

PLANNING AND NOISE

What you need to know



Your free eBook

If you're reading this, it's probably because you've been asked to provide a noise survey, noise impact assessment, or acoustic report, to support your planning application.

We know that you've got a lot to think about – so we've put together this short guide to help you understand what to do next.



The Council says I need a noise survey. What's it for?

Noise comes from all kinds of places – traffic, machinery, even nature. A noise survey lets us quantify the noise at a site, but also lets us understand how it varies over time. For example, a bustling high street during the day can be incredibly quiet at night.

It's important to understand how your site is affected by noise so that everyone affected by the development – whether it's residents in a new housing development, or neighbours near a new restaurant – is protected from disturbing noise.

Noise affects people's ability to sleep and to concentrate. Where it's too high, it's linked to both physical and mental health problems. Considering noise at planning stage helps to make sure that everyone's quality of life is protected.

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What happens on a noise survey?

Surprisingly, not a lot! The surveyor will come to site and, if there's a secure location, set up a noise meter which will measure continuously throughout the survey period. They'll then take spot measurements in the surrounding area, during the day, evening and night time periods as necessary, to make sure that there is data for all the relevant locations including nearby noise sensitive locations such as houses and schools.



When the noise survey takes place will depend on a few things. Some councils have specific requirements, and your consultant should always check to see if these are in place. Otherwise, the surveyor will determine when the maximum impact of the development is likely to be (for example, late at night for a bar, or early in the morning for a gym) and make sure that this is included in the survey period. For housing affected by traffic noise, the surveyor will also be sure to measure at rush hour.



You've got all these numbers, but how does that help?

What happens next depends on the complexity of the site and the size of the development. For a simple scheme, the survey data might be enough for the acoustic consultant to make their recommendations. For a larger development, or more complex assessment such as a factory, a noise model might be needed. This lets the consultant visualise how noise will change across the site once it's developed, and give more accurate recommendations around noise mitigation, including the location and height of fences if they are needed.

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Although this might seem like a lot of detail, it can save money. For example, the model shown above let us understand which houses could have open windows, and which would need additional ventilation to keep noise out. It also let us show the planning authority how the development had been designed to control noise – in the example below you can see how noise from the road to the north of the site is controlled by a barrier in the tree line.



What do the Council want to see?

The planning officers will expect you to submit a report by a qualified acoustic consultant which gives the details and results of the noise survey. The report needs to explain how noise will affect your development, and also how the development will affect the existing noise climate.

For a residential or commercial project, the planning officers will want to know what is needed to make sure that internal noise levels are appropriate to allow people to sleep, rest, or work. This might include recommendations on how the building is ventilated, and on the type of glazing needed to keep noise out.

For commercial and industrial projects, they'll also want to know how noise affecting the existing neighbours will be controlled. This includes noise from any activity inside the building (e.g. music, or machinery), as well as noise from equipment such as air handling units outside the building. Again, this could mean that the acoustic report gives recommendations for the building's walls and windows, and any other things needed to keep noise under control.

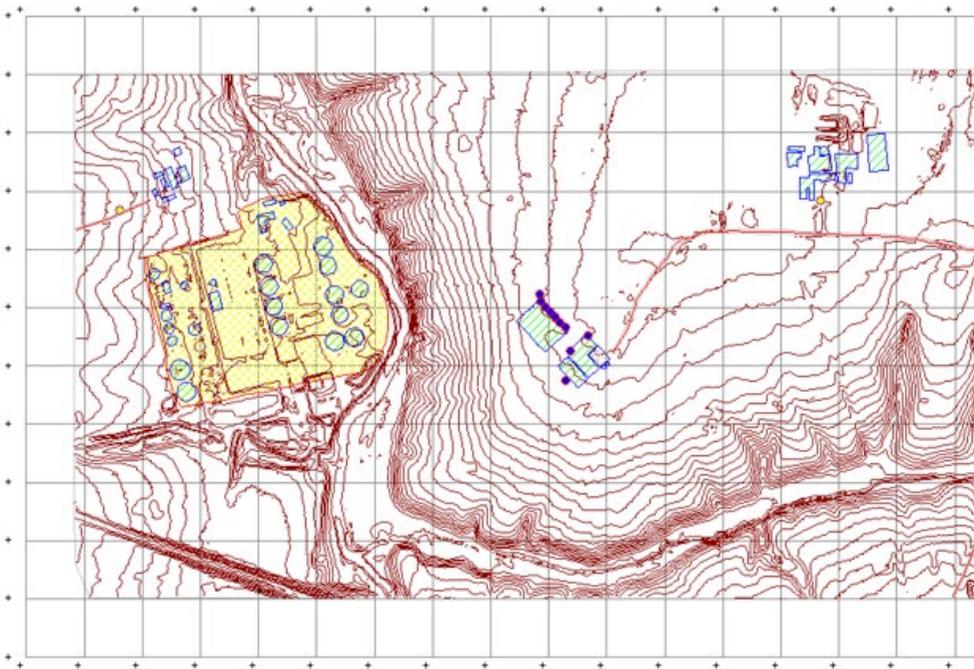
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At planning stage, it's not expected that the design will be complete. In particular, you might not have decided on the make and model of equipment, or what products you'll be using for the building façade. It's normal for a couple of planning conditions to be set relating to noise – we'll tell you about these below.

Of course, for a simple development, it's possible to complete the acoustic design before submitting for planning!



What are BS 8233 and BS 4142?

These are the two standards which generally inform planning noise assessments. One looks at “noise in” to the development, and the other looks at “noise out”.

Briefly, BS 8233 sets limits for noise levels within houses which let people get a good night’s sleep, and to rest during the day. It also makes recommendations for noise levels in other types of building, including offices.

BS 4142 is concerned with noise coming out of the development and affecting the surrounding area. It is a framework for assessing noise from industrial and commercial premises and allows the significance of the predicted noise impact to be subjectively categorised.

You can read more detail on both standards on our website

<http://www.dbxacoustics.com/>

What happens once I've got my planning permission? Is that it?

If you've been asked to provide a noise impact assessment, you should expect one or two 'standard conditions' relating to noise to be attached to your planning permission.

One will likely ask for a 'scheme of sound insulation' or similar to be submitted. This is where you demonstrate that the building's ventilation, glazing and façade have been designed in accordance with the acoustic consultant's recommendations.

The other may require that a full BS 4142 assessment is submitted. This means a report and set of accompanying calculations demonstrating how noise from plant and equipment will be controlled in line with the acoustic consultant's recommendations.

In both cases, your acoustic consultant can carry out the assessments and produce the reports for you, as soon as you have information available on the products and materials you will be using. It's best to do this early, so that if you need to make any changes there is time to incorporate them into your project.

The dBx Planning Package

We hope this guide has made the need for a noise assessment a less daunting prospect for you. dBx Acoustics offers a full 'planning package' service to guide you through planning, which includes;

- Contacting the planning authority to confirm their requirements
- Noise survey including appropriate days and times
- Noise modelling where needed
- Recommendations on noise mitigation measures
- Report in support of planning

You can also extend the package to include detailed design advice and discharge of planning conditions, including;

- Advice on selection of products and materials to meet acoustic requirements
- Review of plant selections and attenuation to meet noise emission limits
- Full BS 4142 assessment for discharge of planning
- Full scheme of sound insulation assessment for discharge of planning

All our consultants are members of
the **Institute of Acoustics**
and hold relevant
degree-level qualifications,
so you can be confident that
your project is in good hands.

We're happy to answer your
questions –

just give us a call
on **0161 711 0320**

or email
enquiries@dbxacoustics.com
to talk to us.



www.dbxacoustics.com

Email: enquiries@dbxacoustics.com

Phone: 0161 711 0320

Address: Unit 2H, Beehive Mill, Jersey Street,
Manchester M4 6JG