Environmental Noise Solutions Limited

Suite 24
Doncaster Business Innovation Centre
Ten Pound Walk
Doncaster
DN4 5HX

Proposed Residential Development

Former Hoyland Nether WMC

2 Broad Street, Hoyland, Barnsley, S74 9DY

Noise Impact Assessment

For: Continental Gold

11th December 2025

Ref: NIA-12409-25-12675-V1-Hoyland (Final).docx

Author: R. Whitaker BSc, MIOA

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1 Introduction

1.1 Overview

Environmental Noise Solutions Ltd (ENS) has been commissioned by Continental Gold to undertake a noise survey and assessment for a proposed change of use of the former Hoyland Nether WMC, 2 Broad Street, Hoyland, Barnsley, S74 9DY to form a residential development (hereafter referred to as 'the site').

The objectives of the noise impact assessment were to:

- Determine external noise levels at the site
- Assess the potential impact of the external noise climate on the proposed residential development with reference to pertinent guidelines
- Provide recommendations for a scheme of sound attenuation works, as necessary, to protect future occupants of the proposed residential development from a loss of amenity due to noise

This report details the methodology and results of the assessment and provides recommendations as necessary. It has been prepared to accompany a planning application to be submitted to Barnsley Metropolitan Borough Council.

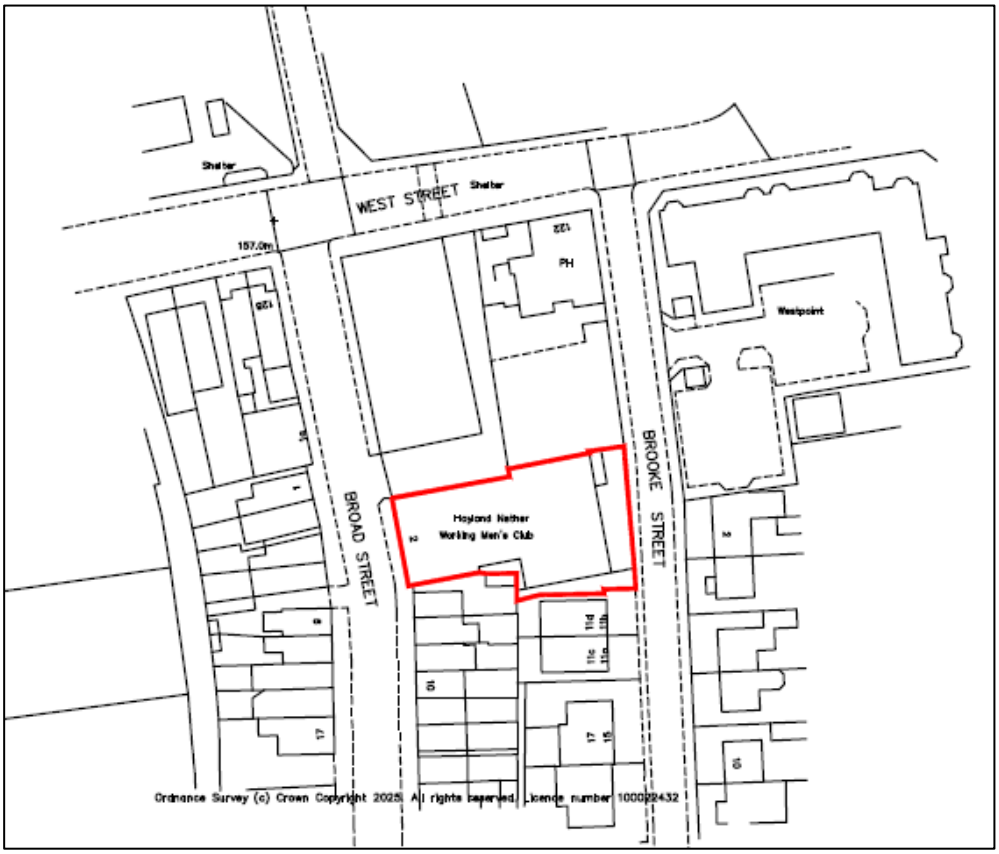
The report has been prepared for Continental Gold for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties referring to the report should consult Continental Gold and ENS as to the extent to which the findings may be appropriate for their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

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

1.2 Site Description and Development Proposals

The site is located at the former Hoyland Nether WMC on Broad Street in Hoyland town centre, as shown (highlighted in red) in Figure 1.1.

Figure 1.1: Location of Proposed Development



Proposals are for the conversion of the former Hoyland Nether WMC to form an assisted living residential development consisting 9 no. apartments.

The site is bounded by (see Appendix 2 for site layout):

- Broad Street to the west
- Brooke Street to the east
- Residential dwellings to the south
- The prospect Tavern and associated beer garden to the north-east
- Retail units to the north-west (Subway and Go Local convenience store)

The noise environment at the site is characterised by road traffic on West Street to the north, with fixed external plant noise also present on the northern façade of the development associated with the neighbouring Subway and Go Local convenience stores located to the north-west.

1.3 Commercial Businesses in the Local Vicinity

With reference to The Prospect Tavern to the north-east of the site, the public house operates between the hours of 15:00 – 21:00hrs Sunday to Thursday, 15:00 – 23:00hrs on Fridays and 15:00 – 23:45hrs on Saturdays. It is understood that the beer garden is not used after 23:00 hrs.

With reference to the retail units to the north-west (Subway and Go Local Convenience store), the businesses operate between the hours of 08:00 – 20:00hrs Monday to Friday and 09:00 – 20:00hrs on Saturday and Sundays (note: Subway is located within the convenience store). The businesses have several items of externally mounted plant located on the eastern façade of the building. The plant is assumed to operate 24/7.

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'.

With regard to extant community noise sources and the potential to affect proposed new developments, Paragraph 200 states that:

'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.'

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

1 National Planning Policy Framework. Ministry of Housing, Communities and Local Government (2021)
2 Government Department for Environment, Food and Rural Affairs. Noise Policy Statement for England. March 2010.

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.'

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.

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.

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

2.4 ProPG Planning and Noise: New Residential Development

ProPG Planning and Noise: New Residential Development (ProPG)[4] was published in 2017 by the Association of Noise Consultants, Institute of Acoustics and the Chartered Institute of Environmental Health.

Stage 2: Element 2 of ProPG sets indoor ambient noise levels for residential dwellings based on the guidance contained in British Standard 8233:2014 'Guidance on Sound Insulation and Noise Reduction for Buildings' (BS 8233), see Table 2.1.

Table 2.1: Indoor Ambient Noise Levels in Dwellings

Activity	Location	Good Indoor Ambient Noise Levels	
Resting	Living Room	35 dB $L_{Aeq\ (0700\text{-}2300)}$	-
Dining	Dining Room/Area	40 dB $L_{Aeq\ (0700\text{-}2300)}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq\ (0700\text{-}2300)}$	30 dB $L_{Aeq\ (2300\text{-}0700)}$ 45 dB $L_{AFMax\ (2300\text{-}0700)}$

Note 4 to the above table states:

'A guideline value may be set in terms of SEL or $L_{Amax,F}$, depending on the character and number of events per night. Sporadic noise events could require separate values. 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.'

Note 5 to the above table states:

'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'.

This is consistent with the guidance contained within the PPG, which states that:

'... consideration should also be given to whether adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time. In both cases a suitable alternative means of ventilation is likely to be necessary. Further information on ventilation can be found in the Building Regulations'.

The NPPF PPG requires that the character of the noise is taken into account. In relation to plant noise impacting on the rear of the development, Annex B of BS 8233 describes methods for assessing the acceptability of a noise spectrum for a given application through the use of Noise Rating (NR) curves.

This is a graphical method for assigning a single-number rating to a noise spectrum, and many local authorities have a requirement to comply with NR30 in habitable rooms during the daytime and NR25 in bedrooms at night where commercial noise (in this case fixed plant) may be present.

4 'ProPG Planning and Noise: New Residential Development (ProPG)', 2017. Association of Noise Consultants (ANC), Institute of Acoustics (IOA) and the Chartered Institute of Environmental Health (CIEH)

On the basis of the above, the following criteria (with windows closed and an alternative means of ventilation provided) are considered appropriate for the proposed development and considered to represent good resting and sleeping conditions:

- ≤ 35 dB $L_{Aeq\ (0700\text{-}2300)}$ and NR30 (plant noise) in habitable rooms during the daytime
- ≤ 30 dB $L_{Aeq\ (2300\text{-}0700)}$ and NR25 (plant noise) in bedrooms during the night-time
- 45 dB L_{AFMax} not regularly exceeded in bedrooms during the night-time

3 Noise Survey

3.1 Overview

In order to determine the level of external noise affecting the proposed development, noise monitoring was carried out on Friday 28th November through to Monday 1st December 2025.

The adopted noise monitoring positions (shown in Appendix 2) were as follows:

- MP1 was located on the western façade of the existing building, overlooking Broad Street at first floor level
- MP2 was located on the eastern façade of the existing building, overlooking Brooke Street at first floor level
- MP3 was located on the roof of the northern elevation overlooking the external plant associated with the neighbouring retail units and also beer garden associated with The Prospect Tavern.

Noise measurements were undertaken using Brüel & Kjaer 2250 and NTi XL3 Type 1 integrating sound level meters. Each meter was connected to a windshield covered microphone positioned at the locations detailed above. The measurement system calibration was verified immediately before and after the survey period using a Brüel & Kjaer Type 4231 calibrator. No drift in calibration levels greater than 0.5 dB was noted.

Measurements consisted of A–weighted broadband parameters including L_{Aeq}, L_{A10} L_{A90}, and L_{AFMax} together with linear octave and 1/3rd octave band data.

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

3.2 Summary

Table 3.1 overleaf presents a summary of the noise data for each measurement session, at each measurement position, rounded to the nearest decibel. As measurements were made at 1 metre from the existing building façade at MP1 and MP2, a –3 dB façade enhancement correction has been applied to the measured levels in order to establish the free field levels.

Table 3.1: Summary of Noise Measurement Data

Position	Date	Time	L_{Aeq} (dB)	L_{A90} (dB)	L_{A10} (dB)	L_{AFMax} (dB)	Comment
MP1	28/11/25	0948-2100	55	48	58	-	Localised and distant road traffic noise
	01/12/25	0933-2300	54	47	58	-	
	02/12/25	0700-1217	51	45	55	-	
	01-02/12/25	2300-0700	47	38	50	*66	
MP2	28/11/25	1004-1235	52	44	51	-	Localised and distant road traffic noise
	28/11/25	1331-1431	51	44	52	-	
	01/12/25	1000-1127	50	43	50	-	
MP3	28/11/25	1300-2300	55	47	58	-	Fixed external plant noise. Road traffic in the absence of plant noise
	29/11/25	0700-2300	55	47	58	-	
	30/11/25	0700-2300	54	44	57	-	
	01/12/25	0700-1138	54	50	57	-	
	28-29/11/25	2300-0700	52	38	57	*60	Distant road traffic noise
	29-30/11/25	2300-0700	50	41	56	*61	
	30-01/12/25	2300-0700	49	44	54	*60	
** 11th highest maximum noise level event during the night-time*							

Noise levels on the front and rear road facing facades of the building (MP1 and MP2) were controlled by distant road (West Street) and localised road traffic (Brooke Street and Broad Street) in the daytime and night-time.

Daytime and night-time noise levels at MP1 on the western façade overlooking Broad Street were measured at up to **55 dB $L_{Aeq\ (0700\text{-}2300)}$** and **47 dB $L_{Aeq\ (2300\text{-}0700)}$** respectively. Typical (11th highest) maximum noise levels at MP1 were measured at up to **66 dB L_{AFMax}** during the night-time.

Daytime noise levels at MP2 on the eastern façade overlooking Brooke Street were measured at up to **52 dB $L_{Aeq\ (0700\text{-}2300)}$**.

Noise levels on the northern façade (MP3) were controlled by fixed external plant (assumed to be associated with the neighbouring retail units; Subway and Go Local convenience Store) which operates 24/7, with road traffic the principal noise source in the absence of plant.

Existing plant noise at MP3 was measured at up to 57 dB $L_{Aeq,15\ mins}$ during the daytime. Although levels were lower at night, it is assumed that the higher daytime value may also occur during summer night-time periods. Accordingly, the 57 dB $L_{Aeq,\ 15mins}$ level has been adopted for assessment purposes for both daytime and night-time conditions

The following table contains the corresponding octave band frequency data, rounded to the nearest decibel.

Table 3.2: MP3 Octave Band Frequency Data – Fixed External Plant

Octave Band L_{eq}								dB L_{Aeq}
63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
62	58	56	55	53	49	44	37	57

3.3 Noise Associated with The Prospect Tavern

The predominant potential noise source associated with the adjacent public house (The Prospect Tavern) is considered to be raised voices from the beer garden. It is understood that the beer garden is only used between the hours of 12:00 – 22:00hrs and that music is not played within the external seating area.

Measurements of a much larger external area have previously been undertaken by ENS, in a first-floor position directly adjacent to and overlooking the external area. The noise levels associated with raised voices measured at up to **54 dB $L_{Aeq\ (30\ min)}$** with circa 30 patrons in the area. This level is robustly adopted for assessment purposes.

4 Noise Assessment

4.1 Design Noise Levels

Design noise levels for the western and southern façades are taken as follows:

- **≤ 55 dB $L_{Aeq\ (0700\text{-}2300)}$** during the daytime
- **≤ 47 dB $L_{Aeq\ (2300\text{-}0700)}$** during the night-time
- **≤ 66 dB L_{AFMax}** during the night-time

The design noise levels for the northern façade overlooking the fixed plant and beer garden are taken as follows:

- **≤ 57 dB $L_{Aeq,\ T}$** fixed plant noise
- **≤ 54 dB $L_{Aeq,\ T}$** beer garden noise
- **≤ 52 dB L_{AFMax}** during the night-time

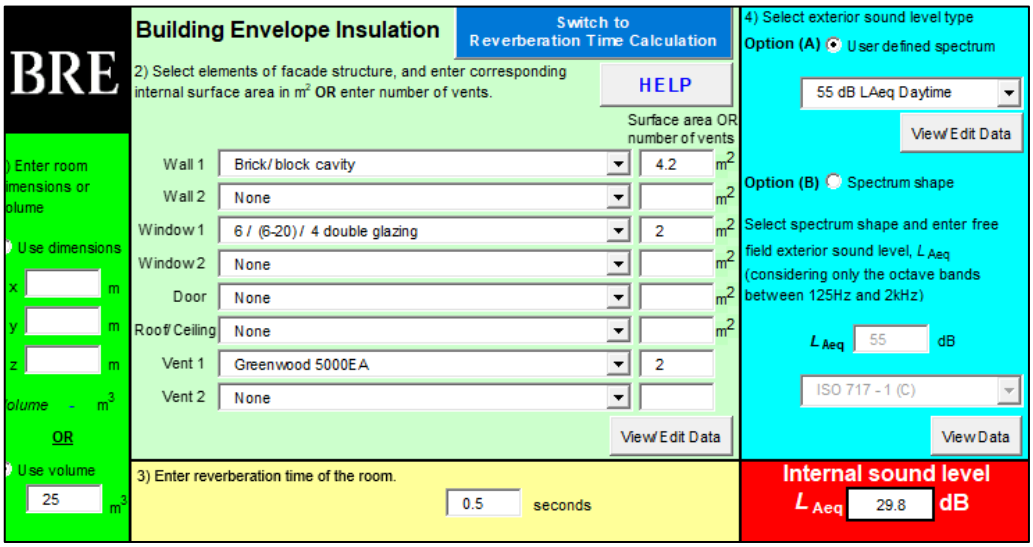
4.2 Scheme of Sound Attenuation

In order to calculate the sound insulation requirements for habitable rooms the Building Research Establishment (BRE) building envelope insulation calculation spreadsheet was used. This spreadsheet is based on the calculation methodology advocated in BS 8233. The spreadsheet allows input of external noise levels, typical room dimensions and reverberation time together with parameters for the various elements of the building envelope and calculates the internal noise level in terms of the external noise level metric (L_{Aeq} and L_{AFMax} in this case).

Western and Southern Façades (distant road traffic noise)

As evidenced in the calculation sheet below, a typical thermal double-glazed window rated at least **28 dB R_w+C_{tr}** (such as 6 mm glass / 12 mm cavity / 4 mm glass) in conjunction with 2 no. standard trickle vents rated at least **32 dB $D_{n,e,w}$** per 5000 mm² EA vent open (such as the Greenwood 5000EA, or equivalent) will provide circa 25 dB(A) sound insulation from external to internal at the site.

Figure 4.1: Example BRE Calculation Spreadsheet



The resultant internal noise levels are set out in the table below.

Table 4.1 – Western and Southern Façades Resultant Internal Noise Levels

External Noise Level	Reduction	Resultant Internal Level	Internal Criteria
≤ 55 dB $L_{Aeq\ (0700\text{-}2300)}$ ≤ 47 dB $L_{Aeq\ (2300\text{-}0700)}$ ≤ 66 dB L_{AFMax}	–25 dB	≤ 30 dB $L_{Aeq\ (0700\text{-}2300)}$ ≤ 22 dB $L_{Aeq\ (2300\text{-}0700)}$ ≤ 41 dB L_{AFMax}	≤ 35 dB $L_{Aeq\ (0700–2300)}$ ≤ 30 dB $L_{Aeq\ (2300–0700)}$ ≤ 45 dB $L_{AFMax\ (2300–0700)}$

On the basis of the above, thermal double glazing (i.e. 6 mm glass / 12 mm cavity / 4 mm glass) rated at least **28 dB R_w+C_{tr}** and standard trickle vents rated at least **32 dB $D_{n,e,w}$** per 5000 mm² EA vent open, are appropriate for all proposed habitable rooms on the western and southern facades of the developments.

Northern and Eastern Façades (fixed plant and beer garden noise)

Noise levels from the beer garden are predicted to reach up to 54 dB L_{Aeq} at the building façade, while external plant noise was measured at up to 57 dB L_{Aeq} at the façade. The external plant noise is therefore the governing design factor, as it represents the higher noise source. Recommendations based on this higher plant noise level are therefore sufficient to control beer garden noise. Additionally, the scheme of sound attenuation has been designed to meet the night-time internal target of NR25, whereas the beer garden is not used between the hours of 23:00 and 12:00.

Given the sensitivity of the proposed habitable rooms on the northern façade overlooking the external plant and beer garden, these rooms should be provided with acoustic wall vents rated at least **41 dB $D_{n,e,w}+C_{tr}$** (such as the Ryton AAc125HP or equivalent) and enhanced double glazing (i.e. 6 mm glass / 6-20 mm cavity / 6.8 Optiphon) rated at least **34 dB R_w+C_{tr}**.

As habitable rooms on the eastern façade have the potential be affected by beer garden noise, these habitable rooms should be provided with acoustic wall vents rated at least **41 dB $D_{n,e,w}+C_{tr}$** (such as the Ryton AAc125HP or equivalent) and enhanced double glazing (i.e. 8 mm glass / 6-20 mm cavity / 4) rated at least **29 dB R_w+C_{tr}**.

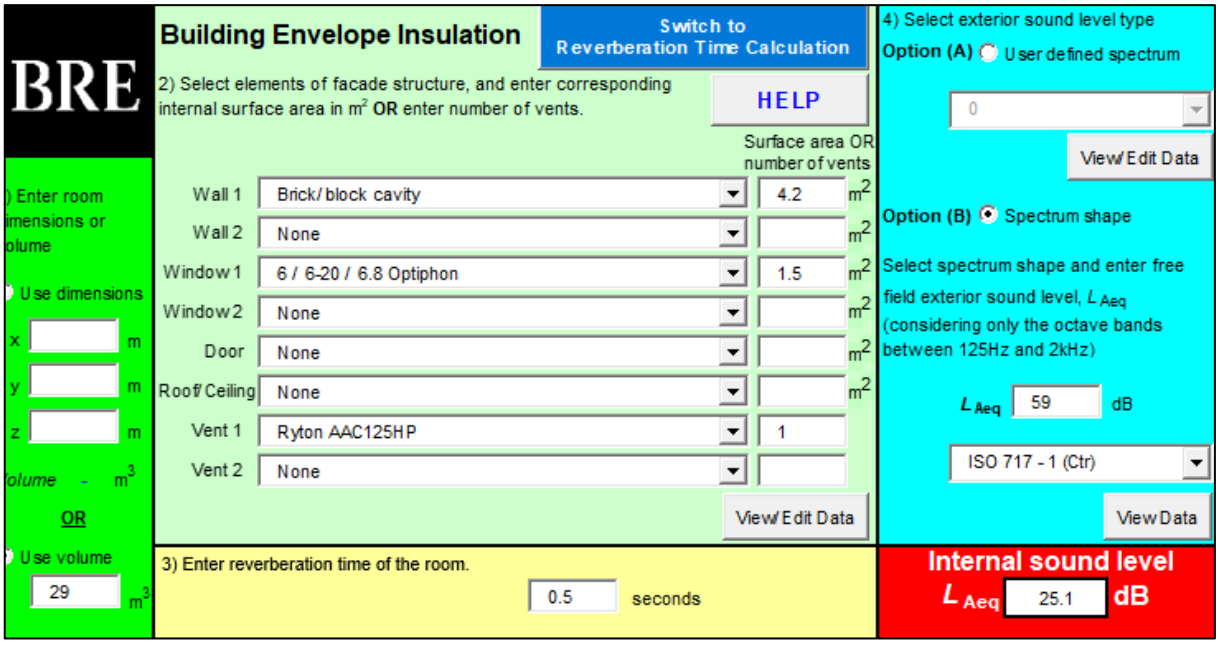
Table 4.2 overleaf provides an example calculation which demonstrates that proposed habitable rooms on the northern façade affected by fixed external plant noise, will readily achieve compliance with NR25 with the provision of the glazing and ventilation specified above.

Table 4.2: NR25 Assessment for Habitable Rooms on Northern Façade (29 m³)

	Octave Frequency Band (Hz)								L_{Aeq}
	63	125	250	500	1000	2000	4000	8000	
MP3 External Plant Noise	62.0	58.0	56.0	55.0	53.0	49.0	44.0	37.0	57
Brick / Block Cavity Building Envelope (5 m²)	45	45	45	45	54	58	58	58	
6 mm / 6-20 / 6.8 Optiphon (1.5 m²)	17	23	24	34	42	43	52	52	
Ryton AAC125HP Acoustic Wall Vent	39	42	37	38	43	57	57	57	
Total Façade Reduction	-23.2	-28.9	-29.0	-34.4	-40.2	-48.0	-52.4	-52.4	
10 log (S/A)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	
External to Internal Correction	+3	+3	+3	+3	+3	+3	+3	+3	
INTERNAL NOISE LEVEL	40.3	30.5	28.4	22.0	14.2	2.5	0	0	24
NR25	55	44	35	29	25	22	20	18	
Compliant	✓	✓	✓	✓	✓	✓	✓	✓	

The cumulative noise level from the external plant (57 dB L_{Aeq}) and beer garden (54 dB L_{Aeq}) has been calculated as 59 dB L_{Aeq}. As demonstrated in the calculation sheet below, the sound attenuation measures specified above are sufficient to mitigate the combined noise impact from the external plant and beer garden on the northern façade.

Figure 4.2: Example BRE Calculation Spreadsheet (Combined Noise Levels)



The following points should be noted:

- The glazing recommendations apply to the window within a sealed unit. It is the responsibility of the window supplier to ensure that the window frame does not compromise the performance of the glazing.

- When selecting a glazing system to satisfy the requirements outlined above, it is important to ensure that the $R_w + C_{tr}$ value is achieved (rather than simply the R_w value). Published R_w values tend to be higher than corresponding $R_w + C_{tr}$ values; therefore, incorrect selection could result in an overestimation of sound reduction performance which in turn could result in higher internal noise levels.

- The ceilings within any lightweight / flat roof areas across the development should be double boarded with 100 mm (minimum) insulation above.

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5 Summary and Conclusions

A noise impact assessment has been undertaken for the proposed change of use of the former Hoyland Nether WMC, 2 Broad Street, Hoyland, Barnsley, S74 9DY.

The noise environment at the site is characterised by road traffic on West Street to the north, with fixed external plant noise also present on the northern façade of the development associated with the neighbouring Subway and Go Local convenience stores located to the north-west.

A scheme of sound insulation works has been developed to protect the proposed residential development from the ambient noise climate.

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.

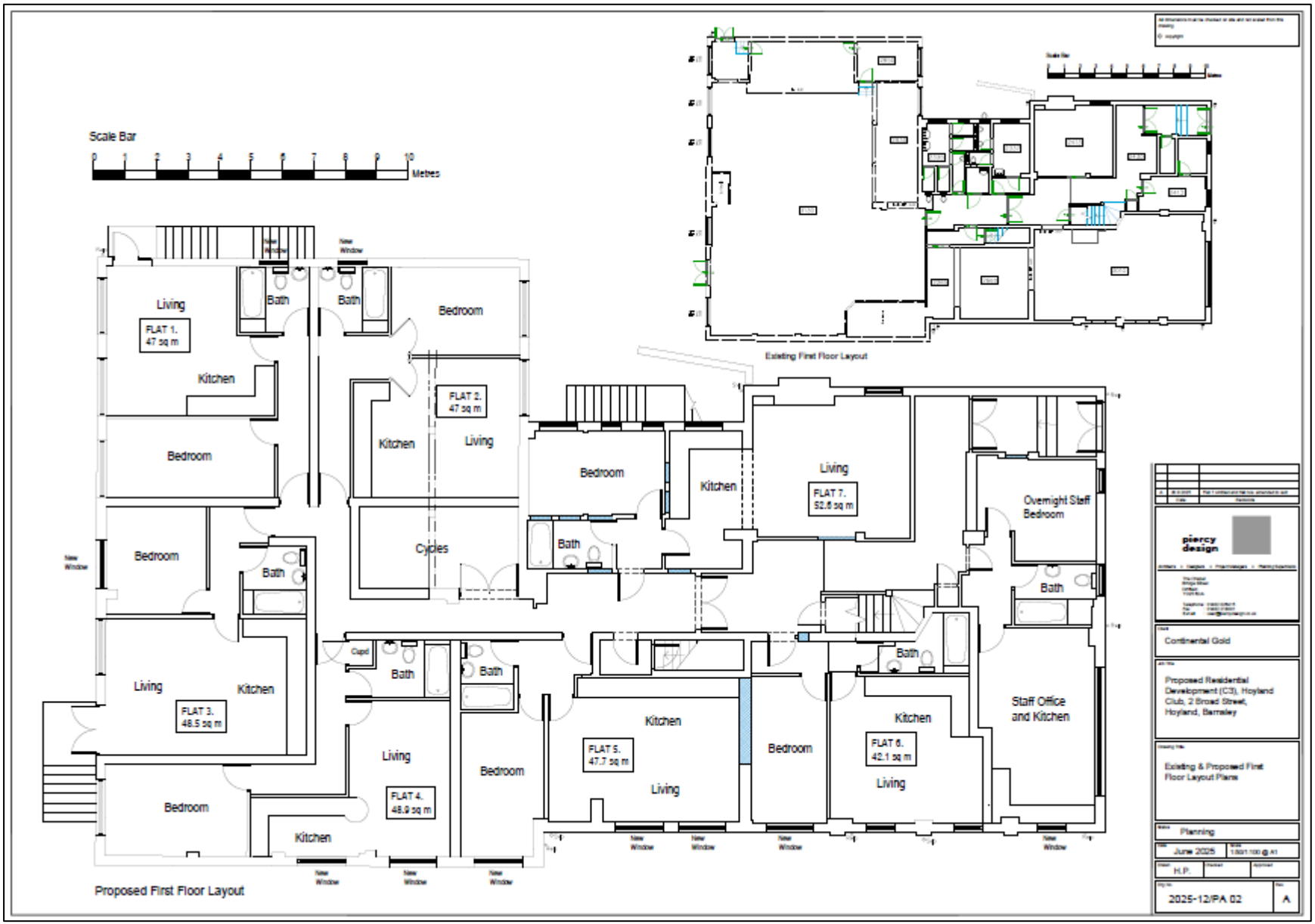
$L_{AF\ max}$
The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

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 Measurement Positions

Appendix 3 – Proposed Layout First Floor



Appendix 3 – Proposed Layout Second Floor