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Noise | Vibration | Air Quality



Noise Assessment

Land at Warboys Road, Old Hurst

Noise Assessment

Project: LAND AT WARBOYS ROAD, OLD HURST

Report reference: RP01-26350-R2

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REVISION	ISSUE DATE	REPORT BY	CHECKED BY	NOTES
0	16 October 2026	Christian Inman, BSc, Acoustics Consultant	Chris McNeillie, MSc CEng MIOA, Director	Initial issue
1	20 October 2026	Christian Inman, BSc, Acoustics Consultant	-	Minor amendments
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1. EXECUTIVE SUMMARY

1.1 Cass Allen was instructed by Mrs A Baxter to assess noise affecting a proposed new residential development at Land at Warboys Road, Old Hurst in Huntingdon.

1.2 The assessment was carried out in accordance with relevant local and national planning guidance, following the methodology set out in ProPG.

1.3 A noise survey was carried out to measure baseline noise levels at the site. Noise levels were observed to be dictated by road traffic along the A141, which adjoins the western boundary of the site.

1.4 A 3D noise model of the proposed development was constructed based on the results of the site noise survey. The noise model was used to calculate road traffic noise levels at all facades of the proposed development.

1.5 Acceptable internal noise levels within habitable rooms can be achieved with the adoption of acoustically upgraded glazing and ventilation. It is anticipated that bedrooms will need to be designed so that windows can remain closed at night without the rooms overheating in order to comply with the noise criteria in Building Regulations Part O.

1.6 Noise levels in the garden have been assessed and are predicted to exceed the recommended upper guideline level given in ProPG. To reduce noise levels in these gardens as far as practicable, it is recommended that 1.8m high close-boarded timber fencing is used around the western edge of the site.

1.7 To summarise, the site is considered suitable for the proposed development in terms of noise levels.

2. INTRODUCTION

2.1 Cass Allen has been instructed by Mrs A Baxter to assess noise affecting a proposed new development at Land at Warboys Road, Old Hurst in Huntingdon.

2.2 The assessment has been carried out in accordance with relevant local and national planning guidance.

2.3 The aims of the assessment were to establish the suitability of existing noise levels at the site for the proposed development.

2.4 This report contains technical terminology; a glossary of terms can be found at www.cassallen.co.uk/glossary.

3. PROJECT DESCRIPTION

3.1 The site is located in a residential area, bounded to the east by Warboys Road and to the west by the A141. To the east and north of the site are existing residential properties. Immediately to the south of the site is greenfield land. To the west, beyond the A141 boundary, is also greenfield land.

3.2 The site location is shown in Figure 1 below.

Figure 1 Site Location and Surrounding Area



3.3 The proposal is to develop the site into a single residential property with a car port to the west of the dwelling adjacent to the A141, and gated access to the adjacent paddock land that comprises the northern strip of the site. A current drawing of the proposed development layout is shown in Appendix 1.

4. PLANNING POLICY

National Policy

4.1 Outline guidance for the assessment of noise affecting new developments is given in Chapter 17 of the National Planning Policy Framework (NPPF) (August 2026). Relevant sections in this case are presented below:

> *P3: Living conditions and pollution*
>
> 1. *Development proposals should be appropriate for their location, taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, whether these effects are on or off-site; and whether this is as a result of the development itself or the product of preexisting conditions in its vicinity. In assessing the potential effects of pollution, consideration should be given to the potential sensitivity of the site, and its intended occupiers and users, as well as that of the environment and population in the surrounding area (including where certain groups could be particularly vulnerable to its effects, such as children and older people).*
>
> 2. *Within this context development proposals should:*
>
> a. *Provide healthy living conditions for occupiers and users in terms of… avoiding exposure to noise… which could have an unacceptable adverse effect on health and the quality of life. Where necessary suitable mitigation measures should be incorporated to secure acceptable living conditions*
>
> b. *Not give rise to or contribute to… unacceptable levels of noise… on or beyond the site. Adverse impacts of this nature should be avoided where possible, or else mitigated to an acceptable degree…*
>
> c. *Mitigate and reduce to a minimum potential adverse impacts resulting from noise, not result in levels of noise exposure which would have a significant observed adverse effect, and maintain the character of tranquil areas (those areas that have remained relatively undisturbed by noise from human sources and are prized for their recreational and amenity value for this reason)…*

Local Policy

4.2 Huntingdonshire District Council's Local Plan – *Huntingdonshire's Local Plan to 2036* (May 2019) provides outline guidance on the assessment of noise affecting new development in the borough. Relevant sections are reproduced below:

> *Policy LP 14 Amenity*
>
> *A proposal will be supported where a high standard of amenity is provided for all users and occupiers of the proposed development and maintained for users and occupiers of neighbouring land and buildings. A proposal will therefore be required to ensure … that predicted adverse noise impacts, including internal and external levels, timing, duration and character, will be acceptable.*
>
> *5.28 Development management decisions will consider noise impacts in an integrated manner alongside other potential impacts of the proposed development and will have regard to the Noise Policy Statement for England where appropriate... Such considerations apply equally to proposals to extend and alter existing buildings as they do to new developments.*

4.3 Huntingdonshire's District Council have released Preapplication Planning Advice relating to the development. The noise-relevant section is reproduced below:

> *It is also noted that the application site is located in close proximity to the A141, a single-carriageway road with a 60 mph speed limit. Any future planning application should therefore give careful consideration to potential noise impacts on future occupants. It may be necessary for a submission to include appropriate noise mitigation measures and/or a detailed noise assessment to demonstrate that acceptable internal and external noise levels can be achieved for both dwellings. In relation to noise standards, British Standard BS 8233 provides guidance on internal ambient noise levels, external amenity noise, and suitable design measures to achieve them. The recommended internal noise levels for unoccupied rooms are as follows:*
>
> - *Living rooms (daytime): 35 dB LAeq,16h*
> - *Bedrooms (daytime resting): 35 dB LAeq,16h*
> - *Bedrooms (night-time): 30 dB LAeq,8h*
>
> *For outdoor amenity areas, BS 8233 advises that noise levels should typically fall within the range of 50–55 dB LAeq.*

4.4 To address the requirements of the national and local policies, noise affecting the habitable areas of the proposed development has been assessed.

5. NOISE AFFECTING THE PROPOSED DEVELOPMENT

5.1 Specific guidance on the assessment of noise affecting new residential development is given in ProPG: Planning and Noise for New Residential Development, May 2017 (ProPG). The process within the ProPG guidance for the appraisal of noise levels affecting new residential development is considered to be current 'best practice' and has, therefore, been followed for the assessment. The assessment process shown visually in Appendix 2 can be summarised as follows:

- Stage 1 – measure noise levels at the site and carry out an initial noise risk assessment of the proposed development site based on the measured levels.
- Stage 2 – where a higher noise risk is identified, carry out a detailed assessment including the following four considerations:
  - Element 1 – the overall acoustic design and layout of the site
  - Element 2 – internal noise levels in habitable areas
  - Element 3 – noise levels in external amenity areas
  - Element 4 – consideration of other relevant issues

- Based on the results of the Stage 2 assessment, provide a recommendation to the decision maker on whether planning permission can and should be granted.

Stage 1 – Noise survey and initial assessment

5.2 A noise survey was carried out at the site between 18 and 22 September 2026 to measure and assess the existing noise levels in the area. The full methodology and results of the noise survey are provided in Appendix 3.

5.3 Average (LAeq), maximum (LAmax) and background (LA90) noise levels across the site are dictated by road traffic on the A141.

5.4 Based on the results of the site noise survey, a 3D computer noise model was developed to predict and assess the noise levels that will exist across the entire development.

5.5 The 3D noise model was developed using Cadna/A v2026 MR1 environmental noise modelling software. Cadna/A incorporates the calculation methodology outlined in the Department of Transport Welsh Office - Calculation of Road Traffic Noise (CRTN) for the assessment of road traffic noise propagation.

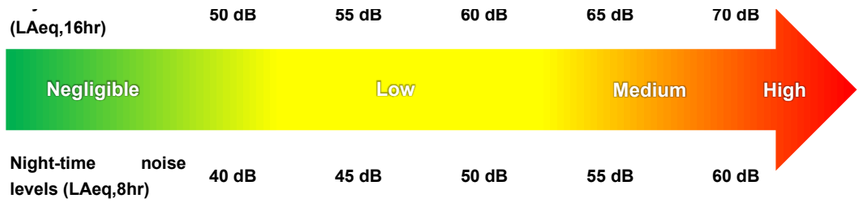
5.6 The layout of the proposed development and surrounding area was input into the model. To calculate the spread of noise levels around the site, day- and night-time average noise levels and nighttime maximum noise levels were input for the A141 and calibrated to the results of the on-site noise measurements.

5.7 The methodology and results of the noise modelling are provided in Appendix 4. It can be seen from the modelling results that road traffic noise levels will be highest on the south and western facades of the proposed development facing the A141. The modelling results show that noise levels at these positions are as follows:

- Average noise levels during the daytime - 70 dB LAeq,0700-2300hrs
- Average noise levels during the night-time - 63 dB LAeq,2300-0700hrs
- Typical maximum noise levels during the night-time - 79 dB LAmax

5.8 The measured noise levels can be compared with Figure 2 below to assess the 'noise risk' of the site. Where the noise risk is high, significant acoustic design measures may be required to achieve acceptable noise levels in the proposed development. Where the noise risk is low, acceptable noise levels may be achievable with no specific acoustic signatures.

Figure 2 Noise Risk Assessment (Adaption of Figure 1 from ProPG)



5.9 It can be seen from a comparison of the measured noise levels in Paragraph 5.7 above with Figure 2 that the site is 'High' risk in relation to daytime and nighttime noise levels. Therefore, ProPG requires that a more detailed 'Stage 2' assessment is carried out.

Stage 2 – Element 1 – Overall acoustic design of the site

5.10 The acoustic design of proposed development has been reviewed in relation to the measured noise levels at the site. The process of good acoustic design, as detailed Section 3 of ProPG Supplementary Document 2, has been applied to the proposed development, as set out below:

1. The proposed dwelling is positioned to maximise the distance between it and the A141 as far as practicable.
2. The positioning of proposed non-residential building (the car port) provides acoustic screening to protect the proposed residential dwelling from A141 road traffic noise emissions as far as practicable.
3. The internal layout has been designed to minimise the number of noise-sensitive rooms and their respective glazed elements directly facing the A141, as with the ground floor bedroom. The two secondary bedrooms on the first floor have been designed so that their primary, larger windows are screened from the A141.

5.11 In addition to the above measures, the building envelope can be used to mitigate noise to acceptable levels, i.e. with the use of acoustically upgraded glazing and ventilation. This is discussed further below.

Stage 2 – Element 2 - Internal noise levels

5.12 Appropriate design criteria for acceptable noise levels in acoustically sensitive areas of new developments are given in BS8233:2014 '*Guidance on sound insulation and noise reduction for buildings*'.

5.13 Relevant BS8233 design criteria are summarised in Table 1 below.

Table 1 BS8233:2014 Internal Noise Criteria

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB LAeq,16hour	-
Dining	Dining room/area	40 dB LAeq,16hour	-
Sleeping (daytime resting)	Bedroom	35 dB LAeq,16hour	30 dB LAeq,8hour 45 dB LAFmax[1]

Note 1 ProPG states: "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 45 dB LAFmax,F more than 10 times a night."

5.14 Full construction details for the proposed development have not been finalised as the project is at an early design stage. It has therefore been assumed that the external walls of the proposed development will be constructed using a standard masonry construction (e.g. 102mm brick, 100mm insulated cavity, 100mm concrete block) or a light-weight construction designed to achieve a similar level of sound insulation (this is technically achievable subject to detailed design).

5.15 The ventilation strategy for the proposed development has not yet been confirmed and therefore it is assumed that background ventilation will be provided via trickle ventilators in the building facade. This is a 'worst case' assumption from an acoustic perspective as trickle ventilators are often an acoustic weak point in the facade.

5.16 Calculations were carried out using facade modelling software in accordance with the methodology given in BS8233 to calculate the sound insulation performance required of the glazing and ventilation to achieve the nominated internal noise criteria in habitable rooms. The calculations are presented in Appendix 5.

5.17 The calculations were carried out based on room dimensions and details taken from current project drawings.

5.18 The results of the calculations were used to develop a preliminary glazing specification that shows the sound insulation requirements of windows across the habitable rooms of the dwelling. The specification is included in Appendix 6 and is summarised in Table 2 below.

Table 2 Acoustic Requirements for 'Worst Case' Habitable Rooms

'Worst Case' Rooms	Glazing Performance Requirements (inc. Frames)	Ventilator Performance Requirements (in Open Position)
Habitable Rooms on A141-facing facades	38 dB Rw+Ctr	42 dB Dne,w + Ctr
Habitable Rooms screened from A141, facing Warboys Road	30 dB Rw+Ctr	34 dB Dne,w + Ctr

Note The requirements given are approximate only and should be confirmed at the detailed design stage when full design details are available.

5.19 The required sound insulation performance values in Table 2 could typically be achieved by the glazing and ventilator types shown in Table 3.

Table 3 Typical Glazing / Ventilator Acoustic Performances

Glazing (in Good Quality Sealed Frames)	Typical Weighted Sound Reduction (Rw + Ctr)
8/16/4mm standard thermal double glazing	30
10mm/16/9mm acoustically upgraded thermal double glazing	38
Ventilators	**Typical Acoustic Performance (Dnew + Ctr)**
Greenwood 1600DNFW Acosutic Through Frame Slovent	34
Greenwood 2500EAW.AC2 (Vent + 2 Acoustic Modules – Ext & Int)	42

Note The acoustic performance of the glazing systems (including frames) should always be confirmed with the manufacturer before selection for installation on site.

5.20 It can be seen from the above that acceptable internal noise levels will be achievable in the proposed development subject to the specification of suitable glazing and ventilation systems at the detailed design stage. It is our view therefore that the proposed development is, in principle, acceptable with regards to the noise levels that will exist within the habitable rooms.

Part O Noise Requirements

5.21 The above ProPG assessment for planning purposes is based on internal noise levels with windows closed (assumed to be "normal" circumstances). However, it is anticipated that residents will open their windows at times for thermal comfort (e.g. to prevent overheating in warmer months). Noise levels in the rooms will increase under these circumstances.

5.22 The proposed development will be subject to Part O of the Building Regulations (Approved Document O), which came into effect on 15 June 2022. Section 3.2 of Approved Document O (ADO) states:

> *In locations where external noise may be an issue (for example, where the local planning authority considered external noise to be an issue at the planning stage), the overheating mitigation strategy should take account of the likelihood that windows will be closed during sleeping hours (11pm to 7am).*
>
> *Windows are likely to be closed during sleeping hours if noise within bedrooms exceeds the following limits.*
>
> *a. 40dB LAeq,T, averaged over 8 hours (between 11pm and 7am).*
>
> *b. 55dB LAFmax, more than 10 times a night (between 11pm and 7am).*

5.23 It is important to note that the Part O requirements only apply to bedrooms at night. There are no requirements for other habitable rooms (living rooms, dining rooms, etc).

5.24 The noise levels in bedrooms at night with the windows open will vary based on the external night-time noise levels and the size and extent of window opening required to control overheating. The wider the window needs to be open, the lower the sound insulation performance. The following indicative "outside to inside" reduction values have been adopted for the assessment based on current industry guidance[1]:

- ~4 dB when the window is fully open
- ~9 dB when the window is open to around ~0.4m^2
- 13 dB when the window is partially open to ~0.2m^2.

5.25 Therefore, it is possible to rely on a larger window opening to control overheating on quieter facades. The relationship between external noise levels and window openings for compliance with Part O is summarised in Table 4.

[1] These values are taken from guidance published in the document *"Guide to Demonstrating Compliance with the Noise Requirements of Approved Document O"* Version 1.1 November 2024, by the Association of Noise Consultants. The values are based on a floor area of 10m^2 and a room height of 2.4m.

Table 4 External Part O Noise Criteria and Allowable Window Opening for Overheating

External Noise Levels outside Bedrooms at Night		Allowable night-time window opening to control overheating
Average Noise Levels (LAeq,8hrs)	Maximum Noise Levels (LAmax) – see Note 1	
≤44 dB	≤59 dB	Fully open (to achieve 13% of the floor area which is typically ~1.3m²). Ventilators fully open.
≤49 dB	≤64 dB	Open (~4% of floor area e.g. ~0.4m²) – see Note 2. Ventilators fully open.
≤53 dB	≤68 dB	Partially open (~2% of floor area e.g. ~0.2m²). Ventilators fully open.
≥54 dB	≥69 dB	Windows to be assumed to be fully closed during the night for the purposes of Part O compliance. Ventilators fully open.

Note 1 Not exceeded more than 10 times per night (between 11pm and 7am)

Note 2 An opening of 4% of the floor area would comply with the 'simplified method' for Part O compliance, if targeted, as the site is in a 'medium risk' area.

5.26 These criteria have been applied to the predicted night-time noise levels from the model to show where open windows can be relied upon for the control of overheating and Part O compliance. The results are shown in Appendix 7.

5.27 It can be seen from Appendix 7 that windows to bedrooms with a direct line of sight to the A141 will need to be assumed to be closed during the night-time for the purposes of the overheating assessment due to the higher external noise levels. Open windows can be used to help address overheating in bedrooms screened from the A141, facing Warboys Road.

5.28 The information in Appendix 7 can be provided to the project Energy Assessor to inform the overheating assessment and demonstrate compliance with Part O in due course.

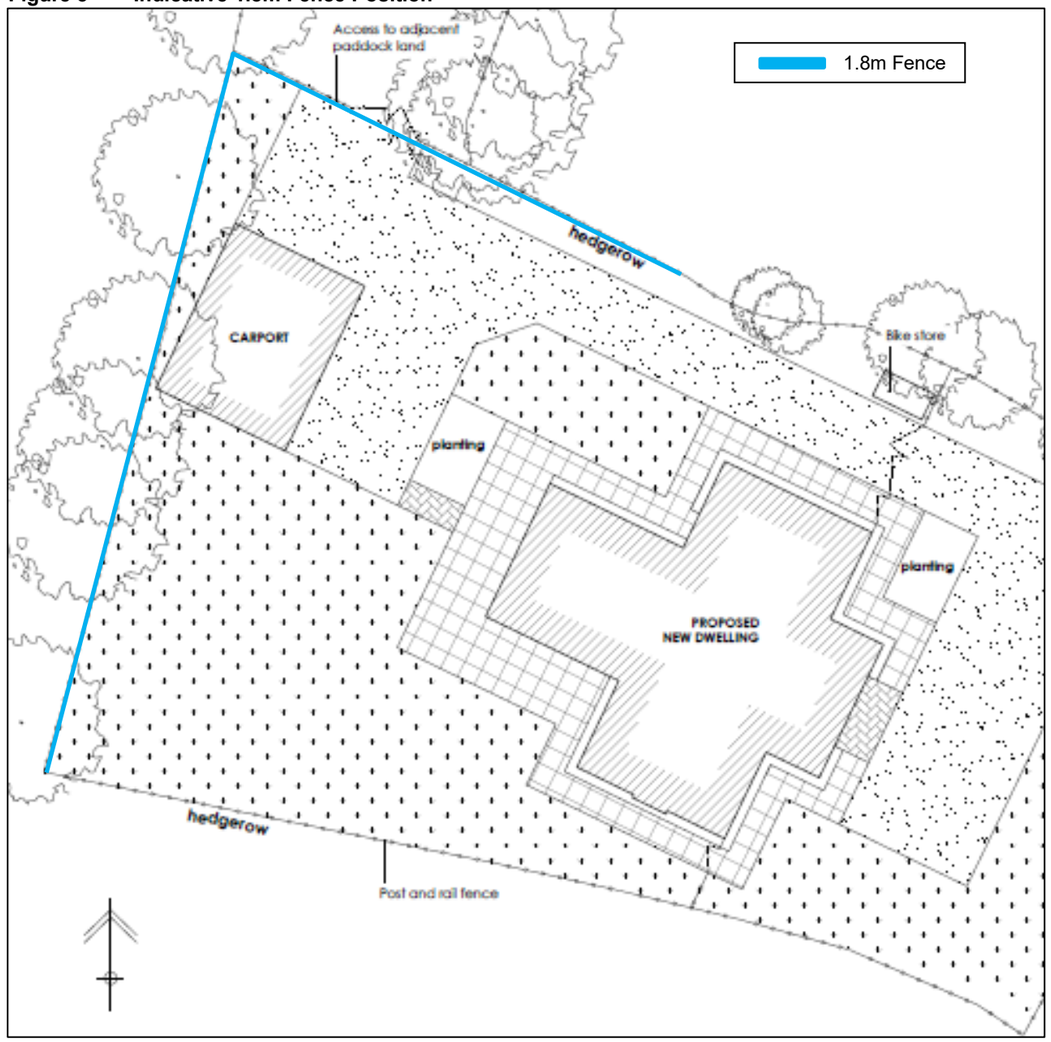
Stage 2 – Element 3 – Noise levels in external amenity areas

5.29 BS8233 states that it is desirable that noise levels in external amenity areas of residential developments do not exceed 50 dB LAeq and that 55 dB LAeq,T should be regarded as an upper guideline value. However, BS8233 recognises that these guideline values will not always be achievable in city centres or urban areas adjoining main roads or other transport sources. In these cases, BS8233 states that the development should be designed to achieve the lowest practicable noise levels in the amenity spaces.

5.30 Noise levels in the garden are predicted to exceed the 55 dB LAeq,T limit, however whilst this is not ideal, it is not uncommon for noise levels in gardens in urban areas or situated near very busy to be higher than the BS8233 recommended levels. Indeed, the modelling indicates that noise levels in the gardens of the existing neighbouring residential properties immediately to the to the north of the site on Warboys Road would be higher than the BS8233 recommended levels.

5.31 To reduce noise levels in the garden as far as practicable, it is recommended that 1.8m high close-boarded timber fencing is used around the western half of the site, as illustrated in Figure 3 below. The noise mitigation achieved by the installation of this barrier is shown in the modelling results in Appendix 4. If deemed necessary, this could be secured through the imposition of a suitable planning condition.

Figure 3 Indicative 1.8m Fence Position



5.32 This design of the development would result in the lowest practicable noise levels within the garden of the development, aligning with the flexible intent of BS8233.

5.33 Furthermore, this design results in areas of the garden to the front and rear of the proposed development that are consistent in the context of the noise climate of gardens of existing residential properties (see Appendix 4), labelled in Figure 1.

5.34 The proposed development is therefore considered acceptable with regards to noise levels in external amenity areas.

Stage 2 – Element 4 – Other relevant issues

5.35 In our view the design and acoustic approach outlined above is in line with both local and national noise policy. It is common for residential properties to be situated near to main roads, and this is an acceptable scenario provided that the properties are acoustically upgraded where necessary to achieve acceptable noise levels in habitable areas.

Recommendation to decision maker

5.36 It is our view that planning permission may be granted in relation to noise affecting habitable areas of the proposed development.

6. CONCLUSIONS

6.1 Cass Allen was instructed by Mrs A Baxter to assess noise affecting a proposed new development at Land at Warboys Road, Old Hurst in Huntingdon.

6.2 The assessment was carried out in accordance with relevant local and national planning guidance, following the methodology set out in ProPG.

6.3 A noise survey was carried out to measure baseline noise levels at the site. Noise levels were observed to be dictated by road traffic along the A141.

6.4 A 3D noise model of the proposed development was constructed based on the results of the site noise survey. The noise model was used to calculate road traffic noise levels at all facades of the proposed development.

6.5 Acceptable internal noise levels within habitable rooms can be achieved with the adoption of acoustically upgraded glazing and ventilation. It is anticipated that bedrooms will need to be designed so that windows can remain closed at night without the rooms overheating in order to comply with the noise criteria in Building Regulations Part O.

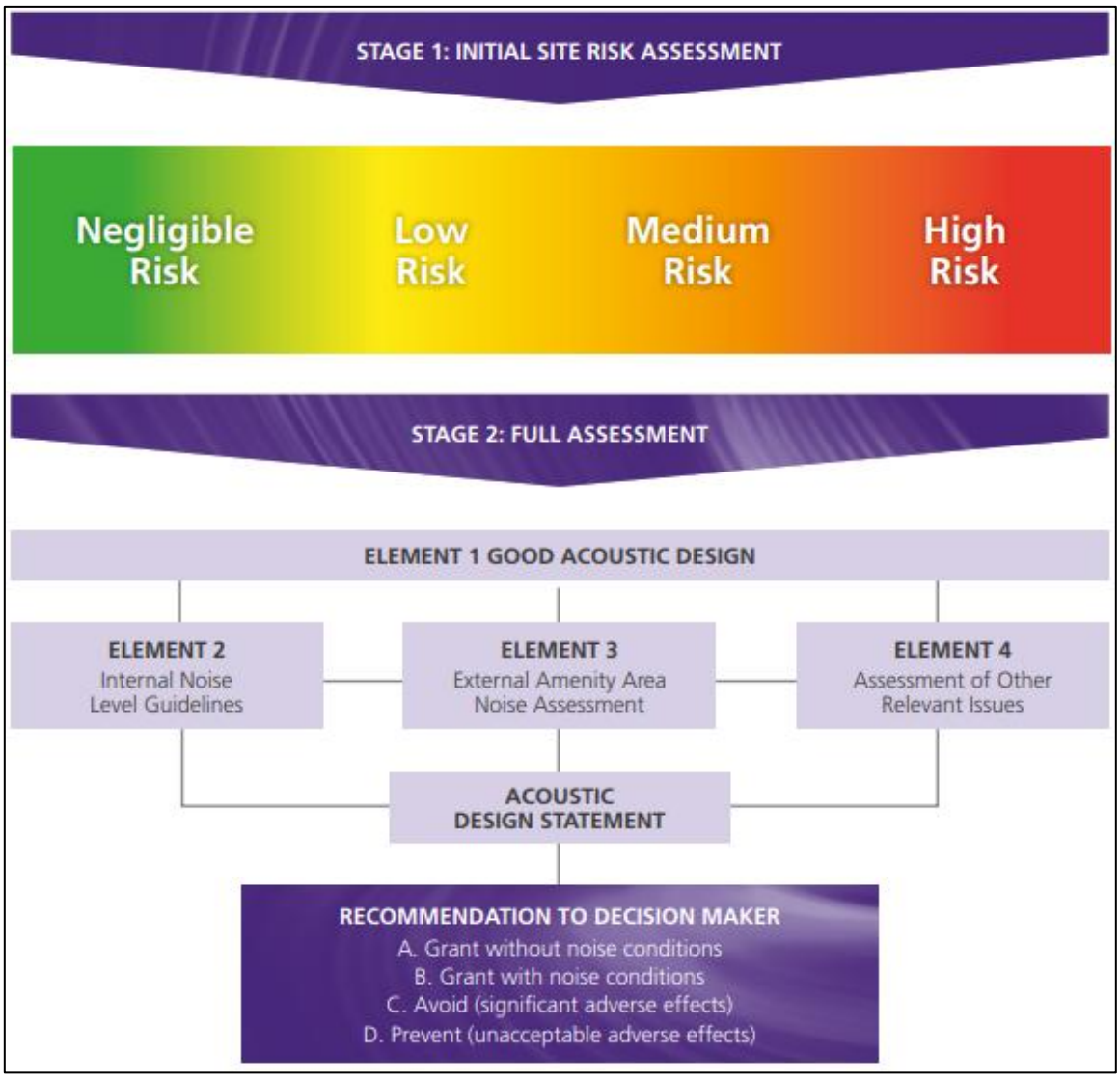
6.6 Noise levels in the garden have been assessed and are predicted to exceed the upper guideline level. To reduce noise levels in these gardens as far as practicable, it is recommended that 1.8m high close-boarded timber fencing is used around the western half of the site.

6.7 To summarise, the site is considered suitable for the proposed development in terms of noise levels.

Appendix 1 Proposed Development Layout

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Appendix 2 ProPG Assessment Process



Appendix 3 Survey Results

Survey Summary:

The survey comprised short-term operator attended noise measurements and longer-term unattended noise monitoring at the site. Noise levels at the site were generally dictated by road traffic on the A141.

Survey Period:

18/09/2026 to 22/09/2026

Survey Objectives:

- To identify noise sources that contribute to ambient noise levels at the site;
- To measure noise levels around the site over a typical day and night-time period.

Equipment Used:

Type	Manufacturer	Model	Serial Number
Sound level meter[1]	Bruel & Kjaer	2250	3007539
Calibrator	Bruel & Kjaer	4231	2115551
Sound level meter[1] (noise logger)	01 dB	Cube	12082
Sound level meter[1] (noise logger)	01dB	Fusion	10834

Note 1: All sound level meters were calibrated before and after measurement periods and no significant drift in calibration was found to have occurred. The results of the measurements are therefore considered to be representative.

Weather Conditions:

The observed weather conditions were acceptable for acoustic measurement throughout the attended survey periods (low-medium wind speeds and no rain). Weather records for the area confirmed that weather conditions were also generally acceptable for acoustic measurement during the unattended monitoring.

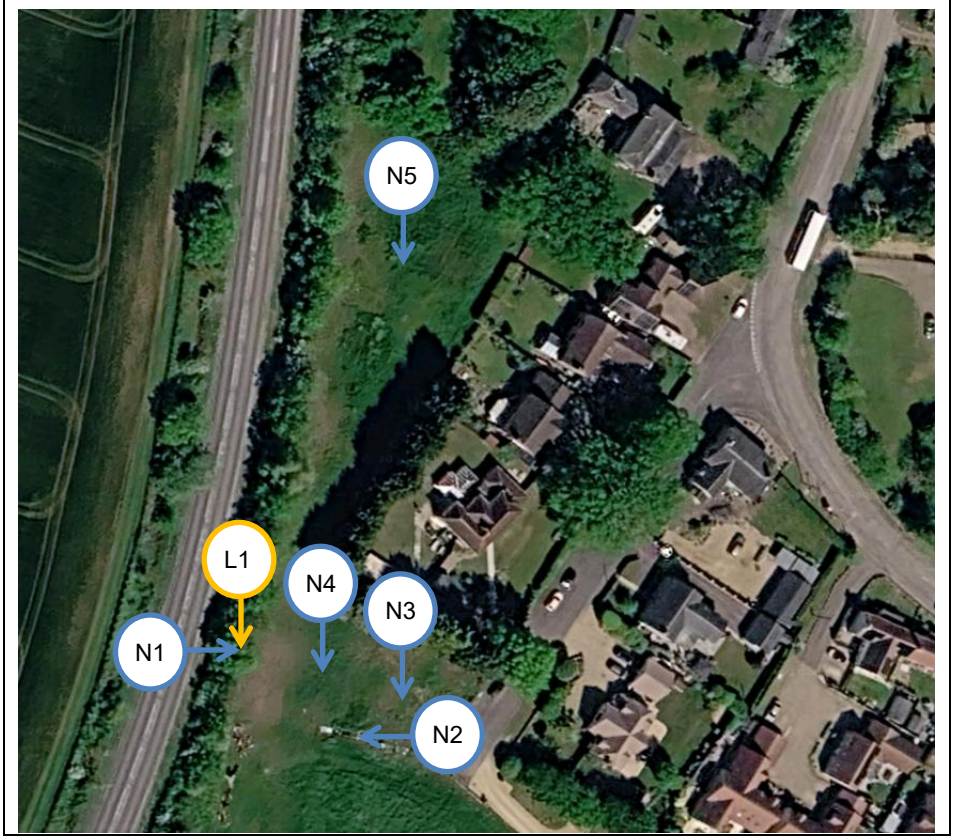
Measurement Positions:

Position (refer plan below)	Description
N1	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
N2	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
N3	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
N4	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
N5	Attended noise monitoring position. 1.5m above ground. Free-field. Direct line of sight to nearby roads
L1	Unattended noise logging position. 3m above ground level. Free-field. Direct line of sight to nearby roads

Measurement Positions:

Position (refer plan below)	Description
L2	Unattended noise logging position. 2.5m above ground level. Free-field. Direct line of sight to nearby roads.

Site Plan showing Measurement Positions:



Attended Noise Monitoring Results:

Date	Position	Time	Meas. Length	LAeq, dB	LAmax, dB	LA90, dB	Observations
04/09/2026	N1	12:35	5 mins	74	84	65	Noise dictated by road traffic from A141
	N2	12:25		67	77	60	
	N3	12:55		66	73	61	
	N4	13:00		70	79	62	
	N5	13:00		66	74	57	

Unattended Noise Monitoring Results:

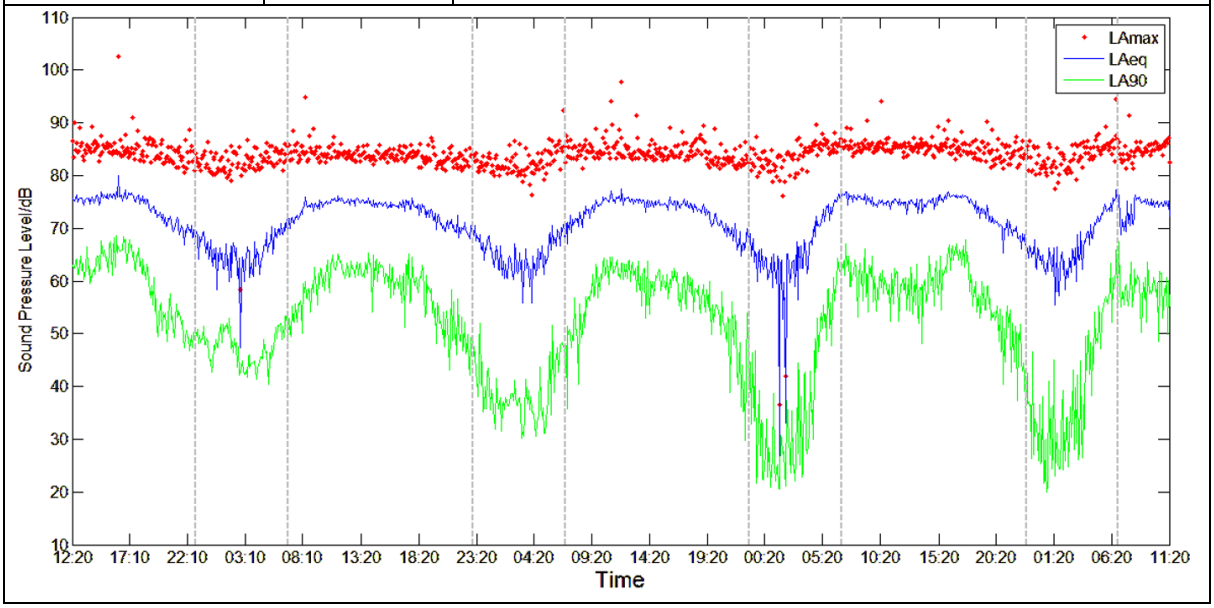
Meas. Period	Position	Daytime (0700-2300hrs)		Night-time (2300-0700hrs)		
		LAeq,16hr, dB	LA90,1hr dB[1]	LAeq,8hr, dB	LA90,5mins, dB[1]	LAmax, dB[2]
18/09/2026 to 22/09/2026	L1	74	61	67	48	86

Note 1: Typical lowest measured during the period shown.

Note 2: Highest typical maximum noise level during the night-time (not exceeded more than 10-15 times per night).

Unattended Noise Monitoring Results:

Meas. Period	Position	
18/09/2026 to 22/09/2026	L1	

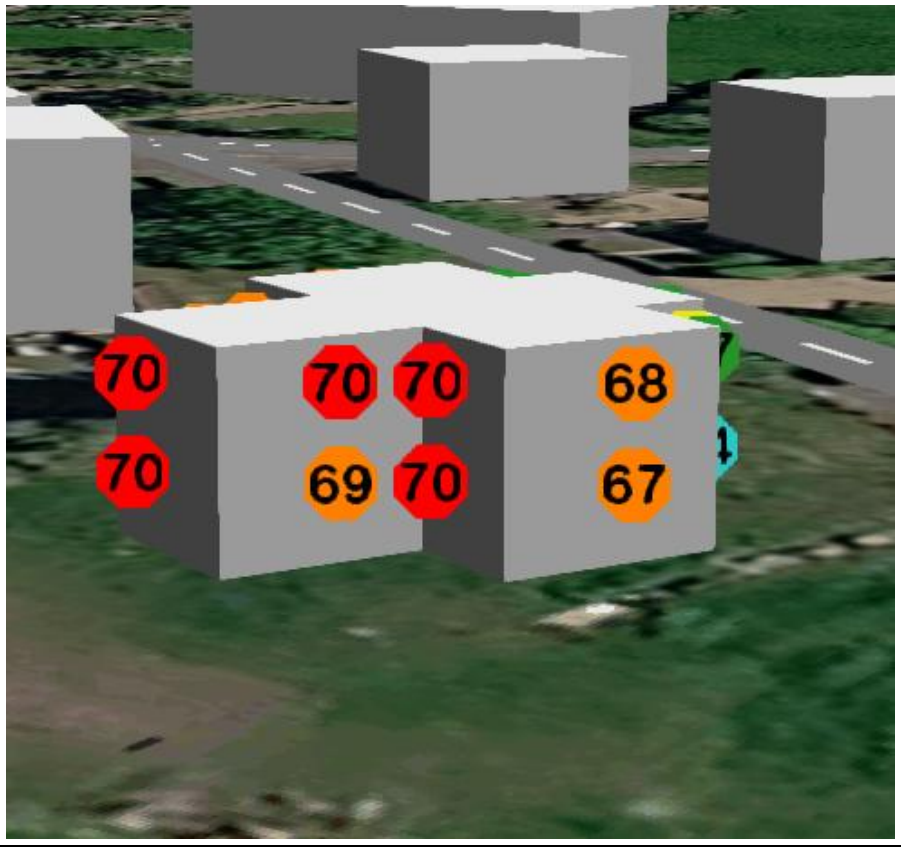


Appendix 4 Modelling Results

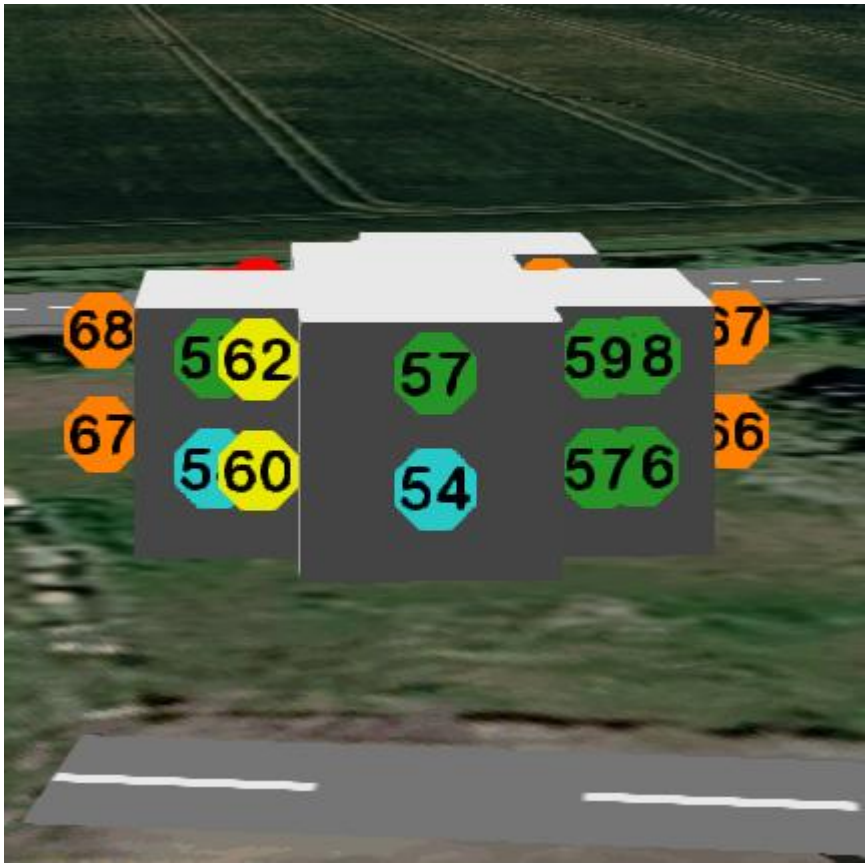
Modelling Software:	CADNA/A Version 2026 MR1
Modelled Scenarios:	Day and night-time average noise levels across the site
Data inputs:	• Noise survey results • Development layout
Calculation Algorithms Used:	• Calculation of Road Traffic Noise 1988 – Department of Transport • ISO 9613-1:1993 Acoustics-Attenuation of sound during propagation outdoors – Part 1: Calculation of the absorption of sound by the atmosphere • ISO 9613-2:2024 Acoustics-Attenuation of sound during propagation outdoors – Part 2: Engineering method for the prediction of sound pressure levels outdoors

Modelling Printouts:

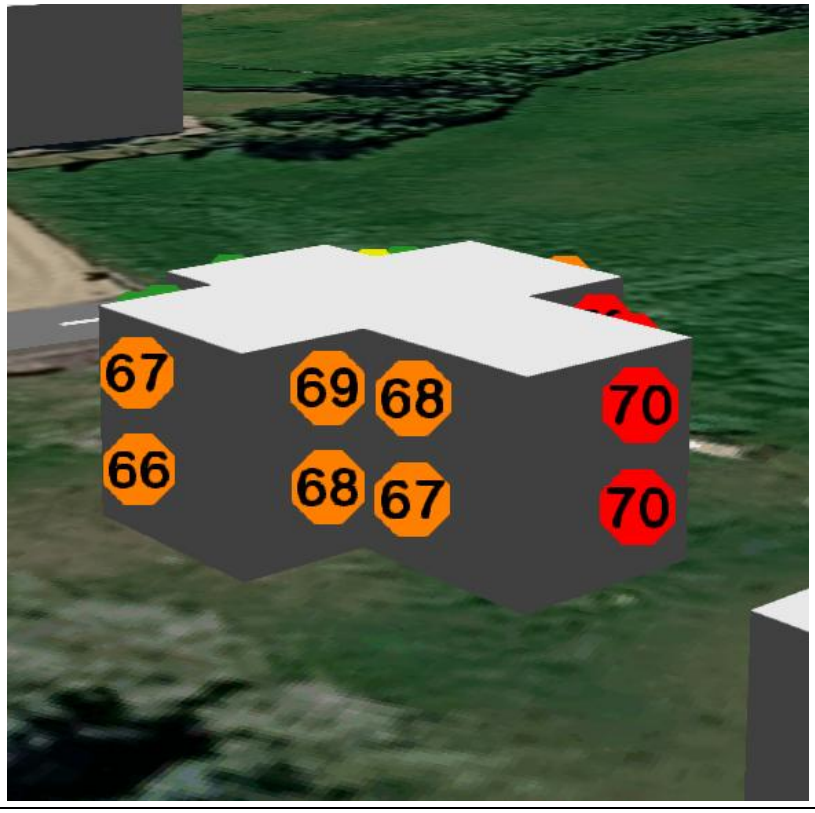
Scenario	Daytime noise levels (LAeq,16hr) – South and Western Facades



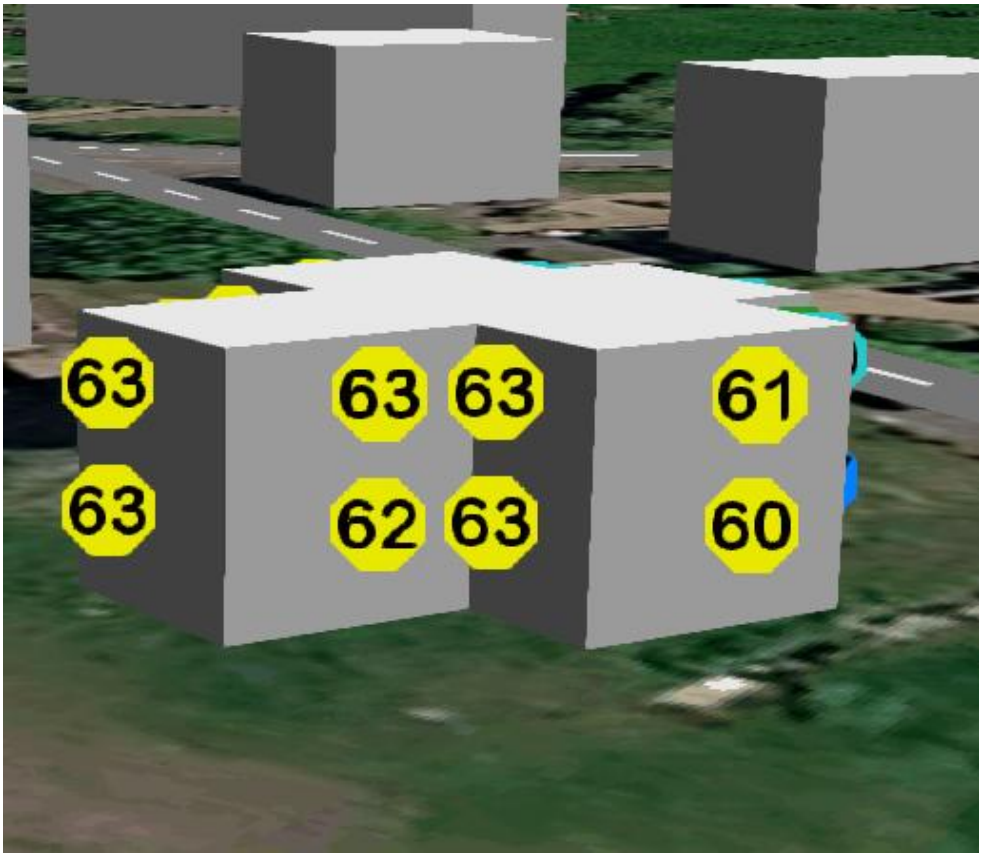
Scenario	Daytime noise levels (LAeq,16hr) – Eastern Facades



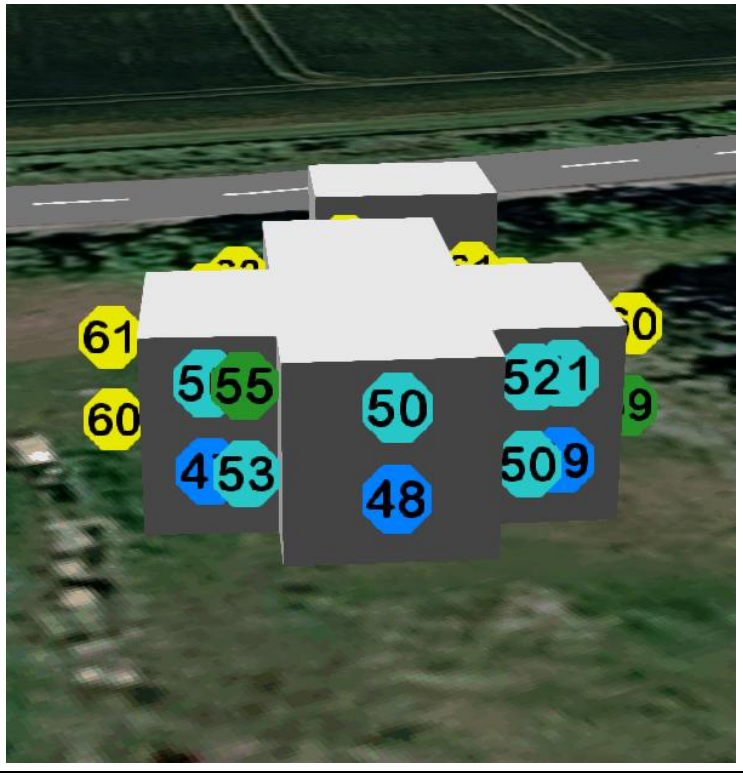
Scenario	Daytime noise levels (LAeq,16hr) – North and Western Facades



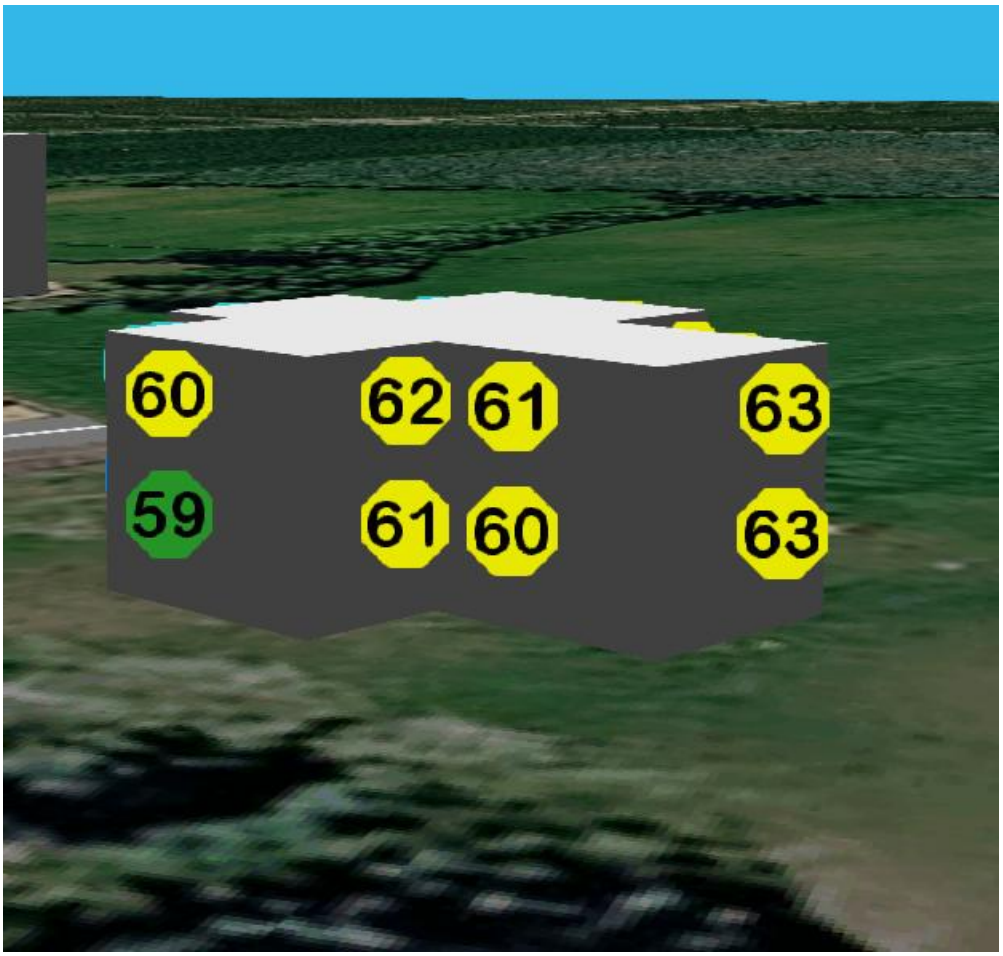
Scenario	Nighttime noise levels (LAeq,8hr) – South and Western Facades



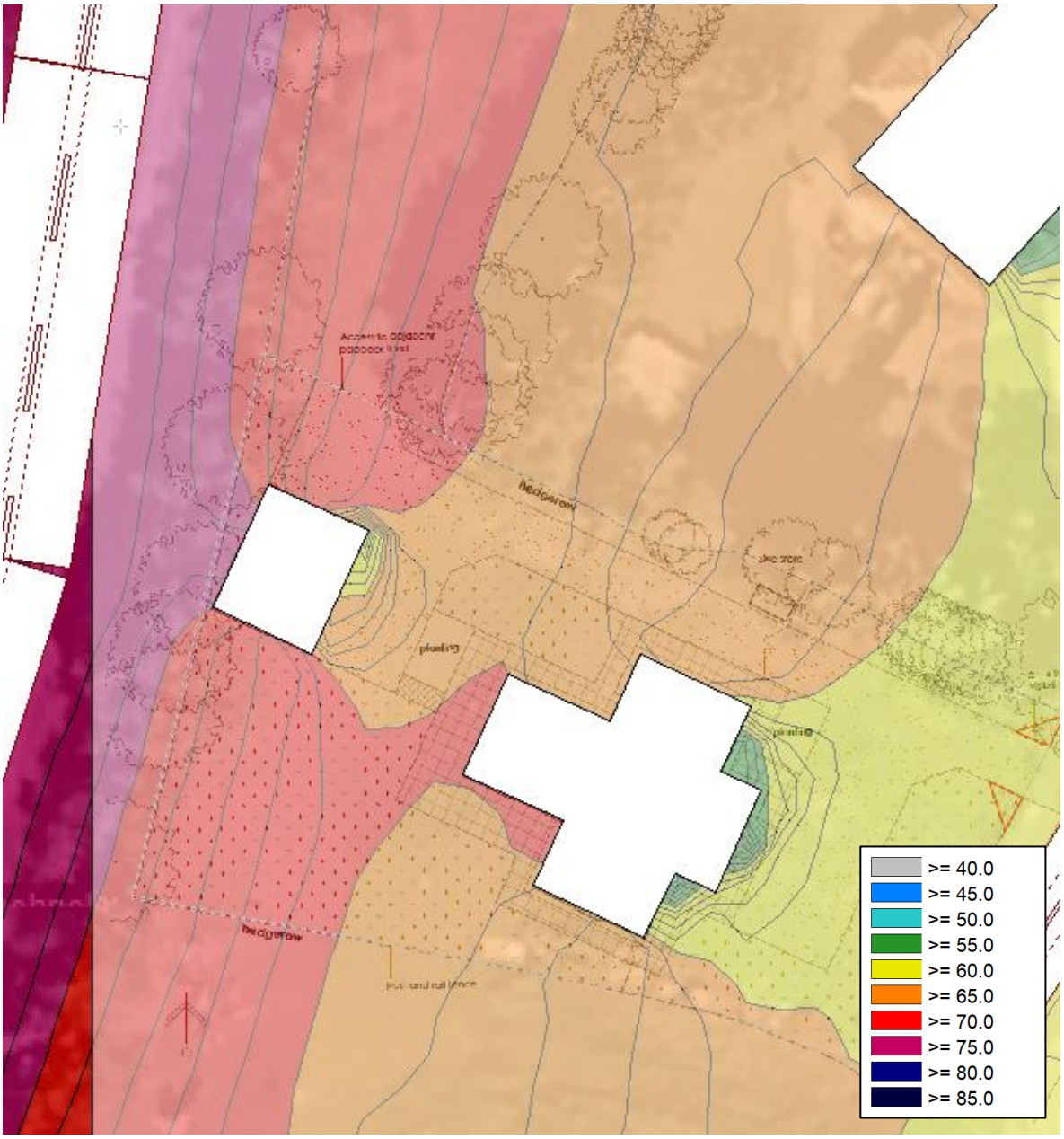
Scenario	Nighttime noise levels (LAeq,8hr) – Eastern Facades



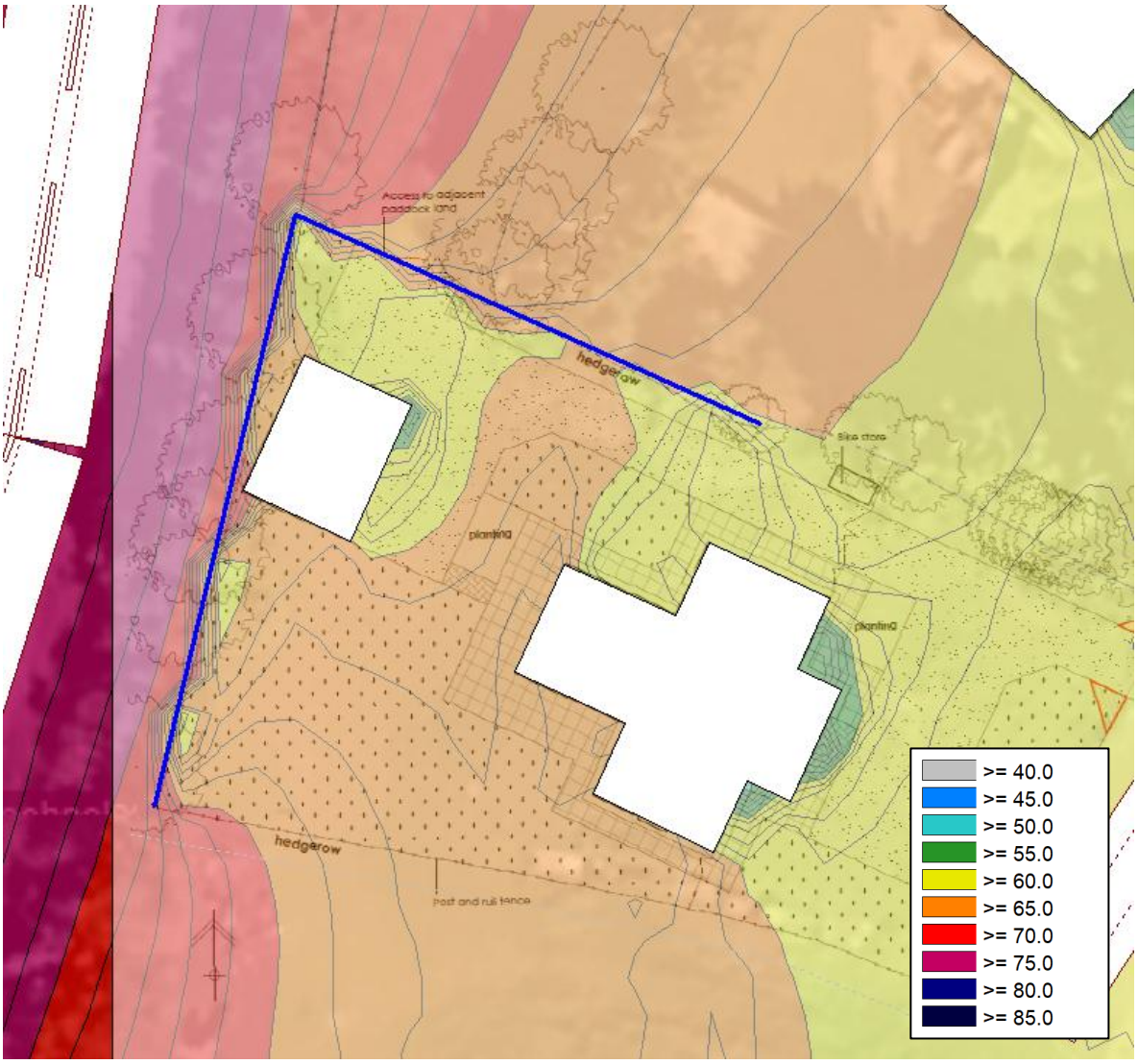
Scenario	Nighttime noise levels (LAeq,8hr) – North and Western Facades



Scenario	Daytime noise levels (LAeq,16hr) – External Noise Levels (no fence)



Scenario	Daytime noise levels (LAeq,16hr) – External Amenity Areas (with 1.8m fence)



Scenario	Daytime noise levels (LAeq,16hr) – External Amenity Areas (with 1.8m fence) – comparison with existing neighbouring gardens to the north



Appendix 5 Facade Calculations

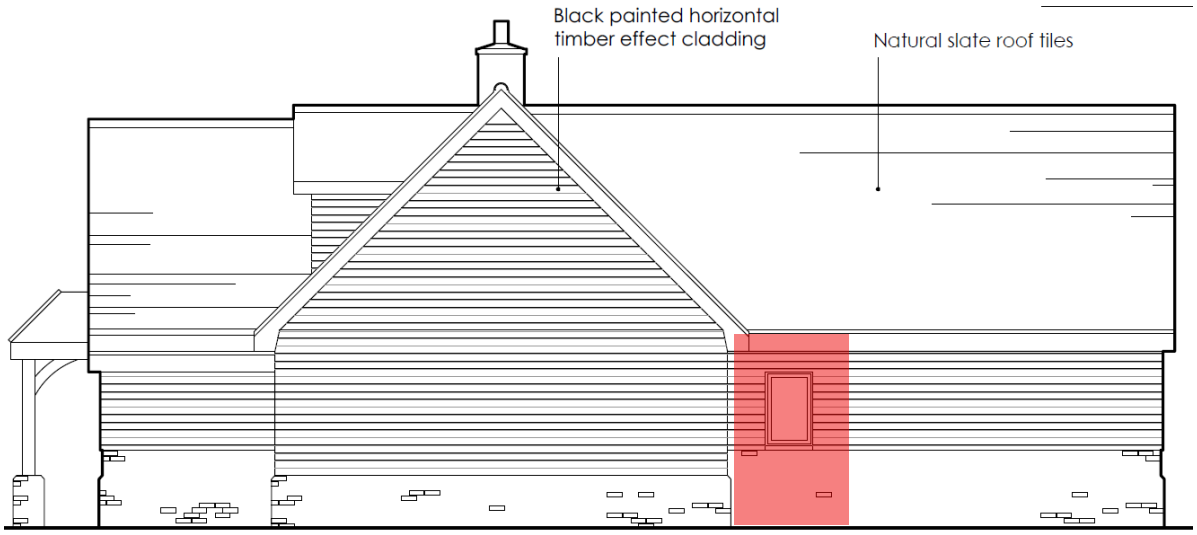
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Appendix 6 Acoustic Facade Specification

Reference	Colour	Glazing Specification (min values)	Ventilator Specification
FC01		38 dB Rw+Ctr	42 Dnew+Ctr
FC02		30 dB Rw+Ctr	34 Dnew+Ctr

NOTES: Values must include the Ctr correction. Manufacturers or suppliers should provide laboratory test data demonstrating that the proposed systems are capable of achieving the values given. Windows should be tested as complete systems (rather than just the glazing in isolation) and trickle ventilators should be in the open position.

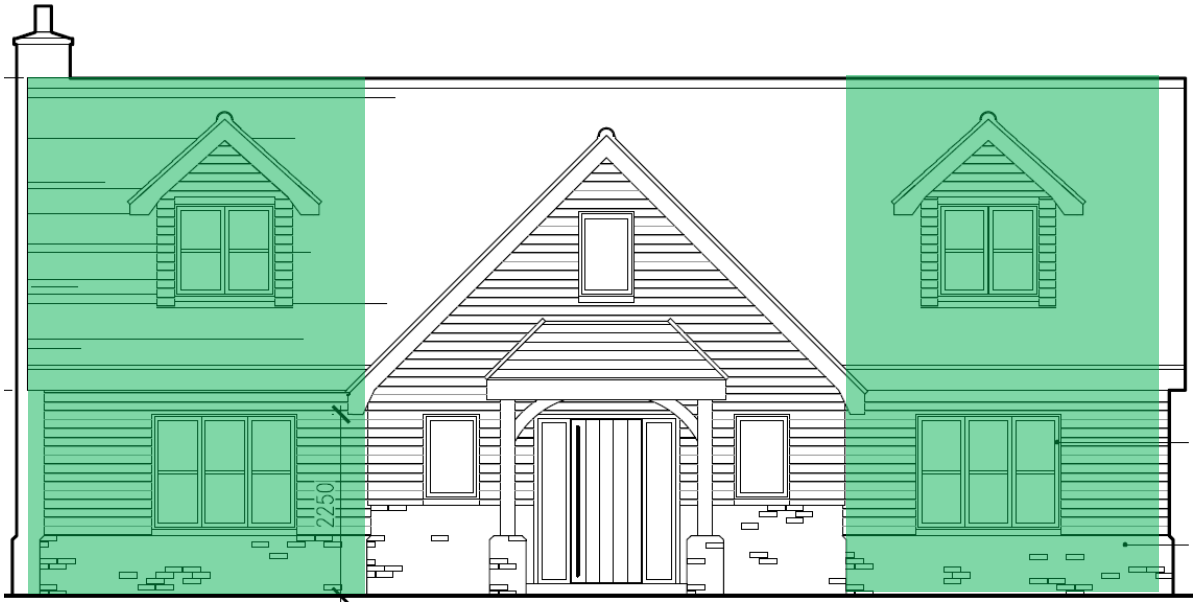
North Elevation:



Reference	Colour	Glazing Specification (min values)	Ventilator Specification
FC01		38 dB Rw+Ctr	42 Dnew+Ctr
FC02		30 dB Rw+Ctr	34 Dnew+Ctr

NOTES: Values must include the Ctr correction. Manufacturers or suppliers should provide laboratory test data demonstrating that the proposed systems are capable of achieving the values given. Windows should be tested as complete systems (rather than just the glazing in isolation) and trickle ventilators should be in the open position.

East Elevation



Reference	Colour	Glazing Specification (min values)	Ventilator Specification
FC01		38 dB Rw+Ctr	42 Dnew+Ctr
FC02		30 dB Rw+Ctr	34 Dnew+Ctr

NOTES: Values must include the Ctr correction. Manufacturers or suppliers should provide laboratory test data demonstrating that the proposed systems are capable of achieving the values given. Windows should be tested as complete systems (rather than just the glazing in isolation) and trickle ventilators should be in the open position.

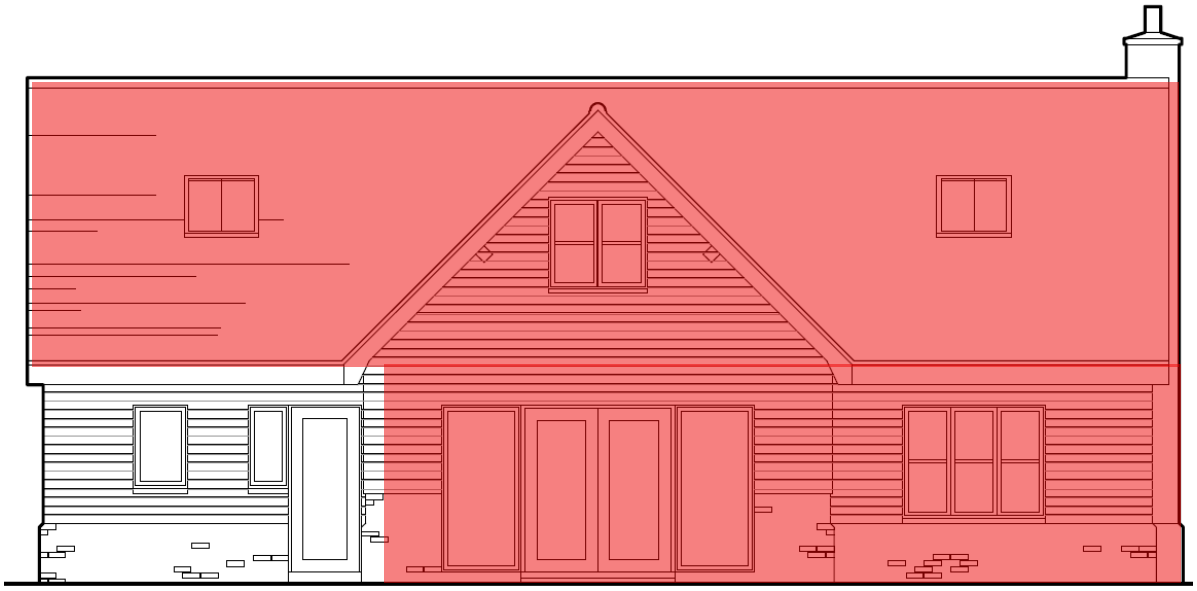
South Elevation



Reference	Colour	Glazing Specification (min values)	Ventilator Specification
FC01		38 dB Rw+Ctr	42 Dnew+Ctr
FC02		30 dB Rw+Ctr	34 Dnew+Ctr

NOTES: Values must include the Ctr correction. Manufacturers or suppliers should provide laboratory test data demonstrating that the proposed systems are capable of achieving the values given. Windows should be tested as complete systems (rather than just the glazing in isolation) and trickle ventilators should be in the open position.

West Elevation

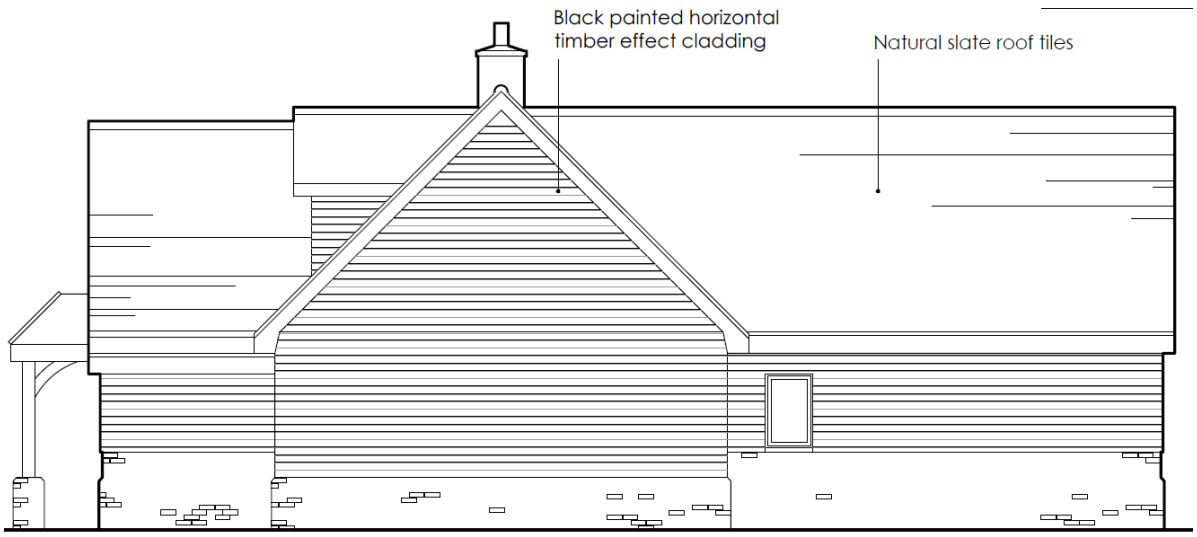


Appendix 7 Part O Acoustic Requirements for Bedrooms at Night

Ref.	Colour	Outside-to-inside noise reduction requirement	Part O Requirement for Bedrooms
ADO01		4 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows fully open (e.g. 13% of floor area, which is typically around 1.3m²) and ventilators fully open.
ADO02		9 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows open (e.g. 4% of floor area, which is typically around 0.4m²) and ventilators fully open.
ADO03		13 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows partially open (e.g. ~2% of floor area, which is typically around 0.2m²) and ventilators fully open.
ADO04		>13 dB	Energy assessment (e.g. TM59) to show that bedrooms on these facades will not overheat at night with windows fully closed and ventilators fully open.

Note 1 ADO requirements only apply to bedrooms during night-time hours (23:00-07:00)
Note 2 The window open area is specified above as an actual open area, not 'equivalent open area' and the values may therefore need to be converted as part of the overheating assessment.

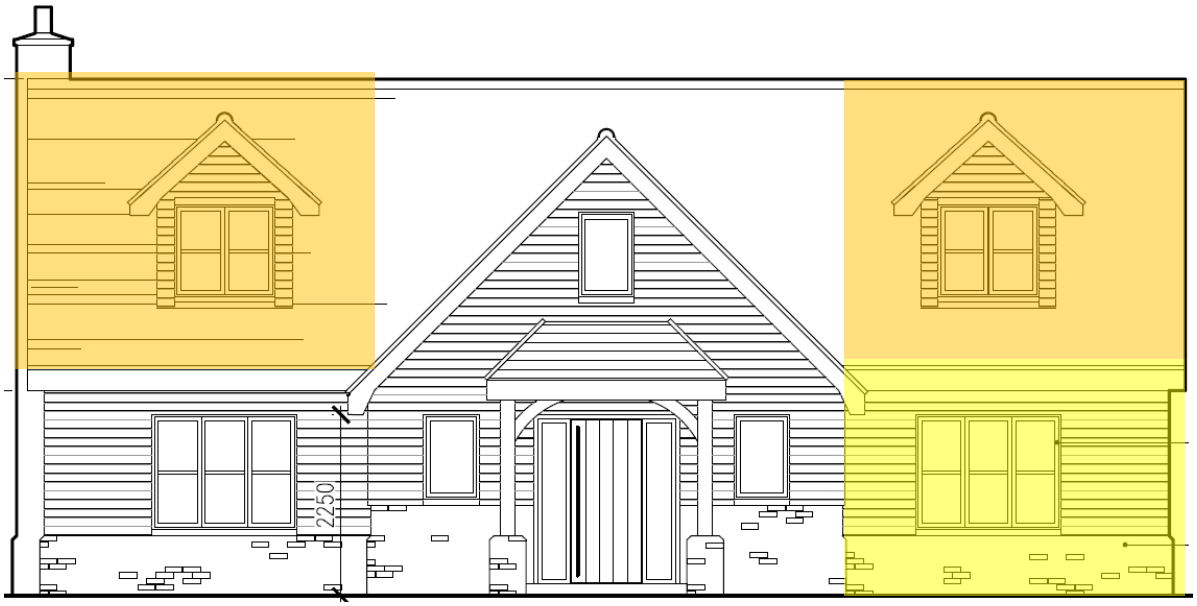
North Elevation:



Ref.	Colour	Outside-to-inside noise reduction requirement	Part O Requirement for Bedrooms
ADO01		4 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows fully open (e.g. 13% of floor area, which is typically around 1.3m^2) and ventilators fully open.
ADO02		9 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows open (e.g. 4% of floor area, which is typically around 0.4m^2) and ventilators fully open.
ADO03		13 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows partially open (e.g. ~2% of floor area, which is typically around 0.2m^2) and ventilators fully open.
ADO04		>13 dB	Energy assessment (e.g. TM59) to show that bedrooms on these facades will not overheat at night with windows fully closed and ventilators fully open.

Note 1 ADO requirements only apply to bedrooms during night-time hours (23:00-07:00)
Note 2 The window open area is specified above as an actual open area, not 'equivalent open area' and the values may therefore need to be converted as part of the overheating assessment.

East Elevation



Ref.	Colour	Outside-to-inside noise reduction requirement	Part O Requirement for Bedrooms
ADO01		4 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows fully open (e.g. 13% of floor area, which is typically around 1.3m^2) and ventilators fully open.
ADO02		9 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows open (e.g. 4% of floor area, which is typically around 0.4m^2) and ventilators fully open.
ADO03		13 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows partially open (e.g. ~2% of floor area, which is typically around 0.2m^2) and ventilators fully open.
ADO04		>13 dB	Energy assessment (e.g. TM59) to show that bedrooms on these facades will not overheat at night with windows fully closed and ventilators fully open.

Note 1 ADO requirements only apply to bedrooms during night-time hours (23:00-07:00)

Note 2 The window open area is specified above as an actual open area, not 'equivalent open area' and the values may therefore need to be converted as part of the overheating assessment.

South Elevation



Ref.	Colour	Outside-to-inside noise reduction requirement	Part O Requirement for Bedrooms
ADO01		4 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows fully open (e.g. 13% of floor area, which is typically around 1.3m^2) and ventilators fully open.
ADO02		9 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows open (e.g. 4% of floor area, which is typically around 0.4m^2) and ventilators fully open.
ADO03		13 dB	Energy assessment (e.g. TM59) to show that bedrooms will not overheat at night with windows partially open (e.g. ~2% of floor area, which is typically around 0.2m^2) and ventilators fully open.
ADO04		>13 dB	Energy assessment (e.g. TM59) to show that bedrooms on these facades will not overheat at night with windows fully closed and ventilators fully open.

Note 1 ADO requirements only apply to bedrooms during night-time hours (23:00-07:00)

Note 2 The window open area is specified above as an actual open area, not 'equivalent open area' and the values may therefore need to be converted as part of the overheating assessment.

West Elevation



cass allen

Noise | Vibration | Air Quality

Architectural & Environmental Consultants

Please click here to send a quick email and we will call you back to discuss the next steps.