Chartered Building Consultancy

Acoustic South East

Planning Application - New Build Residential Development

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Date: 16/01/2026

Project: J4087

Issue 1

Site: **Bolney Road, Ansty, RH17 5RW**

Client: **Devine Homes Plc**

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1 Introduction and Executive Summary

Acoustic South East have been appointed to undertake an acoustic assessment to support a planning application for residential units at land south of Bolney Road Ansty. Specifically, 34 new build properties are proposed.

Standards and guidance referenced for this assessment include:

- BS8233 (Sound insulation and noise reduction for buildings) 2014
- National Planning Policy Framework (NPPF), 2024
- Acoustics Ventilation and Overheating Guidance (AVOG), January 2020
- Building Regulations Approved Document O – Overheating
- Association of Noise Consultants (ANC) ADO Guidance, November 2024
- ProPG2017 - Professional Practice Guidance on Planning & Noise

A single class 1 unattended sound level meter (Svantek 307) was located at the site from 19th to 26th September 2025. This was located close to Bolney Road, which is the dominant sound source at the development site.

The overnight L_{Amax} events are the dominant sound source to protect future occupants against.

Contextually, housing already exists to the East and North of the application site.

The worst-case Sound Reduction Index (SRI) is for Plot 24 and is comprised of 26dB for the daytime, 24dB for the night time and 29dB to account for L_{Amax} events during the overnight period.

An initial site risk assessment consistent with the requirements of ProPG2017 identifies a low to medium risk of developing the site with regard to noise mitigation measures.

All garden areas are below 55dB $L_{Aeq,\ 16\ hour}$ achieving the requirements of BS8233:2014 and the World Health Organisation Guidelines for Community Noise dated 1999, revised 2018.

Mitigation measures are only required for those properties overlooking Bolney Road. These have been assessed and utilise standard thermal double glazing and either through frame or through wall acoustically treated passive vents.

The assessment has also detailed which plots are capable of having openable windows for the night time period to mitigate thermal overheating, consistent with the requirements of Budling Regulations Approved Document O. Where a simplified assessment is not possible/practical, the openable window approach has been used for the client and their consultants to understand the area of window opening(s) permissible.

Given the above, planning permission should not be withheld on noise grounds.

2 Caveat

The findings and outcomes contained within the report are based on the plans and assumptions provided to us by the client. It is critical that the report is read in its entirety to ensure that the information provided and the calculations thereafter remain correct and may be relied upon.

3 Context, Noise Criteria & Noise Assessment Methodology

3.1 Context

The report provides an account of the site soundscape for the proposed detailed planning application being made to Mid Sussex District Council.

The scheme proposes 34 new build units.

The site is bordered by Bolney Road to the North (30mph), which runs North East to South West.

Marwick Close, residential housing is located to the North East, also adjacent to Bolney Road and residential units exist to the North, also adjacent to Bolney Road. A precedent therefore remains for residential accommodation close to Bolney Road.

3.2 Site Location

The application site is bordered in red in Figure 1 below.

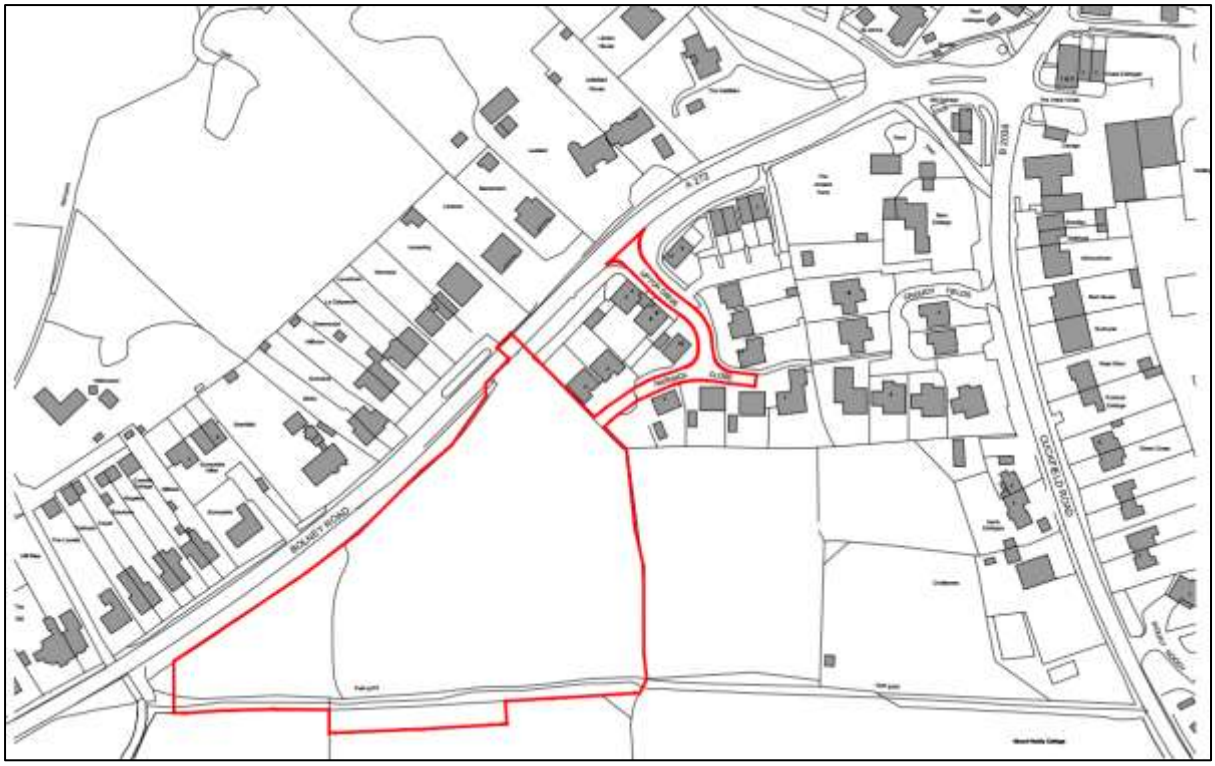


Figure 1. Site Location

3.3 Proposed Layout

The proposed layout is shown in Figure 2 below.

Figure 2. Proposed Site Layout

3.4 Soundscape

The soundscape was dominated by passing road traffic on Bolney Road to the North. Birdsong and aviation noise were also noticeable.

3.5 Planning Policy and Assessment Criteria

3.5.1 National Planning Policy Framework Dec 2024

The National Planning Policy Framework (Dec 2024) defines the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so.

The following paragraphs are relevant within NPPF Section 15 (Conserving and enhancing the natural environment) states the following:

Paragraph 187(e) - 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, and

Paragraph 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 impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

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

Paragraph 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.

3.5.2 BS8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings

Table 4 of BS8233:2014 provides the following guideline values:

Activity	Location	Time period of day	
		07:00-23:00	23:00-07:00
Resting	Living Rooms	35dB $L_{Aeq,16hour}$	-
Dining	Dining Room/Area	40dB $L_{Aeq,16hour}$	-
Sleeping (daytime resting)	Bedroom	35dB $L_{Aeq,16hour}$	30dB $L_{Aeq,8hour}$

Table 1. BS8233:2014 Criteria

It is relevant to note that Table 4 criteria in BS8233:2014 relates to continuous and anonymous sound.

3.5.3 ProPG2017

Planning guidance (ProPG2017) relates to new residential development and airborne transportation noise, which includes exposure to road traffic, railway and aviation noise. Whilst ProPG, 2017 generally mirrors the requirements of BS8233:2014 and the World Health Organisation Guidelines, 1999, it goes further in setting a limit for inside bedrooms for L_{Amax} events and specifically, no more than 10 L_{Amax} events per night time period above 45dB(A).

The internal bedroom L_{AMax} values will be used in accordance with ProPG2017.

3.5.4 Planning Noise Advice Document Sussex, November 2023

A planning noise advice document which all Sussex local authorities have contributed to and signed up to (including Mid Sussex District Council) remains relevant. The guidance document has been followed in respect of measurement parameters and report presentation of data.

3.5.5 Building Regulations Approved Document O – Overheating

Recently introduced Part O of the building regulation requires an assessment of whether bedroom windows can be opened at night. It is assumed that bedroom windows will be closed if either of the conditions below are met:

- Internal noise level exceeds 40dB $L_{Aeq, 8hour}$
- L_{Amax} events exceed 55dB L_{Amax} more than 10 times a night.

3.6 Methodology and Rationale

A Class 1 sound level meter was used to determine the soundscape around the site from 19th to 25th September 2025. The measured data was used to construct and calibrate a computer noise model to consider how sound propagates across the site.

With the model constructed, receptor positions were added to identify ground and first floor windows in order to obtain predicted sound pressure levels for the daytime and night time positions. The noise model was also used to create 2D noise contours to provide visually, an account of daytime and night time conditions, levels in gardens/external amenity areas, where properties might require mitigation measures and what properties might be subject to a simplified overheating assessment.

4 Sound Surveys

The survey used a class 1 sound level meter for a long-term survey at position LT1 as seen in Figure 3 below.

The long-term survey measurements were made in Freefield conditions with Fast and A weighted filters applied. The class 1 sound level meter used within the survey was calibrated at the beginning and end of the survey to ensure that the meters were operating correctly and that the data produced is capable of being relied upon.

The resolution period for measurements was 1-minute in accordance with the Sussex Planning guidance for LT1.

The long-term sound level meter used dry cell batteries and were placed into a locked weatherproof peli case to prevent tampering and/or theft.

The positioning of the survey equipment can be seen in Figures 3 and 4 below and utilise WhatThreeWords to enable the positions to be further quantified.

An attended measurement was also made simultaneously at the rear of the site.

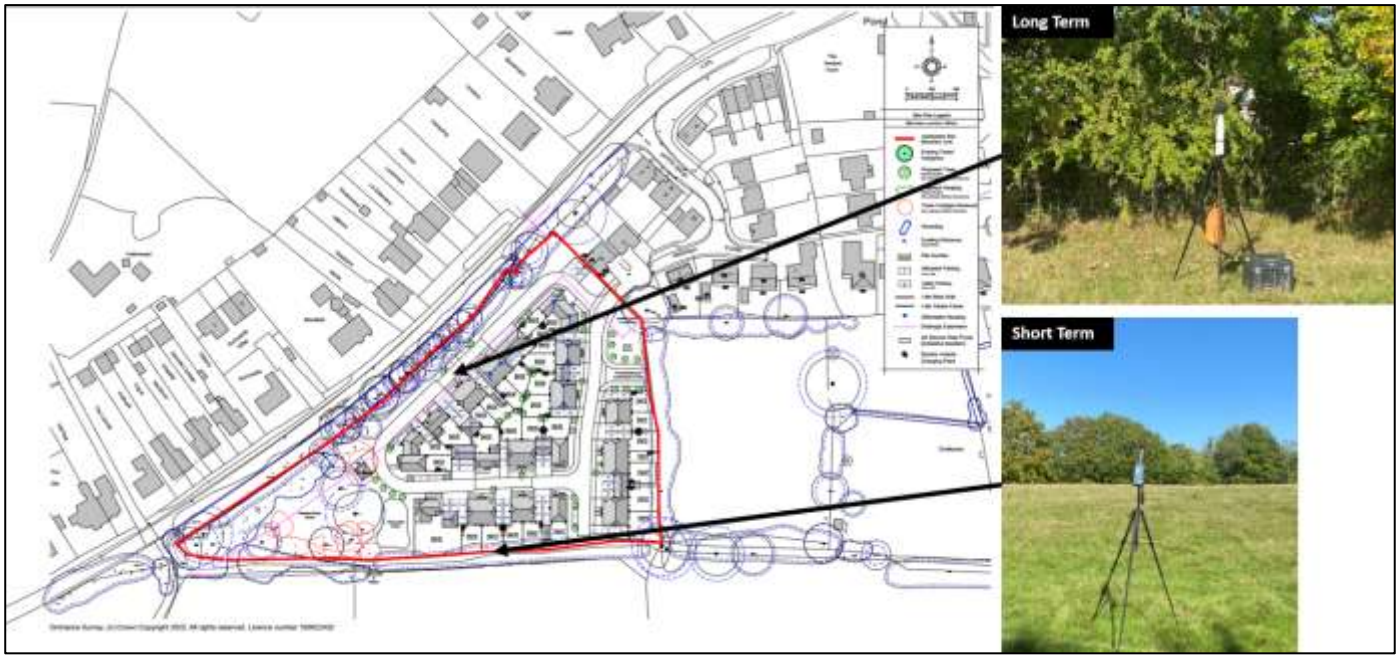


Figure 3. Proposed Site Plan

Survey(s) carried out by	Scott Castle BSc(Hons) Env Health, MCIEH CEnvH MIOA
Equipment Used	Svantek 307 Class 1 Sound Level Meter, Tripod Mounted Norsonic 118 (C) – Short Term Attended Location
Equipment Used	Castle Acoustic Calibrator – Serial No. 041173
Location	LT1- ports.sticks.aura, 1.7m above ground level ST1-thick.strain.racing – 1.6m above ground level (14m from rear boundary)
Duration	19th September 2025 to 26th September 2025

Table 2. Survey Details (Sound)

5 Results of the Sound Surveys

All sound survey data is reported as freefield values and uses Fast and A-weighted filters.

In Figure 4 below, these display the daytime and night time measured sound pressure levels. The 11th highest L_{Amax} events are also presented for 1minute, to allow a consideration for ProPG2017 and the overnight L_{Amax} events inside a bedroom space. The L_{AMax} events are also reported in 2-minute periods for assessing overheating.

5.1 LT1 – Bolney Road, Ansty

LT1 Assessment									
		$L_{Aeq\ 16/8Hr}$		11th L_{Amax}		Sound Reduction			
Day	Date	Day	Night	1 min	2min	Day 16Hr	Night 8 Hr	$L_{Amax,1min}$	$L_{Amax.2min}$
Fri	19/09		56.9	74.83	74.83		27	30	30
Sat	20/09	62.7	54.1	73.41	73.41	28	24	28	28
Sun	21/09	62.3	56.5	74.78	74.71	27	26	30	30
Mon	22/09	63.2	56.4	74.72	74.7	28	26	30	30
Tue	23/09	63.5	56.3	73.51	73.51	29	26	29	29
Wed	24/09	63.4	56.7	75.11	74.89	28	27	30	30
Thu	25/09	63.3	56.8	74.25	74.25	28	27	29	29
AVERAGE:		**63**	**56**	**74**	**74**	**28**	**26**	**29**	**29**

Figure 4. Measured Survey Sound Pressure Levels

5.2 ST1 (Short Term Position)

A short term attended reading was made whilst present on site on 19th September to identify how the soundscape differs.

Short Term Attended Survey - ST1			
Time	Long Term Data ($L_{Aeq,15minutes}$)	Attended Reading ($L_{Aeq,15minutes}$)	Difference in $L_{Aeq,T}$
11:45-12:00 hours	63dB	48.1dB	14.9

Figure 5. Data Comparison

Figure 5 is consistent with the reduction in sound pressure levels expected away from Bolney Road as a line source.

6 Noise Modelling Software (IMMI)

In order to see how noise varies at different positions around the proposed development it is possible to produce a noise contour map. A computer noise model has been completed using the computer package IMMI. Drawings of the area have been used to complete the noise models and the topography of the location recreated. IMMI faithfully implements the propagation method of ISO-9613:1996; Acoustics – Attenuation of sound during propagation outdoors.

The noise modelling software predicts freefield and A-weighted dB values.

6.1 Noise Model Inputs

A calibration model was first created to replicate the site as it is at present with the road and the existing properties on Bolney Road and Marwick Close. A receptor position was placed at the position of the sound survey at 3.6m back from the rail and wire post fence adjacent to the road. The topography was constructed within the model to accommodate the heights as provided by the Client. The bund is circa 3m in height from the roadside.

The model was calibrated by adjusting the sound power level of the road until such time that the daytime and night time sound pressure levels matched those measured at the survey position. Once the sound pressure levels were matched, the model was considered calibrated and saved. A new version of the model was then generated without making any changes to the calibration model, apart from entering the new properties at their respective locations.

New properties were entered as a mixture of 8m/8.5m and 9m in height and were agreed with the client.

Garages were entered at 4.5 and 5.5m in height.

Privacy fences between gardens were entered as 1.8m in height. The exception to this being plot 23 garden which is adjacent to the roadside and was entered at 2m above ground level.

2D modelling plans have been produced to identify the following

- Daytime Soundscape
- Night Time Soundscape
- Gardens/External Amenity Areas – Colour key, green below 50dB $L_{Aeq,16\ hour}$, yellow 50-55dB $L_{Aeq,\ 16\ hour}$ and red for areas which exceed 55dB $L_{Aeq,16\ hour}$.
- Simplified Overheating Assessment – Green for night time soundscape below 50dB $L_{Aeq,8\ hours}$ or red for 50dB $L_{Aeq,\ 8\ hour}$ and above.
- Mitigation Measures required. Below 56dB LAeq,16 hour as green, red for areas exceeding 56dB LAeq, 16 hours. These assume from the Acoustics, Ventilation and Overheating Guidance dated 2020 that standard thermal double glazing and trickle vents are capable of achieving an SRI of 21dB from outside to inside sound pressure levels.

6.2 Noise Model Outputs

6.2.1 Daytime

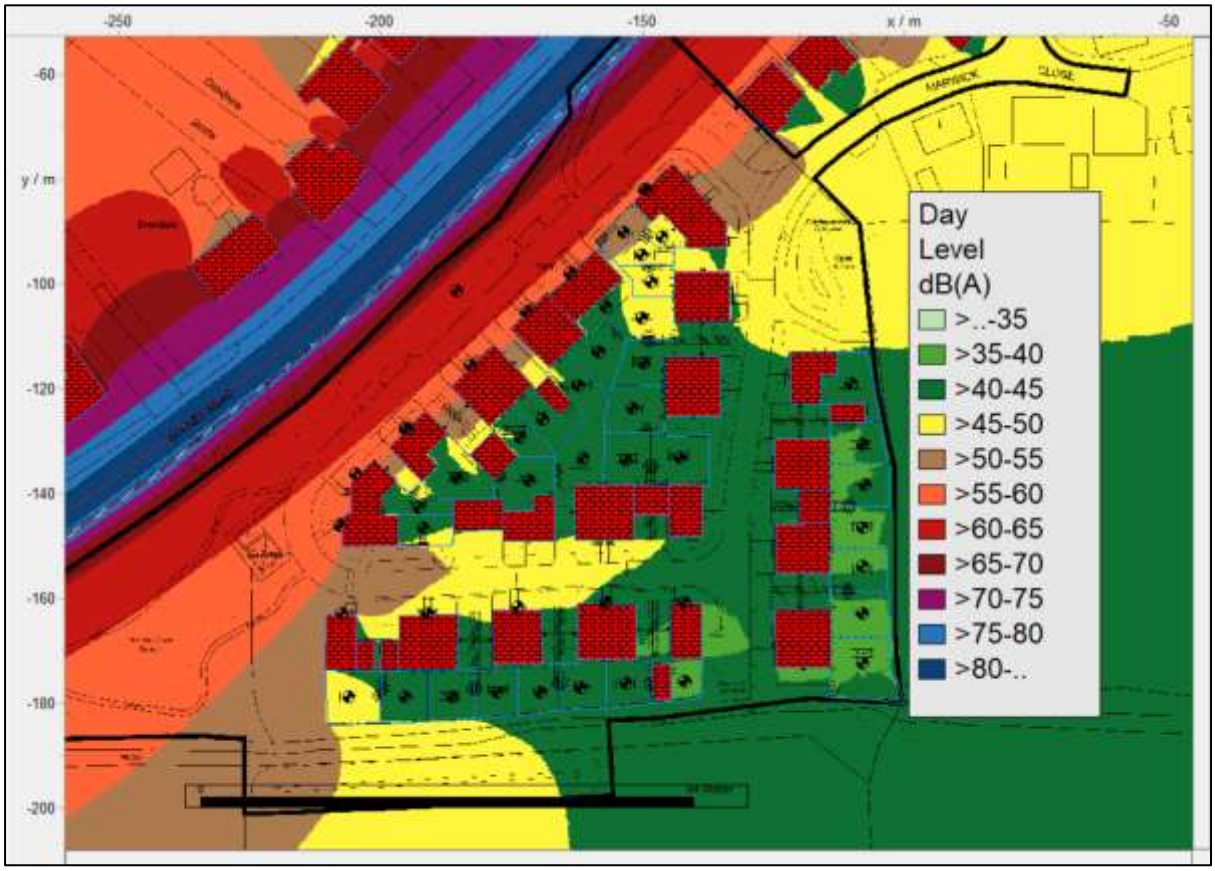


Figure 6. Daytime 2D noise contours

6.2.2 Night Time

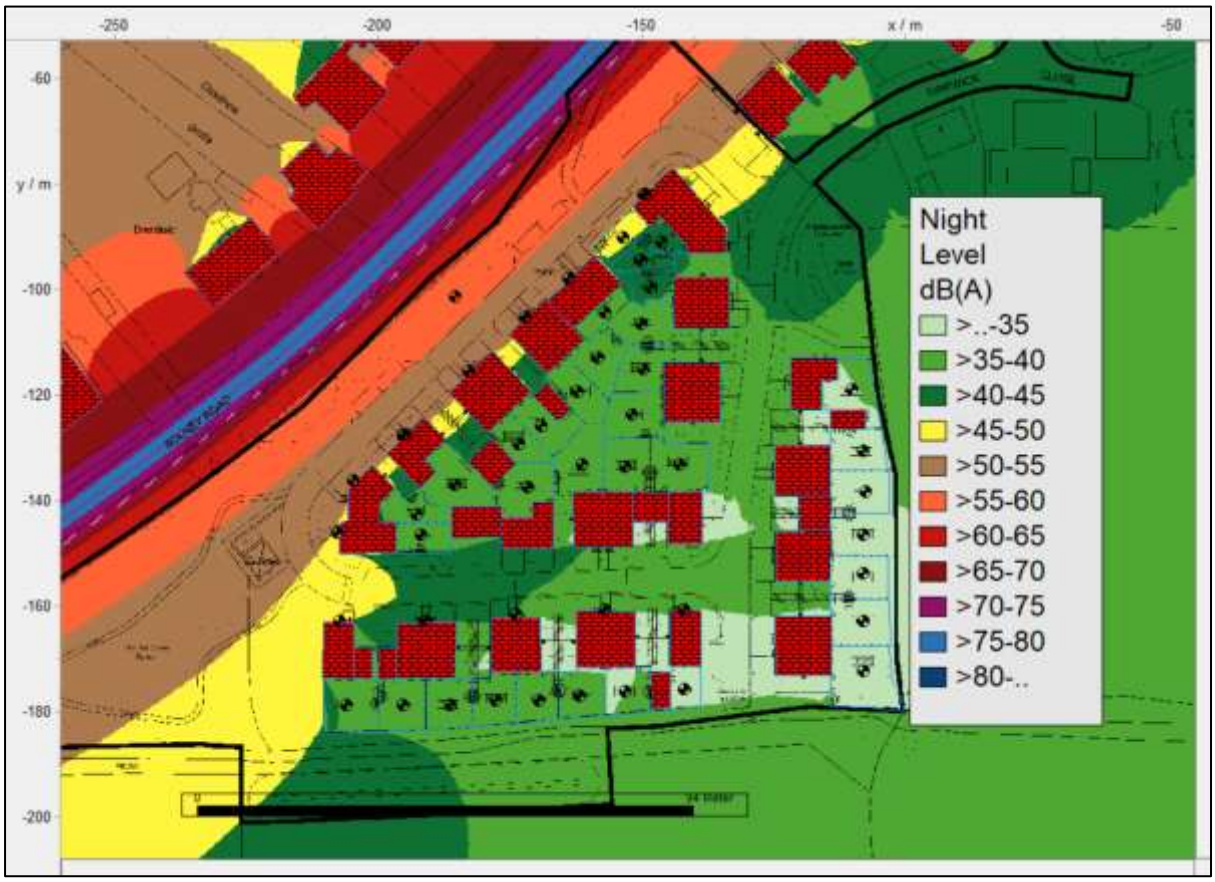


Figure 7. Night Time 2D Noise Contours

6.2.3 External Amenity Areas (2D)

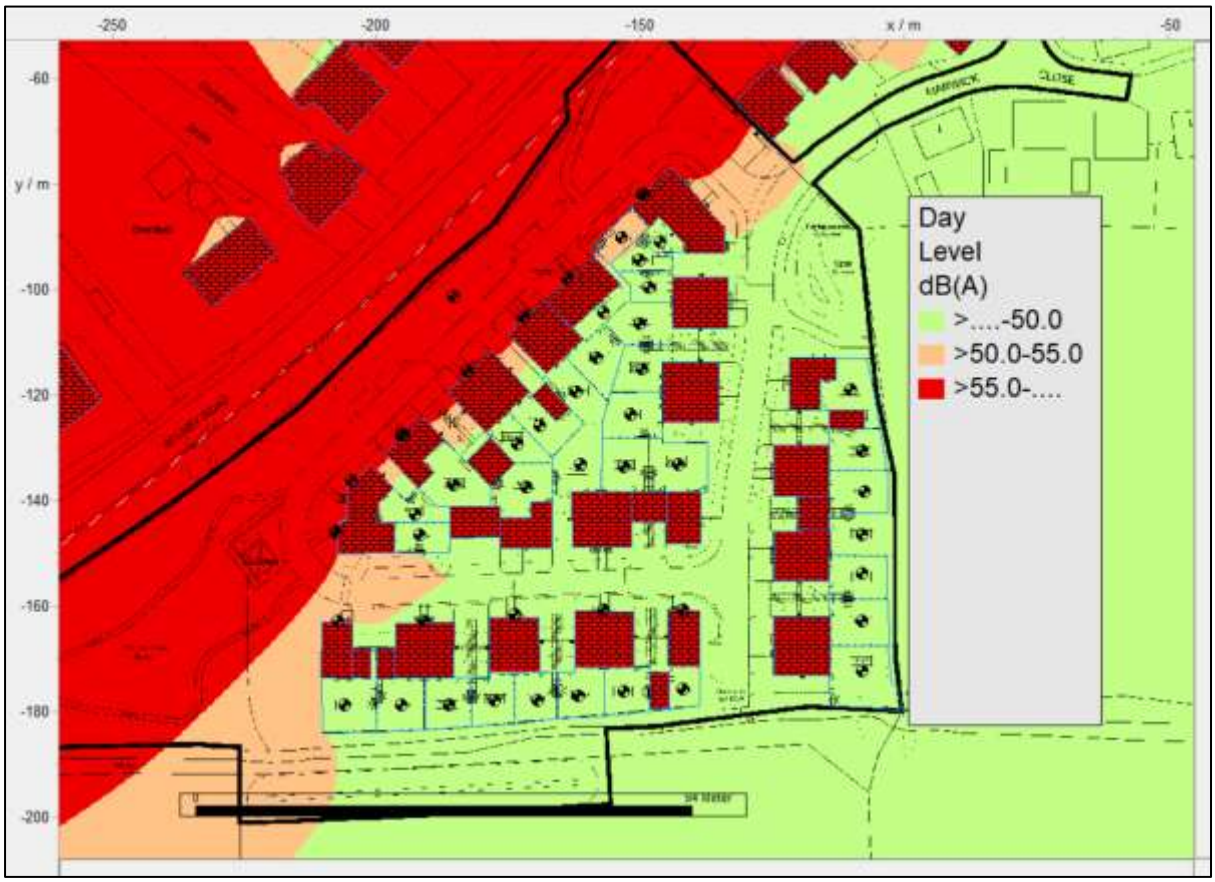


Figure 8. 2D Noise Contours - External Amenity Areas

Garden	Predicted External SPL $L_{Aeq,16\ hour}$	Garden	Predicted External SPL $L_{Aeq,16\ hour}$
Plot 1 Garden	41	Plot 18 Garden	45
Plot 2 Garden	40	Plot 19 Garden	45
plot 3 Garden	40	Plot 20 Garden	44
Plot 4 Garden	40	Plot 21 Garden	45
Plot 5 Garden	39	Plot 22 Garden	44
Plot 6 Garden	39	Plot 23 Garden	44
Plot 7 Garden	39	Plot 24 Garden	54
Plot 8 Garden	39	Plot 25 Garden	48
Plot 9 Garden	41	Plot 26 Garden	49
Plot 10 Garden	42	Plot 27 Garden	47
Plot 11 Garden	43	Plot 28 Garden	46
Plot 12 Garden	43	Plot 29 Garden	45
Plot 13 Garden	44	Plot 30 Garden	44
Plot 14 Garden	44	Plot 31 Garden	42
Plot 15 Garden	46	Plot 32 Garden	44
Plot 16 Garden	44	Plot 33 Garden	44
Plot 17 Garden	45	Plot 34 Garden	44

Figure 9. Garden Assessment

6.2.4 Areas Suitable for a Simplified Overheating Assessment

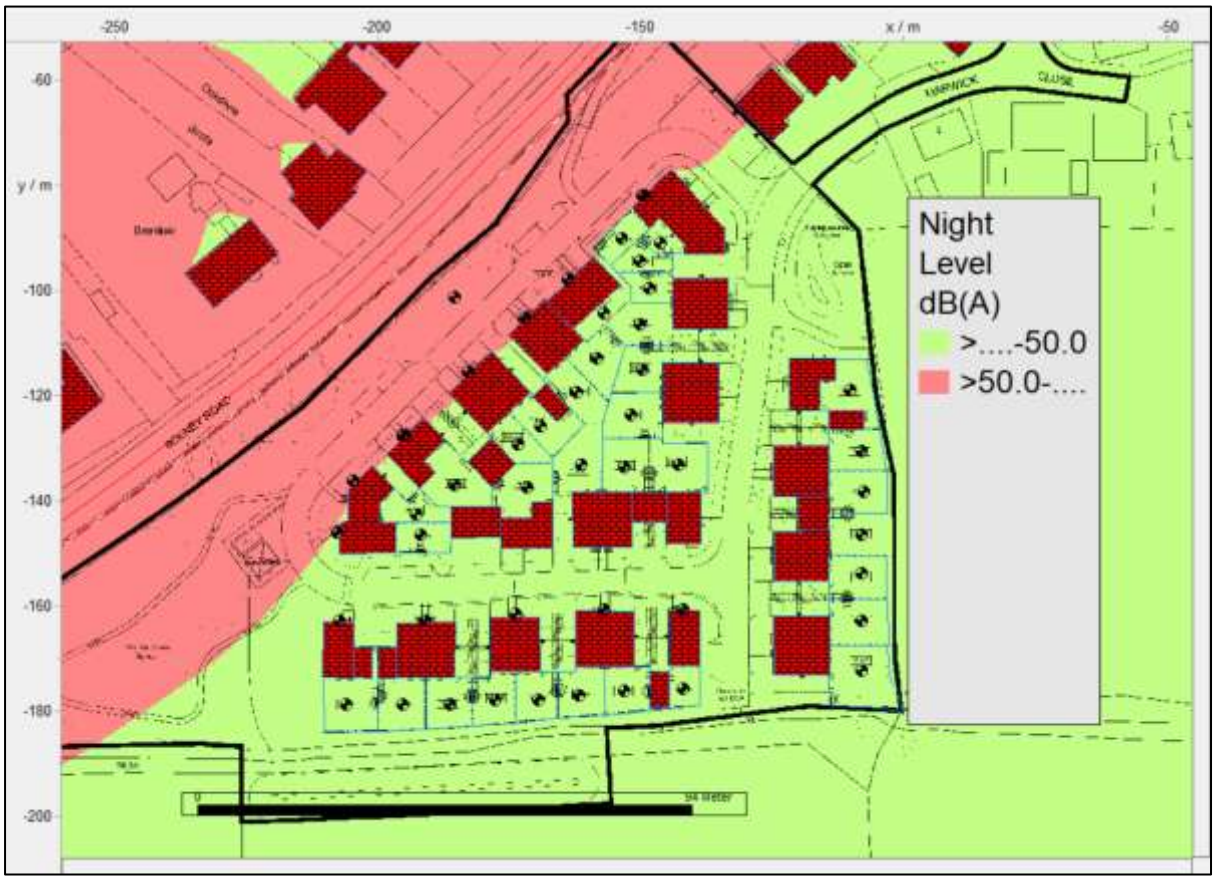


Figure 10. Areas for Simplified Overheating Assessment (ie below 50dB $L_{Aeq,8\ hour}$)

6.2.5 Likely Mitigation Measures Required (Daytime)

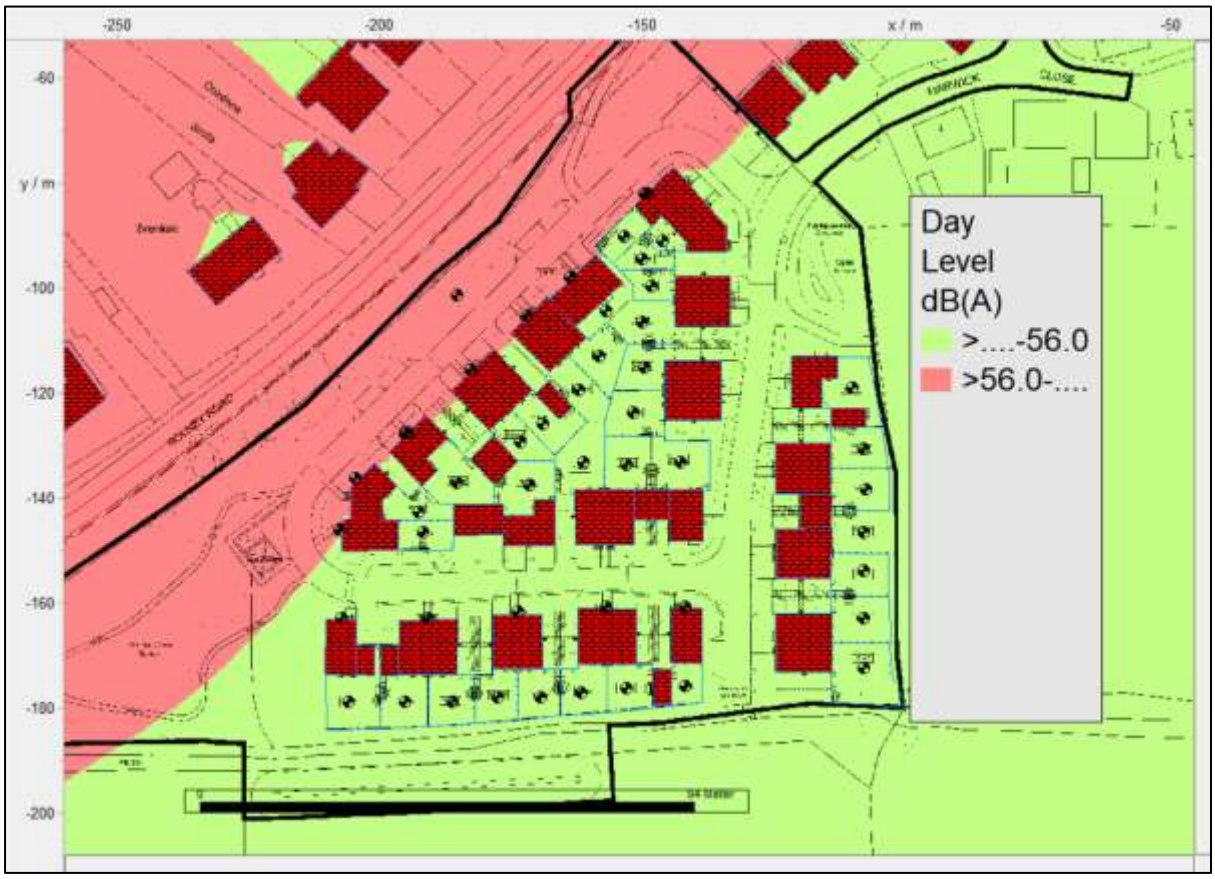


Figure 11. Daytime Mitigation Measures Required

6.2.6 Likely Mitigation Measures Required (Night Time)

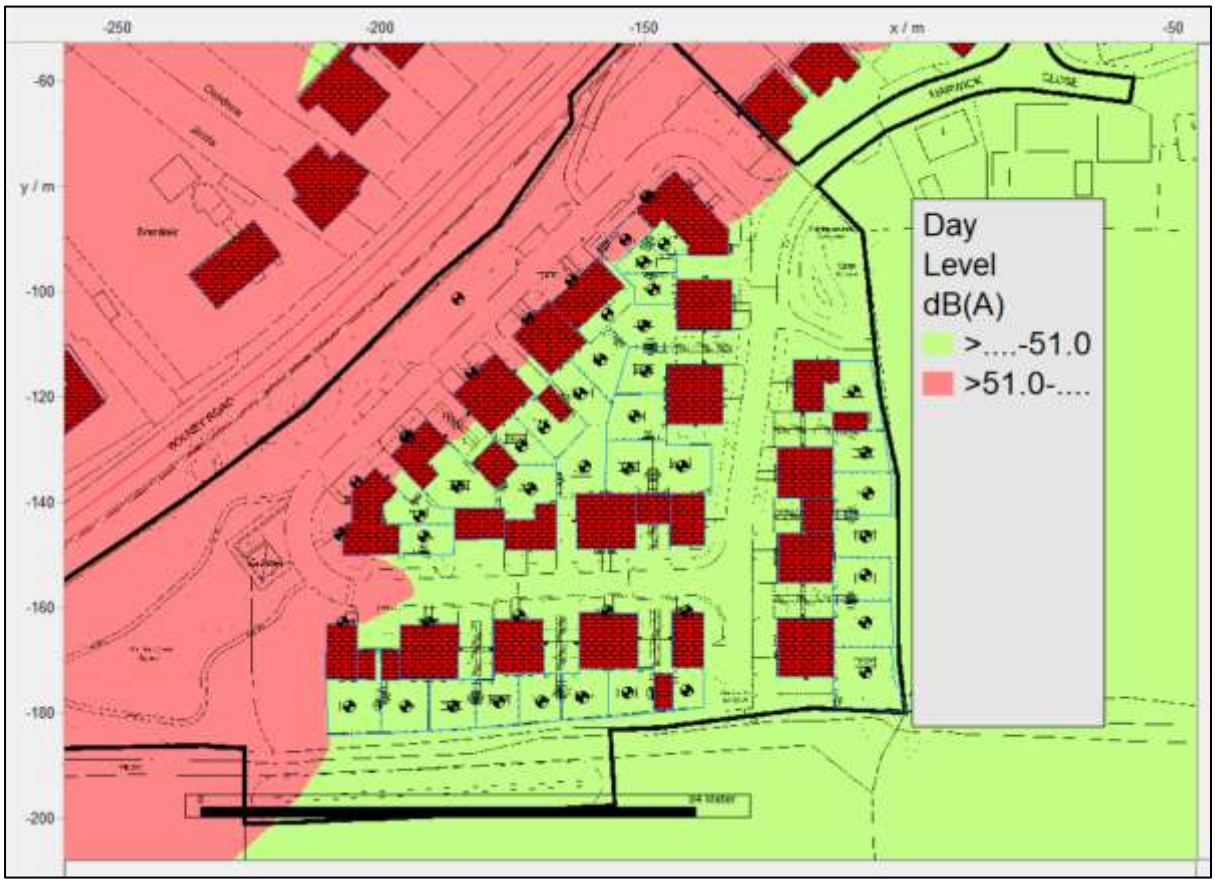


Figure 12. Night Time Mitigation Measures Required

6.2.7 Outcomes from the Noise Modelling

The outcomes from Figures 6 to 11 above are as follows:

- Road traffic noise remains the dominant driver for the site soundscape. The driver for protecting future occupants is the L_{Amax} requirement for the overnight periods.
- All proposed garden areas are below 55dB $L_{Aeq,\ 16\ hour}$. The majority of the garden areas are below 50dB $L_{Aeq,\ 16\ hour}$, with the exception being plot 24 which is in between 50-55dB $L_{Aeq,\ 16\ hour}$. A more detailed assessment shows 54dB $L_{Aeq,16\ hour}$.
- A simplified overheating assessment to consider bedroom window opening for the night time period may be carried out for all properties, other than those facades overlooking Bolney Road.
- Mitigation measures are likely to be required for the daytime and night time periods, only on the facades overlooking Bolney Road
- For the rear of the proposed dwellings, the predicted soundscape is reduced.

7 Discussion

7.1 Calculation of the Sound Reduction Index

By being aware of how the soundscape impacts the proposed properties, a noise modelling approach predicts external sound pressure levels around the building perimeters. Subsequently, the required Sound Reduction Index (SRI) to achieve satisfactory internal sound pressure levels can be calculated.

There are three drivers which impact the façade sound reduction index or SRI. These are the daytime continuous noise levels measured over 16 hours in $L_{Aeq'T,}$ the night time continuous noise levels over 8 hours, also measured in $L_{Aeq'T.}$ Thirdly, ProPG2017 requires a consideration of the number of L_{Amax} events which will occur in a bedroom during the night time period. Specifically, ProPG2017 requires no more than ten events exceeding 45dB L_{Amax} measured internally. Whichever of these drivers is highest is applied to ensure that the residents are protected from each criterion.

It is relevant to note that living room and bedroom calculations differ, as whilst living rooms are subject to only the daytime predicted sound pressure levels, bedrooms must consider both daytime and night time continuous sound pressure levels as well as L_{Amax} events during the night to protect sleep.

The daytime SRI is the predicted external freefield sound pressure level minus 35dB as per the Table 4 values in BS8233:2014 and the same for the night time values (albeit minus 30dB).

The L_{Amax} SRI is achieved by using the predicted night time external sound pressure level and comparing this with the measured night time survey noise level. The SRI figure is then adjusted to prevent no more than 10 L_{Amax} events per night inside the bedroom environment above 45dB L_{Amax}. The adjustment process takes account of each of the 5 measured night time periods to ensure that no individual night exceeds 10 events of 45dB L_{Amax} inside the bedroom.

Required Sound Reduction Index For Plots					
Location	Predicted External Daytime $L_{Aeq,16\ hour}$	Predicted External Night time- $L_{Aeq,8\ hour}$	Day SRI	Night SRI	L_{Amax} SRI
Plot 23 GF	59.2	52.7	24.2	22.7	28
Plot 23 FF	60.5	54.0	25.5	24.0	29
Plot 16GF	55.9	49.4	20.9	19.4	24
Plot 16 FF	56.9	50.4	21.9	20.4	25
Plot 17GF	58.9	52.4	23.9	22.4	28
Plot 17 FF	60.1	53.6	25.1	23.6	28
Plot 18 GF	59.0	52.5	24.0	22.5	27
Plot 18 FF	60.2	53.7	25.2	23.7	28
Plot 19/20 GF	59.2	52.7	24.2	22.7	28
Plot 19/20 FF	60.5	54.0	25.5	24.0	29
Plot 24 GF	59.5	53.0	24.5	23.0	28
Plot 24 FF	60.9	54.4	25.9	24.4	29
Plot 14 front GF	48.7	42.2	13.7	12.2	17
Plot 14 front FF	49.6	43.1	14.6	13.1	18
Plot 11-12 GF	46.4	39.9	11.4	9.9	14
Plot 11-12 FF	46.4	39.9	11.4	9.9	14
Plot 9-10 GF	44.2	37.7	9.2	7.7	13
Plot 9-10 FF	45.1	38.6	10.1	8.6	13
Plot 8 GF	43.2	36.7	8.2	6.7	11
Plot 8 FF	44.1	37.6	9.1	7.6	12
NB.Grey Cells indicate that night time noise levels will not apply to Ground Floor Plots					

Figure 13. Sound Reduction Index for Plots

The worst-case SRI to be achieved is 26dB rounded for the daytime period, 24dB rounded for the night time period and 29dB for the overnight L_{Amax} requirements for a bedroom setting to ensure compliance with ProPG2017. These all relate tom Plot 24 as the closest building to Bolney Road.

Plot 24 therefore represents the worst-case dwelling for further examination using rigorous calculations.

Whilst Figure 13 has presented the worst-case road facing plots, it is important to recognise that areas to the rear of the buildings by virtue of their massing will have a reduced soundscape. Figure 14 below considers the reduced impact for the rear of the buildings.

Rear Of Road Facing Buildings						
Location	Predicted External Day	Predicted External Night	Open Window (-13dB)		Achieves BS8233:2014 Table 4 Criteria	
			Day	Night	Day	Night
Plot 16 REAR GF	43.9	37.4	30.9	24.4	Yes	Yes
Plot 16 REAR FF	45.1	38.6	32.1	25.6	Yes	Yes
Plot 17 REAR GF	44.4	37.9	31.4	24.9	Yes	Yes
Plot 17 REAR FF	44.5	38.0	31.5	25.0	Yes	Yes
Plot 18 REAR GF	44.0	37.5	31.0	24.5	Yes	Yes
Plot 18 REAR FF	44.2	37.7	31.2	24.7	Yes	Yes
Plot 19+20 REAR GF	43.9	37.4	30.9	24.4	Yes	Yes
Plot 19+20 REAR FF	43.9	37.4	30.9	24.4	Yes	Yes
Plot 21+22 REAR GF	43.9	37.4	30.9	24.4	Yes	Yes
Plot 21+22 REAR FF	43.9	37.4	30.9	24.4	Yes	Yes
Plot 23 REAR GF	44.3	37.8	31.3	24.8	Yes	Yes
Plot 23 REAR FF	44.3	37.8	31.3	24.8	Yes	Yes

Figure 14. Rear of Road facing Units/plots

For context, the Acoustics, Ventilation and Overheating Guidance dated Jan 2020 describes the relationship between the level difference between inside and outside sound pressure levels and how this might be achieved with different ventilation types, with types 1 and 2 being trickle vents, type 3 being mechanical extract ventilation (MEV) and type 4 being Mechanical Ventilation and Heat Recovery. This is detailed in Figure 15 below. Based on Figure 15, passive ventilation should be possible/practicable, albeit with likely upgraded vents and/or glazing, which will be dependent on the window sizes and how many windows per room.

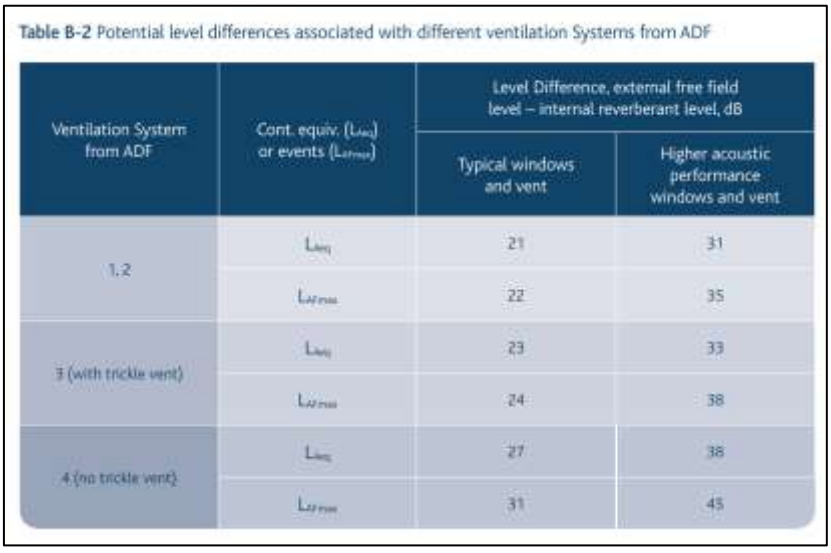


Table B-2 Potential level differences associated with different ventilation Systems from ADF

Ventilation System from ADF	Cont. equiv. (L_{eq}) or events (L_{AFmax})	Level Difference, external free field level – internal reverberant level, dB	
		Typical windows and vent	Higher acoustic performance windows and vent
1, 2	L_{eq}	21	31
	L_{AFmax}	22	35
3 (with trickle vent)	L_{eq}	23	33
	L_{AFmax}	24	38
4 (no trickle vent)	L_{eq}	27	38
	L_{AFmax}	31	45

Figure 15. Table B2 of Acoustics Ventilation and Overheating Guidance (AVOG), Jan 2020

7.2 Consideration of External Amenity Areas

As seen from the daytime model output, all garden areas are comfortably below the requirement in BS8233:2014 of 55dB $L_{Aeq,\ 16\ hour}$. It should be remembered that the noise model was calibrated to the worst case measured daytime and night time periods.

7.3 Overheating Assessment (Simplified)

Recently introduced Part O of the Building Regulations requires an assessment of whether bedroom windows can be opened at night. It is assumed that bedroom windows will be closed if either of the conditions below are met:

- Internal noise level exceeds 40dB $L_{Aeq,\ 8hour}$
- L_{Amax} events exceed 55dB L_{Amax} more than 10 times a night.

Further to the November 2024 Association of Noise Consultants (ANC) overheating guidance, a simplified assessment for the purpose of Building Regulations, Approved Document O may be carried out whereby the night time conditions are below 50dB $L_{Aeq,\ 8\ hour}$. From Figure 12 above, it is noted that not all of the site is below 50dB $L_{Aeq,8\ hour}$ and some areas facing the roads may be above the value for a simplified assessment. The assessment has therefore been split into the predicted night time values below 50dB $L_{Aeq,\ 8\ hour}$ and those above.

The simplified assessment process subtracts 10dB from the freefield conditions to determine whether **both** continuous conditions and the L_{Amax} events are achieved internally inside the bedroom space.

As stated, a simplified assessment may only be carried out where the night time soundscape is below 50dB $L_{Aeq,\ 8\ hour}$. A review of first floor windows has been carried out where the 50dB $L_{Aeq,8\ hour}$ criterion has been achieved and is presented below in Figure 16.

Night Time Openable Window Assessment						
Plot	**Predicted External Night Time**	**Open window**	**Predicted Internal Sound Pressure Level - $L_{Aeq,8\ hour}$**	**Below 40dB (Y/N)**	**L_{Amax} Events above 55dB L_{Amax}**	**Openable Window**
Plot 1 Bed 1 FF	39.1	10dB	29.1	Yes	No	Yes
Plot 2 FF	37.7	10dB	27.7	Yes	No	Yes
Plot 3 FF	37.1	10dB	27.1	Yes	No	Yes
Plot 4 FF	38.4	10dB	28.4	Yes	No	Yes
Plot 5 FF	38.0	10dB	28.0	Yes	No	Yes
Plot 6 FF	35.3	10dB	25.3	Yes	No	Yes
Plot 7 FF	37.3	10dB	27.3	Yes	No	Yes
Plot 8 FF	37.6	10dB	27.6	Yes	No	Yes
Plot 9-10 FF	38.6	10dB	28.6	Yes	No	Yes
Plot 11-12 FF	39.9	10dB	29.9	Yes	No	Yes
Plot 13/14 front FF	43.1	10dB	33.1	Yes	No	Yes
Plot 15 FF	46.7	10dB	36.7	Yes	No	Yes
Plot 27 FF Bed 1	39.1	10dB	29.1	Yes	No	Yes
Plot 27 Bed 2	44.5	10dB	34.5	Yes	No	Yes
Plot 29 FF	41.2	10dB	31.2	Yes	No	Yes
Plot 30 FF	39.1	10dB	29.1	Yes	No	Yes
Plot 31 FF	37.3	10dB	27.3	Yes	No	Yes
Plot 32 FF	37.9	10dB	27.9	Yes	No	Yes
Plot 33 FF	38.5	10dB	28.5	Yes	No	Yes
Plot 34 FF	39.3	10dB	29.3	Yes	No	Yes

Figure 16. Assessment of Overheating (Building Regulations) for the Night Time Period - Bedrooms

Figure 16 above indicates that all of the listed plots are capable of having windows opened during the night time period to mitigate thermal overheating.

Units with bedrooms overlooking or in close proximity to Bolney Road may not be openable.

However, where the soundscape is above 50dB $L_{Aeq,8\ hour}$, it is possible to predict an openable area for the windows. This has been predicted in Figure 17 below. It is possible to carry out a prediction of openable areas of the windows using the guidance from the Association of Noise Consultants - dated November 2024 - for overheating. These demonstrate the following and could be considered by the client in association with other methods to control overheating in bedrooms.

Openable Window Assessment for Plots above 50dB $L_{Aeq,8\ hour}$				
Location	**Room Volume**	**Predicted External Night Time**	**SRI to achieve 40db $L_{Aeq,8\ hour}$**	**Openable Equivalent Area(m^2)**
Plot 16 FF	28.08	50.4	10.4	0.406
Plot 17 FF	28.08	53.6	13.6	0.194
Plot 18 FF	30.48	53.7	13.7	0.206
Plot 19/20 FF	30	54.0	14.0	0.189
Plot 21-22 FF	30.72	54.1	14.1	0.189
Plot 23 FF	32.88	54.0	14.0	0.207
Plot 24 FF	30.72	54.4	14.4	0.119

Figure 17. Maximum Openable Window Area-m^2

Contextually, when interpreting Figure 17 above, it should be recognised that a standard through-frame small slot trickle vent is approximately 2500mm^2. This equates to 0.0025m^2. Therefore, an openable window in Figure 17 above of any less than this would not be practical.

The data should be shared with your M+E/overheating consultant.

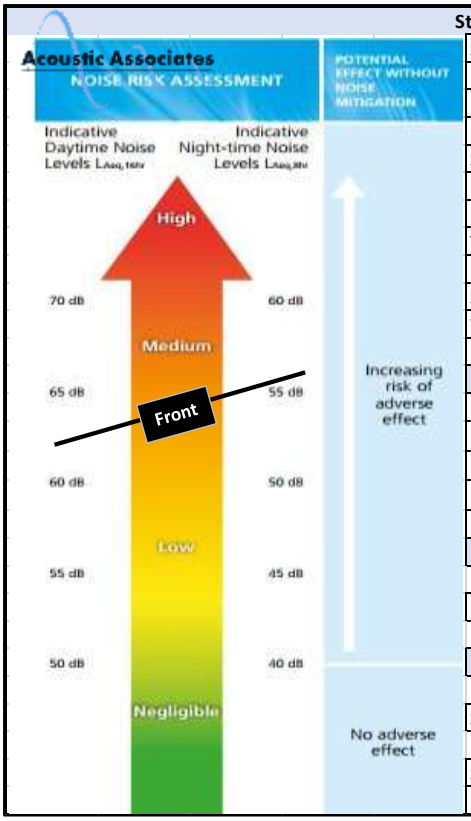
Overheating assessments are not carried out for ground floor windows as these are not openable during the night time period on safety or security grounds.

This simplified assessment approach does not constitute a formal/dynamic overheating risk assessment (TM59 CIBSE Assessment).

7.4 ProPG2017 Initial Site Risk Assessment

In line with the requirements of ProPG2017, an initial site risk assessment has been undertaken which requires that the typical 24 hours are represented.

The ProPG2017 initial site risk assessment is based on the measured data from the survey position. However, it is noted that the proposed housing/building line is set back by approximately another 13m from this.



Stage 1. Initial Site Risk Assessment	
Site:	Bolney Road, Ansty
Date:	15-Jan-26
Individual	Scott Castle
Proposal	Proposed Residential
Survey or Prediction	Survey
Freefield Survey	Yes
Instrumentation used	Svantek 307 Class 1 Sound Level Meter
Typical/Worst case 24 hour period	
Location Assessed(Grid Ref)	0
Subjective Noise sources at site	road traffic and aviaiton
Weather conditions	predominantly dry and low wind speeds
Result	
No Mitigation Measures	
Daytime ($L_{Aeq,\ 16\ hour}$)	63dB $L_{Aeq,16\ hour}$
Night ($L_{Aeq,\ 8\ hour}$)	56dB $L_{Aeq,\ 8\ hour}$
Night L_{AMax} Events above 45dB(A)	>200 events assuming Rw13 at Survey Location
Outcome	
Level of Risk Posed	Low to Medium
Next Steps	
Stage 2 Full Assessment	No
Signed Off by	Scott Castle
Date	15-Jan-26

Figure 18. ProPG 2017 Initial Site Risk Assessment

The assessment details a low to medium impact and the grant of planning consent should not be withheld on noise grounds.

7.5 Rigorous Calculation

Rigorous calculations, as per Annex G2 of BS8233:2014 consider the worst-case measured external (freefield levels) sound pressure level, but rather than using a simplistic external to internal sound pressure level subtraction, the Sound Reduction Index (SRI) is achieved using ratios of window sizes, facades, glazing specification as well as the proposed ventilation considerations.

Plot 24 has been considered as the worst-case plot, which is closest to the roadside.

The rigorous calculations have taken account of the following:

- The worst case highest daytime sound pressure levels have been used.
- All rigorous calculations use freefield data.
- The calculations have assumed a masonry cavity wall and for the roof, tiles on felt, a pitched roof, 100mm of mineral wool on top of a plasterboard ceiling.
- Where there is glazing on more than one elevation, the glazing has been summed and considered against the noisiest elevation
- 35dB $L_{Aeq,16\ hour}$ has been applied as the daytime criteria for a bedroom setting
- To provide the client some flexibility, a through-frame slot as well as a through-wall vent has been used to calculate the likely ingress of external sound into the habitable room spaces.

Outcome of Rigorous Calculations							
Plot	**Rooms**	**External SPL**	**SRI Required**	**Window**	**Vent**	**Internal SPL**	**SRI Achieved**
Plot 24	Kitchen	60	25	4\12\4	Titon SF5000 x2	29	31
Plot 24	Kitchen	60	25	4\12\4	9x9 Airliner (12800mm2)	29	31
Plot 24	Bed 1	61	29	4\12\4	Titon SF5000 x2	32	29
Plot 24	Bed 1	61	29	4\12\4	Ryton AAC125HP LookRyt	31	30

Figure 19. Rigorous Calculation

It is recognised that if the worst-case plot is capable of being mitigated using standard thermal double glazing and trickle vents, then the remainder of the site will easily be capable of using the same.

8 Recommendations

8.1 Glazing

The assessment concludes that standard thermal double glazing will be sufficient to protect future occupants from adverse noise levels. Whilst Pilkington 4/12/4 was used within the assessment, should the client and/or end developer seek to approach alternative glazing providers then the relevant metric to ensure like for like comparison is $R_{traffic}$. This is sometimes referred to as R_w+C_{tr} and includes a low frequency correction for road traffic noise.

The $R_{traffic}$ for 4\12\4 glazing is 25dB(A).

N.B. This is the required R_w+C_{tr} of the frame and glazing together. If the glazing supplier has test results for the glass on its own an R_w+C_{tr} value 2-3dB higher would be required (glazing tested on its own will outperform glazing that is tested within a window frame). Please note R_w+C_{tr} is also referred to as $R_{traffic}$.

8.2 Ventilation

The rigorous calculations used commercially available acoustically treated slot trickle vent which is part of the window frame as well as a through wall vent. Both are passive vents and have the following specification:

- Trickle Vents – Titon SF Xtra Sound Attenuator – 5000mm^2 – $D_{new}+_{Ctr}$ = 47dB(A)
- Living Room – 9x9 Rytons Airliner (12800mm2) – $D_{new}+_{Ctr}$ = 37dB(A)
- Bedroom - Rytons AAC125LookRyt vent (8500mm2) these should have a $D_{new}+_{Ctr}$ of no less than 41dB(A)

It is critical when comparing vents, that only the OPEN data of the vents is compared.

Should the client decide that mechanical ventilation (ie MEV or MVHR) is proposed, then caution should be applied when specifying internal room conditions. This is to ensure a mechanical noise of no greater than 24-26dB $L_{Aeq,T}$ to ensure that it does not add to the internal soundscape and that future occupants do not switch the system off resulting in poor air quality.

9 Conclusion

A single class 1 unattended sound level meter (Svantek 307) was located at the site from 19th to 26th September 2025. This was located close to Bolney Road, which is the dominant sound source at the development site.

The overnight L_{Amax} events are the dominant sound source to protect future occupants against.

Contextually, housing already exists to the East and North of the application site.

The worst-case Sound Reduction Index (SRI) is for Plot 24 and is comprised of 26dB for the daytime, 24dB for the night time and 29dB to account for L_{Amax} events during the overnight period.

An initial site risk assessment consistent with the requirements of ProPG2017 identifies a low to medium risk of developing the site with regard to noise mitigation measures.

All garden areas are below 55dB $L_{Aeq, 16\ hour}$ achieving the requirements of BS8233:2014 and the World Health Organisation Guidelines for Community Noise dated 1999, revised 2018.

Mitigation measures are only required for those properties overlooking Bolney Road. These have been assessed and utilise standard thermal double glazing and either through frame or through wall acoustically treated passive vents.

The assessment has also detailed which plots are capable of having openable windows for the night time period to mitigate thermal overheating, consistent with the requirements of Budling Regulations Approved Document O. Where a simplified assessment is not possible/practical, the openable window approach has been used for the client and their consultants to understand the area of window opening(s) permissible.

Given the above, planning permission should not be withheld on noise grounds.