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Proposed Commercial Development
Fosters Bakery, Towngate, Mapplewell, S75 6AS

Noise Impact Assessment

For:
Fosters Bakery

31st July 2026

Ref: NIA-12733-26-001-Fosters Bakery
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Contents

1 Introduction

1.1 Overview

Environmental Noise Solutions Ltd (ENS) has been commissioned by Fosters Bakery to carry out a noise impact assessment to support a planning application for a proposed building to provide storage and a staff canteen at Towngate, Mapplewell, Barnsley, S75 6AS (hereafter referred to as 'the site').

The objectives of the noise impact assessment were to:

- Determine the existing ambient and background noise levels in the vicinity of the site
- Establish the potential noise emissions associated with the site
- Assess the noise impact of the site on the nearest noise sensitive receptors (surrounding residential uses) in accordance with pertinent guidance
- Provide specific recommendations, where required, to avoid any potential for loss of amenity due to noise associated with the site

This report details the methodology and results of the assessment and provides recommendations for noise attenuation as appropriate. It has been prepared to accompany a planning application to City of Barnsley Metropolitan Borough Council.

The report has been prepared for Fosters Bakery for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties referring to the report should consult Fosters Bakery and ENS as to the extent to which the findings may be appropriate for their use.

A glossary of acoustic terms used in the main body of the text is contained in Appendix 1.

1.2 Site Description and Proposals

The site is located in a predominantly residential setting in Mapplewell, Barnsley.

The site boundary is indicated in red in Figure 1.1 below, with the nearest residential receptors also identified.

Figure 1.1: Location of Site

The site is bounded by:

- Towngate Road to the north, with residential dwellings beyond
- Residential dwellings to the east, on Towngate Road
- Residential dwellings to the south, on Sparkfields
- Mapplewell village and library to the west

The nearest noise sensitive receptors (NSRs) to the site are considered to be:

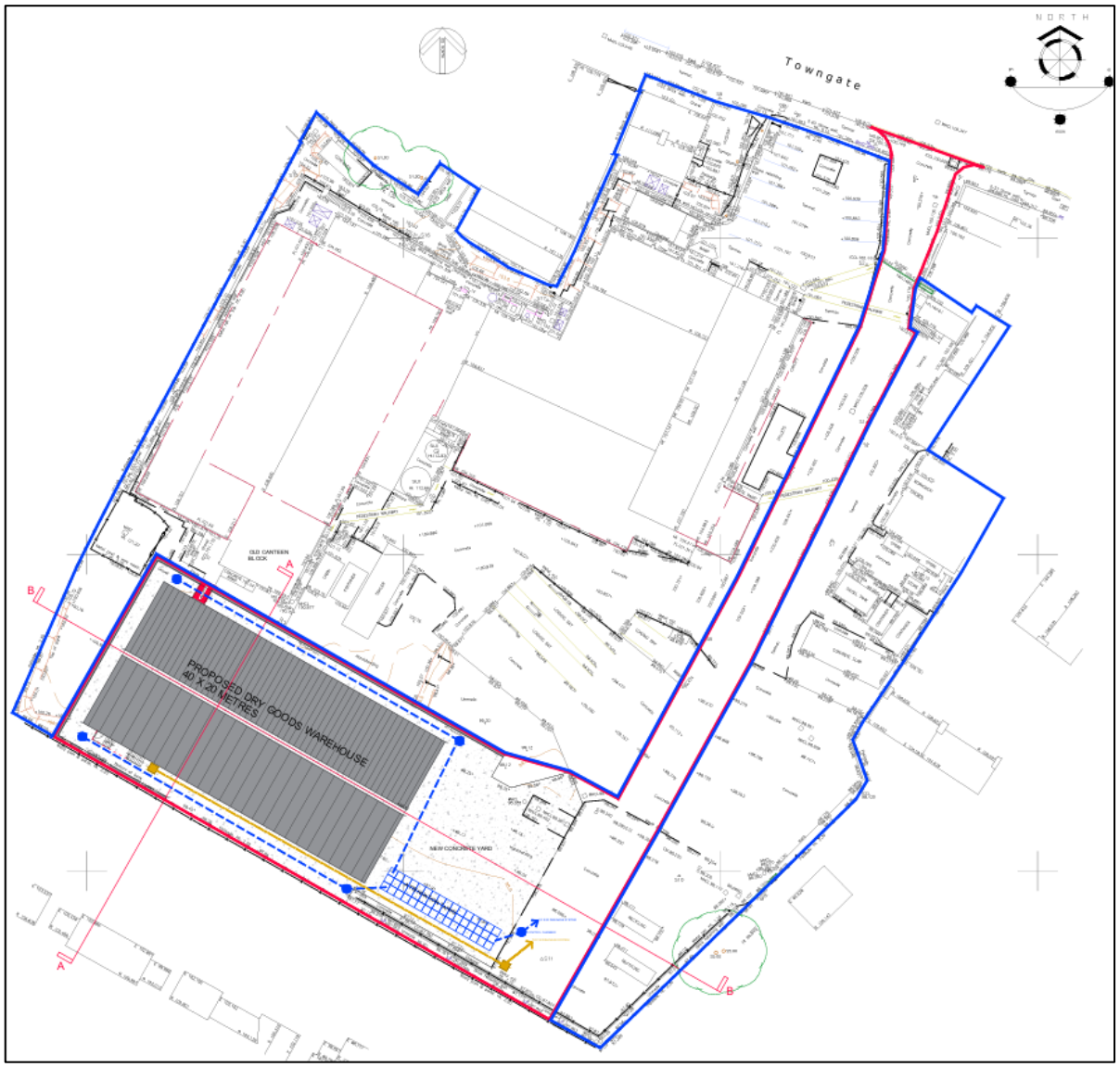
- NSR 1 – Residential dwellings on Sparkfields, circa 15 metres to the south of the site
- NSR 2 – Residential dwellings on Towngate, circa 5 metres to the east of the site

Planning permission is sought for the development of a new storage building for dry goods with a staff canteen at first-floor.

The existing site currently takes deliveries at loading bays at the centre of the site and on land at the south-west boundary of the site (adjacent to the proposed building). As such, the development is not expected to result in a change in yard usage, which would continue to operate in the same way.

The proposed site layout plan is illustrated in Figure 1.2 below.

Figure 1.2: Proposed Site Layout



2 Policy Context and Assessment Guidance

2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF)[1] was updated in February 2025 and sets out the Government's planning policies for England and how these are expected to be applied.

Where issues of noise impact are concerned the NPPF provides brief guidance in paragraph 187 where it states that planning policies and decisions should contribute to and enhance the natural and local environment by:

'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of…..noise pollution'.

Paragraph 198 advises that:

'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…..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'.

The NPPF also refers to the 2010 DEFRA publication, the Noise Policy Statement for England (NPSE) which reinforces and supplements the NPPF.

2.2 Noise Policy Statement for England

The Noise Policy Statement for England[2] (NPSE) sets out the long-term vision of promoting good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development. This long-term vision is supported by the following aims:

- Avoid significant adverse impacts on health and quality of life
- Mitigate and minimise adverse impacts on health and quality of life
- Where possible, contribute to the improvement of health and quality of life

The NPSE describes the following levels at which noise impacts may be identified:

- 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

According to the explanatory notes in the statement, where a noise level falls between the lowest observable adverse effect level (LOAEL) and a level which represents a significant observable adverse effect level (SOAEL):

'….all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life whilst also taking into consideration the guiding principles of sustainable development. This does not mean that such effects cannot occur.'

1 National Planning Policy Framework. Ministry of Housing, Communities and Local Government (2023)
2 Government Department for Environment, Food and Rural Affairs. Noise Policy Statement for England. March 2010.

2.3 Planning Practice Guidance on Noise

Planning Practice Guidance[3] (PPG) is an online resource which provides additional guidance and elaboration on the NPPF. It advises that the Local Planning Authority should consider the acoustic environment in relation to:

- Whether or not a significant adverse effect is occurring or likely to occur
- Whether or not an adverse effect is occurring or likely to occur
- Whether or not a good standard of amenity can be achieved

In line with the Explanatory Note of the NPSE, the PPG references the LOAEL and SOAEL in relation to noise impact. It also provides examples of outcomes that could be expected for a given perception level of noise, plus actions that may be required to bring about a desired outcome. However, in line with the NPSE, no objective noise levels are provided for LOAEL or SOAEL although the PPG acknowledges that:

'...the subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation'.

Table 2.1 summarises the PPG noise exposure hierarchy.

Table 2.1: PPG Noise Exposure Hierarchy

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not Noticeable	No Effect	No Observed Effect	No specific measures required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, 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 perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, 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
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

3 Planning Practice Guidance on Noise: http://planningguidance.planningportal.gov.uk/blog/guidance/noise/

The PPG also provides general advice on the typical options available for mitigating noise, suggesting that Local Plans may include noise standards applicable to proposed developments within the Local Authority's administrative boundary, although it states that:

'Care should be taken, however, to avoid these being implemented as fixed thresholds as specific circumstances may justify some variation being allowed'.

The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any particular situation. The following guidance documents provide some meaningful context.

2.4 BS 4142 'Methods for Rating and Assessing Industrial and Commercial Sound'

BS 4142:2014+A1-2019 'Methods for Rating and Assessing Industrial and Commercial Sound' (BS 4142)[4] describes methods for determining, at the outside of a building, noise levels from factories or industrial premises and a method for assessing whether the noise is likely to give rise to adverse impacts, and states:

'*The significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound source exceeds the background sound level and the context in which the sound occurs. Typically, the greater this difference, the greater the magnitude of the impact. For example:*

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'

The rating level is described as the specific sound level (the equivalent continuous A-weighted sound pressure level at the assessment position (NSR) produced by the specific sound source over the given reference time interval) plus any adjustment for the characteristic features of the sound. The character correction relates to whether and to what degree the specific sound is assessed to have an element of tonality, impulsivity and/or characteristics that are readily distinctive against the residual acoustic environment.

The background noise level is the A–weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 percent of a given time interval, T, measured using time weighting 'F' and quoted to the nearest whole number of decibels.

The reference time interval of the specific sound is 1 hour during the daytime and 15 minutes during the night-time.

4 British Standard 4142:2014+A1-2019 Methods for rating and assessing industrial and commercial sound, BSI (2014)

3 Noise Survey

3.1 Overview

A noise survey was undertaken at the site on Monday 22nd June through to Tuesday 23rd June 2026.

For the purpose of the assessment, a single long-term noise monitoring position (MP1) was adopted to the south of the site (see Appendix 2 for the approximate monitoring position).

Noise measurements were undertaken at 1.5 metres above ground level in free field conditions using an NTi Audio XL3 Type 1 integrating sound level meter. The meters were connected to a windshield covered microphone positioned at the location detailed above. The measurement system calibration was verified immediately before and after the survey period using a Bruel & Kjaer Type 4231 calibrator. No drift in calibration levels greater than 0.5 dB was noted.

The noted weather conditions during the survey were dry with average wind speeds < 5 m/s. Weather conditions were therefore considered appropriate for noise monitoring.

Measurements consisted of A–weighted broadband parameters including L_{Aeq} and L_{A90}, together with linear octave band L_{eq} levels.

3.2 Summary

Table 3.1 presents a summary of the noise data for each measurement session, rounded to the nearest decibel. Typical L_{A90} values are given as the modal $L_{A90,15min}$ during the measurement period, in accordance with BS 4142:2014.

Table 3.1: Summary of Long-Term Noise Measurement Data

Position	Date	Time	$L_{Aeq,\,T}$ (dB)	Typical L_{A90} (dB)	Comment
MP1	22/06/26	1048-2300	56	52	Existing plant from site and distant road traffic from Towngate dominating background noise levels
	23/06/26	0700-1038	52	51	
	22-23/06/26	2300-0700	50	42	

Background noise levels at the site were generally dominated by existing plant at the site and distant road traffic on Towngate to the north.

Background noise levels measured at MP1 are considered to be representative of the nearest NSRs.

Typical background noise levels were **52 dB $L_{A90\,(15\,min)}$** during the daytime hours (0700-2300) and **42 dB $L_{A90\,(15\,min)}$** during night-time hours (2300-0700).

3.3 Noise Associated with the Development

The proposed development is to be used for dry goods storage at ground floor level together with a staff canteen and associated welfare accommodation at first floor level.

Noise associated with use of the staff canteen is not expected to be significant.

The existing site currently takes deliveries at loading bays on land at the south-west boundary of the site (adjacent to the proposed building). As such, the development is not expected to result in a change in yard usage, which would continue to operate in the same way.

Storage buildings don't typically generate significant levels of internal noise. However, for the purposes of the assessment, it is assumed that forklift trucks (FLT) may operate in the storage building.

ENS has previously measured the noise levels associated with FLT loading operations at up to **63 dB $L_{Aeq\ (15\ min)}$** at 5 metres. This noise level includes the FLT vehicle movements and picking up/dropping pallets. The measured noise level equates to a sound power level of **85 dB(A)**.

Adopting a SWL of 85 dB(A), the internal reverberant SPL in the proposed building may be calculated using the following formula:

$SPL_{REV} = SWL + 10*\log(RT/Vol) + 14$

where:

RT refers to reverberation time within the warehouse (estimated at 1 second)
Vol refers to the volume of the warehouse in m^3, calculated to be circa 4,200 m^3

Using the formula above, the internal reverberant SPL is calculated at **63 dB $L_{Aeq,\ T}$**.

4 Noise Assessment

4.1 Overview

The principal noise sources associated with the proposed development are considered to be:

- Noise associated with fixed mechanical plant
- Internal noise breakout from the proposed building (FLT movements)

The following sections of the noise impact assessment discuss the potential noise impacts of the above activities on the amenity of the nearest residential receptors.

4.2 Fixed Plant Noise Emissions

It is understood that fixed mechanical plant may be required at the site, however, details of the proposed plant are not known at this stage. It is therefore considered appropriate to specify suitable noise limits to which any such plant items should conform.

With respect to BS 4142, a plant noise rating level which does not exceed the existing background noise level at the receptor would be considered to have a low impact, subject to context. As such it is considered that any proposed plant should be designed to not exceed the background noise level at the nearest receptors.

Daytime and night-time background levels in the vicinity of the nearest receptor were measured at **52 dB $L_{A90\ (15\ min)}$** and **42 dB $L_{Aeq\ (15\ min)}$** respectively.

It is therefore considered that the cumulative noise rating level of fixed installations at the proposed development should not exceed the following noise rating levels at the nearest NSRs.

- **52 dB $L_{Ar\ (1\ hour)}$** during the daytime
- **42 dB $L_{Ar\ (15\ min)}$** during the night-time

It is considered that the operation of any fixed installations can be controlled by a suitably worded planning condition, and that compliance with such limits would be readily achievable with judicious selection of plant, equipment, and/or standard noise mitigation techniques.

4.3 Noise Breakout from Proposed Building

In order to assess the propagation of noise from activities at the site to the nearest receptors, noise level predictions have been performed using iNoise acoustic modelling software. This is a software program specifically developed for the prediction and assessment of environmental noise.

The model calculates noise levels on horizontal and vertical grids with a user defined spacing of receiver points. From these levels, calculated at thousands of points, contour lines of constant noise levels are generated and printed as noise maps. Scaling was based on imports from Google Earth, with 2nd order reflections considered and absorption coefficients based on the iNoise default for brick-built structures.

The following assumptions were used in the model:

- Meteorological conditions: Temp. 20 °C, Relative Humidity 60%
- Foliage/woodland areas not considered to provide any reduction
- Reflections: set to two orders of reflection permitted in the model
- Ground absorption: set to 1.0 (hard ground)

The sound reduction index (SRI) of the buildings is taken as 25 dB R_w based on the sound reduction performance of a standard profiled metal façade. The SRI for the roller shutter doors is taken to be 17 dB R_w.

It is robustly assumed that FLT movements may occur for the duration of the assessment period.

The results of the noise modelling are summarised in Table 4.1 (noise model contours are presented in Appendix 3).

Table 4.1: Noise Modelling Results

Receptor	Specific Noise Level $L_{Aeq,T}$
NSR1	25 dB
NSR2	20 dB

As NSR1 is the worst-case receptor, these noise levels have been adopted for use in the BS 4142 assessment.

BS 4142 requires that an adjustment be made for the characteristic features of the sound. Whilst warehouse noise may contain particular characteristics in close proximity, the absolute noise levels associated with the development are at least 17 dB below the background noise levels at the NSR.

Inaudibility is a subjective matter, but it is commonly accepted that it is approached when the source noise level is at least 10 dB below the background noise level. As noise associated with the development is likely to be subjectively inaudible at the nearest receptor, no character penalty is warranted.

The calculated receptor noise levels have been assessed in accordance with BS4142. The results of the daytime and night-time assessments are presented in Table 4.2 and 4.3.

Table 4.2: Daytime BS 4142 Assessment

Results	NSR1	Comment
Specific sound level	25 dB $L_{Aeq\ (1\ hour)}$	Receptor noise level
Acoustic feature correction	+0 dB	No penalty warranted
Rating level	25 dB $L_{Ar\ (1\ hour)}$	Rating level at NSRs
Background sound level	52 dB $L_{A90\ (15min)}$	Background sound levels at NSRs
Excess of rating over background sound level	-27 dB	-
Assessment	Indication of a low impact, subject to context	-

Table 4.3: Night-time BS 4142 Assessment

Results	NSR1	Comment
Specific sound level	25 dB $L_{Aeq\ (15\ min)}$	Receptor noise level
Acoustic feature correction	+0 dB	No penalty warranted
Rating level	25 dB $L_{Ar\ (15\ min)}$	Rating level at NSRs
Background sound level	42 dB $L_{A90\ (15min)}$	Background sound levels at NSRs
Excess of rating over background sound level	-17 dB	-
Assessment	Indication of a low impact, subject to context	-

Noise levels associated with the development do not exceed the existing background noise levels at the nearest NSRs during the daytime or night-time. In accordance with BS 4142, this is an indication of a low impact, subject to context.

For reference, BS 4142:1997 defines 35 dB $L_{Ar\ (15\ min)}$ as a 'very low' rating level, and the WHO Night Noise Guidelines for Europe considers that 40 dB $L_{Aeq\ (2300–0700)}$ outside represents the Lowest Observed Adverse Effect Level (LOAEL) during the night-time.

As noise from the development is at least 17 dB below the existing noise level at the nearest receptors, it is likely to be largely masked by the residual noise climate.

It should also be noted that the site has had commercial use for a number of years, and the development would not lead to an intensification of use. As such, the proposed development is not expected to change the acoustic character of the area significantly.

Existing noise levels at the nearest receptors are due to road traffic on Towngate to the north and existing noise from the bakery (plant etc.). As such, the proposed building is likely to screen the receptors to the south from noise that they are currently exposed to. This is expected to result in lower noise levels at the receptors.

It is therefore considered that noise associated with the development is at the No Observed Adverse Effect Level, i.e. noise may be heard, but does not cause any change in behaviour or attitude.

5 Summary and Conclusions

A noise impact assessment has been undertaken for proposed storage building and staff canteen, at Fosters Bakery, Towngate, Mapplewell, Barnsley.

In order to establish the ambient and background noise levels in the vicinity of the site, a baseline noise survey was undertaken on Monday 22nd June through to Tuesday 23rd June 2026.

Noise emission limits have been set for any proposed fixed plant items, in line with BS 4142 assessment methodology.

Noise emission from the development has been predicted for nearby noise sensitive properties based on typical noise levels for the proposed uses. When assessed in accordance with BS 4142, noise associated with the development represents a low impact, subject to context, and is considered to align with the No Observed Adverse Effect Level.

Appendix 1 – Abbreviations and Definitions

Sound Pressure Level (L_p)
The basic unit of sound measurement is the sound pressure level. As the pressures to which the human ear responds can range from 20 μPa to 200 Pa, a linear measurement of sound levels would involve many orders of magnitude. Consequently, the pressures are converted to a logarithmic scale and expressed in decibels (dB) as follows:

$L_p = 20 \log_{10}(p/p_o)$

Where L_p = sound pressure level in dB; p = rms sound pressure in Pa; and p_o = reference sound pressure (20 μPa).

A-weighting
A frequency filtering system in a sound level meter, which approximates under defined conditions the frequency response of the human ear. The A-weighted sound pressure level, expressed in dB(A), has been shown to correlate well with subjective response to noise.

Equivalent continuous A-weighted sound pressure level, $L_{Aeq, T}$
The value of the A-weighted sound pressure level in decibels of continuous steady sound that within a specified time interval, T, has the same mean-square sound pressure as a sound that varies with time. $L_{Aeq, 16h}$ (07:00 to 23:00 hours) and $L_{Aeq, 8h}$ (23:00 to 07:00 hours) are used to qualify daytime and night-time noise levels.

$L_{A10, T}$
The A-weighted sound pressure level in decibels exceeded for 10% of the measurement period, T. $L_{A10, 18h}$ is the arithmetic mean of the 18 hourly values from 06:00 to 24:00 hours.

$L_{A90, T}$
The A-weighted sound pressure level of the residual noise in decibels exceeded 90% of a given time interval, T. L_{A90} is typically taken as representative of background noise.

$L_{AF\ max}$
The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

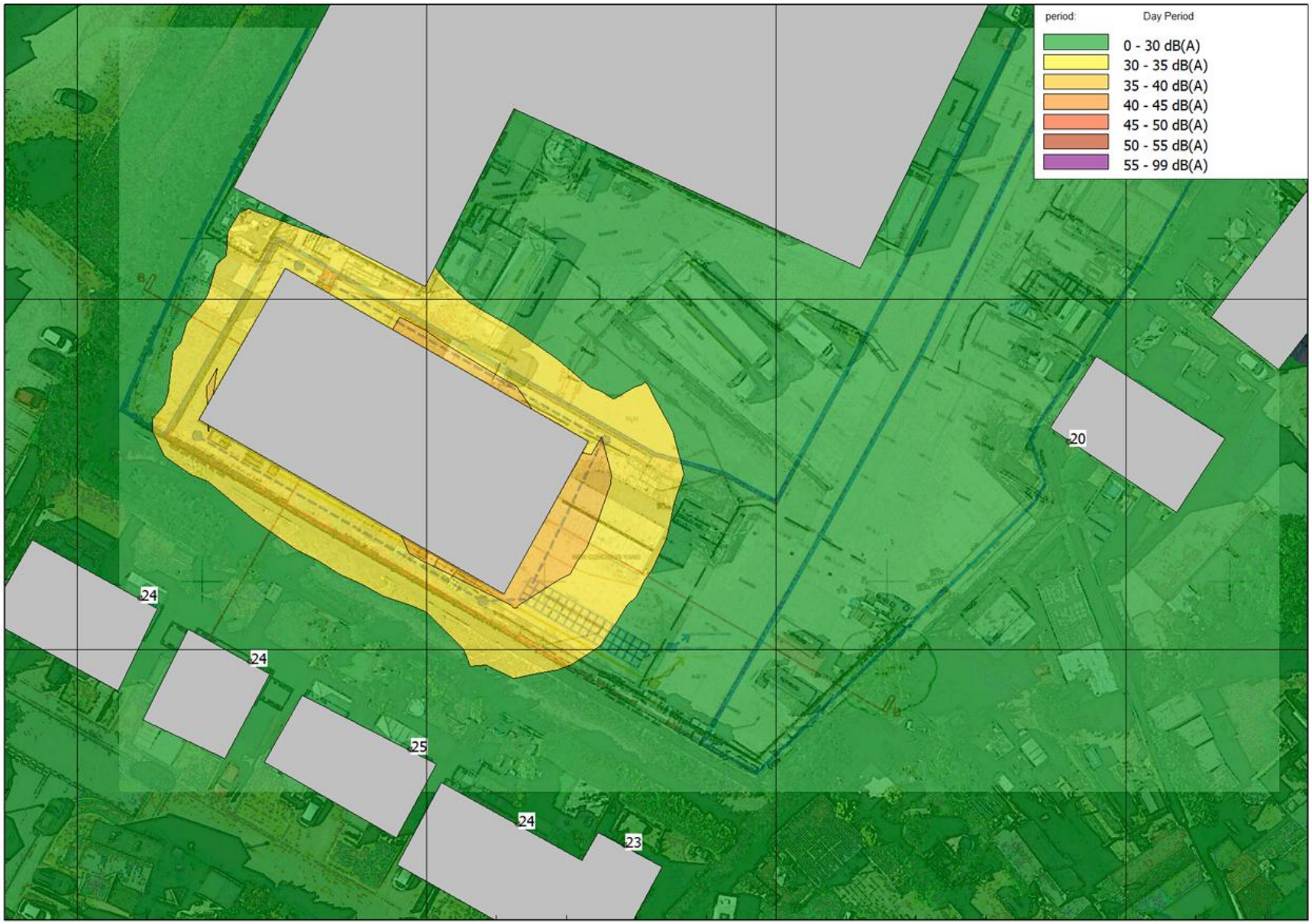
Single Event Level / Sound Exposure Level (SEL or L_{AE})
The energy produced by a discrete noise event averaged over one second, regardless of the event duration. This allows for comparison between different noise events which occur over different lengths of time.

Weighted Sound Reduction Index (R_W)

Single number quantity which characterises the airborne sound insulation properties of a material or building element over a defined range of frequencies (R_W is used to characterise the insulation of a material or product that has been measured in a laboratory).

Appendix 2 – Noise Monitoring Position

Appendix 3 – Noise Contour Maps for NSR



Appendix 4 – Raw Measurement Data

MP1

Start	LAFmax [dB]	LAeq [dB]	LA10 [dB]	LA90 [dB]
2026-06-22 10:45:00	-	52.3	55.2	51.1
2026-06-22 11:00:00	-	57.6	61.5	51.9
2026-06-22 11:15:00	-	69.0	74.5	53.0
2026-06-22 11:30:00	-	59.0	62.9	51.6
2026-06-22 11:45:00	-	53.8	55.5	53.3
2026-06-22 12:00:00	-	53.8	55.2	53.5
2026-06-22 12:15:00	-	54.2	57.1	53.3
2026-06-22 12:30:00	-	53.1	54.3	52.9
2026-06-22 12:45:00	-	52.5	56.6	51.7
2026-06-22 13:00:00	-	52.6	55.1	51.5
2026-06-22 13:15:00	-	52.5	54.8	51.7
2026-06-22 13:30:00	-	53.3	60.3	51.9
2026-06-22 13:45:00	-	52.9	55.5	51.9
2026-06-22 14:00:00	-	52.6	54.4	52.4
2026-06-22 14:15:00	-	52.9	54.5	52.7
2026-06-22 14:30:00	-	50.7	55.4	44.5
2026-06-22 14:45:00	-	48.7	58.4	44.6
2026-06-22 15:00:00	-	51.7	55.8	45.4
2026-06-22 15:15:00	-	52.4	55.2	51.6
2026-06-22 15:30:00	-	52.2	54.8	51.5
2026-06-22 15:45:00	-	57.2	63.9	51.8
2026-06-22 16:00:00	-	54.5	55.9	54.2
2026-06-22 16:15:00	-	54.7	56.2	54.4
2026-06-22 16:30:00	-	54.3	57.3	52.1
2026-06-22 16:45:00	-	52.2	54.1	51.9
2026-06-22 17:00:00	-	52.5	54.5	52.3
2026-06-22 17:15:00	-	52.5	54.0	52.3
2026-06-22 17:30:00	-	53.6	56.9	52.3
2026-06-22 17:45:00	-	55.6	57.9	54.5
2026-06-22 18:00:00	-	56.3	62.8	47.2
2026-06-22 18:15:00	-	47.5	52.5	45.4
2026-06-22 18:30:00	-	51.6	55.5	45.1
2026-06-22 18:45:00	-	51.9	54.0	51.4
2026-06-22 19:00:00	-	51.5	53.4	51.2
2026-06-22 19:15:00	-	51.2	52.7	51.0
2026-06-22 19:30:00	-	51.6	53.2	51.5
2026-06-22 19:45:00	-	52.0	54.4	51.8
2026-06-22 20:00:00	-	52.3	54.7	52.1
2026-06-22 20:15:00	-	46.5	51.5	44.2
2026-06-22 20:30:00	-	52.6	55.3	51.6
2026-06-22 20:45:00	-	51.8	55.4	51.3

2026-06-22 21:00:00	-	46.3	50.3	44.4
2026-06-22 21:15:00	-	52.0	54.2	51.7
2026-06-22 21:30:00	-	48.2	52.6	44.2
2026-06-22 21:45:00	-	50.4	53.2	44.4
2026-06-22 22:00:00	-	49.6	52.9	43.5
2026-06-22 22:15:00	-	49.4	52.7	43.2
2026-06-22 22:30:00	-	49.4	52.6	43.2
2026-06-22 22:45:00	-	46.2	52.1	43.1
2026-06-22 23:00:00	62.4	43.9	45.3	42.9
2026-06-22 23:15:00	56.1	48.0	52.1	43.5
2026-06-22 23:30:00	57.6	51.4	53.1	51.2
2026-06-22 23:45:00	58.5	51.4	52.9	51.4
2026-06-23 00:00:00	54.4	51.0	52.3	51.0
2026-06-23 00:15:00	58.6	48.8	52.4	43.1
2026-06-23 00:30:00	58.2	49.8	53.6	43.3
2026-06-23 00:45:00	64.9	49.0	52.6	42.9
2026-06-23 01:00:00	63.2	49.6	53.0	42.5
2026-06-23 01:15:00	68.4	48.4	52.0	43.3
2026-06-23 01:30:00	57.2	49.6	53.0	42.3
2026-06-23 01:45:00	60.5	47.8	52.0	42.5
2026-06-23 02:00:00	57.7	49.3	52.3	42.8
2026-06-23 02:15:00	55.9	46.5	51.5	42.0
2026-06-23 02:30:00	56.0	49.5	52.2	42.3
2026-06-23 02:45:00	55.1	46.9	51.4	41.4
2026-06-23 03:00:00	69.2	50.2	53.1	42.0
2026-06-23 03:15:00	53.7	46.8	52.1	41.6
2026-06-23 03:30:00	57.2	50.9	54.3	41.4
2026-06-23 03:45:00	64.5	48.9	56.6	40.6
2026-06-23 04:00:00	59.1	51.6	54.5	46.1
2026-06-23 04:15:00	60.9	45.7	52.2	41.6
2026-06-23 04:30:00	64.0	51.3	54.7	47.6
2026-06-23 04:45:00	65.7	46.5	52.0	42.4
2026-06-23 05:00:00	66.4	47.8	51.7	41.8
2026-06-23 05:15:00	62.7	51.1	54.2	50.3
2026-06-23 05:30:00	64.2	51.2	54.6	50.6
2026-06-23 05:45:00	58.3	49.9	54.0	44.3
2026-06-23 06:00:00	62.6	50.5	53.6	46.1
2026-06-23 06:15:00	66.0	51.2	54.4	50.6
2026-06-23 06:30:00	65.8	51.5	54.1	50.8
2026-06-23 06:45:00	64.8	50.1	54.0	44.5
2026-06-23 07:00:00	-	51.7	53.9	51.4
2026-06-23 07:15:00	-	49.7	53.7	46.3
2026-06-23 07:30:00	-	52.0	56.9	47.5
2026-06-23 07:45:00	-	50.3	53.6	45.4

2026-06-23 08:00:00	-	50.5	54.4	44.9
2026-06-23 08:15:00	-	52.2	54.9	51.2
2026-06-23 08:30:00	-	53.5	61.4	51.7
2026-06-23 08:45:00	-	51.2	52.9	50.6
2026-06-23 09:00:00	-	50.0	57.7	46.8
2026-06-23 09:15:00	-	48.7	54.9	44.3
2026-06-23 09:30:00	-	51.4	53.6	47.2
2026-06-23 09:45:00	-	52.0	55.5	51.1
2026-06-23 10:00:00	-	57.8	63.7	50.9
2026-06-23 10:15:00	-	52.4	56.1	51.4
2026-06-23 10:30:00	-	52.0	55.0	51.3