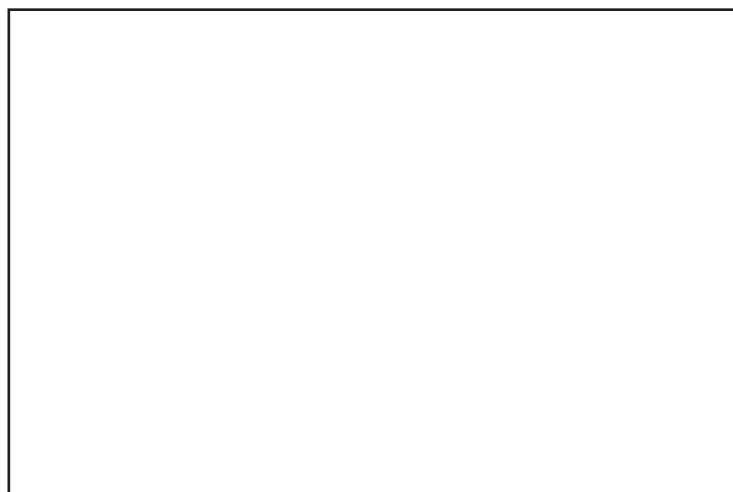
Summary

For those of us involved with the design and specification of works to historic farm buildings, it is worth noting that the requirements of Part L do not need to be literally applied. The revised wording instigated by English Heritage provides considerable latitude. Building Control Officers do not profess to be specialists in Historic Buildings, so the onus is on the designer to convince the Local Authority that traditional details are justified in appropriate cases.

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