



Noise Impact Assessment

Birch Business Park, Whittle Lane, Heywood

January 2026

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Prepared For:

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Quality Control

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Project Name:	Birch Business Park , Whittle Lane, Heywood
Site Address:	Birch Business Park, Whittle Lane, Heywood, Rochdale, OL10 2SX
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Executive Summary

Site and Report Context	TRC Companies Ltd (TRC) was commissioned by CGG MLI (REIT) Propco 1 Limited to undertake a Noise Impact Assessment to inform a Section 73 application to vary Conditions 1 (Approved Plans), 3 (Invasive Species), 4 (Tree Protection), 6 (Drainage), 8 (Construction Method Statement), 9 (Materials), 11 (Landscaping), 13 (Cycle Parking), 14 (External Lighting), 16 (Electric Vehicle Charging Points) 19 (Acoustic Barrier), 20 (Energy Statement) of Planning Permission 24/00453/VRCON (the 'Proposed Development'). The Proposed Development is located at Birch Business Park , Whittle Lane, Heywood, Rochdale, OL10 2SX (the "Site").
Summary	This Assessment has shown that the rated level of noise falls below the typical background sound level and BS4142:2014+A1:2019 provides the following advice for this outcome: <i>'Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.'</i>
Conclusions and Recommendations	In summary, the predicted level of noise from the Proposed Development, is sufficiently low enough at the closest residential dwellings to accord with the 'No Observed Adverse Effect Level' as detailed in the PPG and as such noise should not be deemed to be a determining factor in the granting of planning permission for this Site.
This Executive Summary is part of this complete report; any findings, opinions, or conclusions in this Executive Summary are made in context with the complete report. TRC recommends that the user reads the entire report for all supporting information related to findings, opinions, and conclusions.	

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1.0 Introduction

1.1 Appointment

TRC Companies Ltd (TRC) was commissioned by CGG MLI (REIT) Propco 1 Limited (the 'Client') to undertake a Noise Impact Assessment to inform a Section 73 application to vary Conditions 1 (Approved Plans), 3 (Invasive Species), 4 (Tree Protection), 6 (Drainage), 8 (Construction Method Statement), 9 (Materials), 11 (Landscaping), 13 (Cycle Parking), 14 (External Lighting), 16 (Electric Vehicle Charging Points) 19 (Acoustic Barrier), 20 (Energy Statement) of Planning Permission 24/00453/VRCON (the 'Proposed Development'). The previous planning application was informed by a Noise Impact Assessment undertaken by a third-party consultant.

The Proposed Development is located at Birch Business Park , Whittle Lane, Heywood, Rochdale, OL10 2SX (the 'Site').

1.2 Existing Site and Proposed Development

The Site (shown in **Figure 1**) is situated within a mixed residential and commercial area and is bounded as follows:

- To the south and west by Whittle Lane; and
- To the north and east by existing commercial development.

The closest existing residential dwellings lie to the south and south east of the Proposed Development.

Proposals include for the erection of a commercial unit with associated parking, landscaping and infrastructure.

1.3 Purpose and Structure of this Report

The scope of this report is to assess the potential noise impacts of the scheme as part of a planning application for the Development.

This Assessment is divided into the following sections:

- Relevant planning policy (national and local) and guidance;
- Baseline Noise Survey;
- Noise Impact Assessment;
- Mitigation; and
- Conclusion.

1.4 Suitably Experienced Acoustician

This assessment and report have been produced by John Goodwin and the report has been reviewed by Martyn Parker.

John is a highly experienced acoustic consultant who has been supporting development across the United Kingdom over the past 25 years. John holds a first-class degree in Environmental Science, is a corporate member of the Institute of Acoustics and is a member of the Institute of Environmental Science.

Martyn is a highly experienced acoustic consultant who has supported development across the United Kingdom over the past 10 years. Martyn holds a degree in Geography and is a member of the Institute of Acoustics.

The standard limitations associated with this assessment are presented in **Annex A**.

2.0 Planning Policy and Standards

This assessment takes account of the following national, regional and local planning guidance.

2.1 National Policy

National Planning Policy Framework, (NPPF, 2024)

The 'National Planning Policy Framework' (NPPF) sets out the Government's requirements for the planning system. Paragraph 174 of the NPPF advises:

'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... Development should, wherever possible, help to improve local environmental conditions...'

With specific regard to noise, paragraph 185 of the NPPF states that:

'Planning policies and decisions should 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 [...] in doing so they should:

a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development - and avoid noise giving rise to significant adverse impacts on health and the quality of life;'

With regard to the 'adverse impacts' referred to above, the NPPF directs the reader to the advice contained in DEFRA's 'Noise Policy Statement for England' (NPSE). This policy statement introduces the concept of a 'Significant Observed Adverse Effect Level' (SOAEL), 'Lowest Observed Adverse Effect Level' (LOAEL) and 'No Observed Adverse Effect Level' (NOAEL). However, whilst the intent of the NPSE in relation to the NPPF is clear, the NPSE does not, at this time, provide any quantitative threshold values for each identified level of 'effect.' Indeed, the NPSE carefully highlights that:

'It is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.'

Planning Practice Guidance, Noise (PPG, 2019)

In February 2014 Planning Practice Guidance (PPG) was published and was most recently updated in 2023. The overall aim of this guidance is to tie together the principles of the NPPF and the Explanatory Note of the Noise Policy Statement for England. The PPG states that:

'Plan-making and decision making need to take account of the acoustic environment and in doing so consider:

- *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; and*
- *whether or not a good standard of amenity can be achieved.'*

This includes:

'identifying whether the overall effect of the noise exposure (including the impact during the construction phase wherever applicable) is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.'

A summary of the effects of noise exposure associated with both noise generating Proposed Developments and noise sensitive developments is presented within the PPG and repeated as follows:

Table 1 - PPG Noise Guidance

Response	Examples of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level (NOAEL)			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level (LOAEL)			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level (SOAEL)			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

In light of the above, it can be seen that whilst the NPPF and associated planning practice guidance sets out stringent imperatives to ensure the satisfactory development of land in relation to possible noise impacts, the NPPF does not generally provide any detailed technical guidance defining what may be considered to constitute a 'significant' or 'other' adverse impact. In the absence of such technical guidance, reference needs to be made to sustainable development standards set out in local planning policy and/or relevant industry standard guidance documents.

Draft National Planning Policy Framework

The consultation on the proposed reforms to the National Planning Policy Framework and other changes to the planning system is open until 24 September 2024.

'This consultation seeks views on our proposed approach to revising the National Planning Policy Framework in order to achieve sustainable growth in our planning system.'

The Draft National Planning Policy Framework document¹ intentionally sets out the proposed amendments as tracked changes.

2.2 Local Planning Policy

Rochdale Borough Council Core Strategy

The Core Strategy (published February 2017) sets out the long-term spatial strategy for future development of Rochdale Borough.

Policy G9 '*Reducing the impact of pollution, contamination and land instability*' states the following with regards to noise:

'We will reduce all forms of pollution, contamination and land instability in the borough, by [...]

- b) '*Requiring that development does not have impacts that lead to an unacceptable increase in air, water, noise, light or other pollution*'

¹ National Planning Policy Framework: draft text for consultation [Online] Available at: https://assets.publishing.service.gov.uk/media/66acffddce1fd0da7b593274/NPPF_with_footnotes.pdf [accessed on 05/11/2025]

2.3 Relevant Guidance

BS4142:2014: 'Methods for Rating and Assessing Industrial and Commercial Sound'

BS 4142 provide a rating and assessment methodology for assessing the potential adverse impact of industrial and commercial noise sources on neighbouring dwellings.

The assessment procedure initially compares the 'Rating Level' of the source with the 'Background Noise Level' when the source is not present.

The 'Rating Level' (L_{Ar}) referred to is the specific noise level of the noise source under investigation (in terms of the L_{Aeq} noise index), to which corrections are applied if the noise has certain audible characteristics. The following corrections (based on a subjective assessment of noise source characteristics) is given:

Table 2 - BS4142:2014 Character Correction for Rating Level Calculation

Character Correction				
Feature / Perception	Tonality	Impulsivity	Intermittency	Other Acoustic Characteristics
Just Perceptible	+2dB	+3dB	When the specific sound has identifiable On/Off conditions that are readily distinctive. +3dB	+3dB
Clearly Perceptible	+4dB	+6dB		
Highly Perceptible	+6dB	+9dB		

The standard also provides a number of objective methods for identifying if character corrections apply.

The 'Background Sound Level' (L_{A90}) represents the noise level that is exceeded for 90% of the stated measurement period. For assessment purposes, the background sound level needs to be determined without the noise source under investigation operating.

The time of operation needs to be taken into account. During the day (normally taken to be 07.00 to 23.00 hours) a one-hour assessment period is considered appropriate. During the night (normally taken to be 23.00 - 07.00 hours) a 15-minute time period is normally used.

The following guidance is then based on the outcome of this initial assessment:

- A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.
- A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.
- The standard states that: 'Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact.'
- The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

A note accompanying the above guidance states:

'Adverse impacts include, but are not limited to, annoyance and sleep disturbance. Not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact.'

The initial estimate of the impact should then be modified to account for its context. Such considerations include:

- The absolute level of the sound - the magnitude of the overall impact might be greater for an acoustic environment where the residual sound level is high than for an acoustic environment where the residual sound level is low. Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.
- Where residual sound levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts, and the margin by which the rating level exceeds the background might simply be an indication of the extent to which the specific sound source is likely to make those impacts worse.

- The character and level of the residual sound compared to the character and level of the specific sound.
- The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions.

2.4 Local Planning Authority Consultation

Consultation was undertaken with Rochdale Borough Council on 17th November 2025, as follows:

'Dear Sir/Madam,

We have been appointed by a client to undertake a Noise Impact Assessment for a proposed commercial unit at Birch Business Park. It is understood that the development plot has planning for a scheme which the client is varying via S.73 application for a larger unit.

The closest residential dwellings are located to the south and west of the development.

Proposed Scope of Work

We will undertake the required noise surveys as follows:

1. **Background Sound Survey:** *A background sound survey will be completed for the closest residential dwellings over a full weekday and weekend period.*

The following assessment will be undertaken:

Commercial Noise – Planning Noise Assessment: *An assessment will be completed for all proposed mechanical and electrical plant which will form part of the development in line with the noise criteria presented in BS4142:2014+A1:2019;*

1. **BREEAM POL05 Noise Assessment:** *Noise from any proposed fixed mechanical and electrical plant will be assessed at the closest residential receptors, in accordance with the requirements of POL05 which cites BS4142:2014+A1:2019 as the appropriate British Standard for assessing commercial and industrial noise impacts at residential dwellings; and*
2. **BREEAM HEA06 Noise Assessment:** *Noise from any surrounding transport noise sources will be assessed against the performance criteria in HEA06 which cites BS8233:2014 as the appropriate British Standard for assessing transportation noise source impacts.*

We will advise on appropriate and reasonable noise mitigation measures, where required.

If you have any comments, then please do advise at your earliest convenience.'

3.0 Baseline Noise Level Data

3.1 Acoustic Character at Receptors

The soundscape at the closest residential dwellings is comprised of distant road traffic noise from vehicles using Whittle Lane, the distant M62 motorway and bird song during the early morning period.

3.2 Baseline Noise Monitoring

Baseline noise measurements have been completed which are considered to be representative of the sound climate at the closest existing residential dwellings over a full weekday and weekend period in the absence of any commercial sound.

Unattended baseline noise measurements were undertaken from 15:15 on 13th November 2025 - 14:45 on 18th November 2025.

Figure 1 shows the noise monitoring location.

The microphone of the sound level meter was mounted approximately 1.5m above ground level and in free-field conditions.

The equipment used for the noise survey is listed in **Table 3** below.

Table 3 - Noise Monitoring Equipment

Location	Equipment details	
Noise Measurement Position 1 (NMP1)	Manufacturer	01dB
	Type	Fusion
	Serial No.	11755
	Latest Calibration	28/06/2025
	Calibrator	01dB CAL 31
	Latest Calibration	09/07/2025

The sound level meter conforms to BS EN 61672-1 (Class 1 accuracy) and the calibrator conforms to BS EN 60942 (Class 1 accuracy). The entire signal path was checked for calibration at the beginning and end of the unattended and attended surveys, with no significant drift noted (the check at the end of the unattended survey was within 0.1dB of the reference level).

Weather conditions on site were measured throughout the duration of the survey using a 01dB anemometer at NMP1. **Table 4** provides a summary of the weather conditions for the survey period.

Table 4 - Weather Conditions

Parameter	Measurement
Wind Speed (m/s)	0 – 7.8 (periods exceeding 5m/s removed from analysed dataset)
Wind Direction	N/A
Precipitation	Yes (removed from analysed dataset)
Temperature °C	3 - 9
Cloud Cover	75%

3.3 Baseline Noise Monitoring Results

The unattended noise monitoring results are summarised in **Table 5** below. The precise operating periods of the Development are unknown and so the Table presents the measured background noise levels over a full daytime and night-time covering both weekday and weekend periods.

Table 5 - Measured Background Sound Levels

Measurement Position	Period	Range of Measured 15min Background Noise Levels and (Typical Background Sound Level), $L_{A90,15mins}$ (dB)
1	Daytime (07:00 - 23:00)	45 - 60 (56)
	Night-time (23:00 - 07:00)	44 - 58 (48)

4.0 Construction Noise

4.1 Construction Noise Assessment

Examples of possible sources of construction noise and vibration include:

- Increased noise levels on-site due to construction activities, plant and road haulage vehicles; and
- Increased noise levels off-site due to road haulage vehicles.

An assessment of specific construction noise impacts is dependent upon a number of construction design details, and construction programmes that are not available at this stage.

The potential noise and vibration impact of any construction activity will be addressed through the preparation of a Construction Environmental Management Plan (CEMP). TRC has provided some guidance on suitable mitigation options to address potential noise impacts, which can be included within the CEMP to ensure that any amenity impacts, arising from the various construction activities are considered and minimised.

The main contractor will refer to the guidance provided within BS 5228:2009 '*Code of practice for noise and vibration control on construction and open sites*', (Parts 1 and 2), in order to minimise disruption during construction.

On Site Construction

Assumptions have been made in terms of the procedure for development which can be broken down into the following phases:

- Site Preparation (including earthworks);
- Construction; and
- Fit Out.

Construction Traffic

The construction of the Site will generate intermittent increases in HGV movements and the roads in the vicinity of the Site. The type and number of vehicles generated during the construction period will be dependent on the type and intensity of work being undertaken.

The number of construction vehicle movements will vary depending on the stage of construction of the development. Once the development reaches fit-out stage, the number of construction vehicles will be smaller than during the main construction phase and the proportion of HGV's will also be smaller.

Construction Noise Mitigation

Potentially significant impacts during the construction phase are associated with noise generating activities adjacent to potentially sensitive receptors. By employing appropriate site management practices, the potential for adverse noise impacts from construction vehicles and plant during the works will be minimised. A range of measures are suggested, which can form part of a site-specific Construction Environmental Management Plan (CEMP) within which all contractor activities will be undertaken.

Prior to any construction activity on site, a detailed CEMP will be drawn up and agreed with the contractor to set out the appropriate site management practices to be adhered to.

The Construction Environmental Management Plan will cover the following matters:

- Methods and materials that should be used to ensure that the generation of noise is minimised;
- The use of prefabricated materials wherever possible;
- Regarding optimum site layout, noise generating activities to be located away from sensitive receptors; and
- Good housekeeping and management, i.e. o Review of plant and activities to ensure noise minimisation measures are in place and operating;

- Public relations, e.g. provision of telephone numbers for complaints, pre-warning of noisy activities, sensitive working hours;
- Controlling of site traffic and setting up of access routes away from sensitive receptors; and
- Provision of noise monitoring during activities likely to affect sensitive receptors.

The contractor will be responsible for the execution of the CEMP and will ensure that appropriate personnel understand their responsibilities in terms of the minimisation of noise and the appropriate reporting and dealing with incidents. The contractor will also be responsible for identifying and organising appropriate training.

Mitigation measures may include the following where possible:

- Regular monitoring where the potential for significant noise is identified;
- Where possible, 'silenced' plant and equipment to be used;
- Where vehicles are standing for a significant period of time, engines to be switched off;
- Screening around those parts of the Site at which activities are likely to generate noise;
- Location of noise generating plant at a low level and as distant as possible from sensitive receptor;
- Plant to operate at low speeds, where possible, and incorporate automatic low speed idling;
- Location of site haul roads, entrances and exits to prevent the need for vehicles to reverse and also minimise impacts upon sensitive receptors;
- The inclusion of the traffic route management plan;
- All plant to be properly maintained (greased, blown silencers replaced, saws kept sharpened, teeth set and blades flat, worn bearings replaced, etc.);
- Consideration to be given to temporary screening or enclosures for static noisy plant to reduce noise emissions and plant should be certified to meet any relevant EC Directive standards;
- All contractors to be made familiar with the guidance in BS 5228 (Parts 1 and 2) which should form a pre-requisite of their appointment; and
- Early and good public relations with the adjacent tenants and occupants of buildings will also reduce the likelihood of complaints.

4.2 Construction Noise Residual Effects

Potential noise impacts during the construction phase are associated with noise generating activities adjacent to sensitive receptors. By employing appropriate site management practices, including limiting working hours, the potential for adverse noise impacts from construction vehicles and plant during the construction (which is temporary in nature) can be suitably controlled, as has been demonstrated on numerous similar sites, and significant adverse effects can be avoided.

5.0 Operational Noise

5.1 Assessment Information and Inputs

The following noise sensitive residential dwellings have been identified and accounted for in this Assessment.

Table 6 - Identified Residential Receptors

Identifier	Receptor	Type	Noise Model Receiver Location
R1	Dwelling off Whittle Lane	Residential	Daytime: In front garden area, 1.5m above ground level Night-time: At front façade facing Site, 4.5m above ground level
R2	Broomhill Farm	Residential	Daytime: At front façade facing Site, 1.5m above ground level Night-time: At front façade facing Site, 4.5m above ground level

With regards to internal noise levels within the proposed Units and external noise levels associated with HGV movements, no specific noise level data has been provided and so it is necessary to use library noise level data to inform this Assessment. The library noise level data used was measured at another large-scale and similar B2/B8 storage and distribution centre and is considered reliable and robust to inform this Assessment. The following noise data will be used.

Table 7 - Library Noise Level Data for Operations Associated with B2/B8 Storage

Noise Source	Measured Sound Pressure Level (dB)	On-time for Daytime BS4142 Assessment (mins)	Measurement Distance (m)	Notes
Internal reverberant noise level - Building	71.5 L _{Aeq,T}	60	N/A	-

5.2 Calculation of Specific Noise Levels at Receptors

Noise levels at the Receptor will be comprised of a combination of noise breakout from the warehouse, HGV movements outside of each Unit.

In order to calculate noise transfer through the facades and roof of each Unit, it is necessary to understand the façade and roof specifications of the Units. No specific detail has been provided for the composition of the facades and roofs, so the following façade and roof panels have been adopted for the purposes of this Assessment:

- North façade: TATA Steel Trimapanel, 29dB Rw;
- East façade: TATA Steel Trimapanel, 29dB Rw;
- South façade: TATA Steel Trimapanel, 29dB Rw; and
- Roof: TATA Steel Trisomet 333, 29dB Rw.

In order to accurately calculate noise levels at the Receptor from the building, the calculation procedure detailed below has been adhered to.

1. Calculation of the sound pressure level immediately outside the building components by using the following equation:

- $SPL_{outside} = SPL_{inside} - R - 6dB$

Where: 'R' is the Sound Reduction Index for the building component

2. Calculation of the sound power level for each building component by using the following equation:

- $L_w = SPL + 10 \times \log S$

Where: 'S' is the surface area in square meters of the building component

Table 8 calculates the sound power levels for the facades of the Units.

Table 8 - Calculated Sound Power Levels

Unit	Façade	Calculated Sound Power Level for Building Component, L_{WA} (dB)
1	North	69.2
	East	65.7
	South	69.2
	West	65.7
	Roof	75.6
Note - a 15-minute time-averaging period has been used to inform the daytime assessment also which ensures a worst-case assessment.		

In addition to noise from the warehouse, it is also necessary to consider noise from external operations of HGVs manoeuvring in the goods yard and on the internal access road. Accordingly, **Table 9** calculates the sound power levels for these operations.

Traffic data for the scheme has been used which has adopted the highest number of HGV arrivals and departures during a 1hr daytime period and the highest number of arrivals and departures during a 15-min night-time period.

Table 9 - Calculated Sound Power Levels - External Operations

Source	Period	Measured Noise Level, $L_{Aeq,T}$ (dB)	Noise Measurement Distance (m)	On-time During Daytime /Night-time (mins)	Quantity / Reference Period	Calculated Time-corrected Sound Power Level, L_{WA} (dB)
HGV	Day	71.5	5	60	9	88.3
HGV	Night	71.5	5	15	3	83.5

In order to calculate an accurate overall specific sound pressure level at the closest residential receptors, a noise model has been built using CadnaA and the following inputs have been included in the model:

- Proposed Scheme Layout;
- Site elevations have been taken as proposed;
- Vertical area sources have been used for the facades of the buildings and an area source for the roof;
- A line source has been used for the HGVs during the daytime and night-time periods;
- A reflection order of 2 has been used in all calculations; and
- Noise levels generated using ISO 9613-1 and ISO 9613-2 'Acoustics - Attenuation of sound during propagation outdoors' as incorporated into CadnaA software.

Figure 2 and **Figure 3** detail the grid noise map and analysis of the grid noise map indicates the following calculated specific sound pressure level at the Receptors.

Table 10 - Calculated Specific Sound Pressure Level at Receptor

Receptor	Period	Calculated Sound Pressure Level, $L_{Aeq,T}$
R1	Daytime	30.2
	Night-time	33.2
R2	Daytime	29.1
	Night-time	25.5

The following has been considered in determining if any acoustic features exist in the predicted noise level at the closest residential receptor:

- **Tonality:** In determining if any tones exist in the measured noise levels, the methodology set out in BS4142:2014 has been followed using the subjective method;
- **Impulsivity:** In determining if any impulsiveness is evident in the measured noise levels, the methodology set out in BS4142:2014 has been followed using the subjective method;
- **Intermittency:** Whether or not the measured operations turn on or off during the assessment reference periods; and

- Other sound characteristics: Where no penalties are allocated for the above features, but there will be an audible noise at the closest receptor.

Table 11 allocates the character corrections.

Table 11 - Character Corrections

Noise Source	Tonality Correction (dB)	Impulsivity Correction (dB)	Intermittency Correction (dB)	Other Sound Characteristics Correction (dB)	Comments
Noise from warehouse	0	0	3	0	Possibility of intermittent noise being audible at receptors during the daytime period when residents are outside.
Highest Correction	0	0	+3	0	-
Total Correction	+3				-

Table 12 completes the BS4142 Assessment. It should be noted that the typical background sound level is used in the Assessment.

Table 12 - BS4142 Assessment

Receptor	Period	Calculated Specific Noise Level at Receptor, $L_{Aeq,T}$ (dB)	Total Overall Character Correction (dB)	Calculated Rated Level, $L_{A,r}$ (dB)	Typical Background Sound Level ($L_{A90,15mins}$) (dB)	Difference +/- (dB)
R1	Daytime	30.2	3	33.2	56	-22.8
	Night-time	33.2	0	33.2	48	-14.8
R2	Daytime	29.1	3	32.1	56	-23.9
	Night-time	25.5	0	25.5	48	-22.5

A review of **Table 12** indicates that the rated level of noise does not exceed the noise criteria level at either receptor and so there is no requirement to consider noise mitigation measures.

BS4142:2014+A1:2019 provides the following advice for this outcome:

'Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.'

5.3 Mitigation

The previous Section has shown that there will not be an exceedance of the noise criteria level at either Receptor R1 or R2 and so there is no need to consider noise mitigation.

5.4 Operational Noise Residual Effects

The predicted level of noise from the Proposed Development is sufficiently low enough at the closest residential dwellings to accord with the 'No Observed Adverse Effect Level' as detailed in the PPG.

6.0 Uncertainty

There are a number of areas of uncertainty associated with this Assessment as follows:

- Measurement uncertainty;
- Method of selection of representative background sound levels; and
- Prediction uncertainty

Background sound measurements have been carried out over a full weekday and weekend period in order to allow for potential 24/7 operation of the Site. Each daytime and night-time period comprises of a time-averaged 16hr daytime noise level and an 8hr night-time noise level as require by BS4142:2014+A1:2019. The standard does not require consideration of shorter time periods, such as evenings, which may have a lower background noise level compared to the wider daytime period.

There is a degree of uncertainty associated with all prediction methodologies including those used in this assessment. Nevertheless, reasonable and robust assumptions have been made during the prediction and assessment process and have followed good practice guidance wherever possible.

As with all Noise Impact Assessments, there is a degree of uncertainty associated with the process of identifying noise impacts. However, due to the use of good practice assessment methodology and the significant margin by which rating levels are below background sound levels, it is considered this uncertainty is unlikely to significantly affect the findings of this assessment.

7.0 Conclusion

TRC Companies Ltd (TRC) was commissioned to undertake a Noise Impact Assessment to inform a Section 73 application for the Proposed Development.

The purpose of this report is to form part of the Client's planning application for said development.

The closest existing residential dwellings lie to the south and south-west of the Proposed Development.

This Assessment has been undertaken to identify any potentially adverse noise impacts associated with the proposed commercial use of the Site and their impact upon the closest existing residential dwellings.

Accordingly, this Assessment has been completed with due regard to the National Planning Policy Framework and its associated National Planning Policy Guidance in addition to appropriate British Standards and guidance documents relevant to the assessment of noise impacts.

This Assessment has relied upon a background sound survey completed in a location considered to be representative of the sound climate at the closest residential dwellings to the Site. This Assessment has also relied upon library source noise measurements completed at a similar warehouse, with similar internal and external operations, in order to accurately quantify noise levels associated with the Site's operation.

This Assessment has shown that the rated level of noise falls below the typical background sound level and BS4142:2014+A1:2019 provides the following advice for this outcome:

'Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.'

In summary, the predicted level of noise from the Proposed Development, is sufficiently low enough at the closest residential dwellings to accord with the 'No Observed Adverse Effect Level' as detailed in the PPG and as such noise should not be deemed to be a determining factor in the granting of planning permission for this Site.

Figures

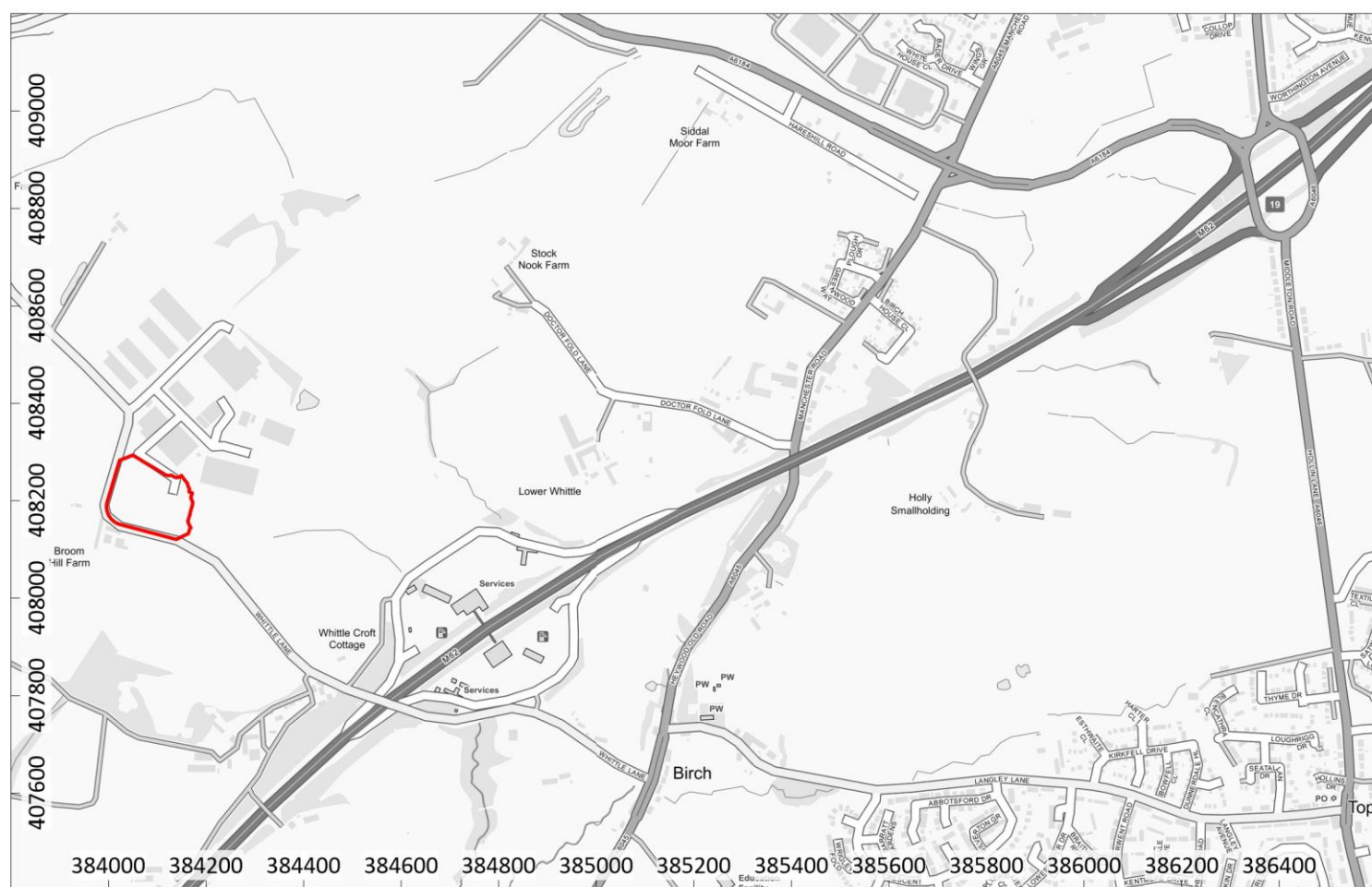
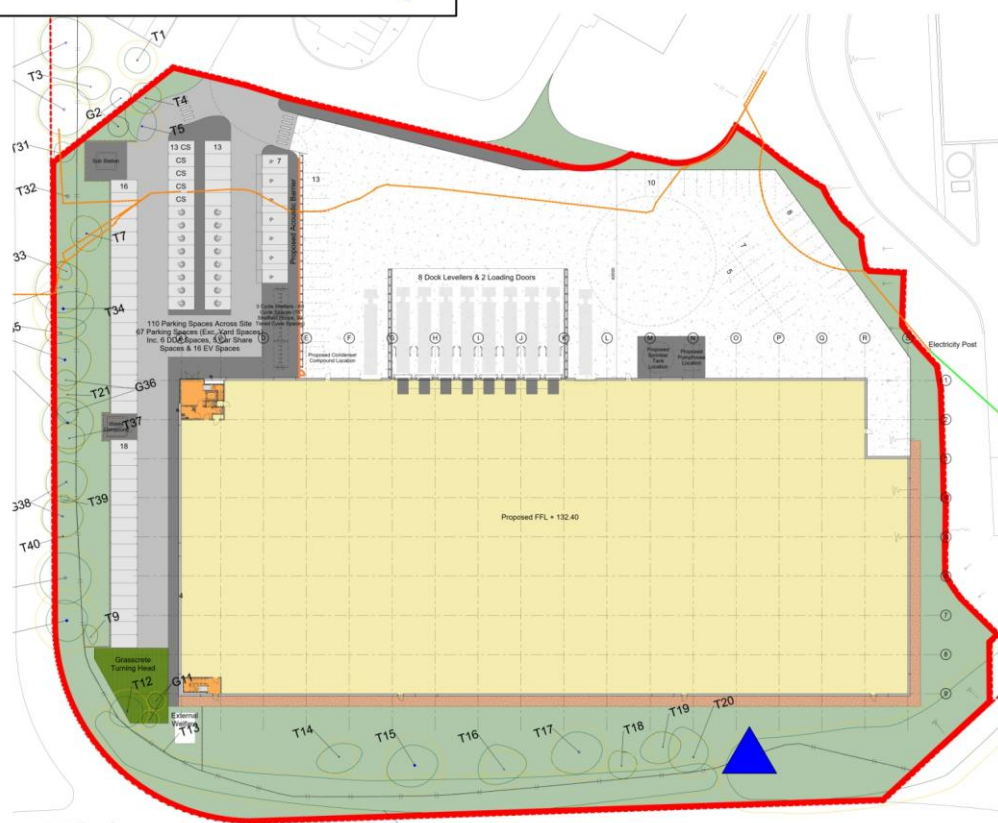
LEGEND

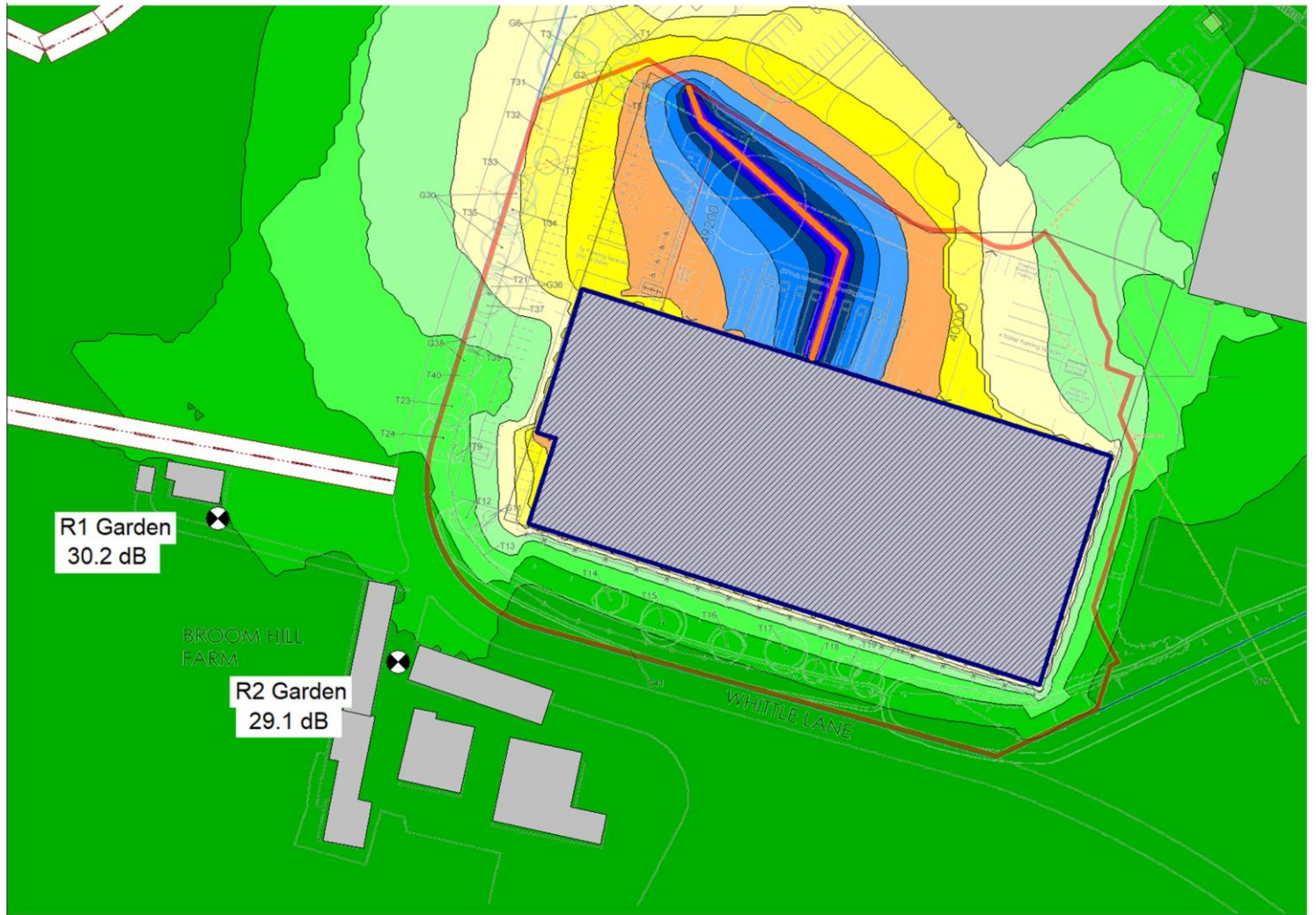


Monitoring Location



Site Location

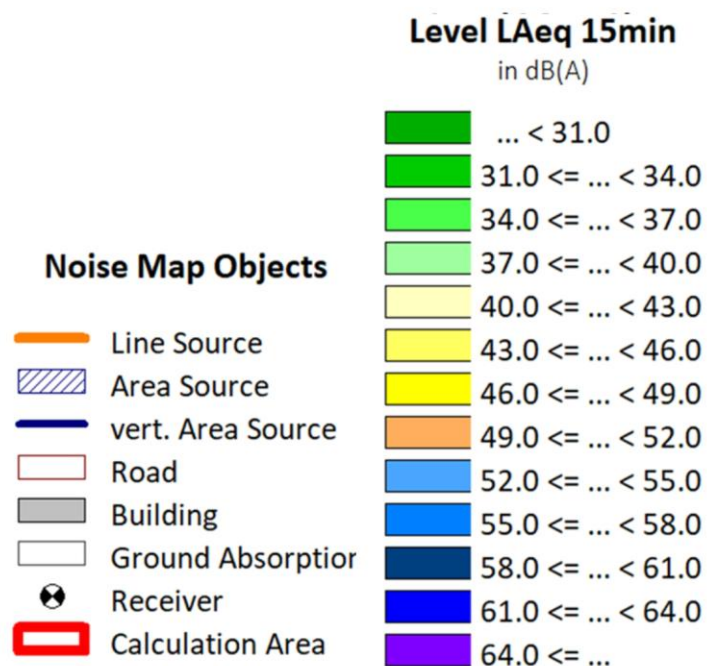
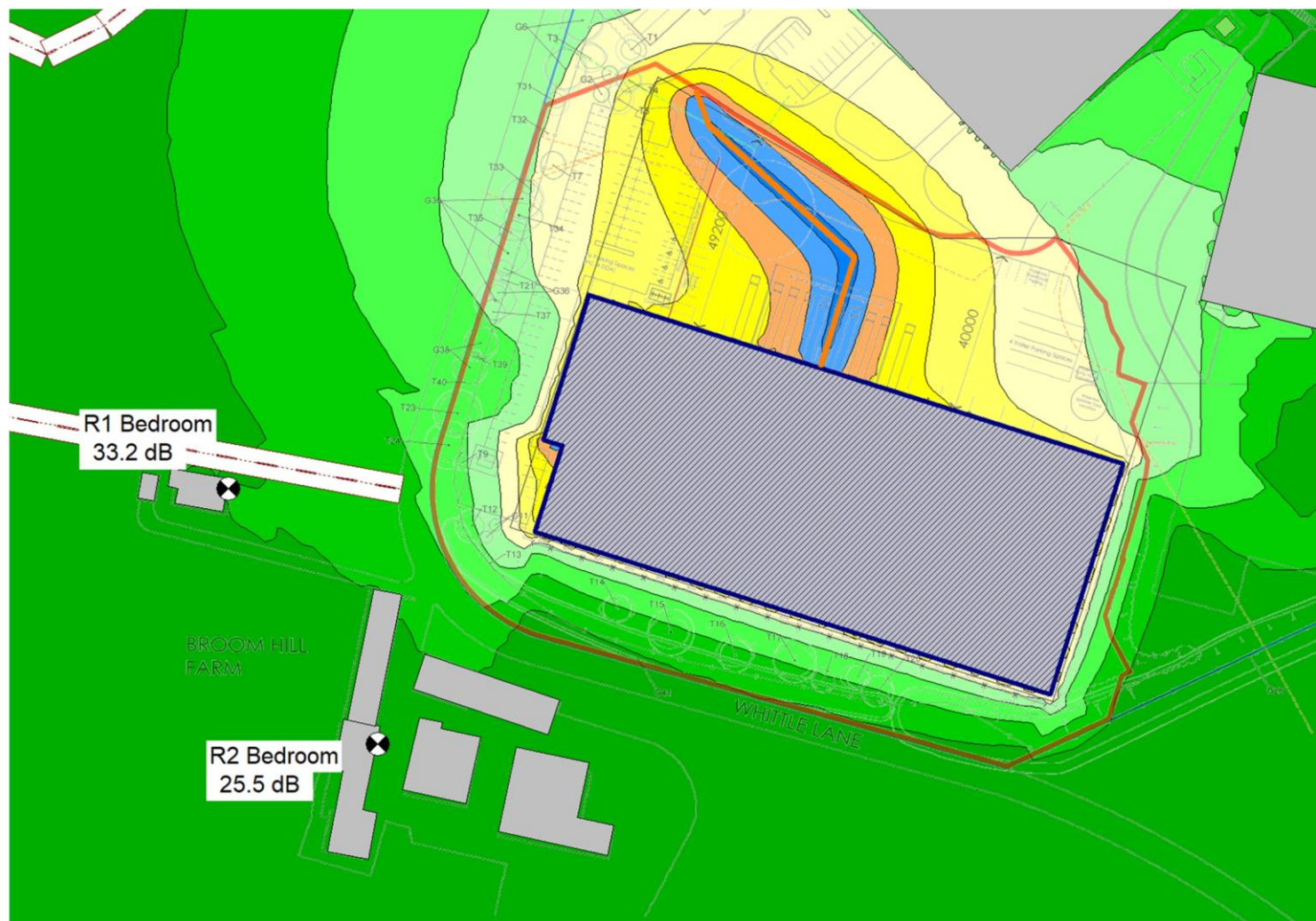




Level LAeq 1hr
in dB(A)

- Noise Map Objects**
- Line Source
 - ▨ Area Source
 - vert. Area Source
 - Road
 - Building
 - Ground Absorption
 - ⊗ Receiver
 - ▭ Calculation Area

	... < 31.0
	31.0 <= ... < 34.0
	34.0 <= ... < 37.0
	37.0 <= ... < 40.0
	40.0 <= ... < 43.0
	43.0 <= ... < 46.0
	46.0 <= ... < 49.0
	49.0 <= ... < 52.0
	52.0 <= ... < 55.0
	55.0 <= ... < 58.0
	58.0 <= ... < 61.0
	61.0 <= ... < 64.0
	64.0 <= ...



Annexes

Annex A - Limitations and Exclusions

Reliance

The recommendations contained in this report represent TRC's professional opinions, based upon the currently available information, and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the Client. The contract between TRC and its Client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of TRC's Client and anyone else specifically identified in writing by TRC as a user of this report. TRC will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, TRC makes no express or implied warranty as to the contents of this report.

Significant Assumptions

The reliability of information provided by others to TRC cannot be guaranteed to be accurate or complete. Performance of this assessment is intended to reduce, but not eliminate, uncertainty regarding environmental conditions associated with the subject site; therefore, the findings and conclusions made in this report should not be construed to warrant or guarantee the subject site, or express or imply, including without limitation, warranties as to its marketability for a particular use. TRC found no reason to question the validity of information received unless explicitly noted elsewhere in this report.

Third Party Information

TRC has been provided with information from third parties for information purposes only and without representation or warranty, express or implied as to its accuracy or completeness and without any liability on such third parties part to revise or update the information. Where reliance has been provided by third parties to potential purchasers, this is noted in our report.

In performing the services to which this report relates, TRC has relied upon the information obtained from third parties. TRC makes no representation or warranty, express or implied as to the accuracy or completeness of any statement or advice contained within this report that is based upon the information obtained from third parties and to the fullest extent permissible by law we hereby exclude any and all liability we may have in respect of the same, provided that nothing shall be taken as limiting TRC's liability in respect of personal injury (including death) caused by its negligence.

Interpretation of Findings

TRC's report is based upon the information provided to TRC and TRC's observations made during the subject property reconnaissance. Given the inherent limitations of environmental assessment work, TRC does not guarantee that the subject property is free of additional noise pollution sources or considerations, or that latent or undiscovered conditions will not become evident in the future. TRC's report is prepared in accordance with the proposal and the standard terms and conditions agreed between the Client and TRC, and no other warranties, representations, or certifications are made.

Annex B - Measured Noise Levels at NMP1

Table B1 - Background Noise Level Data

Period Start Time	Measured Sound Pressure Level (dB)		Period Start Time	Measured Sound Pressure Level (dB)	
	L _{Aeq,T}	L _{A90,T}		L _{Aeq,T}	L _{A90,T}
13/11/2025 15:15	62.6	57.5	16/11/2025 03:15	52.5	48.3
13/11/2025 15:30	60.6	54.5	16/11/2025 03:30	50.7	47.0
13/11/2025 15:45	60.5	54.8	16/11/2025 03:45	50.8	47.1
13/11/2025 16:00	62.2	55.9	16/11/2025 04:00	51.3	47.6
13/11/2025 16:15	61.6	56.0	16/11/2025 04:15	51.8	48.8
13/11/2025 16:30	61.0	54.6	16/11/2025 04:30	51.0	49.1
13/11/2025 16:45	60.7	54.3	16/11/2025 04:45	51.1	47.9
13/11/2025 17:00	60.4	54.9	16/11/2025 05:00	52.0	48.4
13/11/2025 17:15	60.3	54.4	16/11/2025 05:15	53.5	50.4
13/11/2025 17:30	60.7	56.3	16/11/2025 05:30	54.5	51.4
13/11/2025 17:45	60.8	55.7	16/11/2025 05:45	55.7	51.5
13/11/2025 18:00	60.9	56.1	16/11/2025 06:00	55.8	52.7
13/11/2025 18:15	62.0	57.0	16/11/2025 06:15	54.7	51.6
13/11/2025 18:30	61.3	57.8	16/11/2025 06:30	54.2	50.9
13/11/2025 18:45	60.7	56.9	16/11/2025 06:45	55.6	52.0
13/11/2025 19:00	60.8	57.6	16/11/2025 07:00	54.5	51.5
13/11/2025 19:15	59.1	56.2	16/11/2025 07:15	55.6	51.7
13/11/2025 19:30	60.2	55.6	16/11/2025 07:30	56.0	51.8
13/11/2025 19:45	59.9	55.3	16/11/2025 07:45	55.9	52.8
13/11/2025 20:00	60.0	56.4	16/11/2025 08:00	56.1	52.5
13/11/2025 20:15	58.5	54.3	16/11/2025 08:15	56.1	52.0
13/11/2025 20:30	58.2	54.5	16/11/2025 08:30	55.5	51.4
13/11/2025 20:45	57.9	53.7	16/11/2025 08:45	57.0	51.7
13/11/2025 21:00	59.5	54.2	16/11/2025 09:00	55.2	51.7
13/11/2025 21:15	59.4	54.1	16/11/2025 09:15	55.3	51.7
13/11/2025 21:30	58.1	52.9	16/11/2025 09:30	58.5	53.0
13/11/2025 21:45	57.8	52.7	16/11/2025 09:45	58.4	53.8
13/11/2025 22:00	57.7	53.4	16/11/2025 10:00	58.5	53.5
13/11/2025 22:15	57.4	53.9	16/11/2025 10:15	60.1	53.3
13/11/2025 22:30	59.1	55.4	16/11/2025 10:30	58.5	54.1
13/11/2025 22:45	58.8	54.6	16/11/2025 10:45	59.7	54.2
13/11/2025 23:00	59.5	54.7	16/11/2025 11:00	58.8	52.8
13/11/2025 23:15	60.5	55.1	16/11/2025 11:15	58.8	53.4
13/11/2025 23:30	60.5	55.1	16/11/2025 11:30	60.0	53.4
13/11/2025 23:45	60.2	56.7	16/11/2025 11:45	58.8	53.3
14/11/2025 00:00	61.0	54.6	16/11/2025 12:00	58.8	52.5
14/11/2025 00:15	57.4	52.4	16/11/2025 12:15	58.6	52.2
14/11/2025 00:30	58.1	53.4	16/11/2025 12:30	58.3	51.8
14/11/2025 00:45	58.7	54.8	16/11/2025 12:45	58.4	51.3
14/11/2025 01:00	59.6	55.1	16/11/2025 13:00	58.4	51.9
14/11/2025 01:15	60.0	53.5	16/11/2025 13:15	58.1	51.2
14/11/2025 01:30	60.6	54.7	16/11/2025 13:30	58.4	51.6
14/11/2025 01:45	59.1	53.9	16/11/2025 13:45	57.8	52.4
14/11/2025 02:00	65.4	60.0	16/11/2025 14:00	58.3	50.5
14/11/2025 02:15	62.0	55.6	16/11/2025 14:15	58.4	51.5
14/11/2025 02:30	61.5	56.1	16/11/2025 14:30	58.6	52.7
14/11/2025 02:45	60.0	53.5	16/11/2025 14:45	59.0	51.7
14/11/2025 03:00	64.2	55.3	16/11/2025 15:00	58.9	52.4
14/11/2025 03:15	63.2	58.9	16/11/2025 15:15	57.2	51.4
14/11/2025 03:30	60.0	53.8	16/11/2025 15:30	58.7	51.5
14/11/2025 03:45	62.3	55.2	16/11/2025 15:45	58.1	51.1
14/11/2025 04:00	60.7	55.1	16/11/2025 16:00	57.0	50.0
14/11/2025 04:15	58.3	53.6	16/11/2025 16:15	57.6	48.6
14/11/2025 04:30	60.8	56.0	16/11/2025 16:30	56.2	49.6
14/11/2025 04:45	62.1	57.7	16/11/2025 16:45	55.6	49.7
14/11/2025 05:00	64.7	58.2	16/11/2025 17:00	57.1	49.9
14/11/2025 05:15	66.5	60.9	16/11/2025 17:15	56.3	49.5

Period Start Time	Measured Sound Pressure Level (dB)		Period Start Time	Measured Sound Pressure Level (dB)	
	L _{Aeq,T}	L _{A90,T}		L _{Aeq,T}	L _{A90,T}
14/11/2025 05:30	66.1	59.7	16/11/2025 17:30	57.0	50.6
14/11/2025 05:45	65.7	61.1	16/11/2025 17:45	56.7	48.9
14/11/2025 06:00	68.7	63.3	16/11/2025 18:00	57.3	47.6
14/11/2025 06:15	67.0	61.9	16/11/2025 18:15	55.1	46.3
14/11/2025 06:30	66.3	61.0	16/11/2025 18:30	55.3	46.4
14/11/2025 06:45	68.6	62.3	16/11/2025 18:45	55.1	47.1
14/11/2025 07:00	70.1	64.1	16/11/2025 19:00	54.7	46.4
14/11/2025 07:15	70.1	64.5	16/11/2025 19:15	54.8	48.2
14/11/2025 07:30	73.7	67.6	16/11/2025 19:30	55.2	48.0
14/11/2025 07:45	74.6	68.2	16/11/2025 19:45	56.1	49.0
14/11/2025 08:00	75.4	69.4	16/11/2025 20:00	54.8	46.8
14/11/2025 08:15	73.7	69.1	16/11/2025 20:15	55.7	47.3
14/11/2025 08:30	74.6	69.9	16/11/2025 20:30	54.1	49.7
14/11/2025 08:45	76.3	72.7	16/11/2025 20:45	55.1	50.0
14/11/2025 09:00	74.1	67.0	16/11/2025 21:00	55.6	50.7
14/11/2025 09:15	75.1	68.0	16/11/2025 21:15	55.0	48.5
14/11/2025 09:30	71.5	65.9	16/11/2025 21:30	51.8	47.6
14/11/2025 09:45	74.1	67.8	16/11/2025 21:45	54.4	47.8
14/11/2025 10:00	74.2	67.3	16/11/2025 22:00	53.5	46.2
14/11/2025 10:15	72.8	66.7	16/11/2025 22:15	56.9	46.0
14/11/2025 10:30	70.5	65.6	16/11/2025 22:30	57.8	47.9
14/11/2025 10:45	73.4	67.7	16/11/2025 22:45	59.8	50.8
14/11/2025 11:00	72.8	66.1	16/11/2025 23:00	60.2	50.4
14/11/2025 11:15	71.8	65.7	16/11/2025 23:15	59.9	48.4
14/11/2025 11:30	73.8	69.0	16/11/2025 23:30	59.1	45.6
14/11/2025 11:45	72.2	67.0	16/11/2025 23:45	57.0	44.9
14/11/2025 12:00	74.4	67.2	17/11/2025 00:00	55.8	45.2
14/11/2025 12:15	75.3	68.3	17/11/2025 00:15	55.9	44.1
14/11/2025 12:30	75.5	68.5	17/11/2025 00:30	55.8	45.0
14/11/2025 12:45	74.6	67.7	17/11/2025 00:45	64.0	45.0
14/11/2025 13:00	75.7	69.6	17/11/2025 01:00	51.4	43.3
14/11/2025 13:15	75.3	68.3	17/11/2025 01:15	52.6	43.0
14/11/2025 13:30	77.2	70.4	17/11/2025 01:30	52.4	43.6
14/11/2025 13:45	77.6	70.8	17/11/2025 01:45	52.4	40.9
14/11/2025 14:00	76.6	70.0	17/11/2025 02:00	52.2	44.9
14/11/2025 14:15	75.2	69.7	17/11/2025 02:15	51.0	43.2
14/11/2025 14:30	76.0	69.5	17/11/2025 02:30	51.4	44.4
14/11/2025 14:45	76.0	69.3	17/11/2025 02:45	51.3	44.7
14/11/2025 15:00	75.3	68.6	17/11/2025 03:00	53.6	44.9
14/11/2025 15:15	77.8	70.0	17/11/2025 03:15	51.6	46.0
14/11/2025 15:30	76.7	70.7	17/11/2025 03:30	54.6	47.0
14/11/2025 15:45	78.1	72.9	17/11/2025 03:45	53.9	47.6
14/11/2025 16:00	79.8	69.6	17/11/2025 04:00	54.5	48.3
14/11/2025 16:15	73.7	65.0	17/11/2025 04:15	55.6	48.6
14/11/2025 16:30	74.6	66.7	17/11/2025 04:30	54.2	49.5
14/11/2025 16:45	73.5	66.4	17/11/2025 04:45	56.4	50.3
14/11/2025 17:00	73.6	66.9	17/11/2025 05:00	54.9	49.5
14/11/2025 17:15	73.6	64.3	17/11/2025 05:15	55.3	49.9
14/11/2025 17:30	73.8	66.7	17/11/2025 05:30	57.4	51.0
14/11/2025 17:45	75.5	67.2	17/11/2025 05:45	58.3	50.8
14/11/2025 18:00	76.5	67.9	17/11/2025 06:00	58.9	52.5
14/11/2025 18:15	74.1	67.5	17/11/2025 06:15	60.3	53.4
14/11/2025 18:30	75.5	68.6	17/11/2025 06:30	61.5	55.4
14/11/2025 18:45	75.5	66.6	17/11/2025 06:45	59.8	53.4
14/11/2025 19:00	71.5	64.6	17/11/2025 07:00	62.3	55.2
14/11/2025 19:15	72.9	63.8	17/11/2025 07:15	63.5	58.3
14/11/2025 19:30	74.4	66.1	17/11/2025 07:30	62.5	54.6
14/11/2025 19:45	71.8	61.9	17/11/2025 07:45	58.1	53.0
14/11/2025 20:00	74.3	63.4	17/11/2025 08:00	57.1	51.6
14/11/2025 20:15	71.8	60.8	17/11/2025 08:15	57.7	52.2

Period Start Time	Measured Sound Pressure Level (dB)		Period Start Time	Measured Sound Pressure Level (dB)	
	L _{Aeq,T}	L _{A90,T}		L _{Aeq,T}	L _{A90,T}
14/11/2025 20:30	67.2	59.7	17/11/2025 08:30	57.3	52.4
14/11/2025 20:45	71.5	62.1	17/11/2025 08:45	57.1	51.6
14/11/2025 21:00	77.0	68.4	17/11/2025 09:00	57.7	53.5
14/11/2025 21:15	74.6	67.7	17/11/2025 09:15	54.9	50.8
14/11/2025 21:30	76.8	63.4	17/11/2025 09:30	56.0	49.5
14/11/2025 21:45	78.4	70.0	17/11/2025 09:45	56.3	50.4
14/11/2025 22:00	76.0	67.7	17/11/2025 10:00	57.3	47.1
14/11/2025 22:15	75.8	69.4	17/11/2025 10:15	58.1	51.5
14/11/2025 22:30	78.2	68.8	17/11/2025 10:30	57.2	50.7
14/11/2025 22:45	74.6	66.3	17/11/2025 10:45	59.4	54.0
14/11/2025 23:00	77.3	69.0	17/11/2025 11:00	59.2	51.3
14/11/2025 23:15	74.3	65.4	17/11/2025 11:15	58.5	47.4
14/11/2025 23:30	71.1	64.1	17/11/2025 11:30	57.5	47.0
14/11/2025 23:45	76.5	67.9	17/11/2025 11:45	56.1	46.8
15/11/2025 00:00	77.1	69.5	17/11/2025 12:00	56.9	47.3
15/11/2025 00:15	75.2	67.3	17/11/2025 12:15	57.8	47.6
15/11/2025 00:30	77.6	67.2	17/11/2025 12:30	56.4	46.5
15/11/2025 00:45	75.3	67.1	17/11/2025 12:45	57.9	47.5
15/11/2025 01:00	75.1	67.2	17/11/2025 13:00	58.6	49.0
15/11/2025 01:15	73.4	64.6	17/11/2025 13:15	57.4	46.3
15/11/2025 01:30	74.0	64.7	17/11/2025 13:30	57.6	46.6
15/11/2025 01:45	75.2	64.9	17/11/2025 13:45	57.9	49.3
15/11/2025 02:00	72.3	66.6	17/11/2025 14:00	60.4	45.9
15/11/2025 02:15	75.7	66.4	17/11/2025 14:15	57.1	44.6
15/11/2025 02:30	73.6	68.5	17/11/2025 14:30	57.8	46.8
15/11/2025 02:45	69.2	63.3	17/11/2025 14:45	58.7	46.4
15/11/2025 03:00	70.4	62.9	17/11/2025 15:00	58.9	48.3
15/11/2025 03:15	70.1	63.4	17/11/2025 15:15	58.4	46.5
15/11/2025 03:30	70.2	62.7	17/11/2025 15:30	59.6	49.0
15/11/2025 03:45	69.1	62.3	17/11/2025 15:45	59.5	49.4
15/11/2025 04:00	70.3	64.2	17/11/2025 16:00	61.0	50.7
15/11/2025 04:15	69.5	63.5	17/11/2025 16:15	61.2	52.4
15/11/2025 04:30	69.0	62.7	17/11/2025 16:30	60.3	50.7
15/11/2025 04:45	70.0	63.2	17/11/2025 16:45	60.6	50.0
15/11/2025 05:00	69.3	63.0	17/11/2025 17:00	59.2	51.3
15/11/2025 05:15	69.1	62.8	17/11/2025 17:15	61.2	52.3
15/11/2025 05:30	67.8	61.3	17/11/2025 17:30	60.1	50.7
15/11/2025 05:45	68.0	62.8	17/11/2025 17:45	59.3	50.8
15/11/2025 06:00	70.3	63.3	17/11/2025 18:00	59.5	50.6
15/11/2025 06:15	65.6	59.4	17/11/2025 18:15	59.5	51.2
15/11/2025 06:30	65.9	57.8	17/11/2025 18:30	58.7	52.4
15/11/2025 06:45	64.0	56.0	17/11/2025 18:45	58.7	51.6
15/11/2025 07:00	65.2	58.0	17/11/2025 19:00	58.7	52.6
15/11/2025 07:15	61.5	55.2	17/11/2025 19:15	58.8	52.7
15/11/2025 07:30	59.5	54.3	17/11/2025 19:30	57.9	52.2
15/11/2025 07:45	58.2	54.7	17/11/2025 19:45	58.6	51.4
15/11/2025 08:00	59.5	56.0	17/11/2025 20:00	57.9	49.1
15/11/2025 08:15	60.3	55.8	17/11/2025 20:15	56.8	50.6
15/11/2025 08:30	59.9	56.1	17/11/2025 20:30	56.7	51.2
15/11/2025 08:45	60.3	56.1	17/11/2025 20:45	57.3	53.1
15/11/2025 09:00	60.4	56.7	17/11/2025 21:00	58.5	52.9
15/11/2025 09:15	60.8	55.7	17/11/2025 21:15	58.5	54.3
15/11/2025 09:30	60.5	56.8	17/11/2025 21:30	57.8	52.7
15/11/2025 09:45	62.1	56.7	17/11/2025 21:45	56.9	53.1
15/11/2025 10:00	61.7	56.8	17/11/2025 22:00	57.4	52.8
15/11/2025 10:15	60.5	56.7	17/11/2025 22:15	57.0	54.2
15/11/2025 10:30	61.5	57.1	17/11/2025 22:30	55.0	51.7
15/11/2025 10:45	62.4	57.4	17/11/2025 22:45	55.7	51.8
15/11/2025 11:00	61.3	57.3	17/11/2025 23:00	55.1	51.3
15/11/2025 11:15	61.1	57.1	17/11/2025 23:15	53.6	50.0

Period Start Time	Measured Sound Pressure Level (dB)		Period Start Time	Measured Sound Pressure Level (dB)	
	L _{Aeq,T}	L _{A90,T}		L _{Aeq,T}	L _{A90,T}
15/11/2025 11:30	62.3	56.7	17/11/2025 23:30	52.4	48.0
15/11/2025 11:45	61.2	57.0	17/11/2025 23:45	52.3	48.0
15/11/2025 12:00	61.9	57.5	18/11/2025 00:00	51.7	47.9
15/11/2025 12:15	61.3	57.6	18/11/2025 00:15	53.9	47.7
15/11/2025 12:30	62.0	57.4	18/11/2025 00:30	54.4	51.1
15/11/2025 12:45	62.0	57.8	18/11/2025 00:45	52.6	49.8
15/11/2025 13:00	61.5	57.5	18/11/2025 01:00	51.5	48.8
15/11/2025 13:15	61.6	57.6	18/11/2025 01:15	50.3	46.9
15/11/2025 13:30	60.9	57.1	18/11/2025 01:30	52.3	48.1
15/11/2025 13:45	61.5	57.7	18/11/2025 01:45	50.6	48.0
15/11/2025 14:00	61.4	56.9	18/11/2025 02:00	51.0	47.5
15/11/2025 14:15	61.7	57.2	18/11/2025 02:15	50.2	47.7
15/11/2025 14:30	61.6	57.0	18/11/2025 02:30	49.9	46.9
15/11/2025 14:45	61.0	57.4	18/11/2025 02:45	50.9	47.1
15/11/2025 15:00	60.7	56.5	18/11/2025 03:00	51.2	48.0
15/11/2025 15:15	60.4	55.8	18/11/2025 03:15	51.2	47.9
15/11/2025 15:30	61.1	57.1	18/11/2025 03:30	50.9	48.8
15/11/2025 15:45	60.4	56.8	18/11/2025 03:45	54.0	49.9
15/11/2025 16:00	62.8	56.2	18/11/2025 04:00	52.9	47.1
15/11/2025 16:15	59.6	55.7	18/11/2025 04:15	53.5	48.6
15/11/2025 16:30	60.0	55.9	18/11/2025 04:30	54.4	50.6
15/11/2025 16:45	59.6	55.9	18/11/2025 04:45	55.7	52.1
15/11/2025 17:00	60.7	57.0	18/11/2025 05:00	55.9	52.9
15/11/2025 17:15	60.2	56.3	18/11/2025 05:15	58.1	54.6
15/11/2025 17:30	58.9	55.1	18/11/2025 05:30	59.2	56.6
15/11/2025 17:45	59.9	55.9	18/11/2025 05:45	59.3	57.1
15/11/2025 18:00	59.2	55.6	18/11/2025 06:00	60.2	57.7
15/11/2025 18:15	58.4	55.5	18/11/2025 06:15	59.7	56.9
15/11/2025 18:30	59.5	55.5	18/11/2025 06:30	61.5	56.5
15/11/2025 18:45	58.8	55.1	18/11/2025 06:45	61.7	56.6
15/11/2025 19:00	59.2	55.5	18/11/2025 07:00	62.5	57.1
15/11/2025 19:15	59.7	55.9	18/11/2025 07:15	62.3	56.1
15/11/2025 19:30	58.4	54.9	18/11/2025 07:30	62.9	56.0
15/11/2025 19:45	58.0	53.6	18/11/2025 07:45	63.3	57.4
15/11/2025 20:00	59.1	54.8	18/11/2025 08:00	63.2	57.5
15/11/2025 20:15	58.5	54.1	18/11/2025 08:15	63.4	57.4
15/11/2025 20:30	56.4	53.0	18/11/2025 08:30	62.5	56.6
15/11/2025 20:45	58.5	53.9	18/11/2025 08:45	62.0	55.1
15/11/2025 21:00	60.6	53.6	18/11/2025 09:00	63.0	56.0
15/11/2025 21:15	57.2	53.8	18/11/2025 09:15	62.1	55.4
15/11/2025 21:30	59.0	53.9	18/11/2025 09:30	61.7	55.2
15/11/2025 21:45	60.2	53.0	18/11/2025 09:45	63.0	56.9
15/11/2025 22:00	60.3	54.0	18/11/2025 10:00	62.4	56.7
15/11/2025 22:15	57.8	52.3	18/11/2025 10:15	62.7	58.2
15/11/2025 22:30	58.0	52.4	18/11/2025 10:30	62.8	58.0
15/11/2025 22:45	59.4	54.6	18/11/2025 10:45	63.0	59.3
15/11/2025 23:00	59.7	55.8	18/11/2025 11:00	62.4	59.5
15/11/2025 23:15	63.4	57.4	18/11/2025 11:15	63.2	57.2
15/11/2025 23:30	61.6	55.5	18/11/2025 11:30	61.7	56.3
15/11/2025 23:45	60.5	55.4	18/11/2025 11:45	61.1	56.7
16/11/2025 00:00	58.9	54.3	18/11/2025 12:00	62.3	56.4
16/11/2025 00:15	57.9	53.3	18/11/2025 12:15	62.4	57.2
16/11/2025 00:30	57.9	52.1	18/11/2025 12:30	62.0	53.8
16/11/2025 00:45	58.2	52.6	18/11/2025 12:45	61.9	53.6
16/11/2025 01:00	57.0	51.7	18/11/2025 13:00	61.4	53.0
16/11/2025 01:15	59.3	53.7	18/11/2025 13:15	60.9	52.8
16/11/2025 01:30	58.5	52.8	18/11/2025 13:30	61.3	53.9
16/11/2025 01:45	59.5	53.4	18/11/2025 13:45	61.6	54.0
16/11/2025 02:00	55.9	51.6	18/11/2025 14:00	62.0	51.9
16/11/2025 02:15	51.9	48.5	18/11/2025 14:15	61.3	53.9

Period Start Time	Measured Sound Pressure Level (dB)		Period Start Time	Measured Sound Pressure Level (dB)	
	L _{Aeq,T}	L _{A90,T}		L _{Aeq,T}	L _{A90,T}
16/11/2025 02:30	52.2	47.2	18/11/2025 14:30	61.0	53.5
16/11/2025 02:45	48.8	44.2	18/11/2025 14:45	62.3	54.6
16/11/2025 03:00	52.3	47.9	Note - red text denotes periods of poor weather.		

Annex C - Acoustic Terminology

Table C1 - Acoustic Terminology

Unit /Term	Definition
Decibel (dB)	Decibels (dB) are the units used to measure / quantify sound level. A decibel is 10 times the logarithmic ratio of a sound level to a standard reference level.
dB(A)	The human ear is more sensitive to mid-frequency sound than to high and low frequencies. To take account of this when measuring / describing noise the 'A' weighting scale is used so that the measured noise corresponds roughly to the overall level of noise that is discerned by the average human. The measured or calculated 'A' weighted noise level is known as the dB(A) level. As decibels are logarithmic, noise levels in terms of dB(A) do not have a linear relationship to each other. For similar noises, a change in noise level of 10dB(A) represents a doubling or halving of subjective loudness. A change of 3dB(A) is often described just perceptible.
L ₉₀	If a non-steady noise is to be described it is necessary to know both its level and the degree of fluctuation. The L _n indices are used for this purpose, and the term refers to the level exceeded for n% of the time, hence L ₉₀ is the noise level that is exceeded for 90% of the time and is often used to describe the 'background' noise.
L _{eq}	L_{eq} is defined as a notional steady sound level which, over a stated period of time, would contain the same amount of acoustical energy as the actual, fluctuating sound measured over that period (e.g. 1 minute or 1 hour). The use of digital technology in sound level meters now makes the measurement of L_{eq} very straightforward and it is often described as a type of average.
L _{max}	L _{max} is the maximum sound pressure level recorded over the period stated. L _{max} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the L _{eq} noise level.