

Proceedings of The Institute of Acoustics

PLANNING GUIDANCE FOR SOUND INSULATION OF FLATS FORMED BY CONVERSION

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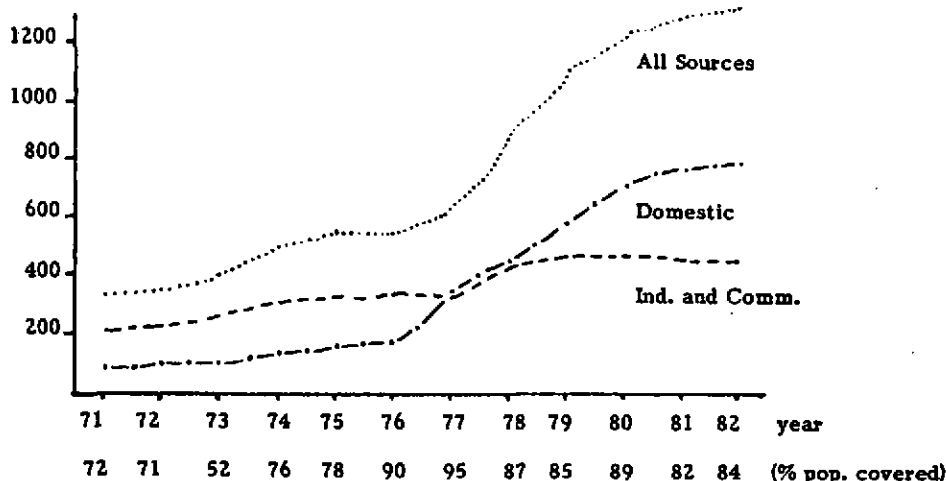
1. INTRODUCTION

The Environmental Health Officer (EHO) is now long established in a role of "prevention rather than cure", particularly in the field of noise. Indeed, the subject of noise, in the planning context, was considered important enough to warrant special attention in a Government circular (Ref. 1) and the part to be played by the EHO was explained therein. Furthermore, the enforcement of environmental noise legislation has encouraged the need to foresee problems before they arise (Ref 2). For these reasons, amongst others, the EHO works very much in a "prevention" frame of mind, and this paper will demonstrate how this has developed with regard to the conversion of buildings into flats.

2. DOMESTIC NOISE

Over the years much attention has been paid to the planning of road, rail, aircraft and industrial proposals, however, in terms of numbers of complaints of noise between neighbours, it is clear that flat conversions should rank high on the list of planning considerations. Indeed, the number of "noisy neighbour" complaints has reached such a level in some local authorities that they are unable to tackle them effectively (Fig 1).

FIG. 1 COMPLAINTS RECEIVED BY EHO'S : ENGLAND AND WALES (per million pop.)



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3. PLANNING - CASE HISTORIES

Whatever the cause, the EHO feels a strong sense of duty to reduce this trend particularly as in most cases there are no practicable remedies when a noise problem has arisen, and to this end, the planning permission process has been utilized to ensure that potential noise impacts are considered and preventive or ameliorative action taken where necessary.

3.1 Bolton

A typical terraced house had been converted into two flats (ground floor and first floor) without planning approval. This situation was brought to the attention of the Local Authority on receipt of a letter of complaint from neighbours concerning noise from activities in the lounge of the first floor flat disturbing them in their bedroom. A subsequent "change of use" application was refused by the Council on the sole basis of the development causing noise annoyance to neighbours. The owner of the flats appealed but the DoE Inspector referred to the first floor flat as being likely to detract from the residential amenity not only of the adjoining house but also of the ground floor flat. For these reasons alone, the appeal was dismissed.

Two further planning cases in Bolton are of interest. In both cases permission to convert a house into flats was refused and the DoE Inspector dismissed the subsequent appeals because it was his opinion that:-

- (a) the carrying out of sound insulating work to the lounge of the first floor flat would not obviate disturbing levels of noise affecting the bedroom of an adjoining dwelling,
- (b) the establishment of a first floor flat would cause an unacceptable loss of privacy in the gardens of houses in the neighbourhood.

3.2 Oldham

Planning approval had been conditionally granted to convert a house into four self-contained flats. The applicant later appealed against two of the requirements which had been imposed i.e.

- (1) to improve the sound insulation of the floor between flats,
- (2) to improve the sound insulation of windows against traffic noise.

The DoE Inspector dismissed the appeal against (2) above because the external traffic noise level was so high ($L_{10}(18h) 75dB(A)$). However, (inexplicably) he allowed the appeal against (1) above as, in his opinion, the condition did not seek to attenuate noise from a specific, measurable source of external noise and it had not been shown to be justified for proper planning purposes.

Although Oldham Council did not proceed further they did obtain a legal opinion on this decision and were advised that "a condition which, in the way proposed, improves the quality of life within a habitable unit is a condition imposed for a planning purpose", and is therefore valid.

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4. MACCANC - POLICY DOCUMENT

The Manchester Area Council for Clean Air and Noise Control, a body of officers and elected members from the Manchester Area, has examined the situation and produced a policy document (Ref. 3) to establish a uniform approach to flat conversions.

4.1 Planning Guidance

The guidance document is commended to local authorities for use as a policy base in the control of development in accordance with the Planning Acts. Its aims are:

- (a) To protect existing neighbours - Development should not take place at the expense of the amenity enjoyed by neighbours. The principal approach is that there should be a strong presumption against the juxtaposition of incompatible uses e.g. it is usually unacceptable for the kitchen, lounge or living room of a flat to share a party wall with the bedroom of a neighbouring residence. Obviously, there will be cases where this cannot be achieved but it might be possible to sufficiently improve the sound insulation of the party wall by the construction of a new independent leaf. This should be isolated from the existing party wall by a wide air space in which is hung an absorbent quilt (Ref. 4). Unfortunately a minimum improvement cannot be guaranteed owing to the effect of flanking transmission. The provision of permanent resilient floor coverings, on landings and staircases, will also serve to reduce noise.
- (b) To protect flat dwellers against noise from other flats - Considerations here seek to ensure successful occupation of the proposed flats. Again the arrangement of rooms of separate flats should ensure that their uses are compatible. Secondly, party walls of flats should be designed to meet the standards aimed at as if the Building Regulations applied. Thirdly, floors should provide an effective division between flats and improvements may be required in respect of both sound transmission through and along party floors. The preferred treatment for through-floor sound transmission is the construction of an independent suspended ceiling (Ref. 5), as such a construction is more likely to meet the Building Regulations standard than alternative floating floor arrangements. However, in some cases a floating floor is the only possible measure and the simplest construction (Ref. 6), consisting of a new floor isolated from the existing by a layer of fibreboard, is expected to be a practicable alternative. This has the advantage in that it raises the floor height by only 30mm (approx.), whereas other treatments will raise it by 50mm or more. An attempt should also be made to provide a discontinuity of floors between flats to minimise the transmission of sound along floors. Resilient floor coverings in common parts are desirable.
- (c) To protect residents from external noise - In cases where the proposal involves the use of a building for both residential and industrial purposes then refusal of planning permission is generally the recommended course, though each case must be judged on its own merits. With regard to external industrial and transportation noise the new flat should be considered as a new dwelling and provision made to safeguard future residents against the effects of intrusive noise. To this end the advice of Circular 10/73 (Ref. 1) coupled with local guidelines which many authorities have now devised should be applied.

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5. CONCLUSIONS

- 5.1 There is an increasing number of domestic noise complaints, and in most cases there are no practicable remedies.
- 5.2 Minimum standards of sound insulation are not applied to conversions and therefore flat dwellers are at a greater risk of suffering amenity loss due to noise.
- 5.3 The Planning Acts have been used to prevent or reduce amenity loss and the document produced by MACCANC will form a basis for policy formulation.
- 5.4 The document includes details of current techniques which can normally provide improved sound insulation although a firm guarantee of success cannot be given.

6. RECOMMENDATIONS

- 6.1 The guidance recommended should be implemented, and feedback obtained as to its effectiveness.
- 6.2 The guidelines should be updated, where necessary, in the light of new information regarding new techniques and their effectiveness etc.
- 6.3 The DoE are encouraged to give guidance on this particular aspect of Development Control work.

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