THE ASSOCIATION OF NOISE CONSULTANTS

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Responses to the Welsh Government's - 'A Noise Action Plan for Wales'

1. Introduction

1.1. The Association of Noise Consultants (ANC) welcomes the Welsh Government's position in providing planning guidance for noise issues in Wales. We also welcome the basic premise of the European Directive 2009/49/EC to improve the acoustic environment we all live in.

1.2. The ANC is a trade association for acoustic, noise and vibration consultancy practices in the UK Membership has grown to over 116 member companies, including several international members and representing nearly eight hundred consultants. Established in 1973, the ANC seeks to raise the standards of acoustic consultancy and improve recognition of the vital role which good acoustics, and the management and mitigation of noise and vibration play in achieving good design and effective planning in the built and natural environment.

1.3. At the same time, we believe it is important for the Noise Action Plan for Wales to consider the potential impact on existing and future development. A weakness of the World Health Organisation guidance on noise is that it fails to consider the social and economic consequences of meeting their suggested limits - consequences that can be far greater than the environmental advantage.

1.4. Planning Guidance Technical Advice Note (Wales) 11 (TAN 11) is probably the most widely used planning guidance document in Wales – used to assess new residential development adjacent to traffic (road/rail/air) related noise sources. Advice is also included on assessment of industrial noise (referring to BS4142) and 'mixed source' sites. It is probably the most important planning guidance document referred to in the Noise Action Plan for Wales, but it's direct equivalent in England (PPG24) was recently withdrawn. The following responses therefore apportion a significant amount of time to TAN 11, before briefly reviewing the remaining planning guidance.

2. Technical Advice Note (Wales) 11

2.1 It has been well publicised that planning guidance in England for new residential development adjacent to Transport related noise sources (PPG24) has been withdrawn, leaving a vacuum for local authorities and EHO's to fill. TAN 11 is directly equivalent to PPG24.

2.2 Whilst the general view may be that independent acoustic consultants (and therefore the ANC) enjoy the freedom withdrawal of PPG24 brings their Clients in England, it in fact generates a basic problem. Experienced acoustic consultants such as those who have been accepted into the ANC, are in a position to provide impartial advice to developers on noise issues. However, without some element of guidance from central government, we can appear overly critical (and expensive in terms of level of proposed mitigation), compared with a less experienced 'do minimum' approach. The onus is then on local EHO's to advise their planning department where insufficient mitigation has been included. Their approach again depends on level of experience and may be too lenient or overly critical in the absence of guidance. At the moment, the general approach in England appears to be to refer to meeting internal noise levels quoted in BS8233 'Sound Insulation & Noise Reduction for Buildings', or to the withdrawn PPG24.

2.3 We believe the main issue with PPG24 (and therefore TAN 11) is the guidance that 'planning permission should not normally be granted' for NEC C sites. This allows local authorities to use noise as a reason for refusal on some sites, whilst allowing other sites - referring to the second part of the NEC C advice – 'Where it is considered that permission should be given, for example because there are no other alternative quieter sites available, conditions should be imposed to ensure a commensurate level of protection against noise'. – generating a perceived injustice amongst developers.

2.4 It is well publicised that Central Government wish to free up the planning process and also utilise brown field sites where practical. It is also obvious that not allowing development on NEC C sites in Towns and Cities is not practical and the vast majority of local authorities (including Cardiff, Swansea and Newport) therefore ignore that part of the guidance in their standard planning conditions for noise.

2.5 In view of this we believe modifying the guidance for TAN 11 NEC C sites should be considered. This would also remove the current conflict between TAN 11 and trigger levels for grant aide under the Noise Insulation Regulations (NIR), which equate to the boundary between NEC B & C. If existing houses are suitably protected by the provision of acoustic glazing and mechanical ventilation when a new road scheme is imposed on them (as advised by the NIR), why is it that 'planning permission should not normally be granted' for new development next to existing roads generating similar noise levels?

2.6 The following revised wording for NEC C is a suggestion 'for discussion' – we believe our input can provide a useful viewpoint to Central and Local Government.

2.7 NEC C: Planning conditions should be imposed to ensure protection against what is a significant level of traffic noise. At the time of writing this would typically include acoustic double glazing and mechanical acoustic ventilation to meet the 'reasonable' internal noise standards quoted in BS8233, including the Lmax guidance in bedrooms for night time noise intrusion where practical. Where there are significant numbers of quieter sites in the area, planning permission may be refused, however due regard should be given to the general consensus for preservation of Green belt and re-use of Brown Field sites. Developers should note, noise is likely to be an issue for prospective buyers and it is therefore in their interest to provide the appropriate level of mitigation, and also to confirm that significant competition is not available in the local area from quieter sites.

2.8 We are aware of one local authority (Caerphilly) where pollution control tends to object to new residential development on TAN 11 NEC B sites and above, on the basis they do not like mechanical ventilation. We do not believe this position is tenable, is likely to result in reduced development of brownfield and accelerated development of Green belt land. It also provides a significant conflict with Noise Insulation Regulations trigger levels.

2.9 Historically, local authorities have conditioned mechanical acoustic ventilators meeting requirements of the Noise Insulation Regulations. However these days a continuous mechanical supply and extract with Heat Recovery (MVHR) system – meeting the requirements of the latest Building Regulations approved document F (AD-F) may be considered. Such systems are often installed for non-acoustic reasons in any case and so there is minimal additional cost in such situations.

2.10 Noise criteria for mechanical ventilation systems should be included in the condition. AD-F referring to BS8233 quotes 30dB(A) in bedrooms at the whole house ventilation rate, though BSEN15251 quotes default values of 26dB(A) in bedrooms, 32dB(A) in living rooms (taken from Institute of Acoustics proceedings 'Problems in Residential Design For Ventilation & Noise' – J Harvie-Clarke & M J Siddall).

2.11 Some may feel allowing residential development on NEC C sites goes against the aim of the European Directive to avoid, prevent or reduce harmful effects including annoyance, due to exposure to environmental noise. However it is relatively straight forward to provide sound insulation measures to control traffic noise intrusion to habitable rooms, and the property boom in the first decade of this millennium showed there is a market for residential apartments in particular, in the centre of towns, where traffic noise often falls under NEC C. Getting people to live closer to their place of work would appear to be in line with the aims of the directive – reducing the number and length of journeys made and therefore associated noise levels generated. Conversely, if development spreads out from towns/cities into the Green belt, this encourages an increase in the number and length of journeys and therefore an associated increase in traffic noise.

2.12 Single aspect development is often discussed – avoiding putting habitable rooms on the noisier facades. Acoustic barriers can also be included to screen facades and gardens from traffic noise.

2.13 There is the potential for excessive use of barriers in trying to achieve 55dB(A) over 100% of garden area. We would suggest the 55dB(A) 'garden limit' should apply to 50% of garden area, allowing front gardens to remain in view from the road (this is the case in Cardiff's current standard traffic condition).

2.14 The inclusion of acoustic double glazing and mechanical ventilation to control traffic noise intrusion is a legitimate alternative to single aspect/screening.

2.15 NEC D noise levels could be used as a starting point for identifying 'Priority Areas'.

2.16 Medium to long term it should be noted, an increase in the use of electric vehicles should have a significant benefit on low speed town centre roads in particular, where motor noise dominates, as against on high speed carriageways where tyre noise is the controlling factor. A positive push by the Welsh Government in promoting the use of electric or hybrid cars is probably the most effective measure that could be taken to reduce current traffic noise levels in urban areas.

3. Building Regulations ADE2003

3.1 Building Regulations Approved Document E (ADE2003) details sound insulation performance for internal party walls and floors between dwellings, as well as reverberation control in communal corridors, hallways and stairwells giving direct access to apartments. The regulations require the developer to either;

Follow a rigorous Robust Standard Detail regime which accepts certain specified constructions as sufficient, including a documented inspection regime to ensure detailing on site is compliant;

or Carry out pre completion sound insulation testing using a 'suitably qualified consultant'.

3.2 'Suitably Qualified' currently means a consultant with either UKAS or ANC registration scheme accreditation, which ensures they have the skill-set to carry out testing competently. We are aware that certain areas of the country have historically not checked the accreditation of testers – in the early days the number of accredited testers was limited. 10 years after the regulations came into force however, there are sufficient accredited testers to cover the country. It is important to ensure local authorities and Building Control Officers insist on this being the case.

4. Building Bulletin 93 'Acoustic Design of Schools'

4.1 We note the Welsh Government is monitoring progress of the proposed new BB93 which is due to be issued for review in early October 2013.

4.2 Teaching Performance standards quoted in part 1 of BB93 are updated in 'Acoustic Performance Standards for the Priority Schools Building Programme', a document authored by Institute of Acoustics and Association of Noise Consultants members. The latter document represents an update to BB93 based on extensive experience designing schools under BB93, and a realisation that the way schools are designed today is not the same as 10 years ago when BB93 was published. The latest document includes specific criteria for refurbishments, comprehensive description of what constitutes Special Educational Needs, more extensive list of area use types and guidance on natural ventilation and open plan space acoustics.

5. Rail Noise

5.1 It should be noted that rail squeal will not be affected by electrification unless the track itself is treated. The average Leq/L10/Lden noise indices tend to underestimate the impact of rail squeal, which may be improved by regular maintenance and filling of grease pots on certain critical curves.

6. Industrial Noise

6.1 Integrated Pollution Prevention & Control (IPPC) should be considered as a method of introducing good practice onto industrial sites before issues arise, rather than a response to potential or existing noise issues.

6.2 The initial acoustic audit of a site is relatively inexpensive, allowing the closest critical receivers to be identified, and existing plant/operation noise sources to be ranked in order of significance. Procedures for reducing noise emissions of critical plant/operations can then be included in the site's procedures and procurement policies with a view to minimising emissions in the short, medium and longer term within the confines of BAT. These procedures should also ensure the site does not inadvertently install noisy plant that could lead to statutory nuisance, expensive retro-fit attenuation measures and/or limits on hours of operation.

6.3 Procedures for identifying if new residential development is proposed adjacent to the site should also be included, with the appropriate response mechanisms. Otherwise the sites are relying on regulators to identify potential issues, if consulted on potential new residential development close to industrial sites.

6.4 The new version of BS4142 will include a more comprehensive assessment methodology for tonal noise. It is important to ensure the person assessing the noise has been trained to the required standard to carry out the assessment.

7. Noisy Neighbourhoods

7.1 Domestic Noise – No comment.

7.2 Noise in the street – No comment.

7.3 Entertainment Noise - The issue of employee noise exposure in music venues (and bars with significant sound systems) needs to be tackled in a co-ordinated fashion, which would have the secondary effect of reducing noise break-out issues. At the moment individual bar/venue owners are loathed to turn source music levels down as they believe customers will move to another venue. If local authorities target all bars in an area at the same time there may be greater success in reducing source levels and therefore disturbance.

7.4 Construction Noise - Local authorities should include standard planning conditions for construction noise emissions, referring to the latest criteria in BS5228.

7.5 Commercial, business and industrial premises not subject to integrated pollution prevention and control – No Comment

7.6 Burglar Alarm Noise – No Comment

7.7 Other forms of Noise – No Comment

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