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Planning Policy In Hounslow

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BACKGROUND

Since the introduction of the first long range jet airliners in 1958, Hounslow has been subjected to high levels of noise from aircraft both in the air and on the ground at Heathrow Airport immediately to the West.

This Borough is in a particularly unenviable position for several reasons. There is a great number of residential buildings, which pre-date the development of Heathrow, very close to the airport boundary. The (roughly triangular) shape of Hounslow means that not only is a large area close to the airport under the flight path of aircraft taking off but landing aircraft seriously affect areas up to its most Easterly boundary. Depending on the wind direction aircraft are either taking off or landing over Hounslow, sometimes at a rate of one aircraft every minute and a half during peak periods.

Feelings towards Heathrow are ambivalent; it pays rates, provides work and brings in many businesses. It also gives rise to a severe noise problem. In 1970, when the first of the new "quiet" fan-jet aircraft arrived at Heathrow, the future looked as though it might be quieter and since that time jet engines have become quieter for a given power. However, both engine powers and the number of flights have increased: any gains there might have been from quieter engines have been lost. 70 per cent of Hounslow lies within the 40 Noise and Number Index contour.

EARLY PLANNING AGAINST AIRCRAFT NOISE

Because of its position, Hounslow has for a long time been sensitive to the question of aircraft noise and, as a result, to noise in general. Therefore, following the publication of the Wilson Report in 1966 and the first of the B.A.A.'s grants schemes Hounslow produced a set of draft planning conditions to alleviate the effects of noise and these were accepted in 1968. These covered both aircraft and road traffic noise. For aircraft noise sound insulation requirements were, unusually, based on the noise footprint of a Boeing 707. Within the 100PndB contour "full" insulation, based on the requirements of

the grants scheme was applied to all new housing; that is, secondary glazing, roof insulation and the provision of room ventilators. Between the 90 and 100PndB contours "partial" insulation was required. This involved insulating only one or two rooms (including one bedroom) to the grants scheme standard and ensuring that the rest of the building could be upgraded if required.

For road traffic noise, residential building was to be discouraged at a distance closer than 130ft to a motorway but consent could be given with a sound-proofing condition. Soundproofing was also required along main roads.

By 1973 the Architects Department in Hounslow had had a considerable amount of experience in building according to these conditions, building not only insulated dwellings but also a number of air-conditioned schools and had started on their own new Civic Centre. As quite a sum had been spent on employing acoustic consultants they felt that they could justify employing their own building acoustic specialist as a full time member of the Building Services group, alongside the structural, mechanical and electrical engineers. This probably was and still is unique in such a local authority.

Also at about that time, the Department of the Environment published their circular 10/73 "Planning and Noise" and the Architect's Department followed these guide-lines where they did not conflict with the existing planning requirements.

PRESENT POLICY ON PLANNING AGAINST NOISE

In 1979, after a period of consultations with other Departments, the Planning Department produced a document "The Effects of Noise - A Policy" which was accepted by the Council and this is the policy which is still in force today. The Standards set out in this document are based broadly on Circular 10/73 but with the acceptance that building would have to take place where the noise levels would normally make it undesirable. For example certain limited dwellings or extensions to dwellings could be allowed within the 60 NNI zone but the sound insulation requirements are similar to those in the DoE circular.

The policy document discusses four types of noise caused by road traffic, aircraft, industry and railways. For road traffic, maximum internal noise levels are specified for

different types of building such as dwellings, offices and schools but a standard condition is suggested which specifies a minimum facade attenuation. In addition, mechanical ventilation is required. For aircraft noise certain buildings may be permitted, depending on the NNI level but subject to a soundproofing condition. For industrial noise the standard conditions in circular 10/73 have been adopted.

The degree of insulation is left up to the judgement of the planning officer concerned and, in practice, fixed levels of insulation are usually specified although sometimes the condition is left vague. For road traffic noise a facade insulation of 35dB(ave) is often required whilst for aircraft noise the table in circular 10/73 is used

External Noise level NNI	Minimum attenuation required (dB averaged over frequency range 100Hz to 3150Hz
40–44	20
45–49	25
50–	35

For noise emission from industrial units it is usual to specify a maximum level at the boundary of the site of 45dB(A) by day and 35dB(A) by night. Day and night have not, unfortunately, been defined. In most cases where a sound insulation condition is applied mechanical ventilation is required.

IMPLEMENTATION OF THE POLICY

A requirement that a building should be insulated is applied by attaching a condition to the planning consent (this is sometimes the first time an applicant is aware that such a condition will be used). For example, the letter which grants planning consent might have the condition:

> "Any habitable rooms formed by the proposed development shall be soundproofed so as to provide a minimum attenuation of 35dB (dB averaged over the range 100Hz–3150Hz)"

along with the reason:

> "To safeguard the amenity of the occupants of the dwellings from aircraft noise"

Planning officers who have little training in acoustics are not in a good position to judge for themselves what is a reasonable

noise condition or to enforce it and generally rely on the local Environmental Health Department to provide the necessary acoustical expertise. In Hounslow, where many of the noise conditions concern the insulation of buildings and attenuation of ventilation ducts, the planners also have the use of the Architect's Department's acoustic specialist. He is in a position to advise on the type of condition to apply, to speak informally to the applicant and advise the applicant or developer how the condition might be satisfied. The presence of a building acoustics specialist is useful not only to the planning officer but also to the applicant who often knows little about sound insulation. For the simpler schemes the acoustic engineer can advise the applicant on all he needs to satisfy the condition but on the larger schemes the engineer cannot act as the applicant's consultant and the usual advice is to engage the services of their own acoustic consultant. This is usually the easiest solution for the council as the applicant can present the acoustic consultant's report to show that the condition has been satisfied.

Conditions are usually phrased to allow the condition to be satisfied at the drawings stage; it is not feasible to apply conditions which can only be satisfied by a measurement after the scheme is complete. Nevertheless this has happened in a few cases. The drawings, and sometimes the acoustic consultant's report, are checked as far as possible that the condition has been satisfied and if this is the case the scheme is approved. Although during construction the building is checked that the work is carried out in accordance with the drawings, no field testing is required.

PROBLEMS

The acoustical aspects of the majority of planning applications usually runs fairly smoothly once the applicant has got over the shock of having to insulate his scheme. It is common to have to explain the implications of the condition to the applicant or his architect, the fact that sound insulating windows will be necessary for example, and apart from the additional cost, the applicant is usually reasonably happy to do what is suggested. Needless to say, things do not always work out so easily; a condition might leave a developer totally bemused but this usually is easily sorted. Alternatively a condition such as

> "The building shall be soundproofed prior to occupation in accordance with details first to be

submitted to and approved by the Local Planning Authority"

is not very helpful on the degree of insulation required and it is hoped that this form would only have been used after extensive consultation with the applicant. Not all applicants are pleased with the apparent severity of the insulation requirements and a condition as vague as the one above does leave room for a little flexibility.

Quite often a developer will point out that a recent development similar to his own does not appear to have the insulation he is being asked for. The answer is usually that we are all fallible and that development slipped through the net. A more common cause for complaint is the requirement for mechanical ventilation. There is little choice on the type of suitable domestic mechanical ventilator and the external grilles and internal boxes are not of the most pleasing appearance.

There are other constant problems such as external doors to habitable rooms and the ugliness of double windows but people usually find solutions. Proprietary windows, for example, could be used but a laboratory test certificate would be required to substantiate the window's acoustic performance.

CONCLUSION

There is an enormous number of sound insulated buildings now within the London Borough of Hounslow and it is clear that the presence of a building acoustic specialist within the council as well as the expertise of the Environmental Health Department has made life easier for the planning officers as well as the applicants. Things could be made a little easier, however; it is surprising how many developers are ignorant of the existence of acoustic consultants and of the Institute of Acoustics. Planners, too, could be given more assistance, perhaps by the Institute or the Noise Council, on the use and application of planning conditions which involve sound insulation.

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