



ACOUSTIC CONSULTING

Environmental Noise Solutions (ENS) is an independent acoustic consultancy specialising in noise in the built environment.

We undertake projects that encompass small, local development projects and new school developments through to major developments including large residential developments and hotels.

Our consultants all have a broad range of experience, both in the public and private sector, and who all work to our high standards of delivering the best possible service to our clients in a proactive and responsive manner required by the modern, commercial environment we all work in.





New Build Residential

DELIVERING THE SOLUTIONS YOU NEED

Although the majority of volume house builders tend to use Robust Standard Details (RSD) for all new build attached dwellings there is still the desire to design and build unique dwellings that both comply with the sound insulation requirements of Part E of the Building Regulations but also, in many cases, far exceed the sound insulation performances of RSD constructions and at a lesser cost to the developer.

flexible solutions for residential development

Part E – Resistance to the Passage of Sound

With a changing, cost driven economy, the efficacy of RSD construction can be questioned. As one of our clients discovered in 2004, it was and still remains more expensive to build to RSD than to use equally compliant 'standard construction techniques' (to the tune of £2000+ more per dwelling unit for RSD construction in 2004).

A consequence of this, a recent client requested that we replace his expensive concrete plank floors, in a three story block of flats, with timber floors to, in his words, 'strip out the costs associated with substantial foundations for the building along with the cost of road closures and cranes to ship-in the concrete planks'.

Through careful analysis of the entire building envelope, internal flanking elements and party walls and floors, a solution was designed to allow the development to be commissioned with timber separating floors, **saving and estimated £40K** on the overall development costs. Clearly good acoustics can be 'designed-in' without costing the earth.



THE ON GOING PROJECT

The project involved the design of separating wall and floor details where ancillary issues such as flanking under timber floors and along continuous timber floors was considered and recommendations for the use of either dynamic batten floors or independent ceilings was given to allow for service runs within the new apartments whilst also addressing the needs of Part E of the Building Regulations.

We also took time to explain to our clients the differences between the various acoustic parameters such as R_w , D_{ntw} , R_w+C_{tr} , $D_{ntw}+C_{tr}$, all of which, if incorrectly applied to any design, can lead to acoustically poor performing partition walls and floors being constructed. This understanding is key to ensuring that when proprietary floor and wall systems are procured that all suppliers have a clear, contractual obligation to as to what specification is required.

For further details about how ENS Acoustics can help you with sound insulation and acoustics for any new build residential development that needs to satisfy the stringent requirements of Part E of the Building Regulations, please contact:

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