

Sound standards for schools

Adrian James, Chairman of the Association of Noise Consultants, Fellow of the Institute of Acoustics and one of the principal authors of the DfES's Building Bulletin 93 *Acoustic Design of Schools*, discusses the document's upcoming review, recently commissioned by CLG



Approved Document E was revised in July 2003, and for the first time included a requirement that each space in a school building should be "designed and constructed to have acoustic conditions and insulation against disturbance by noise appropriate to its intended use".

Suggested standards to achieve this are given in Section 1 of the (DfES) Building Bulletin 93 "Acoustic Design of Schools" and are enforced through building control.

The use of regulation replacing the previous, widely-ignored DfES Guidelines has certainly resulted in a significant improvement in acoustic conditions in schools.

Since 2003, however, there have been significant changes in school design, particularly driven by the Building Schools for the Future programme.

There is now more emphasis on shared teaching for personalised learning, with clusters of classrooms often being arranged around common activity spaces, or even in open plan. There is

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also more emphasis on natural ventilation, even where schools are in noisy locations where opening windows causes high noise levels. These and other issues are now being considered in a review of BB93 commissioned by CLG.

As well as the technical aspects of acoustic design, the review considers more fundamental aspects such as the scope, use and implementation of BB93, all of which will affect the role of building control. Some of the issues being discussed are as follows:

REGULATION VS GUIDELINES

BB93 contains both conformance values for compliance with Regulation E4 and guidelines on good acoustic design. These are not the same thing. Regulations must, by definition, set minimum standards while guidelines should be for good standards.

BB93 does differentiate between its two roles, but unfortunately, very few users look beyond the tables of criteria set out in Section 1. Many schools are therefore being built to achieve the minimum standards, rather than good ones.

TYPES OF PREMISES

Regulation E4 only applies to schools as defined in the Education Act. This does not apply to many sixth form colleges which are defined as Colleges of Further Education. It is clearly illogical to set mandatory standards for sixth-form facilities in schools but not in CFEs, many of which continue to be built to lower acoustic



standards than secondary schools.

REFURBISHMENTS AND RENOVATIONS

There is widespread confusion about whether BB93 applies to alteration and refurbishment work. This needs clarification along with a stronger recommendation or mandatory requirement for application to refurbishments and renovations where there is not a Material Change of Use.

COMMISSIONING

BB93 recommends, but does not require, acoustic commissioning to ensure that the design intent is met. In practice, however, commissioning is rarely undertaken except as a contractual requirement or to achieve BREEAM credits. As a result, poor sitework often negates good acoustic design. Mandatory pre-completion testing for dwellings has resulted in a huge increase in the standard

of sound insulation achieved, and hence in the quality of life of residents. Mandatory testing under BB93 would certainly have the same effect for schools. Under HTM 08-01, acoustic commissioning is now a requirement for healthcare buildings and it is increasingly difficult to justify the absence of a similar requirement for schools.

ALTERNATIVE PERFORMANCE STANDARDS

Section 1.2.1 of BB93 allows alternative acoustic standards to be proposed by the acoustics consultant in specific cases. In some cases this clause is being mis-used to allow acoustic standards significantly below those in BB93 for commercial reasons, without adequate technical justification. The wording on this section is generally clear but it should be emphasised that this is not a licence for derogation, which could result in schools being approved by buildings control bodies while

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being acoustically inadequate.

Building control bodies play a critical role in ensuring that our children's education is not limited by high noise levels or bad acoustics, and their input to the revision of BB93 is therefore not just desirable – it is essential.

