

Acoustics Ventilation & Overheating Residential Design Guide

Policy Background

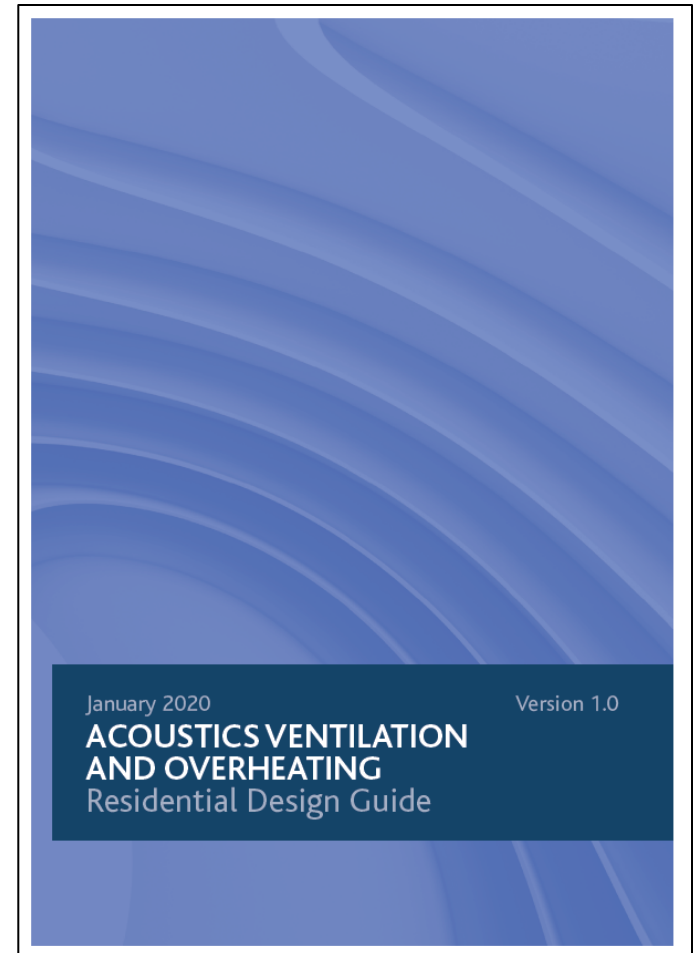
Stephen Turner, MA, MSc, HonFIOA

Director

Stephen Turner Acoustics Limited

AVO Guide – Acoustics Policy

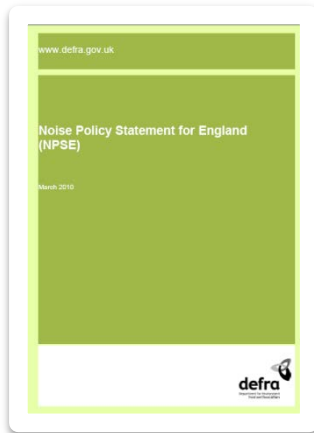
- Policy background text
- Paragraphs 2.22 – 2.41



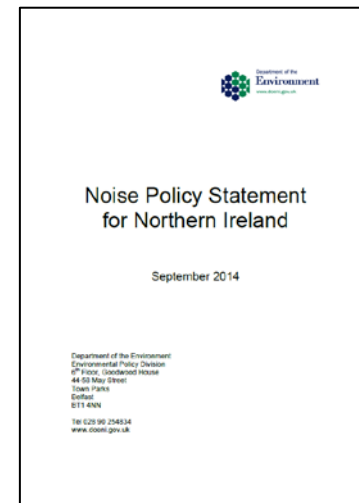
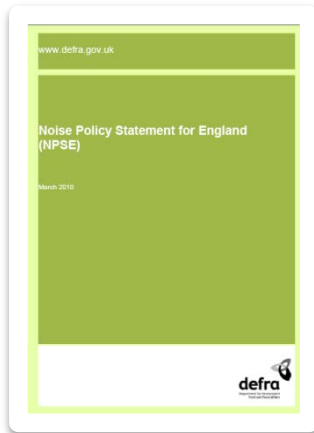
Noise / Sound Management is a Devolved Issue



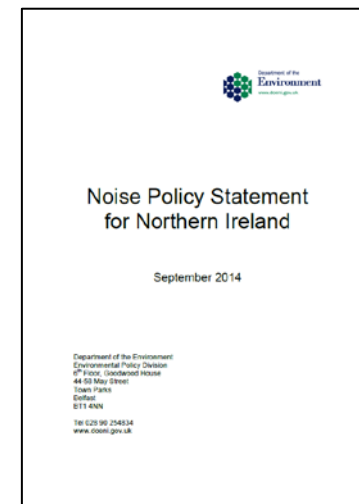
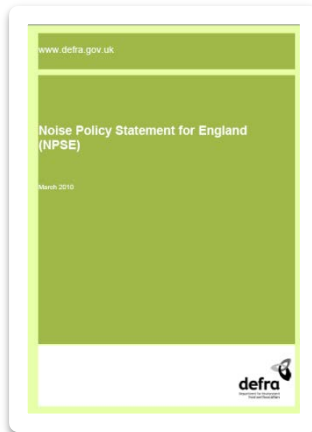
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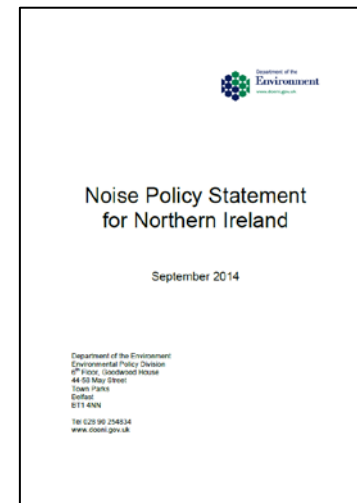
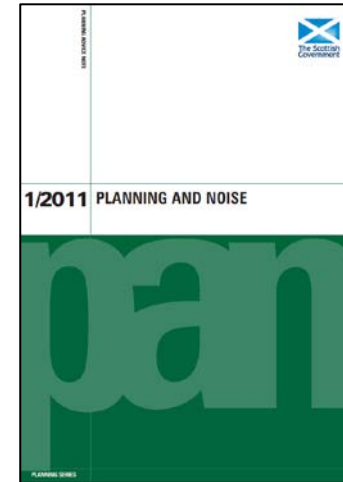
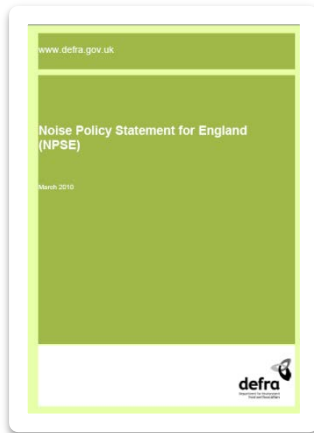
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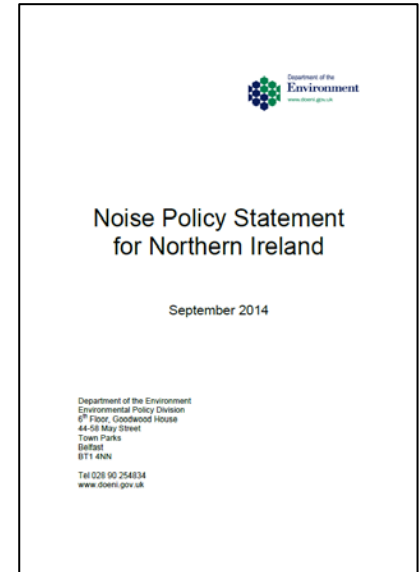
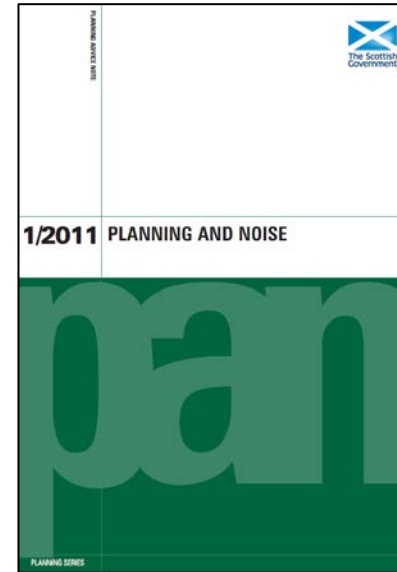
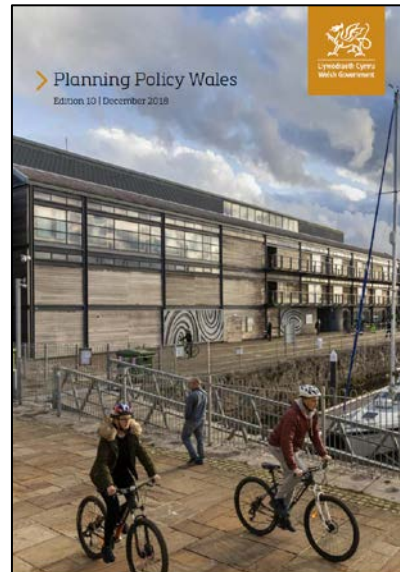
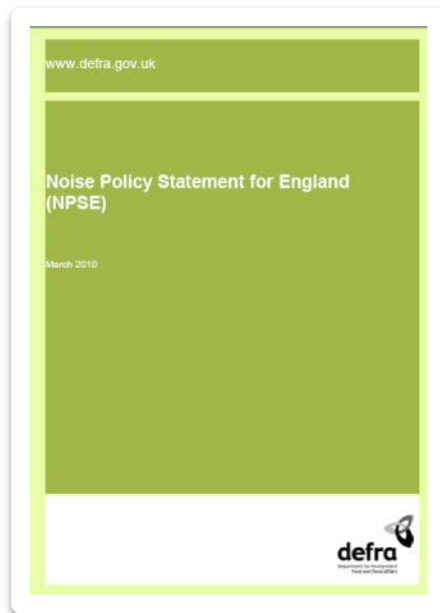
Noise / Sound Management is a Devolved Issue



Noise / Sound Management is a Devolved Issue



Noise / Sound Management is a Devolved Issue



Planning Policy in England



Ministry of Housing,
Communities &
Local Government

National Planning Policy Framework

February 2019
Ministry of Housing, Communities and Local Government



1. Home (<https://www.gov.uk/>)

Guidance

Noise

Advises on how planning can manage potential noise impacts in new development.

Published 6 March 2014

Last updated 22 July 2019 — see all updates

From:

Ministry of Housing, Communities & Local Government
(<https://www.gov.uk/government/organisations/ministry-of-housing-communities-and-local-government>)

This guidance has been updated see previous version
(<https://webarchive.nationalarchives.gov.uk/20190607100418/https://www.gov.uk/guidance/noise-2>)

Where plans are being prepared under the transitional arrangements set out in Annex 1 to the revised National Planning Policy Framework (<https://www.gov.uk/government/publications/national-planning-policy-framework-2>), the policies in the previous version of the framework published in 2012 (<http://webarchive.nationalarchives.gov.uk/20180608095821/https://www.gov.uk/government/publications/national-planning-policy-framework-2>) will continue to apply, as will any previous guidance which has been superseded since the new framework was published in July 2018. If you'd like an email alert when changes are made to planning guidance please subscribe (<https://www.gov.uk/topic/planning-development/planning-officer-guidance/email-signup>).

Noise

When is noise relevant to planning?

Noise needs to be considered when development may create additional noise, or would be sensitive to the prevailing acoustic environment (including any anticipated changes to that environment from activities that are permitted but not yet commenced). When preparing plans, or taking decisions about new development, there may also be opportunities to make improvements to the acoustic environment. Good acoustic design needs to be considered early in the planning process to ensure that the most appropriate and cost-effective solutions are identified from the outset.

Related policy: paragraph 170e (<https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment#para170e>), paragraph 180a (<https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment#para180a>), paragraph 180b (<https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment#para180b>), paragraph 182 (<https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment#para182>)

Paragraph: 001 Reference ID: 30-001-20190722

Revision date: 22 07 2019

Can noise override other planning concerns?

PPG(N) Hierarchy Table

- NOEL
 - LOAEL
 - SOAEL
- *Avoid significant adverse impacts on health and quality of life;*
 - *Mitigate and minimise adverse impacts on health and quality of life;*
-

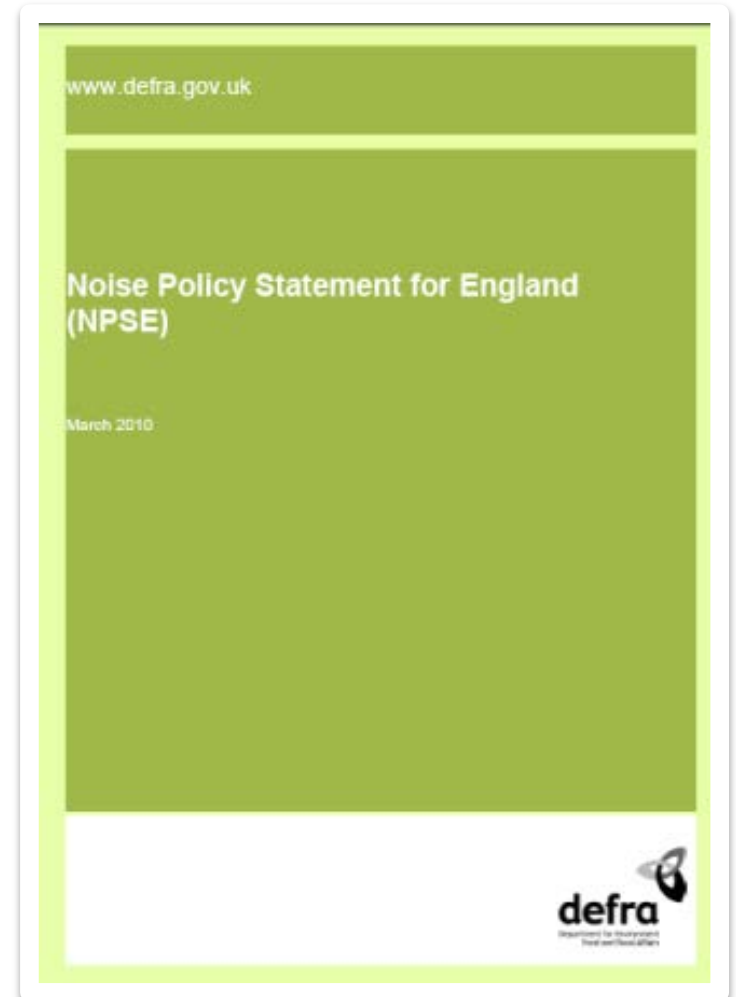
Response	Examples of outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

NPSE – Explanatory Notes

LOAEL - SOAEL

It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development.

This does not mean that such adverse effects cannot occur.



LOAEL & SOAEL

- Paragraph 2.26 reminds that impact not just defined as a **level**.
- Can also include:
 - Number of occurrences
 - Duration
 - Time of Day

Must not treat noise in isolation

Can noise override other planning concerns?

Original PPG(N)

- It can, but neither the Noise policy statement for England nor the National Planning Policy Framework (which reflects the Noise policy statement) expects noise to be considered in isolation, separately from the economic, social and other environmental dimensions of proposed development.

Amended PPG(N)

- It can, where justified, although it is important to look at noise in the context of the wider characteristics of a development proposal, its likely users and its surroundings, as these can have an important effect on whether noise is likely to pose a concern.

Guidance on the Effects of Noise

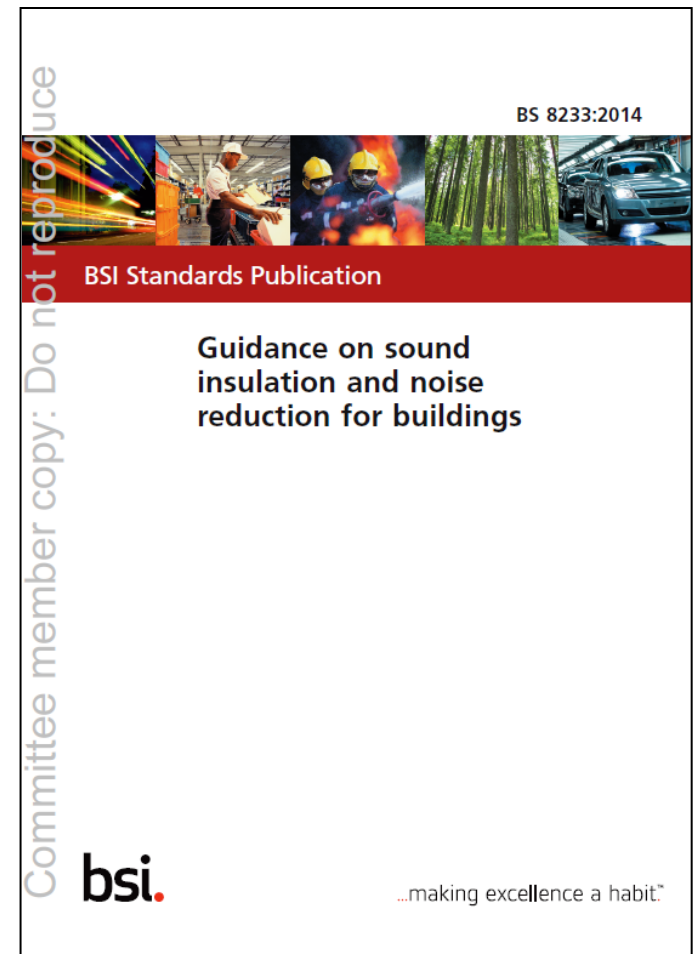
- Paragraphs 2.42 – 2.68
- Reference made to
 - BS 8233:2014 – Tables 4 and 7
 - ProPG
 - WHO Environmental Noise Guidelines for the European Region
 - APPG HHB White Paper

BS 8233:2014

- From the Foreword:

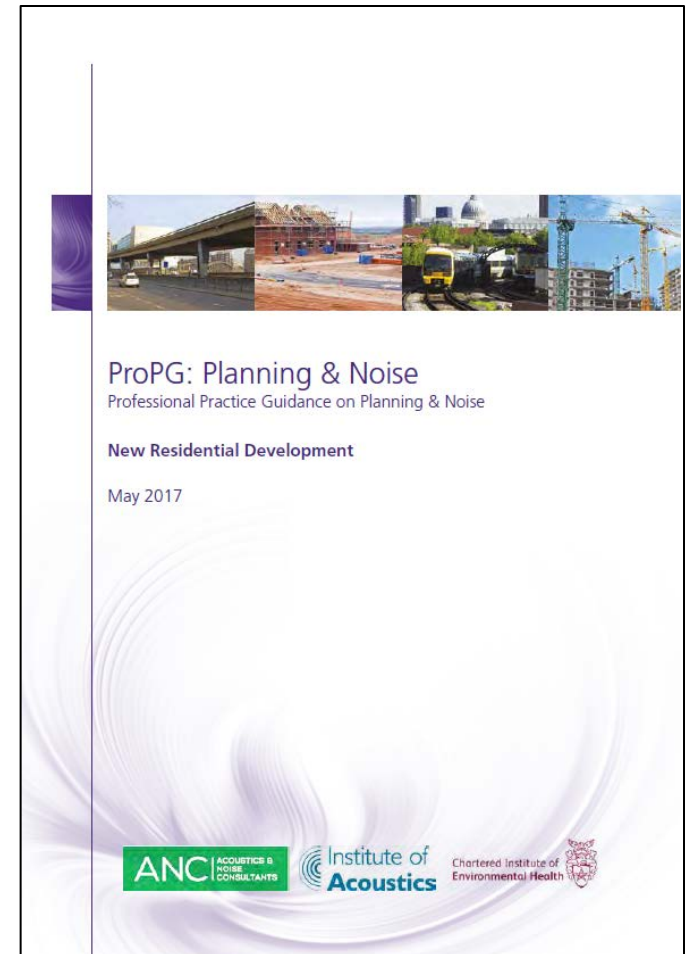
Use of this document

- As a guide, this British Standard takes the form of guidance and recommendations.
- **It should not be quoted as if it were a specification or a code of practice and claims of compliance cannot be made to it.**



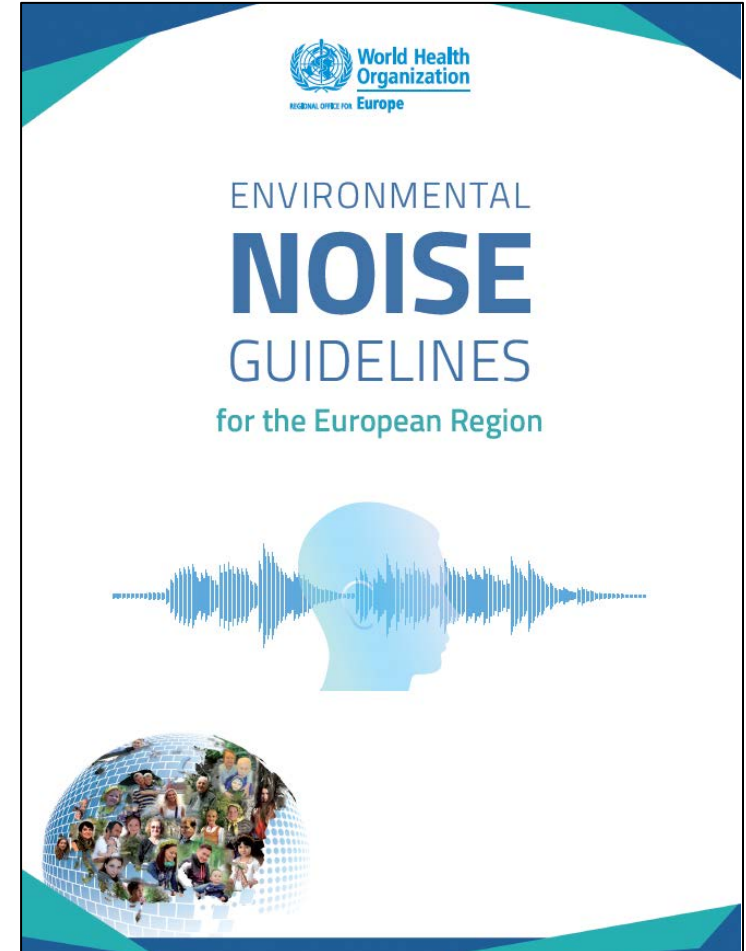
ProPG

- Supplementary Document 2 – Good Acoustic Design
- In requiring good acoustic design, there is a hierarchy of noise management measures that LPAs should encourage, including the following, in descending order of preference:
 1. Separation
 2. Reduce or Remove existing sources
 3. Use existing topography and structures to shield
 4. Include Barriers
 5. Optimise overall layout
 6. Optimise internal room layout
 7. Use building envelope to mitigate noise



WHO ENG

- The current environmental noise guidelines for the European Region supersede the CNG from 1999. Nevertheless, the GDG recommends that all CNG indoor guideline values and any values not covered by the current guidelines (such as industrial noise and shopping areas) should remain valid.
- Furthermore, the current guidelines complement the NNG from 2009.



APPG Healthy Homes and Buildings

- Maximising the occupant's health and wellbeing must be placed at the centre of housing and building design and a holistic approach should be taken including elements of safety, space, energy efficiency, ventilation, heating, noise, air quality and lighting.



Thank You

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