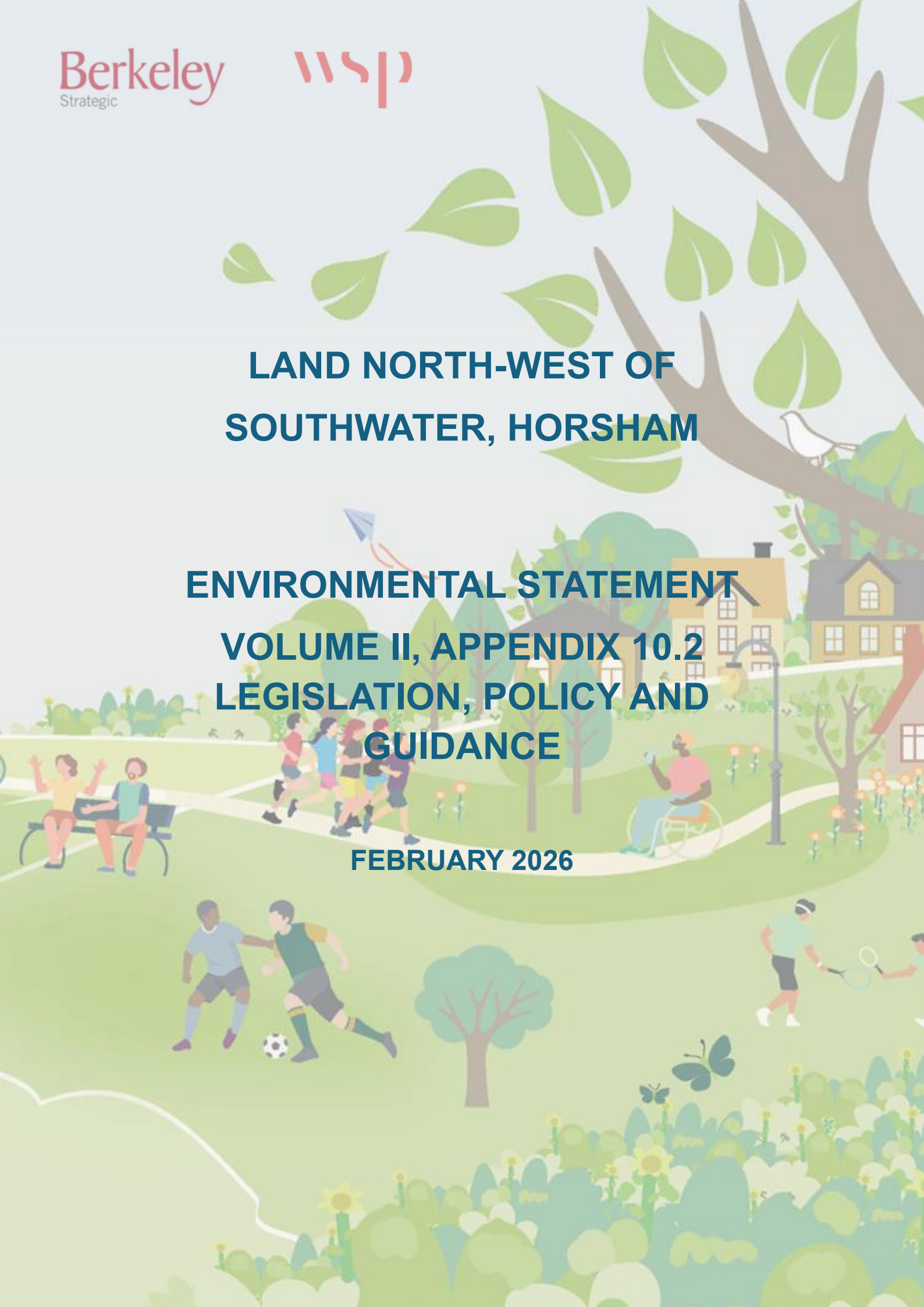

LAND NORTH-WEST OF SOUTHWATER, HORSHAM

ENVIRONMENTAL STATEMENT

VOLUME II, APPENDIX 10.2 LEGISLATION, POLICY AND GUIDANCE

FEBRUARY 2026

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APPENDIX 10.2 LEGISLATION, POLICY AND GUIDANCE

LEGISLATIVE FRAMEWORK

Environmental Noise Directive 2002/49/EC

This Directive relates to the assessment and management of environmental noise, and it is commonly referred to as the Environmental Noise Directive (END). It promotes the implementation of a three-step process:

- Undertake strategic noise mapping to determine exposure to environmental noise.
- Ensure information on environmental noise is made available to the public.
- Establish Action Plans based on the strategic noise mapping results, to reduce environmental noise where necessary, and to preserve environmental noise quality where it is good.

EU Directive 2002/49/EC has been transposed into UK law as the Environmental Noise (England) Regulations 2006 (as amended). As part of this process, noise mapping has been undertaken and Candidate Noise Management Areas (CNMAs) have been identified at locations where the 1% of the population that are affected by the highest noise levels are located, in order to identify the areas that potentially require action.

The Control of Pollution Act, 1974

The principal legislation covering demolition and construction noise is the Control of Pollution Act 1974, Part III. Sections 60 and 61 of the Act give the local authority special powers for controlling noise arising from construction and demolition works, regardless of whether a statutory nuisance has been caused or is likely to be caused. Works within the scope of these provisions include repair and maintenance work and road works. These powers may be exercised either before works start or after they have started.

Section 60 enables a local authority in whose area work is going to be carried out, or is being carried out, to serve a notice of its requirements for the control of site noise on the person who appears to the local authority to be carrying out the works. Such a notice may also be served on others appearing to the local authority to be responsible for, or to have control over, the carrying out of the works.

This notice can:

- Specify the plant or machinery that is or is not to be used;
- Specify the hours during which the construction work can be carried out;
- Specify the level of noise that can be emitted; and
- Provide for any changes of circumstances.

Section 61 of the Act provides a mechanism for the contractor or developer to take the initiative and approach the local authority to ascertain its noise requirements before construction work starts. If a formal application for ‘prior consent’ is received by the local authority it is obliged to give a decision within 28 days; failure to do so or the attachment of unnecessary or unreasonable conditions are grounds for appeal by the applicant.

In cases where the local authority determines that the proposals for minimising the noise of the construction activities are adequate it will issue a consent although this may be subject to conditions limiting certain aspects of the consent such as hours of use, noise levels for particular activities, etc. Provided that the applicant takes all reasonable steps to operate within the terms of the consent, even if the local authority subsequently decides to take proceedings under section 60(8), the applicant should be able to rely on the defence provided in the Act and prove that the alleged contravention amounted to the carrying out of works in accordance with a consent given under section 61.

European Commission (2014) Environmental Impact Assessment Directive (EIA), 2014/52/EU

This Directive published on 16 April 2014 amends Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

It was considered necessary to amend the 2011 Directive to strengthen the quality of the environmental impact assessment procedure, align that procedure with current best practice and other relevant legislation and policies developed by the European Union and Member States.

An Environmental Impact Assessment report prepared under this legislation should include, inter alia, a description of the likely significant effects of the project and the measures envisaged to avoid, reduce or, if possible, offset any identified significant adverse effects on the environment.

NATIONAL POLICY

National Planning Policy Framework (NPPF), 2024

First published in 2012 and most recently updated in December 2024, the NPPF sets out the Government's planning policies for England and how these are expected to be applied. Noise is referenced within the document as follows:

> *"187. Planning policies and decisions should contribute to and enhance the natural and local environments by:…[e number of points including]…*
>
> *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans";*

and

> *"198. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*
>
> *a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development - and avoid noise giving rise to significant adverse impacts on health and the quality of life[72]; and*

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.…"

and

"200. Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

Reference number 72 within NPPF paragraph 198(a) points to the Explanatory Note to the Noise Policy Statement for England (NPSE).

Noise Policy Statement for England (NPSE), 2010

This provides more detail than the NPPF setting out the long-term vision of the Government noise policy and applying to all forms of noise excluding occupational noise. The NPSE repeatedly refers to the management and control of noise within the context of Government Policy on sustainable development.

The NPSE also stresses that noise impact should not be treated in isolation from other related factors. At paragraph 2.7 for example it states:

'…the application of the NPSE should enable noise to be considered alongside other relevant issues and not to be considered in isolation. In the past, the wider benefits of a particular policy, development or other activity may not have been given adequate weight when assessing the noise implications.'

The NPSE introduces and describes three categories, or levels, describing the presence or absence of noise effects but does not quantify those categories, stating that the corresponding objective levels are likely to be different for different noise sources, receptors and times of the day or night. These categories are:

- **NOEL** – No Observed Effect Level – This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise
- **LOAEL** – Lowest Observed Adverse Effect Level – This is the level above which adverse effects on health and quality of life can be detected
- **SOAEL** – Significant Observed Adverse Effect Level – This is the level above which significant adverse effects on health and quality of life occur.

The NPSE recognised that, at the time of publication, further research was needed into how these categories might be quantified for different scenarios. There is still no robust, universally accepted method of deriving suitable values and a variety of approaches are adopted in different circumstances. The subjective guidance provided in the Planning Practice Guidance (PPG) for noise can be of assistance in deriving suitable values.

The three aims of the NPSE are:

1 *Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.*

2 *Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.*

3 *Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development.*

Planning Practice Guidance – Noise (PPG-N), 2019

The Government launched the Planning Practice Guidance (PPG) web-based resource in March 2014 and refreshed it in July 2019. The section on noise provides tabulated descriptions of example outcomes of the categories introduced in the NPSE based on the likely average response. It also adds a fourth category termed Unacceptable Adverse Effect (UAE).

The PPG-N describes sound that is not noticeable to be at levels below the NOEL. It describes exposures that are noticeable but not to the extent there is a perceived change in quality of life as below the LOAEL and need no mitigation. With reference to the definition of noise in the NPSE, such emissions are ‘sound; and not ‘noise’. On this basis, the audibility of sound from a development is not, in itself, a criterion to judge noise effects that is commensurate with national planning policy.

The PPG-N suggests that noise exposures above the LOAEL cause small changes in behaviour. Examples of noise exposures above the LOAEL provided in the PPG-N is having to turn up the volume on the television; needing to speak more loudly to be heard; where there is no alternative ventilation, closing windows for some time because of the noise; or a potential for some reported sleep disturbance. In line with the NPPF and NPSE, the PPG-N states that consideration needs to be given to mitigating and minimising effects above the LOAEL but taking account of the economic and social benefits being derived from the activity causing the noise.

The PPG-N suggests that noise exposures above the SOAEL cause material changes in behaviour. Examples of noise exposures above the SOAEL cause material changes in behaviour. Examples of noise exposures above the SOAEL provided in the PPG-N are, where there is no alternative ventilation, keeping windows closed for most of the time or avoiding certain activities during periods when the noise present; and/or there is a potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. In line with the NPPF and NPSE, the PPG-N state that effects above the SOAEL should be avoided and that whilst the economic and social benefits being derived from the activity causing the noise must be taken into account, such exposures are undesirable.

LOCAL POLICY

Horsham District Council Planning Framework 2015

The Horsham District Council Planning Framework was adopted in 2015 and is the overarching planning document for Horsham district, outside the South Downs National Park (SDNP), and replaces the Core Strategy and General Development Control Policies documents which were adopted in 2007. The document provides two policies pertinent to noise and the Proposed Development.

Policy 24 – Environmental Protection

Policy 24 details the Planning Frameworks' aims to protect environmental assets through the minimising of pollutants including noise and vibration. Paragraph 9.11 states that to help avoid adverse noise impacts from development, applicants should use Planning Guidance Documents produced by East and West Sussex. This document is discussed further in the Guidance section below.

Policy 33 – Development Principles

Policy 33 details the principles that developers should follow to ensure that developments are of high quality, well designed and take account of the existing built and natural environment. The second principle is most relevant to noise and vibration and states:

"Ensure that the scale, massing and appearance of the development is of a high standard of design and layout and where relevant relates sympathetically with the built surroundings, landscape, open spaces and routes within and adjoining the site, including any impact on the skyline and important views"

Horsham District Council Emerging Local Plan 2023 – 2040

The Horsham District Planning Framework ('HDPF') (excluding South Downs National Park) (November 2015) was adopted in 2015 and is therefore more than 5 years old. The Council is currently preparing a new emerging local plan which will replace the HDPF on adoption.

The emerging Horsham Local Plan 2023 – 2040 ('the Emerging Local Plan') was submitted to the Secretary of State for examination on 26 July 2024. The Site is subject of a draft allocation in the emerging Local Plan under draft Policy HA3 for a mixed-use development. The Site also includes an area identified in the adopted Southwater Neighbourhood Plan, Policy SNP2, for the provision of 422 to 450 new homes and 8ha of public open space.

The Emerging Local Plan is a material consideration in the determining of planning applications. However, it can only be attributed limited weight at this stage.

Furthermore, the Council produced the guidance document 'Shaping Development in Horsham District (2025)', which was endorsed at Cabinet on 17 September 2025. It was prepared to commit the Council to support development to help meet its identified needs in light of an absence of a housing land supply and historic under-delivery.

Paragraphs 5.6 – 5.9 of this document outlines how allocated sites within the emerging Local Plan should be considered in the event applications are bought forward prior to the emerging Local Plan being adopted. The Council clearly sets out that the proposed site allocations are based on robust assessments and can accommodate sustainable development. This position is supported by the fact that during examination, the inspector has found no concerns with any of the proposed draft allocations.

Therefore, the Council acknowledges that it will consider proposals on sites within the emerging Local Plan positively. In this regard, the development proposals have been prepared to align with the requirements of emerging Policy HA3.

The document provides two policies pertinent to noise and the Proposed Development:

Strategic Policy 11 – Environmental Protection

Strategic Policy 11 aims to prevent developments causing significant impacts on the quality of life and health of individuals and communities. Paragraph 6.10 details that to help avoid adverse noise impacts from development, applicants should use Planning Guidance Documents produced by East and West Sussex. Paragraph 5 of the Strategic Policy states that developers must:
"Demonstrate that users of residential and other noise sensitive development will not be exposed to unacceptable noise disturbance from existing or future users. Development proposals which are known or suspected to be noise generators, or to be sensitive to noise from nearby sites, must be accompanied by a Noise Assessment."

Strategic Policy 20 – Development Principles

Strategic Policy 20 details the principles that developers should follow to ensure that developments are of high quality, well designed and take account of the existing character of an area. Principle 3 states that developers should ensure that developments are designed to avoid unacceptable harm to the amenity of existing or future occupiers or users of nearby property and land including from noise or vibration.

TECHNICAL GUIDANCE

Planning Noise Advice Document: Sussex (2023)

The purpose of this document is to provide advice for developers and assessors to assist with noise and vibration assessments within East and West Sussex. The document provides advice for various assessment situations, some of which are relevant for the Proposed Development.

Most pertinent is the guidance relating to assessments of new residential developments within Section 6.

Paragraphs 6.4.2 and 6.4.3 state:

"Development affected by transportation noise sources shall use the recommended acoustic approach set out in Pro PG: Planning and Noise – Professional Practice Guidance on Planning and Noise- New Residential Development 2017."

"When assessing the impact of transportation noise, be that from road, rail or air, then an Acoustic Design Statement shall be provided following the principles set out in ProPG:Planning and Noise

(2017) "Professional Planning Guidance on Planning and Noise – New Residential Development. A Good Acoustic Design process shall be followed to achieve appropriate internal and external acoustic conditions."

In terms of design criteria to be met inside habitable rooms, paragraph 6.5.2 states:

"Design control measures should aim to meet the recommended standards set out in table 4 of BS 8233:2014 and regular night time noise events such as scheduled aircraft or passing trains which can cause sleep disturbance shall be minimized and assessed as (LAfmax), as recommended in the WHO's Night Noise Guidelines for Europe (2009), unless there are particular reasons why this is not considered appropriate. In such cases, a clear explanation of the reasons should be provided."

This guidance is discussed further within Appendix 10.2 Site Suitability Assessment.

The Planning Noise Advice Document also provides guidance for the assessment of noise from outdoor sports and recreation and references the Sport England's Artificial Grass Pitch Acoustics Planning Implications Guide which is referred to within the noise and vibration chapter.

BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites, Part 1 noise

This Standard provides the latest recommendations for basic methods of noise control where there is a need for the protection of persons living and working in the vicinity of, and those working on, construction and open sites.

The Standard includes guidance on assessing the significance of noise effects. In particular, Annex E provides a discussion on the different approaches to the assessment of construction noise, in doing so giving consideration to absolute noise levels (in BS 5228-1 section E2) and to two different approaches to setting criteria based on the ambient noise level ($L_{Aeq,T}$) in the absence of construction noise (in BS 5228-1 section E3).

Firstly, the Standard describes the 'older and more simplistic' approach based on the advice in AL 72, noting that the original advice "*has been expanded over time to include a suite of noise levels covering the whole day/week period taking into account the varying sensitivities through these periods*." Table E.2 (in sub-clause E.4 of the BS 5228-1) illustrates the approach – the levels are also stated as being often used as limits above which noise insulation would be provided, subject to the temporal conditions described following the table.

Table 1 - Examples of Time Periods, Averaging Times and Noise Levels Associated with the Determination of Eligibility for Noise Insulation

Time	Relevant time period	Averaging time, 'T'	Noise insulation trigger level dB $L_{Aeq,T}$ [A]
Monday to Friday	07.00 – 08.00	1 h	70
	08.00 – 18.00	10 h	75
	18.00 – 19.00	1 h	70
	19.00 – 22.00	3 h	65

Time	Relevant time period	Averaging time, 'T'	Noise insulation trigger level dB $L_{Aeq,T}$ (A)
	22.00 – 07.00	1 h	55
Saturday	07.00 – 08.00	1 h	70
	08.00 – 13.00	5 h	75
	13.00 – 14.00	1 h	70
	14.00 – 22.00	3 h	65
	22.00 – 07.00	1 h	55
Sunday and Public Holidays	07.00 – 21.00	1 h	65
	21.00 – 07.00	1 h	55

Note:

(A) All noise levels are predicted or measured at a point 1 m in front of the most exposed of any windows and doors in any façade of any eligible dwelling.

The Standard suggests that where, in spite of the mitigation measures applied, the combined construction and baseline noise levels exceed 75 dB(A) (for a period of ten or more days of working in any fifteen consecutive days or for a total of days exceeding 40 in any six month period), a scheme for the installation of noise insulation or the reasonable costs thereof will be implemented by the developer or promoter.

In BS 5228-1 sub-clause E.3 an alternative approach is described using criteria based on the ambient noise level. This approach is used commonly in environmental impact assessments. Two methods are described.

The first is the ABC method, which is set out in Table 2 below (Table E.1 in BS 5228-1). Three categories, A, B and C, are described in terms of threshold values for a daytime (07:00 to 19:00 weekdays, 07:00 to 13:00 Saturday), evening and weekend, and finally a night-time period (23:00 to 07:00). If the construction site noise level exceeds the relevant threshold value this is deemed a 'significant effect'.

Table 2 - Example Threshold of Potential Significant Effect at Dwellings

Assessment category and threshold value period	Threshold value, in decibels (dB $L_{Aeq,T}$)		
	Category A (A)	Category B (B)	Category C (C)
Night-time (23:00 − 07:00)	45	50	55
Evenings and weekends (D)	55	60	65
Daytime (07:00 − 19:00) and Saturdays (07:00 − 13:00)	65	70	75

Assessment category and threshold value period	Threshold value, in decibels (dB $L_{Aeq,T}$)		
	Category A (A)	Category B (B)	Category C (C)
Notes: [1] A potential significant effect is indicated if the $L_{Aeq,T}$ noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level. [2] If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a potential significant effect is indicated if the total $L_{Aeq,T}$ noise level for the period increases by more than 3 dB due to site noise. [3] Applied to residential receptors only.			
(A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values. (B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values. (C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values. (D) 19:00 – 23:00 weekdays, 13:00 – 23:00 Saturdays and 07:00 – 23:00 Sundays.			

The second method states that "*Noise levels generated by site activities are deemed to be potentially significant if the total noise (pre-construction ambient plus site noise) exceeds the pre-construction ambient noise by 5 dB or more, subject to lower cut off values of 65 dB, 55 dB and 45 dB $L_{Aeq,T}$ from site noise alone, for the daytime, evening and night-time periods, respectively; and a duration of one month or more, unless works of a shorter duration are likely to result in significant impact*."

These criteria may be applied not just to residential buildings, but also to hotels and hostels and buildings in religious, educational and health/community use.

The +5 dB criterion for a period of one month or more, might also be deemed to cause significant effects in public open space. However, the extent of the area impacted relative to the total available area also needs to be taken into account.

Annex F of the Standard provides guidance on estimating noise from construction sites. The estimation procedures described in this Annex take into account the more significant factors:

- the sound power outputs of processes and plant;
- the periods of operation of processes and plant;
- the distances from source to receiver;
- the presence of screening by barriers;
- the reflections of sound; and
- attenuation from absorbent ground.

Four discrete prediction methods are described, two for stationary plant – the activity $L_{Aeq,T}$ method and the plant sound power method – and two for mobile plant – the method for mobile plant in a defined area and the method for haul roads.

BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites, Part 2 vibration

The Standard provides the latest recommendations for basic methods of vibration control where there is a need for the protection of persons living and working in the vicinity of, and those working on, construction and open sites.

With respect to human exposure to building vibration, Table B1 of Annex B to BS 5228-2 provides guidance on the effects of vibration levels on human beings, and it is these (as reproduced in Table 3) that the construction vibration effects have been based upon.

Table 3 - Guidance on Effects of Vibration Levels

Vibration Level	Effect
0.14 mms^{-1}	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less sensitive to vibration.
0.3 mms^{-1}	Vibration might be just perceptible in residential environments.
1.0 mms^{-1}	It is likely that vibration of this level in residential environments will cause complaint but can be tolerated if prior warning and explanation has been given to residents.
10 mms^{-1}	Vibration is likely to be intolerable for any more than a very brief exposure to this level.

Notes:

[1] The magnitudes of the values presented apply to a measurement position that is representative of the point of entry into the recipient.

[2] A transfer function (which relates an external level to an internal level) needs to be applied if only external measurements are available.

[3] Single or infrequent occurrences of these levels do not necessarily correspond to the stated effect in every case. The values are provided to give an initial indication of potential effects, and where these values are routinely measured or expected then an assessment in accordance with BS 6472-1 or -2, and/or other available guidance, might be appropriate to determine whether the time varying exposure is likely to give rise to any degree of adverse comment.

Guide values for cosmetic damage to buildings are given in Table B.2 of the Standard, and this is reproduced below as Table 4, together with Figure 1 (below) to which it refers.

Table 4 - BS 5228-2 Guidance on Transient Vibration Guide Values for Cosmetic Damage

Line (see	Type of building	Peak component particle velocity in frequency range of predominant pulse	
		4 Hz to 15 Hz	15 Hz and above
1	Reinforced or framed structures Industrial and heavy commercial buildings	50 mms^{-1} at 4 Hz and above	50 mms^{-1} at 4 Hz and above
2	Unreinforced or light framed structures Residentia[l] or light commercial buildings	15 mms^{-1} at 4 Hz increasing to 20 mms^{-1} at 15 Hz	20 mms^{-1} at 15 Hz increasing to 50 mms^{-1} at 40 Hz and above

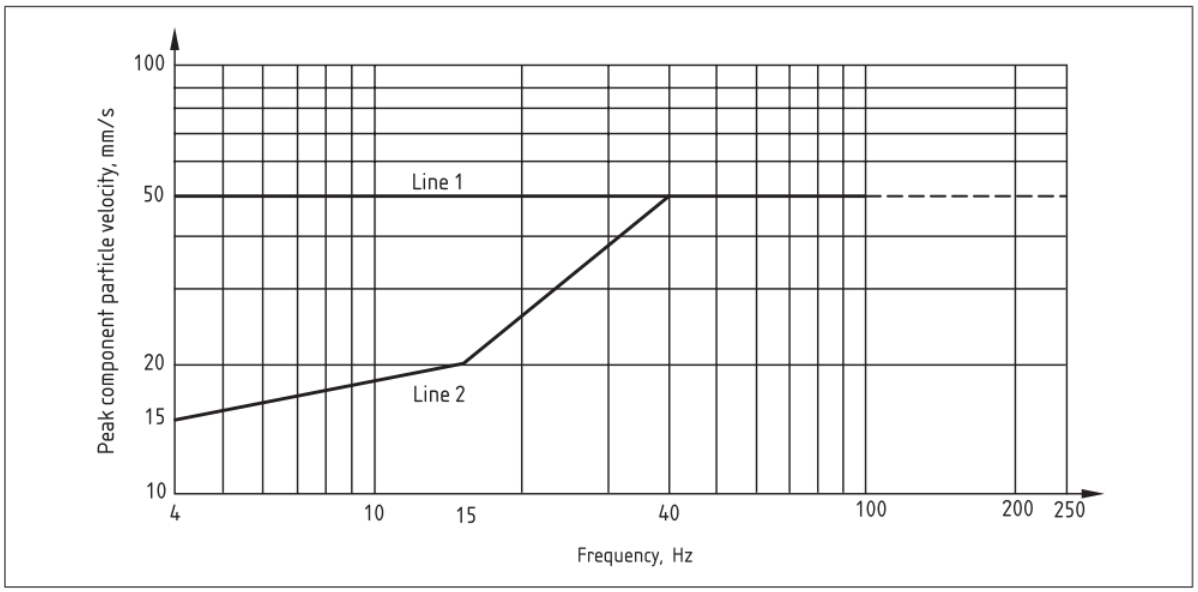
Notes:

[1] Values referred to are at the base of the building.

[2] For line 2, at frequencies below 4 Hz, a maximum displacement of 0.6 mm (zero to peak) is not to be exceeded.

It should be noted that the above guidance is for transient vibration. For continuous vibration, such as may occur during the use of vibratory equipment, the guidance in the Standard is that the levels in the table above and figure below be reduced by 50%.

Figure 1 - BS 5228-2 Guidance on Transient Vibration Guide Values for Cosmetic Damage



BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound. 2019

BS 4142:2014+A1:2019 describes methods for rating and assessing the following:

- sound from industrial and manufacturing processes;
- sound from fixed installations which comprise mechanical and electrical plant and equipment;

- sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and
- sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train movements on or around an industrial and/or commercial site.

The methods use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes and upon which sound is incident.

The Standard effectively compares and rates the difference between the specific sound level of the source ($L_{Aeq,T}$) and the typical background sound level ($L_{A90,T}$) in the absence of the specific sound. If appropriate, the specific sound level is corrected, by the application of one or more corrections for acoustic features such as tonal qualities and/or distinct impulses, to give a 'rating' level ($L_{Ar,Tr}$).

The Standard allows the following additive corrections for character: 0 dB to +6 dB for tonality and 0 dB to +9 dB for impulsivity. Where the specific sound features characteristics that are neither tonal nor impulsive, but otherwise are readily distinctive, a penalty of +3 dB can be applied. Finally, should the specific sound contain identifiable on/off conditions and so be readily distinctive, a penalty of +3 dB can be applied.

The Standard advises that the time interval of the background sound measurement should be sufficient to obtain a representative or typical value of the background sound level at the time(s) the source in question operates or is proposed to operate in the future. The specific sound level should be evaluated over a one hour period during the day and over a 15 minute period during the night.

Comparing the rating level with the background sound level, the Standard states:

"Typically, the greater this difference, the greater the magnitude of impact.

A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.

The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."

Design Manual for Roads and Bridges (DMRB) LA111, 2020

DMRB LA 111 sets out the requirements for noise and vibration assessments from road projects, applying a proportionate and consistent approach using best practice and ensuring compliance with relevant legislation.

For operational road traffic noise, the magnitude of change shall be defined in accordance with LA111 Table 3.54a (short-term) and Table 3.54b (long term). These tables are combined in Table 5 below.

Table 5 - Magnitude of Change – Short and Long-term

Magnitude	Noise change, dB $L_{A10,18h}$ or L_{night}	
	Short-term	Long-term
Major	Greater than or equal to 5.0	Greater than or equal to 10.0
Moderate	3.0 – 4.9	5.0 – 9.9
Minor	1.0 – 2.9	3.0 – 4.9
No change or negligible	Less than 1.0	Less than 3.0

LA111 states that the initial assessment of likely significant effect on noise sensitive buildings shall be determined using Table 3.58, reproduced below as Table 6.

Table 6 - Initial Assessment of Operational Noise Significance

Significance	Short-term magnitude of change
Significant	Major
Significant	Moderate
Not significant	Minor
Not significant	Negligible

Where the magnitude of change in the short term is negligible at noise sensitive buildings, it shall be concluded that the noise change will not cause changes to behaviour or response to noise and as such, will not give rise to a likely significant effect.

For noise sensitive receptors where the magnitude of change in the short term is minor, moderate or major at noise sensitive buildings, contextual factors such as the noise level change in the long-term, the predicted absolute noise levels and the acoustic character of the area should be used to determine final significance.

Calculation of Road Traffic Noise (CRTN), 1988

The former Department of Transport/Welsh Office technical memorandum Calculation of Road Traffic Noise (CRTN) methodologies have been adopted.

The factors which may influence road traffic noise levels at source can be divided into two groups:

- road related factors - gradient and surface type; and
- traffic related factors - flow, speed and the proportion of heavy-duty vehicles.

The propagation of noise is also covered in CRTN and can influence the noise levels at receptor locations.

Sport England Artificial Grass Pitch (AGP) Acoustics – Planning Implications, New guidance for 2015

The Sport England AGP Guidance provides guidance to assessors when considering noise from AGPs. The document dets out indicative noise levels from pitches which can be used in assessments. The document also suggests criteria to be adopted to avoid disturbance to nearby residents and suggests measures to reduce noise in particularly sensitive areas.

BS 8233:2014 Guidance on sound insulation and noise reduction for buildings

The scope of BS 8233:2014 is the provision of guidance for the control of noise in and around buildings. It suggests appropriate criteria for different situations, which primarily are intended to guide the design of new buildings, or refurbished buildings undergoing a change of use. The noise level criteria recommended in BS 8233 for residential spaces are summarised in Table 7.

Table 7 - Indoor Ambient Noise Levels for Dwellings (BS 8233:2014 Table 4)

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

Note 7 to the above table states:

"Where development is considered necessary or desirable, despite external noise levels above WHO guidelines, the internal target levels may be relaxed by up to 5 dB and reasonable internal conditions still achieved."

On design criteria for external noise, BS 8233 states that:

"For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognised that these guideline values are not achievable in all circumstances where development might also be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited".

The noise level criteria specified in BS 8233 are based on the guidelines issued by the WHO Guidelines for Community Noise as described above.

Professional Practice Guidance on Planning & Noise: New Residential Development, May 2017 (ProPG)

Internal Spaces (Habitable Rooms)

The Professional Practice Guidance on Planning & Noise (ProPG: Planning & Noise, 2017) was produced by a Working Group consisting of representatives of the Association of Noise Consultants (ANC), Institute of Acoustics (IOA) and Chartered Institute of Environmental Health (CIEH), together with practitioners from a planning and local authority background, to provide practitioners with guidance on a recommended approach to the management of noise within the planning system in England.

In terms of noise criteria, the document references, and builds upon, those contained in BS 8233, as presented above. Figure 2 in ProPG presents the internal noise level guidelines as set-out in Section 7.7.2 of BS 8233, but with elaborated guidance in the accompanying notes. The additional guidance from Note 4, Note 5 and Note 7 is provided below:

Note 4 proposes the WHO-based limit of 45 dB L_{AFmax}, with the following accompanying text:

"In most circumstances in noise-sensitive rooms at night (e.g. bedrooms) good acoustic design can be used so that individual noise events do not normally exceed 45dB $L_{Amax,F}$ more than 10 times a night. However, where it is not reasonably practicable to achieve this guideline then the judgement of acceptability will depend not only on the maximum noise levels but also on factors such as the source, number, distribution, predictability and regularity of noise events (see Appendix A)."

Note 5 from BS 8233 has been rewritten in the ProPG as follows:

"Designing the site layout and the dwellings so that the internal target levels can be achieved with open windows in as many properties as possible demonstrates good acoustic design. Where it is not possible to meet internal target levels with windows open, internal noise levels can be assessed with windows closed, however any façade openings used to provide whole dwelling ventilation (e.g. trickle ventilators) should be assessed in the "open" position and, in this scenario, the internal L_{Aeq} target levels should not normally be exceeded, subject to the further advice in Note 7."

The following is added to Note 7:

"The more often internal L_{Aeq} levels start to exceed the internal L_{Aeq} target levels by more than 5 dB, the more that most people are likely to regard them as "unreasonable". Where such exceedances are predicted, applicants should be required to show how the relevant number of rooms affected has been kept to a minimum. Once internal L_{Aeq} levels exceed the target levels by more than 10 dB, they are highly likely to be regarded as "unacceptable" by most people, particularly if such levels occur more than occasionally. Every effort should be made to avoid relevant rooms experiencing "unacceptable" noise levels at all and where such levels are likely to occur frequently, the development should be prevented in its proposed form (see Section 3.D)."

Key to note from the above, therefore, is that:

- the use of a limit of 45 dB L_{AFmax} (not to be exceeded by more than 10 individual events per night) is further supported;
- where there is a need to assess with windows closed, any façade openings used to provide whole dwelling ventilation should be assumed open; and

- where levels exceed the targets by more than 5 dB, they are likely to be regarded as “unreasonable”, and “unacceptable” when more than 10 dB above.

Where industrial and/or commercial noise is dominant, the ProPG states that regard should be had to the guidance in BS 4142 (as presented below).

External Areas (Amenity Space)

The ProPG recommended assessment methodology reflects and extends the advice contained in BS 8233 (as above). In particular, the ProPG suggests that consideration of the need to provide access to a quiet or relatively quiet external amenity space forms part of a good acoustic design process. If noise levels are relatively high on any private external amenity space, the effect may be mitigated through the provision of an alternative such as:

- a relatively quiet façade (with openable windows) or externally ventilated space (i.e. enclosed balcony);
- a relatively quiet additional external amenity space for sole use by a household in a different location (e.g. roof garden);
- a relatively quiet external amenity space for sole use by a limited group of residents (e.g. communal garden); and
- a relatively quiet, protected, publicly accessible external amenity space (e.g. a public park).

In terms of criteria, the ProPG quotes the same values as BS 8233, stating that, “noise levels should ideally not be above the range 50 – 55 dB $L_{Aeq,16hr}$.

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