REPORT REFERENCE:

SA – 7134/Rev2

ENVIRONMENTAL NOISE IMPACT ASSESSMENT

Phases 1 and 2

British Standard 8233: 2014

World Health Organisation (WHO)

CLIENT:

Persimmon Homes

SITE:

Land off West Street / Upper Brighton Road

West Sompting

Lancing

BN15 0BE

SURVEY DATES:

21st – 25th April 2022

Report By [redacted]

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1 EXECUTIVE SUMMARY

1.1 Instruction

Sound Advice Acoustics Ltd have been instructed by Persimmon Homes to undertake a background noise survey to British Standard 8233: 2014 to determine the impact of existing noise sources on the proposed accommodation scheme Phase 1 & 2 at Land off West Street / Upper Brighton Road, West Sompting, Lancing, BN15 0BE.

1.2 Scope of Report

The measurements will be undertaken in accordance with ISO 1996 – Part 2: 2017 to determine the existing background noise levels and British Standard 8233: 2014 will be used to determine the impact of existing traffic on the internal noise environment within the proposed residential dwellings. This report aims to establish the following:

- Existing background noise levels within the area;
- Assess the potential internal noise levels on the proposed rooms;
- Provide specifications for the ventilation and window glazing with the proposed rooms.

1.3 Summary of Results

1.3.1 Background Noise Levels

A 96 hour background noise survey was undertaken from 21st to 25th April 2022 at five positions on the site in order to establish the underlying background noise levels. The recorded levels are as follow:-

Assessment Position	Date Start	Date Finish	Daytime LAeq	Night Time LAeq
Position 1	21/04/2022	25/04/2022	66.5	62.4
Position 2	21/04/2022	25/04/2022	59.9	54.6
Position 3	21/04/2022	25/04/2022	61.2	55.4
Position 4	21/04/2022	25/04/2022	53.6	51.9
Position 5	21/04/2022	25/04/2022	50.7	50.7

Assessment Position	Date Start	Date Finish	Daytime LA90	Night Time LA90
Position 1	21/04/2022	25/04/2022	58.0	45.0
Position 2	21/04/2022	25/04/2022	54.0	44.0
Position 3	21/04/2022	25/04/2022	54.0	43.0
Position 4	21/04/2022	25/04/2022	47.0	41.0
Position 5	21/04/2022	25/04/2022	44.0	37.0

1.4 Phase 1 - Glazing & Ventilation Specification

The development should be designed with a 4mm glass / 14mm air gap / 4mm glass double glazed windows and a Titon V50 / Standard Canopy or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014.

1.5 Phase 1 - WHO Guidelines for Community Noise

The development proposes external living areas and therefore an assessment to the World Health Organisation's 'Guidelines for Community Noise' has been carried out. The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major road network. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the lower guideline of 50 dB.

1.6 Phase 2 - Glazing & Ventilation Specification

The development should be designed with a 4mm glass / 14mm air gap / 6mm glass double glazed windows and a mechanical ventilation heat recovery system to the plots facing the A27. The remainder of the development can specify a Titon V50 standard canopy vent or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report.

1.7 Phase 2 - WHO Guidelines for Community Noise

The development proposes external living areas and therefore an assessment to the World Health Organisation's 'Guidelines for Community Noise' has been carried out. The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major road network. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the upper guideline of 55 dB. Providing that plot 186 garden wall/fence is 2m high. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report.

1.8 Conclusion

Levels have been recorded and assessments made in accordance with the relevant standards. Internal criteria's have been set and calculations made in order to determine the minimum construction details required in order to meet the desired level within the proposed residential dwellings and satisfy the local council's requirements.

Based on the calculations and assessments made within this report it is the professional opinion of Sound Advice Acoustics Ltd that the proposed development can demonstrate compliance with the National Planning Policy Framework 2021, NPPF & NPSE and discharge condition 20.

2 INTRODUCTION

Sound Advice Acoustics Ltd have been instructed by Persimmon Homes to undertake a background noise survey to British Standard 8233: 2014 to determine the impact of existing noise sources on the proposed accommodation scheme at Land off West Street / Upper Brighton Road, West Sompting, Lancing, BN15 0BE.

Ambient noise levels were measured between 21st and 25th April 2022. This report by Sound Advice Acoustics Ltd gives the results of these measurements and an assessment in accordance with government planning guidelines and relevant standards together with mitigation measures as required.

With regards to external ambient noise, environmental noise levels are to be monitored at the site in accordance with British Standard 7445: 2003 'Description and measurement of environmental noise assessments and assessments made in-line with PRoPG: Planning and Noise.

2.1 Planning Condition 20

No Phase of the development except remediation, demolition, archaeological and drainage works for which planning permission is hereby granted shall take place until a scheme for protecting the proposed dwellings from road traffic noise has been submitted to and approved in writing by the Local Planning Authority. All works which form part of the scheme shall be completed before the permitted dwellings are occupied and shall specifically include the provision of mechanical ventilation heat recovery units and acoustic glazing.

Therefore, this report looks to discharge the above condition.

2.2 British Standard 8233: 2014

Calculations are to be made in accordance with BS 8233: 2014 Sound Insulation and Noise Reduction for Buildings Code of Practice.

BS 8233: 2014 set the following parameters as target levels that should be designed to within rooms such as Living Rooms and Bedrooms.

Indoor ambient noise levels in spaces when they are unoccupied and privacy is also important		
Objective	**Typical situations**	**Design Range $L_{Aeq,t}$ dB**
Typical noise levels for acoustic privacy in shared spaces	Living room	35 – 40
NOTE: See Noise control in building services [28] and BS EN ISO 3382.		

Indoor ambient noise levels for dwellings			
Activity	**Location**	**07:00 – 23:00**	**23:00 – 07:00**
Resting	Living Room	35 dB $L_{Aeq\ 16\ HOUR}$	--
Dining	Dining Room / Area	40 dB $L_{Aeq\ 16\ HOUR}$	--
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq\ 16\ HOUR}$	30 dB $L_{Aeq\ 8\ HOUR}$

Calculations and assessments are therefore to be carried out in order to satisfy the above requirements of BS 8233: 2014.

2.3 National Planning Policy Framework 2021 (NPPF) and Noise Policy Statement for England 2010 (NPSE).

References and evaluations are to be made to the National Planning Policy Framework 2021(NPPF) and the Noise Policy Statement for England 2010 (NPSE). The purpose of this document is to include all aspects of environmental noise within assessments i.e. environmental noise, neighbour noise and neighbourhood noise. Noise is to be considered alongside other relevant issues relating to the site and should not be considered in isolation, according to the NPSE.

There are several key phrases within the NPSE aims and these are discussed below.

Paragraph 185 Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

a) Mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.
b) Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Paragraph 186 Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications.

Paragraph 187 Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

Paragraph 188 The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities

The Noise Policy Statement for England gives various levels of effect as detailed within this report.

With the glazing / ventilation specifications achieved within this report, the development can be implemented within the guidelines of the aforementioned documents and ensure a conclusion of **NOEL – No Observed Effect Level.** This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

2.3.1 "Significant adverse" and "adverse"

There are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organisation. They are:

2.3.2 NOEL – No Observed Effect Level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

2.3.3 LOAEL – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.

Extending these concepts for the purpose of this NPSE leads to the concept of a significant observed adverse effect level.

2.3.4 SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

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.

2.4 World Health Organisation 'Guidelines for Community Noise'

In addition, calculations are to be made for the predicted daytime noise levels within the outdoor living area and assessments made against the recommended levels within the World Health Organisation's 'Guidelines for Community Noise'. In order to evaluate these levels accurately, the 3D modelling software CADNA A is to be adopted for the purpose of this assessment.

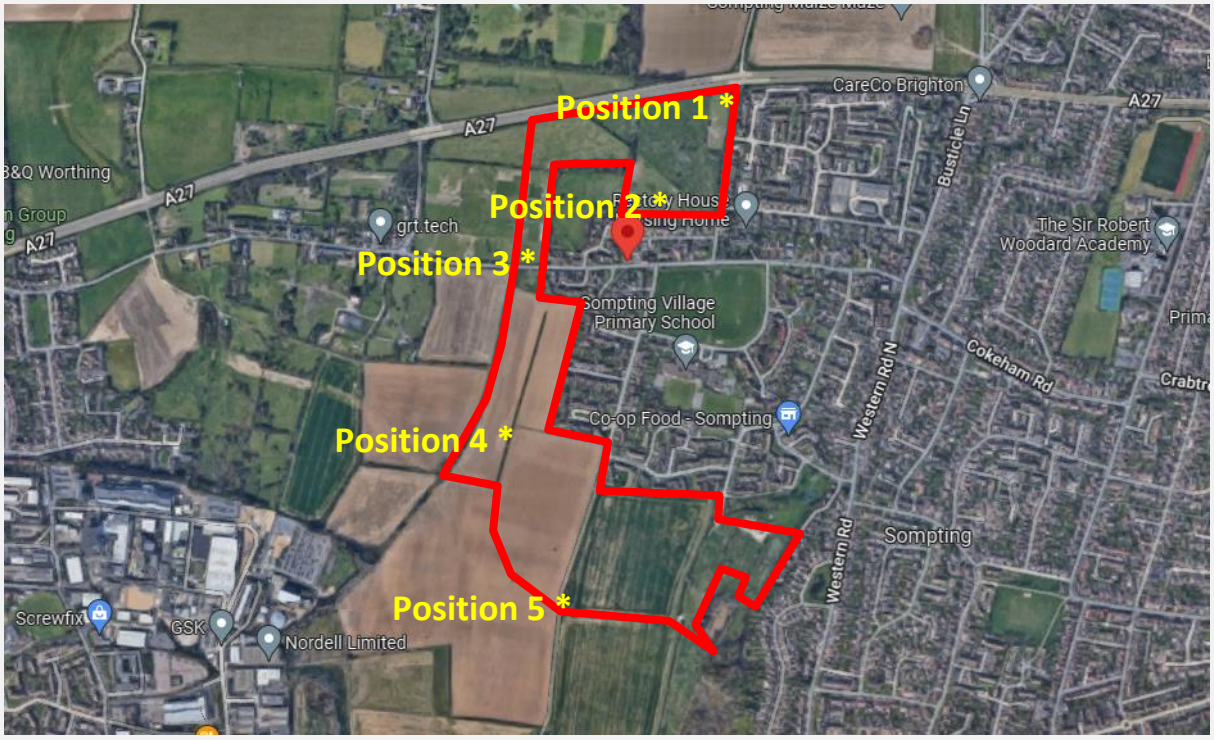
Finally, assessments and references are to be made to the World Health Organisation Night Time Noise Guidance 2009.

3 SITE LOCATION

Position of Site in Wider Area

The site is located in West Sompting, Lancing. The dominant noise source is road traffic noise.

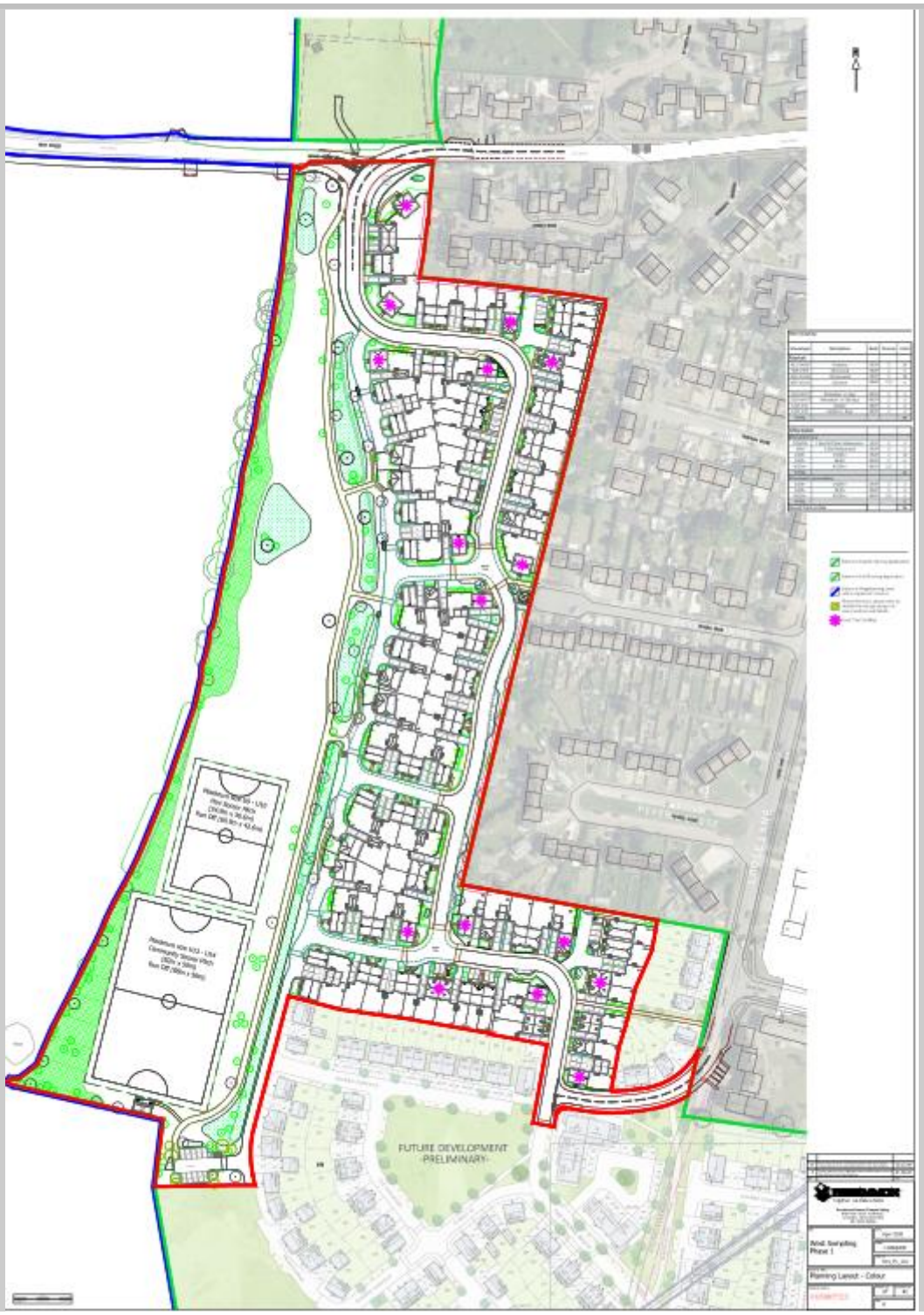




3.1 Proposed Development

3.1.1 Phase 1

The proposed development is shown below.



Site Layout

3.1.2 Phase 2

The proposed development is shown below.



Site Layout

4 PROCEDURE

External noise levels were recorded over a typical period and analysis date extrapolated between 07:00 hrs 21st April 2022 and 07:00 hrs on 25th April 2022 at 5 positions as detailed within this report.

Position 1 was located at the Northern boundary of the site in order to capture the noise levels associated with the Main Road A27. Position 2 was located at the Eastern boundary of the upper part of the site in order to capture the noise levels associated with the background. Position 3 was located at the Southern boundary of the upper part of the site in order to capture noise levels associated with West Street. Position 4 was located at the Western boundary of the lower site in order to capture the noise levels associated with the background. Position 5 was located at the Southern boundary of the lower site in order to capture the noise levels associated with the railway and background. Sample measurements were recorded over continuous 15 minute samples and from this data the hourly LAeq daytime values have been evaluated. Sound Pressure Levels were recorded on the following setting along with a full octave band frequency analysis measured simultaneously and between 31.5 Hz and 16.0 kHz.

Daytime 07:00 – 23:00		Night Time 23:00 – 07:00	
$L_{Aeq\ 1\ HOUR}$ dB	$L_{A10\ 1\ HOUR}$ dB	$L_{Aeq\ 15\ MINUTES}$ dB	$L_{A10\ 15\ MINUTES}$ dB
$L_{AMAX\ 1\ HOUR}$ dB	$L_{A50\ 1\ HOUR}$ dB	$L_{AMAX\ 15\ MINUTES}$ dB	$L_{A50\ 15\ MINUTES}$ dB
$L_{AMIN\ 1\ HOUR}$ dB	$L_{A90\ 1\ HOUR}$ dB	$L_{AMIN\ 15\ MINUTES}$ dB	$L_{A90\ 15\ MINUTES}$ dB

Calculations have been made in accordance with BS 8233: 2014 'Sound Insulation and Reduction of Buildings - Code of Practice'. Recommendations were made for any additional acoustics measures to conform to these standards.

From the downloaded recorded results, the daytime and night time periods were assessed and used within the above calculations as $L_{Aeq\ 16\ HOUR}$ dB levels for daytime and $L_{Aeq\ 8\ HOUR}$ dB levels for night time. These are detailed within this report. All data averaged throughout the day has been done so on a logarithmic basis to give accurate $L_{Aeq\ 16\ Hour}$ dB daytime and $L_{Aeq\ 8\ Hour}$ dB night time noise levels.

Finally, it should be noted that calculations are carried out with façade levels corrected from the recorded noise levels to the calculated façade levels.

5 APPARATUS

The equipment was calibrated using a sound pressure level of 114.0 dB at an octave band centre frequency of 1000Hz with reference to 2 x 10^{-5} Nm^{-2} before and after the tests and the equipment set to have no inaccuracy greater than 0.2dB.

All the following equipment was calibrated in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service (UKAS) on the following dates. Calibration schedules are implemented within Sound Advice Acoustics Ltd in accordance with UKAS directive LAB 23.

5.1 118 noise meter s/n 31632 environmental testing – Position 1

Description	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	118	31632	2 YEARS	08.07.2020	08.07.2022
12.5mm Microphone (with windshield)	Norsonic	1225	91720	2 YEARS	08.07.2020	08.07.2022
Microphone Pre – Amplifier	Norsonic	1201	29307	2 YEARS	08.07.2020	08.07.2022

5.2 118 noise meter s/n 31471 environmental testing – Position 2

Description	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	118	31471	2 YEARS	02.11.2021	02.11.2023
12.5mm Microphone (with windshield)	Norsonic	1225	57535	2 YEARS	02.11.2021	02.11.2023
Microphone Pre – Amplifier	Norsonic	1206	30687	2 YEARS	02.11.2021	02.11.2023

5.3 140 noise meter s/n 1403140 environmental testing – Position 3

Description	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1403140	2 YEARS	06.04.2021	06.04.2023
12.5mm Microphone (with windshield)	Norsonic	1225	413206	2 YEARS	17.11.2021	17.11.2023
Microphone Pre – Amplifier	Norsonic	1209	12245	2 YEARS	06.04.2021	06.04.2023

5.4 140 noise meter s/n 1403140 environmental testing – Position 4

Description	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1403122	2 YEARS	16.07.2020	16.07.2022
12.5mm Microphone (with windshield)	Norsonic	1225	91865	2 YEARS	16.07.2020	16.07.2022
Microphone Pre – Amplifier	Norsonic	1209	12486	2 YEARS	16.07.2020	16.07.2022

5.5 140 noise meter s/n 1403140 environmental testing – Position 5

Description	Make	Type	Serial No.	Calibration Intervals	Last Calibrated	Next Due Calibration
Integrated Sound Level Meter	Norsonic	140	1402941	2 YEARS	08.07.2020	08.07.2022
12.5mm Microphone (with windshield)	Norsonic	GRAS 40AF	179711	2 YEARS	08.07.2020	08.07.2022
Microphone Pre – Amplifier	Norsonic	1209	30479	2 YEARS	08.07.2020	08.07.2022

Full calibration certificates are available upon request.

6 RESULTS

$L_{Aeq,t}$ -	The equivalent A weighted sound pressure level recorded over a time interval of 5 minutes night time and 1 hourly daytime.
$L_{A90,t}$ -	The A weighted sound pressure level that is exceeded for 90% of the time period 5 minutes night time and 1 hourly daytime.
$L_{A50,t}$	The A weighted sound pressure level that is exceeded for 50% of the time period 5 minutes night time and 1 hourly daytime
$L_{A10,t}$ -	The A weighted sound pressure level that is exceeded for 10% of the time period 5 minutes night time and 1 hourly daytime
L_{Amax} -	The maximum A weighted sound pressure level recorded over a time interval of 5 minutes night time and 1 hourly daytime.
L_{Amin} -	The minimum A weighted sound pressure level recorded over a time interval of 5 minutes night time and 1 hourly daytime.

6.1 Downloaded results, and averages.

6.2 07:00 – 07:00 21st – 22nd April 2022 – Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	65.0	84.9	58.0	66.8	64.4	57.2	55.2	63.1	57.6	44.8	38.9	17.7
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	62.4	87.5	45.0	62.3	59.0	51.7	53.6	60.7	54.5	42.5	39.0	18.0

6.3 07:00 – 07:00 22nd – 23rd April 2022 – Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	66.5	87.2	58.0	67.3	65.1	58.7	57.4	64.3	59.2	50.4	46.7	27.2
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	59.0	85.3	41.0	60.1	56.8	49.3	49.6	57.1	51.4	39.5	34.4	16.3

6.4 07:00 – 07:00 23rd – 24th April 2022 – Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	66.0	89.9	59.0	67.0	65.4	57.5	56.6	64.1	58.5	45.4	39.4	24.2
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	59.7	84.1	44.0	59.9	58.5	50.4	50.2	57.9	52.0	39.5	34.4	16.4

6.5 07:00 – 07:00 24th – 25th April 2022 – Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	64.4	85.6	56.0	66.0	64.4	56.7	54.3	62.4	57.0	44.3	38.4	19.5
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	61.7	85.9	42.0	61.6	58.4	51.0	52.7	60.0	54.0	41.4	36.1	17.2

6.6 07:00 – 07:00 21st – 22nd April 2022 – Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	58.7	84.5	54.0	59.9	53.6	49.9	52.3	54.6	48.4	52.6	46.3	20.2
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	54.6	83.1	43.0	55.7	46.6	48.4	50.0	51.3	45.2	45.8	37.6	17.7

6.7 07:00 – 07:00 22nd – 23rd April 2022 – Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	59.4	79.8	54.0	60.7	53.6	52.6	53.9	55.9	50.3	51.0	43.7	19.8
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	53.3	75.3	44.0	53.6	44.9	44.7	47.0	48.9	43.4	47.6	37.7	16.7

6.8 07:00 – 07:00 23rd – 24th April 2022 – Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	59.9	81.6	55.0	60.3	53.3	52.2	53.3	55.6	49.3	53.2	51.0	24.1
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	54.0	78.9	44.0	54.5	48.2	47.1	47.1	48.9	43.4	49.3	38.6	19.3

6.9 07:00 – 07:00 24th – 25th April 2022 – Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	59.0	92.1	52.0	58.9	52.0	49.1	51.5	54.2	47.6	53.0	51.2	22.7
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	54.3	77.7	41.0	54.9	46.3	47.8	49.4	50.9	44.9	45.4	37.1	18.0

6.10 07:00 – 07:00 21st – 22nd April 2022 – Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	61.2	89.2	53.0	65.2	60.1	58.7	54.5	58.0	53.8	47.9	44.6	29.8
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	55.4	76.2	43.0	60.1	52.4	48.4	48.6	52.5	47.7	43.4	42.3	25.8

6.11 07:00 – 07:00 22nd – 23rd April 2022 – Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	61.8	88.9	53.0	65.4	61.3	57.8	55.1	58.6	54.5	49.4	47.0	31.0
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	52.7	81.1	43.0	58.2	51.3	46.7	45.8	49.5	45.0	41.4	39.2	23.7

6.12 07:00 – 07:00 23rd – 24th April 2022 – Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	61.5	94.8	55.0	65.4	61.0	57.6	54.8	58.3	54.2	48.7	46.2	31.3
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	55.9	91.9	46.0	62.0	59.1	54.2	50.1	51.5	47.7	45.3	43.1	29.6

6.13 07:00 – 07:00 24th – 25th April 2022 – Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	60.0	89.0	50.0	63.4	60.9	56.6	53.5	57.0	52.5	46.8	43.1	28.3
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	54.9	79.0	42.0	59.8	52.1	47.8	48.3	52.0	47.5	42.4	38.8	26.2

6.14 07:00 – 07:00 21st – 22nd April 2022 – Position 4

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	52.4	79.6	44.0	54.5	51.1	45.5	45.6	46.8	37.8	48.4	39.9	24.8
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	47.7	71.6	40.0	50.3	44.5	41.5	44.4	44.8	37.3	35.8	28.0	22.5

6.15 07:00 – 07:00 22nd – 23rd April 2022 – Position 4

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	52.9	84.3	47.0	54.5	49.7	46.7	47.4	48.3	40.1	47.6	40.0	27.3
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	50.5	80.3	41.0	49.1	42.8	38.9	41.5	42.2	36.2	47.9	39.8	26.9

6.16 07:00 – 07:00 23rd – 24th April 2022 – Position 4

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0 k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	52.2	72.1	48.0	54.6	50.0	46.8	47.8	48.8	42.5	43.0	37.8	29.6
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	46.6	67.7	41.0	51.8	44.5	41.1	43.1	43.3	37.4	34.8	29.5	24.5

6.17 07:00 – 07:00 24th – 25th April 2022 – Position 4

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	53.6	82.8	44.0	52.3	47.8	43.8	45.2	46.5	38.9	50.5	42.7	29.1
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	51.9	86.3	36.0	48.5	42.7	40.4	43.7	44.2	37.5	48.7	42.7	28.0

6.18 07:00 – 07:00 21st – 22nd April 2022 – Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	50.4	81.1	41.0	56.2	52.0	45.7	42.8	42.9	37.0	44.8	44.5	20.2
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	50.7	77.9	39.0	51.5	43.9	40.4	40.1	40.1	37.6	46.4	46.1	17.7

6.19 07:00 – 07:00 22nd – 23rd April 2022 – Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	49.0	74.2	44.0	58.0	50.5	46.3	43.8	43.8	38.4	41.6	39.6	18.4
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	48.4	76.5	39.0	53.1	43.8	39.5	37.0	37.1	36.1	44.2	43.6	16.8

6.20 07:00 – 07:00 23rd – 24th April 2022 – Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0 k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	50.7	76.8	45.0	59.2	51.1	46.3	43.6	43.6	38.9	44.7	44.6	20.1
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	49.2	77.2	37.0	54.5	44.9	40.8	38.1	37.5	31.7	44.9	45.2	18.7

6.21 07:00 – 07:00 24th – 25th April 2022 – Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	49.2	79.8	41.0	57.3	49.0	44.3	43.3	43.3	39.3	42.6	40.5	22.5
NIGHT TIME 23:00 - 07:00 LA90 15 MIN & Corresponding LAeq 15 MIN	50.7	79.8	35.0	50.8	41.9	38.8	38.8	39.2	35.2	46.4	46.8	18.6

The following noise levels have been corrected for the highest recorded façade levels and used within the BS 8233: 2014 calculations. Position 3 has been used as it most represents the noise levels of Phase 1.

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	61.8	88.9	53.0	65.4	61.3	57.8	55.1	58.6	54.5	49.4	47.0	31.0
NIGHT TIME 23:00 - 07:00 A90 15 MIN & Corresponding LAeq 15 MIN	55.9	91.9	46.0	62.0	59.1	54.2	50.1	51.5	47.7	45.3	43.1	29.6

The following noise levels have been corrected for the highest recorded façade levels and used within the BS 8233: 2014 calculations. Position 1 has been used as it most represents the noise levels of Phase 2.

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LA90 1 HOUR & Corresponding LAeq 1 HOUR	66.5	87.2	58.0	67.3	65.1	58.7	57.4	64.3	59.2	50.4	46.7	27.2
NIGHT TIME 23:00 - 07:00 A90 15 MIN & Corresponding LAeq 15 MIN	62.4	87.5	45.0	62.3	59.0	51.7	53.6	60.7	54.5	42.5	39.0	18.0

7 INTERNAL NOISE LEVEL GUIDELINES

7.1 Discussion of Results

It can be seen from the attached graph and downloaded results that the external noise levels have followed the expected path and remained fairly constant throughout the day. The levels then gradually dropped off as the evening progressed and began to rise when morning traffic levels increased.

7.2 Existing Noise Levels – Daytime (07:00 – 23:00)



Daytime prior to development

7.3 Existing Noise Levels – Night Time (23:00 – 07:00)



Night time prior to development

7.4 Phase 1 - Proposed Noise levels – Daytime (07:00 – 23:00)



Daytime post development

7.5 Phase 1 - Proposed Noise levels – Night Time (23:00 – 07:00)



Night time post development

7.6 Phase 2 - Proposed Noise levels – Daytime (07:00 – 23:00)



Daytime post development

7.7 Phase 2 - Proposed Noise levels – Night Time (23:00 – 07:00)



Night time post development

7.8 Recommendations

For the purpose of this assessment, the corresponding façade levels will be used within the BS 8233: 2014 calculations in order evaluate the worst case scenario and select the correct window specification.

Therefore, in order to achieve the required noise levels of $L_{Aeq\ 16\ HOUR}$ 35 dB for habitable rooms daytime and $L_{Aeq\ 8\ HOUR}$ 30 dB for Bedroom at night within the proposed, the following additional acoustic measures have been calculated.

It should be noted that the calculations have been made with the proposed windows closed. Additional calculations were made for the top floor due to the influence of sound transmission into the various rooms via the roof / ceiling i.e. an increased impeding façade. Inputted levels into the calculation sheets have been corrected for distance attenuation and free field in accordance with the aforementioned British Standard.

7.9 Phase 1 - Calculation Procedure to BS 8233: 2014

The following calculations have been carried out in order to determine the required window and ventilation specification in order to meet the requirements of BS 8233: 2014.

7.10 Ground Floor Living – Façade Corrected to Daytime 62 dB & Night Time 56 dB

Recorded Site Data (Corrected for Free Field)	**Octave Band Centre Frequency (Hz)**					
	125	**250**	**500**	**1000**	**2000**	**4000**
Daytime Leqff	61.5	58.0	55.3	58.8	54.7	49.6
Night time Leqff	59.2	54.3	50.2	51.6	47.8	45.4

Room Data	**Sf**	**Sr**	**Swi**	**Sew**	**Srr**	**Volume**
Area m^2	11	0	3	8	0	48

Specification Summary	**Site Specific Specification**	**Attenuation Required**	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	Titon V50 / Std. Canopy	Dne'w	38 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	**Octave Band Centre Frequency (Hz)**					
	125	**250**	**500**	**1000**	**2000**	**4000**
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	34.4	36.8	34.5	35.9	40.8	41.6
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	32.1	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	27.7	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.11 First Floor Bedroom – Façade Corrected to Daytime 62 dB & Night Time 56 dB

Recorded Site Data (Corrected for Free Field)	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Daytime Leqff	61.5	58.0	55.3	58.8	54.7	49.6
Night time Leqff	59.2	54.3	50.2	51.6	47.8	45.4

Room Data	Sf	Sr	Swi	Sew	Srr	Volume
Area m^2	7	12	1.6	5.4	12	29

Specification Summary	Site Specific Specification	Attenuation Required	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	Titon V50 / Std. Canopy	Dne'w	38 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	34.4	36.8	34.5	35.9	40.8	41.6
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	30.3	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	25.7	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.12 Glazing (R_{wi})

Octave Band Frequency	125	250	500	1000	2000	4000	$R_{w\ (C;Ctr)}$
4mm glass / 16mm air gap / 6mm glass	21.0	17.0	25.0	35.0	37.0	31.0	29 (-1,-4)

7.13 Ventilation (R_{wi})

Octave Band Frequency	125	250	500	1000	2000	4000	Dne'w
Titon V50 / Standard Canopy	34.4	36.8	34.5	35.9	40.8	41.6	38 dB

7.14 Walls (Non-Glazed Elements) (R_{ew})

Octave Band Frequency	125	250	500	1000	2000	4000	R_w
Minimum External Wall Attenuation	40.0	44.0	45.0	51.0	56.0	61.0	50.0

7.15 Roof (R_{rr})

Octave Band Frequency	125	250	500	1000	2000	4000	R_w
Minimum Value	39.0	48.0	55.0	60.0	59.0	61.0	57.0

NOTE:

The above are minimum construction attenuation values and should alternative methods be selected; these should be equal to or greater than the above corresponding values. Calculations carried out have indicated the following specifications should be installed for this site.

7.16 Phase 1 - Glazing & Ventilation Assessment

The development should be designed with a 4mm glass / 14mm air gap / 6mm glass double glazed windows and a Titon V50 / Standard Canopy or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014.

7.17 Phase 2 - Calculation Procedure to BS 8233: 2014

The following calculations have been carried out in order to determine the required window and ventilation specification in order to meet the requirements of BS 8233: 2014.

7.18 Ground Floor Living – Façade Corrected to Daytime 66 dB & Night Time 62 dB

Recorded Site Data (Corrected for Free Field)	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Daytime Leqff	60.6	54.2	52.9	59.8	54.7	45.9
Night time Leqff	54.6	47.3	49.2	56.3	50.1	38.1

Room Data	Sf	Sr	Swi	Sew	Srr	Volume
Area m^2	11	0	3	8	0	48

Specification Summary	Site Specific Specification	Attenuation Required	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	MVHR	Dne'w	54 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	40.0	44.0	45.0	51.0	56.0	56.0
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	28.6	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	23.3	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.19 First Floor Bedroom – Façade Corrected to Daytime 66 dB & Night Time 62 dB

Recorded Site Data (Corrected for Free Field)	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Daytime Leqff	60.6	54.2	52.9	59.8	54.7	45.9
Night time Leqff	54.6	47.3	49.2	56.3	50.1	38.1

Room Data	Sf	Sr	Swi	Sew	Srr	Volume
Area m^2	7	12	1.6	5.4	12	29

Specification Summary	Site Specific Specification	Attenuation Required	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	MVHR	Dne'w	54 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	40.0	44.0	45.0	51.0	56.0	56.0
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	26.1	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	20.9	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.20 Ground Floor Living – Façade Corrected to Daytime 61 dB & Night Time 57 dB

Recorded Site Data (Corrected for Free Field)	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Daytime Leqff	58.6	52.2	50.9	57.8	52.7	43.9
Night time Leqff	52.6	45.3	47.2	54.3	48.1	36.1

Room Data	Sf	Sr	Swi	Sew	Srr	Volume
Area m^2	11	0	3	8	0	48

Specification Summary	Site Specific Specification	Attenuation Required	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	Titon V50 / Std. Canopy	Dne'w	38 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	34.4	36.8	34.5	35.9	40.8	41.6
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	28.5	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	23.9	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.21 First Floor Bedroom – Façade Corrected to Daytime 61 dB & Night Time 57 dB

Recorded Site Data (Corrected for Free Field)	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Daytime Leqff	58.6	52.2	50.9	57.8	52.7	43.9
Night time Leqff	52.6	45.3	47.2	54.3	48.1	36.1

Room Data	Sf	Sr	Swi	Sew	Srr	Volume
Area m^2	7	12	1.6	5.4	12	29

Specification Summary	Site Specific Specification	Attenuation Required	
Glazing Specification	4mm / (6-16mm) / 4mm	Rw(C; Ctr)	29(-1,-4) dB
Ventilation Strategy	Titon V25 / Std. Canopy	Dne'w	35 dB
Wall Specification	Brick & Block Cavity Wall	Rw	54 dB
Roof Specification	Standard Pitched Roof	Rw	57 dB

Detailed Specification	Octave Band Centre Frequency (Hz)					
	125	250	500	1000	2000	4000
Glazing Specification (Rwi)	21.0	17.0	25.0	35.0	37.0	31.0
Ventilation Strategy (Dne)	35.9	37.6	36.3	31.8	36.8	40.4
Wall Specification (Rew)	40.0	44.0	45.0	51.0	56.0	56.0
Roof Specification (Rrr)	39.0	48.0	55.0	60.0	59.0	61.0

Calculation Results			
Daytime Hours (07:00-23:00)	$L_{Aeq\ 16\ HOUR}$	29.3	dB(A)
Night Time Hours (23:00-07:00)	$L_{Aeq\ 8\ HOUR}$	25.2	dB(A)

Formula	Leq2=Leqff+10log[A0/S*10^(-Dne/10)+Swi/S*10^(-Rwi/10)+Sew/10*10^(-Rew/10)+Srr/S*10^(-Rrr/10)] +10log(S/A) +3
Note	The expected precision of this calculation is ±2 dB.

7.22 Glazing (R_{wi})

Octave Band Frequency	125	250	500	1000	2000	4000	$R_{w\ (C:Ctr)}$
4mm glass / 16mm air gap / 6mm glass	21.0	17.0	25.0	35.0	37.0	31.0	29 (-1,-4)

7.23 Ventilation (R_{wi})

Octave Band Frequency	125	250	500	1000	2000	4000	Dne'w
Titon V50 / Standard Canopy	34.4	36.8	34.5	35.9	40.8	41.6	38 dB

7.24 Walls (Non-Glazed Elements) (R_{ew})

Octave Band Frequency	125	250	500	1000	2000	4000	R_w
Minimum External Wall Attenuation	40.0	44.0	45.0	51.0	56.0	61.0	50.0

7.25 Roof (R_{rr})

Octave Band Frequency	125	250	500	1000	2000	4000	R_w
Minimum Value	39.0	48.0	55.0	60.0	59.0	61.0	57.0

NOTE:

The above are minimum construction attenuation values and should alternative methods be selected; these should be equal to or greater than the above corresponding values. Calculations carried out have indicated the following specifications should be installed for this site.

7.26 Phase 2 - Glazing & Ventilation Assessment

The development should be designed with a 4mm glass / 14mm air gap / 6mm glass double glazed windows and a mechanical ventilation heat recovery system to the plots facing the A27. The remainder of the development can specify a Titon V50 standard canopy vent or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report.

7.27 Night Noise Guidelines Europe 2009

The Night Noise Guidelines 2009 make direct reference to the World Health Organisations Guidelines for Community Noise 1999 with recommended guideline criteria of L_{Aeq} 30 dB indoors for continuous noise. The document goes on to explain that sleep disturbance correlates best with L_{Amax} and effects have been observed at 45 dB or less. This is particularly true if the background noise level is low. Noise events exceeding 45 dB(A) should therefore be limited.

Pro PG: Planning and Noise Appendix A 'Dealing with Noise Events' A.17 states that:-

Various studies have linked the L_{Amax} from individual noise events to behavioural awakenings. For example one study found that the "Probability of sleep stage changes to wake/S1 from railway noise increased significantly from 6.5% at 35 dB(A) to 20.5% at 80 dB(A) $L_{Amax,F}$ whilst another study concluded that "noise disturbance of sleep may be expected to become significant once the outdoor L_{Aeq} exceeds 55 dB provided peak noise levels do not exceed 75 to 80 dB. Higher L_{Aeq} values up to 60 dB may be allowed providing the peak levels do not exceed 85 dB, and the number of such events is less than about 20 per night". Based on these studies it can be concluded that at night (2300 - 0700 hrs) a significant effect on sleep disturbance e.g. behavioural awakening, is likely to occur where the maximum sound level at the façade of a building with partially open windows is above:

85 dB $L_{Amax,F}$ (where the number of events exceeding this value is ≤ 20);
or
80 dB $L_{Amax,F}$ (where the number of events exceeding this value is > 20).

Pro PG: Planning and Noise Appendix A 'Dealing with Noise Events' A.18 goes on to explain that:-

A.18 The main body of sleep research is consistent with a careful interpretation of the viewpoint set out in the World Health Organisation Guidelines which for the ordinary population is that:

- ✓ *Impacts on sleep can be detected from relatively low level maximum noise events, however the degree of resulting harm may not be significant.*
- ✓ *'Effects' on sleep (such as EEG awakenings and sleep stage changes) occur spontaneously in the general population many times per night regardless of any impacts due to noise.*
- ✓ *The smaller the number of noise events, the louder the maximum noise level that can be tolerated without adverse effects upon sleep; subject to an upper limit.*
- ✓ *At relatively low levels e.g. around 45 dB $L_{Amax,F}$ when sufficient number of such events take place during the night the adverse effects of individual noise events are likely to be limited to sleep disturbance in the form of changes in sleep state or perhaps some EEG awakenings.*
- ✓ *It normally requires noise levels higher than 45 dB $L_{Amax,F}$ before significant adverse effects such as behavioural awakenings, difficulty getting to sleep, premature awakening or difficulty getting back to sleep generally occur and the latest field research on and aircraft noise suggest that it requires internal L_{Amax} noise levels of around 65 dB before noise induced awakenings become distinguishable from spontaneous awakenings).*

Therefore the following tabulated results from the worst night have been calculated and demonstrate compliance with the requirements of Pro PG. The 15 minute data has been split down into 5 minute segments and the L_{Amax} dB levels evaluated for each section throughout the night with the highest L_{Amax} dB Level.

The following table demonstrate the results and the evaluated 11th highest LA_{max} dB level.

5 MINUTE DATA	**23:00-23:15**	**23:15-23:30**	**23:30-23:45**	**23:45-23:00**	**00:00-00:15**	**00:15-00:30**	**00:30-00:45**	**00:45-01:00**	**01:00-01:15**	**01:15-01:30**	**01:30-01:45**
Time:	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax
Time Period 1	71.7	70.0	71.4	76.8	81.1	70.5	71.1	77.1	70.5	71.1	74.7
Time Period 2	78.0	74.4	72.5	70.1	73.6	71.4	71.5	69.9	72.1	74.0	67.2
Time Period 3	75.1	71.0	77.6	71.3	70.5	68.7	70.6	72.2	69.8	72.4	74.8
5 MINUTE DATA	01:45-02:00	02:00-02:15	02:15-02:30	02:30-02:45	02:45-03:00	03:00-03:15	03:15-03:30	03:30-03:45	03:45-04:00	04:00-04:15	04:15-04:30
Time:	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax
Time Period 1	70.9	70.5	70.7	68.8	71.2	70.2	73.7	70.5	70.6	75.7	70.4
Time Period 2	69.7	74.8	69.3	71.6	71.0	69.8	68.2	69.3	70.0	70.2	67.9
Time Period 3	68.1	74.4	67.1	70.2	73.0	67.9	68.6	68.7	70.6	68.8	71.8
5 MINUTE DATA	04:30-04:45	04:45-05:00	05:00-05:15	05:15-05:30	05:30-05:45	05:45-06:00	06:00-06:15	06:15-06:30	06:30-06:45	06:45-07:00	
Time:	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	LAFmax	
Time Period 1	70.8	70.0	71.9	75.9	74.9	71.9	77.2	74.0	75.0	78.1	
Time Period 2	70.7	70.9	74.2	74.3	74.4	74.1	73.6	74.7	74.2	76.4	
Time Period 3	69.6	70.2	71.8	71.3	86.1	73.7	75.1	76.4	76.7	87.5	
Evaluated 11th 11th highest LA_{max} dB level.	**LAmax**	**72.4**	**dB**								

With the proposed glazing and ventilation strategies implemented on this site, the following calculated internal levels have been evaluated accordingly:-

Item		**Night Time (23:00-07:00)**	**Description**
1	Recorded External Noise Level	62.4	Recorded Noise Level at the Monitoring Position
2	Calculated Highest Façade Level	62.0	Highest recorded façade level of the proposed development closest to the above associated monitoring position.
3	Façade Correction	-0.4	Difference between Recorded and Calculated (Item 1 and 2)
4	Calculated Façade Attenuation	-37.1	Calculated façade attenuation taken from the highest recorded LAeq 8 HOUR dB night time noise level, minus the highest calculated internal noise level taken from the BS 8233 calculations.
5	LAmax 45 dB Criteria	45.0	LAmax 45 dB Criteria taken from WHO Guidelines. BS 8233 does not reference LAmax dB noise level criteria.
6	Calculated Façade Level Outside	82.1	Addition of Items 4 and 5 to give a resultant target level for the 11th Percentile
7	11th Recorded LAmax	72.4	11th Recorded LAmax
8	LAmax Criteria Achieved	YES	If Item 7 is less than 6, then the site is likely to be compliant. If not, further calculations are required

The above table demonstrates that the upgraded glazing and ventilation will result in the internal LAmax 45 dB criteria being achieved.

8 PHASE 1 – EXTERNAL AMENITY AREA NOISE ASSESSMENT

8.1 Outdoor Living Areas

The World Health Organisation 'Guidelines for Community Noise gives guidance as to desirable noise levels that should be achieved within outdoor living areas such as gardens, patios and verandas etc.

Table 1: Guideline values for community noise in specific environments, details the desirable target noise levels within various areas.

Outdoor Living Area	
Serious Annoyance, daytime and evening	$L_{Aeq\ 16\ HOUR}$ 55 dB
Moderate Annoyance, daytime and evening	$L_{Aeq\ 16\ HOUR}$ 50 dB

In order to evaluate the external noise levels within the proposed development, and to correctly and accurately select the precise required minimum screen heights, the 3D modelling software CADNA A is to be used. Initially, the site plan is to be overlaid onto Google Earth and then imported directly into CADNA A using the geometric co-ordinates.

From this, the monitoring positions and noise sources such as roads are added. The output noise levels from the roads are then increased until the monitored noise levels are achieved at the monitoring position. This model is then saved and used as a working 3D acoustic model of the site. The proposed buildings are then constructed on a 3D bases and receptors placed within the terrace garden areas. The calculation software is then run to evaluate the garden levels within sample plots across the development. The following CADNA A screen shots demonstrate the existing sites working 3D model. The levels at the measurement position correlate with the measured daytime average levels detailed within this report.



3D View

The development has external living areas on the development and therefore this criteria / guideline would be appropriately considered within the proposed rear residential garden areas.



Garden Areas

The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major trunk road and railway line. The layout has been re-designed in order to allow for acoustics and minimise the noise levels within these outdoor living spaces. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the lower guideline of 50 dB.

9 PHASE 2 – EXTERNAL AMENITY AREA NOISE ASSESSMENT

9.1 Outdoor Living Areas

The World Health Organisation 'Guidelines for Community Noise gives guidance as to desirable noise levels that should be achieved within outdoor living areas such as gardens, patios and verandas etc.

Table 1: Guideline values for community noise in specific environments, details the desirable target noise levels within various areas.

Outdoor Living Area	
Serious Annoyance, daytime and evening	$L_{Aeq\ 16\ HOUR}$ 55 dB
Moderate Annoyance, daytime and evening	$L_{Aeq\ 16\ HOUR}$ 50 dB

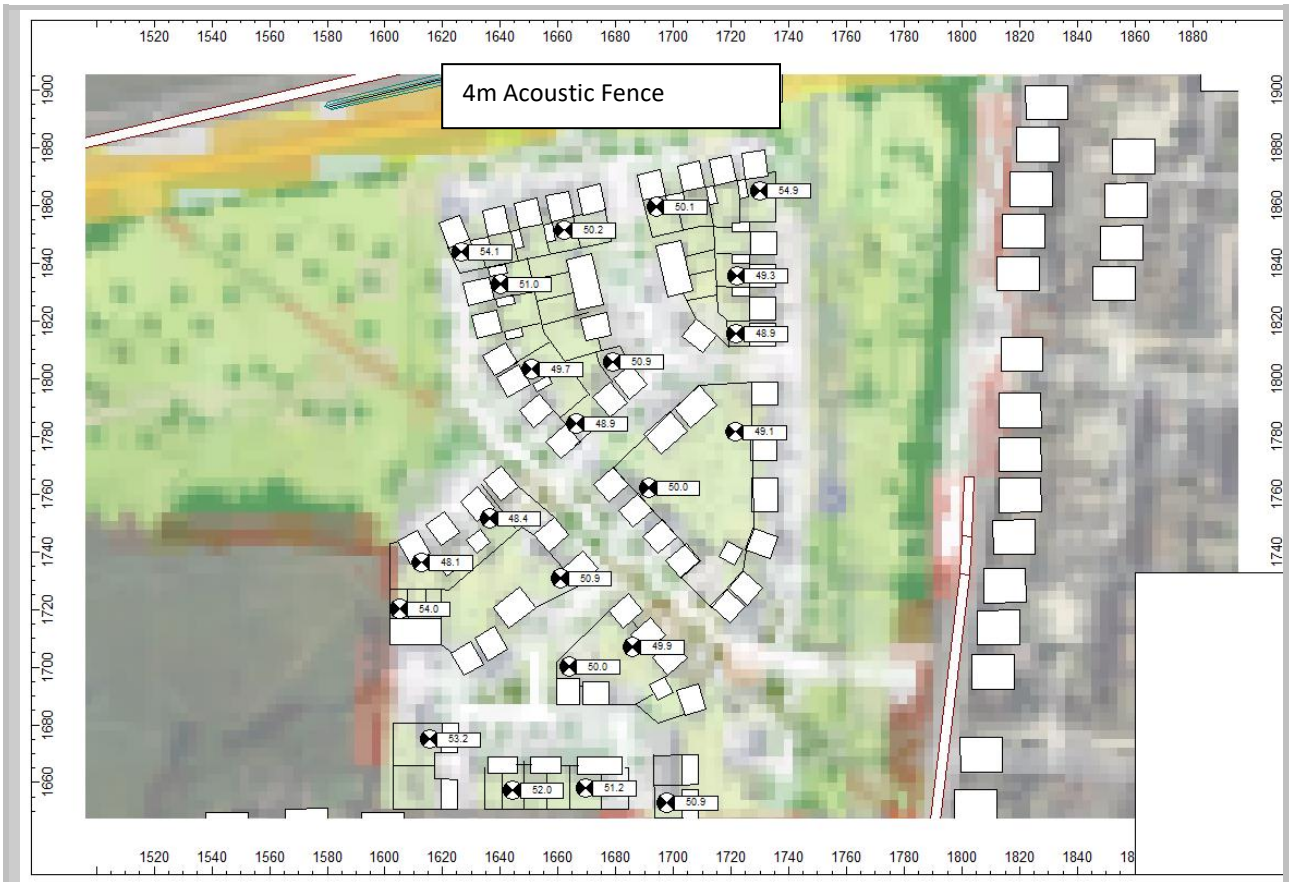
In order to evaluate the external noise levels within the proposed development, and to correctly and accurately select the precise required minimum screen heights, the 3D modelling software CADNA A is to be used. Initially, the site plan is to be overlaid onto Google Earth and then imported directly into CADNA A using the geometric co-ordinates.

From this, the monitoring positions and noise sources such as roads are added. The output noise levels from the roads are then increased until the monitored noise levels are achieved at the monitoring position. This model is then saved and used as a working 3D acoustic model of the site. The proposed buildings are then constructed on a 3D bases and receptors placed within the terrace garden areas. The calculation software is then run to evaluate the garden levels within sample plots across the development. The following CADNA A screen shots demonstrate the existing sites working 3D model. The levels at the measurement position correlate with the measured daytime average levels detailed within this report.



3D View

The development has external living areas on the development and therefore this criteria / guideline would be appropriately considered within the proposed rear residential garden areas.



Garden Areas

The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major road network. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the upper guideline of 55 dB. Providing that plot 186 garden wall/fence is 2m high. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report.

10 ASSESSMENT OF OTHER RELEVANT ISSUES

10.1 The National Planning Policy Framework 2021(NPPF)

The National Planning Policy Framework 2021(NPPF) and assessments to the Noise Policy Statement for England 2010 (NPSE) should be made in conjunction with each other. Paragraphs 185 - 188 of the National Planning Policy Framework 2021(NPPF) states the following:

Paragraph 185 Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

c) 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.

d) Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Paragraph 186 Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications.

Paragraph 187 Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

Paragraph 188 The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities

The Noise Policy Statement for England gives various levels of effect as detailed within this report.

With the glazing / ventilation specifications achieved within this report, the development can be implemented within the guidelines of the aforementioned documents and ensure a conclusion of **NOEL – No Observed Effect Level.** This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

11 CONCLUSION

11.1 Background Noise Levels

A 96 hour background noise survey was undertaken from 21st to 25th April 2022 at five positions on the site in order to establish the underlying background noise levels. The recorded levels are as follow:-

Assessment Position	Date Start	Date Finish	Daytime LAeq	Night Time LAeq
Position 1	21/04/2022	25/04/2022	66.5	62.4
Position 2	21/04/2022	25/04/2022	59.9	54.6
Position 3	21/04/2022	25/04/2022	61.2	55.4
Position 4	21/04/2022	25/04/2022	53.6	51.9
Position 5	21/04/2022	25/04/2022	50.7	50.7

Assessment Position	Date Start	Date Finish	Daytime LA90	Night Time LA90
Position 1	21/04/2022	25/04/2022	58.0	45.0
Position 2	21/04/2022	25/04/2022	54.0	44.0
Position 3	21/04/2022	25/04/2022	54.0	43.0
Position 4	21/04/2022	25/04/2022	47.0	41.0
Position 5	21/04/2022	25/04/2022	44.0	37.0

11.2 Phase 1 - Glazing & Ventilation Specification

The development should be designed with a 4mm glass / 14mm air gap / 4mm glass double glazed windows and a Titon V50 / Standard Canopy or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014.

11.3 Phase 1 - WHO Guidelines for Community Noise

The development proposes external living areas and therefore an assessment to the World Health Organisation's 'Guidelines for Community Noise' has been carried out. The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major road network. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the lower guideline of 50 dB.

11.4 Phase 2 - Glazing & Ventilation Specification

The development should be designed with a 4mm glass / 14mm air gap / 6mm glass double glazed windows and a mechanical ventilation heat recovery system to the plots facing the A27. The remainder of the development can specify a Titon V50 standard canopy vent or similarly approved to all rooms to ensure the internal noise levels are acceptable in terms of the assessment to British Standard 8233: 2014. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report..

11.5 Phase 2 - WHO Guidelines for Community Noise

The guideline has been considered acceptable criteria for this assessment given the sites geographical location and proximity to a major road network. The calculation demonstrates the external living spaces in the garden areas are likely to see noise levels below the upper guideline of 55 dB. Providing that plot 186 garden wall/fence is 2m high. This has been calculated with a 4m high acoustic fence to be installed on the edge of the A27, this should have a minimum surface density of 25kg/m2 and be sealed to the floor with no gaps, as shown in this report.

11.6 Conclusion

Levels have been recorded and assessments made in accordance with the relevant standards. Internal criteria's have been set and calculations made in order to determine the minimum construction details required in order to meet the desired level within the proposed residential dwellings and satisfy the local council's requirements.

Based on the calculations and assessments made within this report it is the professional opinion of Sound Advice Acoustics Ltd that the proposed development can demonstrate compliance with the National Planning Policy Framework 2021, NPPF & NPSE and condition 20.

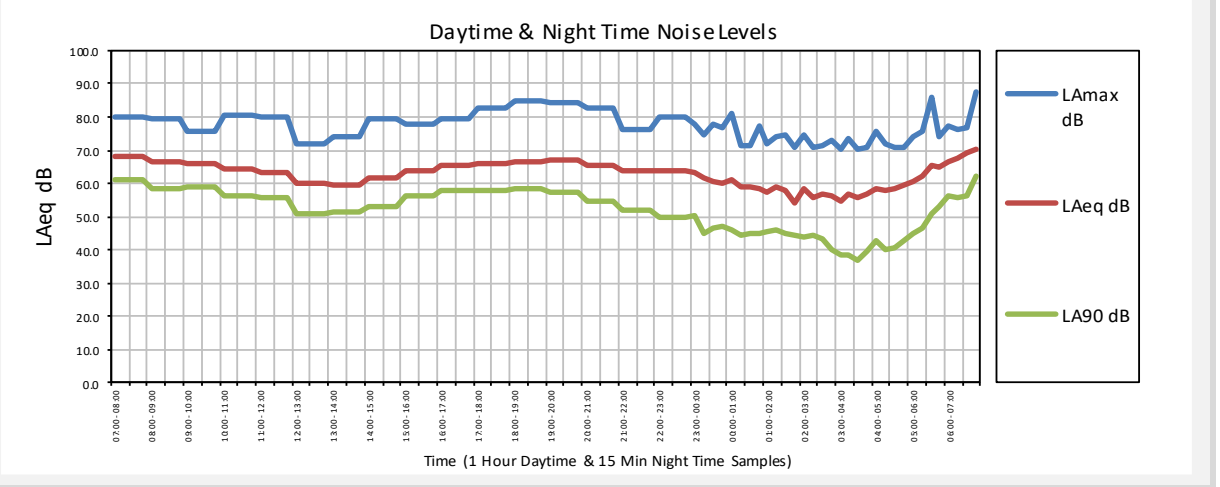
12 APPENDIX B - RESULTS

12.1 21st – 22nd April 2022 Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	65.0	84.9	58.0	66.8	64.4	57.2	55.2	63.1	57.6	44.8	38.9	17.7
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	62.4	87.5	45.0	62.3	59.0	51.7	53.6	60.7	54.5	42.5	39.0	18.0

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	68.1	80.0	61.0	67.8	65.1	57.5	57.9	66.2	60.8	48.2	45.3	19.7
08:00 - 09:00	66.3	79.4	58.0	67.6	64.2	56.6	56.3	64.4	59.2	45.8	38.4	15.2
09:00 - 10:00	65.8	75.5	59.0	67.9	63.9	56.3	55.8	64.0	58.6	45.1	39.3	15.4
10:00 - 11:00	64.4	80.6	56.0	67.3	63.3	56.3	54.4	62.3	57.4	44.3	37.4	15.0
11:00 - 12:00	63.1	79.9	56.0	67.2	63.6	56.2	53.3	60.8	56.1	47.2	42.6	17.9
12:00 - 13:00	60.1	72.0	51.0	66.1	62.0	54.9	51.0	57.7	53.1	41.3	35.3	14.0
13:00 - 14:00	59.5	74.2	51.0	66.4	63.1	55.7	50.5	56.8	52.4	41.8	35.8	14.4
14:00 - 15:00	61.7	79.6	53.0	66.4	65.4	58.0	52.5	59.1	54.5	42.2	35.5	15.5
15:00 - 16:00	63.6	78.0	56.0	67.0	64.0	57.9	54.1	61.5	56.6	43.8	37.2	18.4
16:00 - 17:00	65.4	79.3	58.0	67.3	64.7	58.7	55.4	63.4	58.0	43.8	36.2	19.4
17:00 - 18:00	66.0	82.4	58.0	68.3	66.6	59.0	56.5	64.1	58.4	45.1	37.9	20.0
18:00 - 19:00	66.7	84.9	58.0	67.9	67.8	59.8	57.3	64.7	59.4	46.4	38.8	21.2
19:00 - 20:00	67.0	84.3	57.0	66.7	64.9	57.9	57.6	65.3	59.1	47.0	39.1	20.3
20:00 - 21:00	65.3	82.5	55.0	64.8	63.1	54.7	54.7	63.8	57.5	42.9	35.8	14.5
21:00 - 22:00	63.9	76.5	52.0	63.7	62.0	55.9	53.8	62.2	56.0	40.9	32.4	14.8
22:00 - 23:00	63.6	79.9	50.0	63.0	62.6	56.3	54.4	61.9	55.7	42.3	34.7	15.9

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	63.1	78.0	50.0	62.7	58.8	52.5	54.4	61.4	55.1	41.5	34.1	18.7
23:15 - 23:30	61.4	74.4	45.0	63.4	62.9	54.1	51.6	59.6	53.3	39.7	31.8	17.5
23:30 - 23:45	60.7	77.6	46.0	61.7	63.4	52.0	51.6	59.0	52.6	40.1	33.5	17.6
23:45 - 00:00	60.2	76.8	47.0	61.3	56.6	48.6	51.4	58.6	52.3	39.3	32.3	19.6
00:00 - 00:15	60.9	81.1	46.0	61.0	61.1	51.9	52.9	59.2	52.5	39.2	31.5	19.0
00:15 - 00:30	59.0	71.4	45.0	59.2	56.6	49.8	50.5	57.3	51.0	38.3	32.7	17.0
00:30 - 00:45	58.8	71.5	45.0	61.0	55.1	47.5	51.2	57.1	50.6	37.6	30.7	17.3
00:45 - 01:00	58.5	77.1	45.0	59.3	58.9	48.5	49.2	56.8	50.7	37.7	31.0	19.6
01:00 - 01:15	57.5	72.1	46.0	59.5	53.5	47.5	49.7	55.8	49.3	37.0	30.8	20.2
01:15 - 01:30	59.0	74.0	46.0	61.9	57.1	47.9	50.7	57.3	50.8	39.0	32.6	21.1
01:30 - 01:45	58.1	74.8	45.0	60.7	54.1	46.8	50.3	56.7	49.3	37.1	30.9	19.8
01:45 - 02:00	54.2	70.9	45.0	56.8	51.2	44.9	46.7	52.4	46.1	35.4	29.7	18.6
02:00 - 02:15	58.3	74.8	44.0	60.7	56.0	52.9	51.9	56.4	49.5	37.4	31.0	16.0
02:15 - 02:30	55.5	70.7	44.0	55.8	51.8	44.1	46.4	53.7	47.9	36.1	30.6	16.7
02:30 - 02:45	56.6	71.6	43.0	56.3	51.5	43.6	48.2	55.1	48.2	35.0	28.4	13.6
02:45 - 03:00	56.0	73.0	40.0	55.9	51.9	43.8	47.4	54.4	47.8	34.8	28.1	13.4
03:00 - 03:15	54.4	70.2	39.0	55.0	49.9	42.5	46.1	52.7	46.6	33.0	26.0	12.7
03:15 - 03:30	56.8	73.7	38.0	56.8	51.9	45.0	48.4	55.2	48.6	35.2	28.2	15.3
03:30 - 03:45	55.7	70.5	37.0	58.1	51.7	43.2	46.4	54.0	48.3	33.6	25.7	12.9
03:45 - 04:00	56.6	70.6	40.0	59.1	53.1	45.0	48.5	55.0	48.3	37.0	31.9	13.0
04:00 - 04:15	58.2	75.7	43.0	58.5	53.0	46.3	50.1	56.3	49.6	44.1	40.2	18.1
04:15 - 04:30	57.7	71.8	40.0	60.9	55.0	47.2	49.3	56.1	49.5	36.2	28.6	14.5
04:30 - 04:45	58.4	70.8	41.0	60.7	54.9	47.4	49.2	56.6	50.7	39.7	35.3	16.1
04:45 - 05:00	59.3	70.9	43.0	59.8	56.1	48.9	50.0	57.4	51.5	43.6	40.1	18.2
05:00 - 05:15	60.8	74.2	45.0	59.9	56.0	49.8	52.1	59.0	52.8	44.5	41.0	18.4
05:15 - 05:30	62.3	75.9	47.0	62.5	58.5	50.9	53.8	60.6	54.1	45.1	43.0	18.4
05:30 - 05:45	65.7	86.1	51.0	63.6	59.7	57.6	57.0	64.2	57.4	46.1	41.0	17.5
05:45 - 06:00	65.0	74.1	53.0	63.6	59.8	52.2	55.0	63.3	57.4	45.2	42.1	17.3
06:00 - 06:15	66.5	77.2	56.0	64.9	62.0	54.3	57.0	64.8	58.7	45.8	42.3	18.5
06:15 - 06:30	67.6	76.4	56.0	66.7	63.2	55.3	58.2	65.9	59.7	46.1	38.6	18.0
06:30 - 06:45	69.0	76.7	56.0	67.6	64.2	56.7	59.3	67.4	61.3	47.4	39.3	17.7
06:45 - 07:00	70.2	87.5	62.0	69.7	66.3	59.6	62.1	68.4	62.1	50.9	50.3	23.1

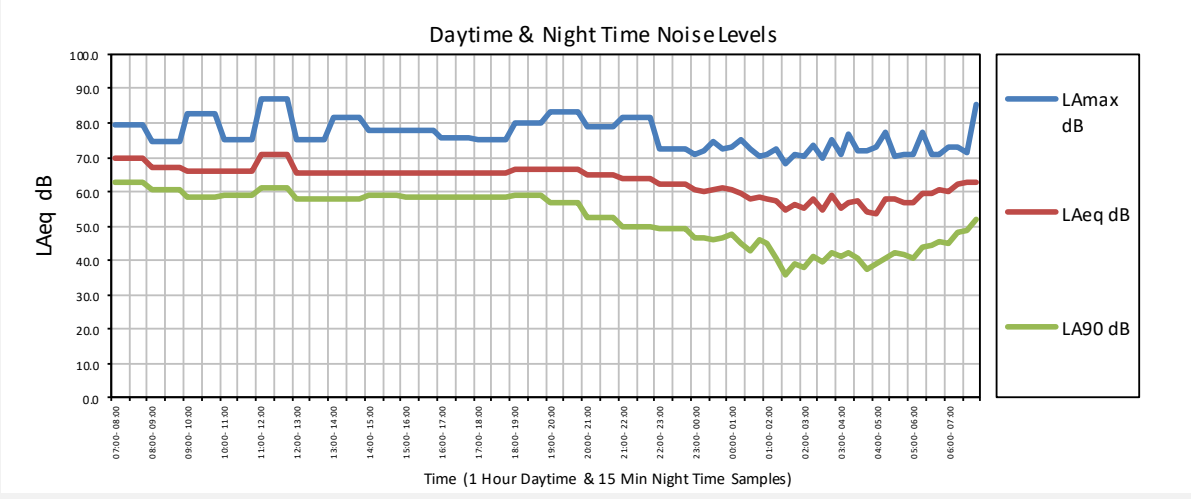


12.2 22nd – 23rd April 2022 Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	66.5	87.2	58.0	67.3	65.1	58.7	57.4	64.3	59.2	50.4	46.7	27.2
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	59.0	85.3	41.0	60.1	56.8	49.3	49.6	57.1	51.4	39.5	34.4	16.3

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	69.7	79.5	63.0	68.6	66.1	58.1	60.3	68.0	61.9	48.3	43.7	18.9
08:00 - 09:00	67.0	74.5	60.0	67.8	63.7	56.3	57.1	65.2	59.5	45.7	39.3	17.4
09:00 - 10:00	66.2	82.5	58.0	67.8	63.4	57.2	56.8	64.3	58.9	45.9	40.4	21.8
10:00 - 11:00	65.8	75.1	59.0	68.0	64.8	58.8	56.6	63.8	58.4	46.2	38.8	21.8
11:00 - 12:00	70.8	87.2	61.0	67.9	69.9	65.5	63.9	66.7	64.0	60.7	57.7	38.1
12:00 - 13:00	65.3	75.4	58.0	69.4	66.5	59.0	55.6	62.9	58.0	49.8	46.6	26.1
13:00 - 14:00	65.2	81.4	58.0	67.9	64.4	59.4	56.2	63.2	57.8	44.6	37.3	21.5
14:00 - 15:00	65.5	77.7	59.0	67.7	64.7	57.7	55.9	63.5	58.4	44.9	37.6	20.0
15:00 - 16:00	65.4	77.9	58.0	67.2	64.2	56.9	55.3	63.4	58.3	45.1	37.9	19.9
16:00 - 17:00	65.6	75.8	59.0	67.3	64.5	58.3	55.9	63.7	58.5	44.7	36.8	19.1
17:00 - 18:00	65.4	74.9	58.0	68.3	65.9	57.4	55.7	63.4	58.2	44.8	37.9	22.9
18:00 - 19:00	66.5	80.1	59.0	67.3	64.8	57.2	56.9	64.7	59.2	45.1	37.0	22.1
19:00 - 20:00	66.3	83.3	57.0	66.4	64.6	57.7	56.5	64.5	58.9	45.9	39.2	21.1
20:00 - 21:00	64.6	79.1	53.0	64.5	63.6	56.5	54.8	62.8	57.2	42.5	34.2	17.8
21:00 - 22:00	63.9	81.9	50.0	63.9	62.5	54.8	53.6	61.9	56.8	45.5	38.6	19.9
22:00 - 23:00	62.4	72.6	49.0	62.8	61.0	53.2	52.2	60.6	54.9	40.4	32.1	18.4

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	60.8	70.7	47.0	62.3	58.7	50.6	51.0	59.1	53.3	38.9	30.5	19.3
23:15 - 23:30	60.0	72.1	47.0	61.4	55.9	48.4	49.7	58.3	52.7	38.3	30.4	14.4
23:30 - 23:45	60.8	74.8	46.0	61.1	56.4	48.5	50.9	59.2	53.3	38.6	30.4	18.3
23:45 - 00:00	61.0	72.6	47.0	60.3	56.9	48.9	50.3	59.3	53.6	39.5	31.4	18.5
00:00 - 00:15	60.4	72.8	48.0	60.7	55.6	47.9	51.1	58.7	52.8	38.8	31.2	20.3
00:15 - 00:30	59.4	75.0	45.0	62.3	63.2	49.6	50.2	57.4	51.8	38.0	30.1	20.9
00:30 - 00:45	58.1	72.2	43.0	59.4	57.7	48.8	48.9	56.2	50.7	37.2	29.9	18.3
00:45 - 01:00	58.2	70.5	46.0	59.8	54.0	46.2	49.4	56.5	50.5	37.3	30.6	18.7
01:00 - 01:15	58.1	70.8	45.0	59.2	55.5	46.9	49.5	56.4	50.4	37.8	31.2	18.4
01:15 - 01:30	57.4	72.6	41.0	58.9	53.4	47.5	47.8	55.5	50.1	38.0	32.7	15.4
01:30 - 01:45	54.6	68.3	36.0	55.3	52.1	43.2	43.8	52.9	47.3	32.5	24.5	12.6
01:45 - 02:00	56.0	71.0	39.0	57.3	52.6	44.6	46.8	54.3	48.5	35.0	27.7	15.8
02:00 - 02:15	55.0	70.4	38.0	56.8	50.8	42.9	46.3	53.3	47.1	33.1	25.9	16.0
02:15 - 02:30	57.8	73.7	41.0	60.7	54.3	47.9	49.4	56.1	49.8	36.0	29.7	14.4
02:30 - 02:45	54.4	70.0	40.0	53.2	49.7	41.8	44.9	52.6	46.9	33.4	26.9	13.2
02:45 - 03:00	58.7	74.9	42.0	58.0	60.0	51.3	51.6	56.9	50.0	37.2	30.8	13.4
03:00 - 03:15	55.4	70.9	41.0	54.7	50.5	43.0	46.6	53.7	47.6	34.2	27.9	13.5
03:15 - 03:30	57.0	76.9	42.0	59.2	56.5	52.5	49.1	55.1	48.7	36.1	29.7	15.0
03:30 - 03:45	57.1	71.8	41.0	59.2	53.7	45.6	49.2	55.4	48.9	35.4	28.2	14.3
03:45 - 04:00	54.2	71.8	38.0	57.5	52.3	44.0	44.9	52.5	46.5	32.8	25.7	13.1
04:00 - 04:15	53.8	73.2	39.0	54.3	48.9	41.8	45.5	52.1	45.8	32.4	25.7	12.8
04:15 - 04:30	57.8	77.5	41.0	57.7	53.5	49.7	48.4	55.6	50.4	43.3	39.2	17.4
04:30 - 04:45	57.7	70.4	43.0	59.2	54.1	46.3	48.4	56.1	50.0	36.0	28.5	13.2
04:45 - 05:00	56.8	70.6	42.0	57.9	52.4	45.4	47.2	55.1	49.4	36.1	28.9	17.4
05:00 - 05:15	57.0	71.0	41.0	58.7	54.5	45.5	48.2	55.2	49.4	37.3	30.2	13.2
05:15 - 05:30	59.5	77.2	44.0	59.9	56.0	56.5	52.3	57.4	51.3	40.1	34.9	14.6
05:30 - 05:45	59.7	71.0	44.0	63.3	56.8	48.1	50.7	57.8	52.2	41.5	36.7	13.8
05:45 - 06:00	60.5	70.6	46.0	59.4	56.5	47.7	49.9	58.6	53.1	43.8	39.9	15.1
06:00 - 06:15	60.1	73.0	45.0	60.4	55.5	47.5	50.6	58.4	52.5	43.0	37.2	13.8
06:15 - 06:30	62.0	72.8	48.0	64.6	62.2	52.9	51.8	59.9	54.6	45.9	43.1	16.6
06:30 - 06:45	62.6	71.6	49.0	62.9	60.7	51.4	51.9	60.7	55.4	43.6	39.9	15.3
06:45 - 07:00	63.0	85.3	52.0	62.6	60.6	54.8	52.9	61.1	55.6	42.8	36.5	14.2



12.3 23rd – 24th April 2022 Position 1

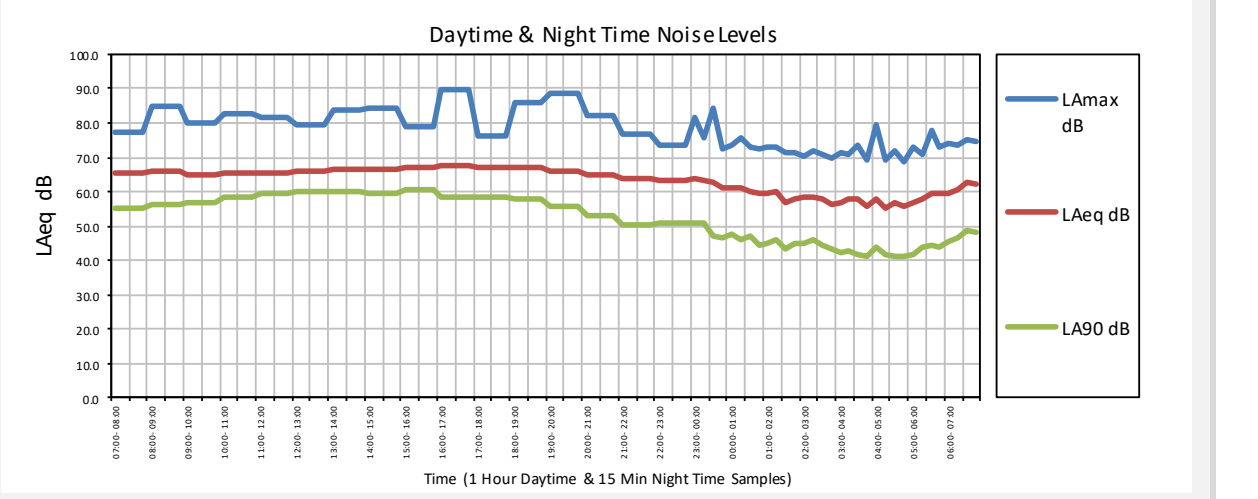
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	66.0	89.9	59.0	67.0	65.4	57.5	56.6	64.1	58.5	45.4	39.4	24.2
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	59.7	84.1	44.0	59.9	58.5	50.4	50.2	57.9	52.0	39.5	34.4	16.4

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	65.3	77.4	55.0	64.9	63.3	54.5	55.1	63.5	58.1	44.4	37.3	15.8
08:00 - 09:00	66.1	85.0	56.0	66.8	64.4	58.3	55.9	64.2	58.8	47.2	43.5	19.7
09:00 - 10:00	64.9	80.0	57.0	66.2	62.9	55.9	54.4	62.9	58.2	45.8	42.1	18.3
10:00 - 11:00	65.4	82.7	58.0	67.5	65.6	57.8	55.8	63.3	58.3	45.6	40.8	22.5
11:00 - 12:00	65.7	81.5	59.0	67.9	66.9	58.7	55.9	63.7	58.5	45.6	39.0	25.3
12:00 - 13:00	66.1	79.7	60.0	68.9	67.3	59.4	56.3	64.0	58.8	46.1	39.4	26.3
13:00 - 14:00	66.7	83.7	60.0	69.1	67.0	59.1	57.5	64.8	59.2	46.6	40.0	27.8
14:00 - 15:00	66.7	84.2	60.0	68.4	67.0	59.1	57.5	64.9	59.1	46.1	39.3	27.4
15:00 - 16:00	67.0	79.0	61.0	68.3	67.7	58.4	57.2	65.2	59.4	46.2	38.9	26.2
16:00 - 17:00	67.5	89.9	59.0	67.6	66.9	59.6	58.9	65.8	59.5	46.5	40.1	25.8
17:00 - 18:00	66.8	76.3	59.0	67.7	65.0	57.2	56.8	65.1	59.3	45.7	38.5	25.6
18:00 - 19:00	67.3	86.0	58.0	66.4	64.1	56.5	58.9	65.5	59.6	45.9	38.4	23.9
19:00 - 20:00	65.9	88.7	56.0	64.9	63.5	54.3	57.3	64.1	58.1	44.0	37.9	21.1
20:00 - 21:00	65.0	82.0	53.0	64.4	63.9	57.9	56.7	63.2	57.2	43.5	36.1	22.3
21:00 - 22:00	63.5	76.9	51.0	63.8	62.5	53.1	53.8	61.9	55.8	42.1	34.8	21.2
22:00 - 23:00	63.2	73.4	51.0	63.3	62.3	53.0	53.5	61.6	55.5	41.3	33.4	20.4

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	63.6	81.4	51.0	65.6	67.4	57.5	53.0	61.5	55.8	43.8	39.2	24.1
23:15 - 23:30	63.4	75.8	51.0	64.5	62.9	54.8	53.6	61.6	55.8	41.6	33.3	16.6
23:30 - 23:45	62.7	84.1	47.0	60.9	59.3	50.9	53.6	61.0	55.0	40.7	32.1	15.0
23:45 - 00:00	61.2	72.6	47.0	59.6	60.9	50.3	51.4	59.5	53.5	39.5	32.1	14.9
00:00 - 00:15	60.9	73.5	48.0	59.3	61.0	51.6	51.1	59.1	53.3	39.6	32.1	18.3
00:15 - 00:30	61.0	75.8	46.0	61.3	63.9	56.0	51.5	59.1	53.1	38.6	30.6	15.9
00:30 - 00:45	59.8	72.9	47.0	60.4	59.3	52.9	50.4	58.0	52.1	38.4	30.7	18.3
00:45 - 01:00	59.3	72.3	44.0	60.6	57.4	48.3	49.8	57.6	51.7	37.8	30.5	17.3
01:00 - 01:15	59.5	73.0	45.0	60.1	54.9	46.9	50.3	57.9	51.9	38.4	30.9	16.8
01:15 - 01:30	60.1	73.1	46.0	59.9	57.5	49.5	51.2	58.3	52.5	39.7	33.2	16.4
01:30 - 01:45	56.8	71.6	43.0	55.2	54.1	46.5	48.4	55.0	49.2	35.6	28.7	14.3
01:45 - 02:00	58.0	71.1	45.0	59.5	53.1	45.1	48.5	56.2	50.6	37.3	30.5	15.5
02:00 - 02:15	58.2	70.5	45.0	56.6	53.8	45.5	49.0	56.6	50.5	36.9	30.2	14.9
02:15 - 02:30	58.5	72.0	46.0	57.3	53.7	45.4	49.7	56.9	50.7	37.8	31.7	14.7
02:30 - 02:45	57.7	71.0	44.0	57.4	53.1	45.1	48.6	56.0	50.2	36.9	30.2	15.0
02:45 - 03:00	56.1	69.6	44.0	57.1	53.7	45.3	47.2	54.3	48.5	36.2	29.6	16.6
03:00 - 03:15	56.7	71.2	42.0	57.1	52.1	44.2	47.2	55.1	49.1	35.5	28.1	15.2
03:15 - 03:30	58.1	71.0	43.0	59.4	57.4	47.5	49.3	56.4	50.2	36.0	28.4	13.9
03:30 - 03:45	57.9	73.6	42.0	57.9	56.1	52.0	49.3	56.1	50.0	36.1	28.4	13.9
03:45 - 04:00	55.6	69.3	41.0	55.1	51.6	43.4	46.1	53.9	48.0	34.5	27.7	14.4
04:00 - 04:15	57.7	79.7	44.0	57.8	54.9	54.0	49.6	55.9	49.5	36.6	29.7	15.6
04:15 - 04:30	55.1	69.2	42.0	56.2	52.0	44.7	46.0	53.3	47.6	33.9	26.9	16.6
04:30 - 04:45	56.7	71.8	41.0	56.6	55.1	46.6	46.9	55.0	49.1	35.1	27.1	13.1
04:45 - 05:00	55.5	68.7	41.0	56.6	51.7	43.6	46.0	53.7	48.0	35.4	28.4	14.3
05:00 - 05:15	57.0	72.9	42.0	57.9	53.0	45.5	48.5	55.3	49.1	37.1	29.8	15.5
05:15 - 05:30	57.8	70.9	44.0	57.6	53.9	45.5	48.2	56.0	50.0	41.9	39.1	14.2
05:30 - 05:45	59.7	77.6	44.0	57.4	56.2	47.7	50.6	57.9	52.0	42.9	39.1	15.1
05:45 - 06:00	59.7	72.8	44.0	60.0	55.2	48.2	50.3	58.1	52.0	40.6	37.0	15.1
06:00 - 06:15	59.4	74.0	45.0	59.9	54.1	47.0	49.6	57.5	51.9	42.4	37.9	16.4
06:15 - 06:30	60.5	73.7	47.0	59.2	55.0	47.2	51.7	58.7	52.9	41.3	36.8	15.0
06:30 - 06:45	62.6	75.3	49.0	64.2	58.3	51.7	52.5	60.9	55.0	41.6	35.7	14.0
06:45 - 07:00	62.3	74.5	48.0	62.1	60.6	52.9	52.6	60.6	54.5	43.9	42.6	17.1

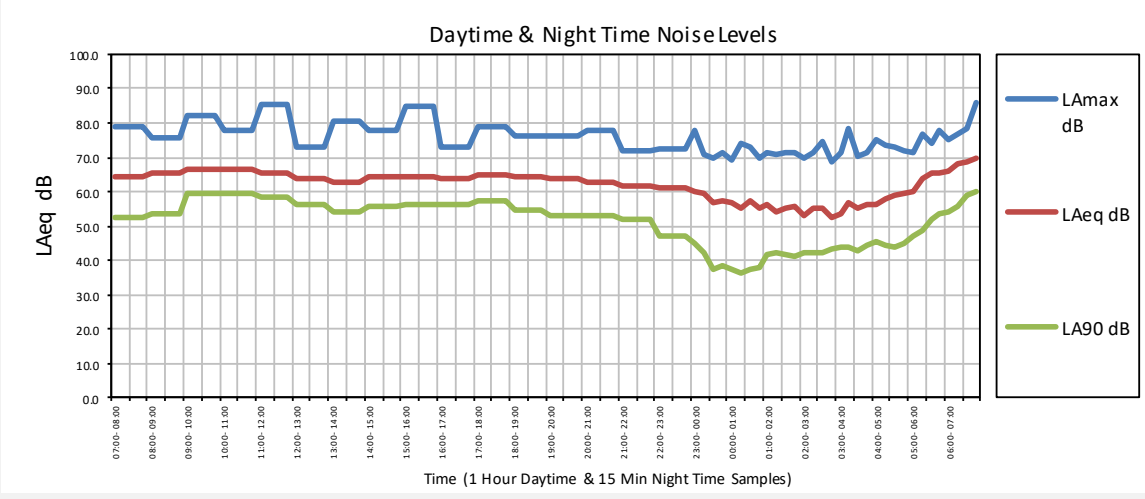


12.4 24th – 25th April 2022 Position 1

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	64.4	85.6	56.0	66.0	64.4	56.7	54.3	62.4	57.0	44.3	38.4	19.5
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	61.7	85.9	42.0	61.6	58.4	51.0	52.7	60.0	54.0	41.4	36.1	17.2

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	64.4	78.7	53.0	64.9	65.2	57.6	55.4	62.3	56.9	46.5	42.0	18.2
08:00 - 09:00	65.3	75.5	54.0	64.6	62.9	55.2	55.3	63.5	58.0	45.5	40.6	18.4
09:00 - 10:00	66.8	81.9	59.0	66.6	64.5	58.5	57.0	64.8	59.6	48.4	44.0	21.5
10:00 - 11:00	66.3	77.9	60.0	66.7	64.9	56.8	55.9	64.4	59.0	46.4	41.5	20.3
11:00 - 12:00	65.7	85.6	58.0	68.2	66.0	59.5	55.7	63.6	58.3	46.0	38.3	23.7
12:00 - 13:00	63.8	72.9	56.0	67.9	64.5	56.6	54.1	61.7	56.5	43.6	37.1	24.1
13:00 - 14:00	62.7	80.3	54.0	67.4	66.0	57.9	53.0	60.4	55.4	42.3	35.9	21.2
14:00 - 15:00	64.2	77.9	56.0	66.4	66.1	58.2	54.0	62.2	56.9	42.9	35.6	19.1
15:00 - 16:00	64.5	84.8	56.0	66.3	64.2	58.1	54.6	62.4	57.4	44.2	36.9	19.5
16:00 - 17:00	64.0	72.9	56.0	66.7	65.6	57.5	53.8	62.0	56.7	43.8	35.1	17.2
17:00 - 18:00	64.7	79.2	57.0	66.8	66.4	57.2	54.3	62.7	57.4	44.2	37.2	18.1
18:00 - 19:00	64.1	76.4	55.0	64.9	62.2	54.4	53.7	62.3	56.8	42.4	34.4	15.7
19:00 - 20:00	64.0	76.0	53.0	64.4	62.6	56.1	53.6	62.1	56.6	42.2	33.8	14.6
20:00 - 21:00	62.9	78.1	53.0	63.7	62.1	52.5	52.3	61.2	55.3	42.2	36.3	14.0
21:00 - 22:00	61.7	71.8	52.0	62.5	59.4	50.2	51.2	60.2	53.6	38.4	29.0	12.1
22:00 - 23:00	60.9	72.6	47.0	62.7	59.4	51.4	50.9	59.4	52.9	37.7	28.4	12.1

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	59.8	78.1	45.0	59.9	63.7	55.8	49.8	57.9	51.6	35.9	26.4	11.9
23:15 - 23:30	59.4	70.9	43.0	58.8	55.0	46.6	49.2	57.8	51.7	36.7	27.3	12.0
23:30 - 23:45	56.9	69.5	37.0	57.8	51.7	44.0	46.9	55.4	49.1	34.0	25.0	11.8
23:45 - 00:00	57.6	71.4	39.0	57.3	56.0	47.0	47.6	56.0	50.0	34.9	27.1	12.0
00:00 - 00:15	56.8	69.1	37.0	58.7	56.4	46.1	48.2	55.1	48.7	35.2	27.7	12.6
00:15 - 00:30	55.3	74.0	37.0	54.6	51.4	42.6	45.9	53.9	47.2	32.1	23.6	12.2
00:30 - 00:45	57.1	73.2	38.0	57.1	53.0	44.5	48.3	55.3	49.4	34.5	25.5	12.3
00:45 - 01:00	55.0	70.0	38.0	60.7	55.9	49.1	47.6	53.0	46.8	34.5	27.3	13.8
01:00 - 01:15	56.2	71.6	42.0	56.3	51.3	44.7	47.9	54.5	48.3	34.8	27.4	16.3
01:15 - 01:30	54.3	70.9	42.0	57.7	54.4	44.4	47.1	52.4	46.3	34.1	28.0	16.4
01:30 - 01:45	55.0	71.5	42.0	56.5	50.0	43.7	46.1	53.4	47.0	33.8	27.2	17.0
01:45 - 02:00	55.5	71.5	41.0	58.0	51.6	44.5	48.7	53.7	47.2	34.7	27.9	16.0
02:00 - 02:15	53.0	69.7	42.0	55.5	48.6	42.9	44.3	51.2	45.3	33.1	27.5	18.5
02:15 - 02:30	55.2	71.1	42.0	60.5	51.3	44.4	47.0	53.5	47.2	34.6	27.9	20.1
02:30 - 02:45	55.2	74.5	42.0	57.9	51.8	45.0	47.3	53.3	47.3	35.2	28.8	17.9
02:45 - 03:00	52.7	68.4	43.0	58.3	50.8	44.1	45.5	50.7	44.8	33.9	28.8	19.4
03:00 - 03:15	53.6	71.2	44.0	56.7	50.5	44.6	45.7	51.6	46.1	35.3	29.7	19.2
03:15 - 03:30	56.7	78.2	44.0	60.4	52.0	46.0	49.7	54.9	48.4	39.2	33.6	17.8
03:30 - 03:45	55.3	70.4	43.0	57.2	51.9	45.2	46.6	53.5	47.8	35.3	29.0	15.1
03:45 - 04:00	56.1	71.4	45.0	56.9	51.9	45.3	48.9	54.4	47.8	35.8	29.6	17.3
04:00 - 04:15	56.5	75.1	45.0	57.7	52.5	44.4	48.2	54.7	48.9	37.2	30.8	16.8
04:15 - 04:30	57.7	73.5	45.0	58.2	53.5	46.4	49.0	56.0	50.0	37.3	30.6	15.4
04:30 - 04:45	59.1	73.1	44.0	59.8	56.1	48.8	50.8	57.3	51.2	37.9	30.0	15.8
04:45 - 05:00	59.7	71.7	45.0	59.9	55.0	47.2	51.4	58.0	51.8	39.0	32.4	17.2
05:00 - 05:15	59.9	71.6	47.0	59.7	55.9	49.1	50.7	58.2	52.2	40.5	34.3	17.1
05:15 - 05:30	63.7	76.6	49.0	64.4	59.1	50.5	54.4	62.0	56.0	43.8	38.4	19.1
05:30 - 05:45	65.2	73.9	52.0	63.2	59.8	51.8	55.5	63.5	57.6	47.0	46.1	21.1
05:45 - 06:00	65.3	78.0	54.0	64.0	61.7	57.9	56.4	63.4	57.7	46.7	43.7	19.7
06:00 - 06:15	66.1	75.3	54.0	65.2	62.4	54.3	56.7	64.4	58.5	44.9	36.9	18.0
06:15 - 06:30	68.1	76.5	56.0	66.6	63.4	55.2	59.0	66.4	60.3	46.8	39.2	20.5
06:30 - 06:45	68.5	78.3	59.0	68.2	64.5	56.7	58.5	66.8	61.1	46.9	38.5	17.5
06:45 - 07:00	69.5	85.9	60.0	68.9	66.8	59.1	60.7	67.7	61.8	49.6	42.5	18.6

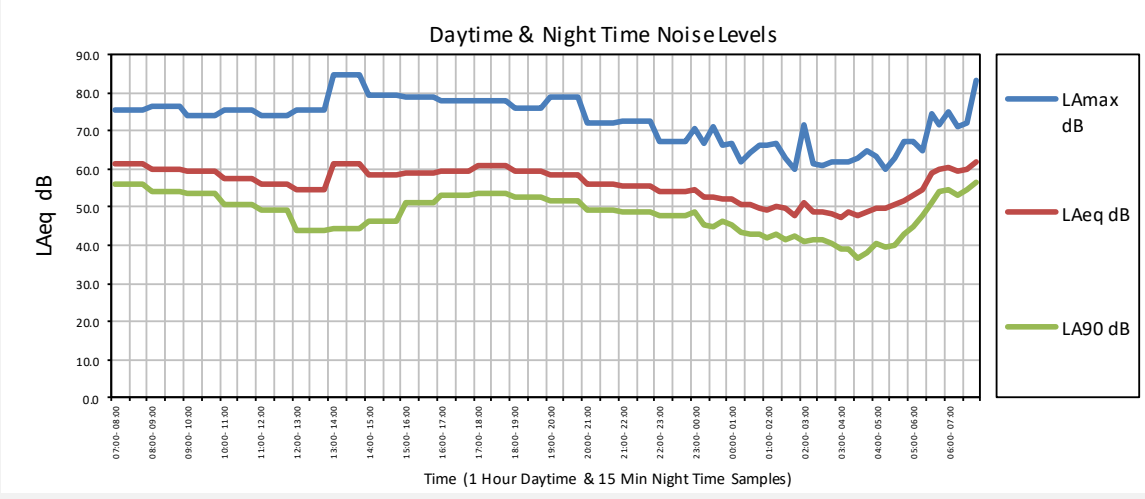


12.5 21st – 22nd April 2022 Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	58.7	84.5	54.0	59.9	53.6	49.9	52.3	54.6	48.4	52.6	46.3	20.2
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	54.6	83.1	43.0	55.7	46.6	48.4	50.0	51.3	45.2	45.8	37.6	17.7

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	61.6	75.5	56.0	61.3	52.5	50.6	56.0	58.5	52.1	53.2	41.2	15.8
08:00 - 09:00	60.0	76.4	54.0	61.1	50.0	47.9	54.0	57.1	50.4	50.7	46.6	18.9
09:00 - 10:00	59.4	74.0	54.0	61.1	50.1	46.3	53.5	56.6	49.8	51.0	40.2	16.0
10:00 - 11:00	57.3	75.4	50.0	60.3	51.9	48.6	49.7	53.4	47.7	51.1	41.0	17.2
11:00 - 12:00	55.9	73.8	49.0	59.5	51.6	48.0	48.3	51.4	45.9	50.7	39.3	16.9
12:00 - 13:00	54.3	75.5	44.0	58.1	50.6	45.0	42.5	44.4	43.0	51.9	38.7	16.2
13:00 - 14:00	61.2	84.5	44.0	59.3	60.7	47.9	40.9	42.0	44.4	59.2	53.7	27.3
14:00 - 15:00	58.6	79.1	46.0	59.1	53.2	50.6	47.2	49.4	45.1	55.1	51.6	23.6
15:00 - 16:00	59.0	78.7	51.0	60.0	54.2	51.7	51.7	54.4	48.1	52.8	49.5	21.9
16:00 - 17:00	59.3	77.7	53.0	61.3	52.5	50.3	52.8	55.5	48.9	52.2	49.2	21.5
17:00 - 18:00	60.8	77.9	54.0	61.5	54.8	50.7	54.1	56.2	49.9	56.1	42.7	19.5
18:00 - 19:00	59.4	75.7	53.0	61.0	54.4	52.1	54.1	55.9	49.7	51.6	42.0	19.1
19:00 - 20:00	58.6	78.7	52.0	59.8	54.2	53.0	55.5	55.8	49.5	37.3	31.6	17.0
20:00 - 21:00	56.2	72.2	49.0	56.9	46.6	47.2	51.8	54.0	47.5	32.3	25.2	12.8
21:00 - 22:00	55.4	72.6	48.0	56.6	48.6	51.5	51.5	52.8	46.3	33.2	29.7	15.0
22:00 - 23:00	54.1	67.3	48.0	56.2	47.8	47.9	49.4	51.8	45.2	35.5	33.3	16.9

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	54.3	70.6	49.0	56.8	47.0	50.0	50.7	51.7	45.2	35.6	33.8	17.3
23:15 - 23:30	52.6	66.5	45.0	55.8	47.3	50.7	47.8	49.9	43.6	35.5	34.1	17.5
23:30 - 23:45	52.6	71.0	45.0	56.9	48.9	48.9	48.2	49.8	43.8	36.0	34.2	18.2
23:45 - 00:00	52.0	66.1	46.0	54.7	48.0	47.5	47.5	49.0	43.3	38.2	37.2	20.2
00:00 - 00:15	52.2	66.6	46.0	54.9	48.3	48.2	48.3	49.3	43.0	35.8	34.6	17.9
00:15 - 00:30	50.7	61.8	44.0	53.1	45.5	46.1	46.6	47.8	41.8	35.2	34.1	17.5
00:30 - 00:45	50.5	64.0	43.0	54.3	44.9	45.0	47.3	47.5	41.3	34.9	33.8	17.2
00:45 - 01:00	49.8	66.4	43.0	52.1	45.1	44.6	45.1	47.2	41.1	34.8	33.8	17.3
01:00 - 01:15	49.1	66.3	42.0	51.9	45.0	44.7	45.1	46.3	40.1	33.8	32.7	16.5
01:15 - 01:30	50.3	66.7	43.0	53.9	45.3	44.8	46.6	47.5	41.3	34.5	33.2	16.8
01:30 - 01:45	49.6	63.0	42.0	54.7	46.1	44.7	45.7	46.8	40.1	34.7	33.8	17.3
01:45 - 02:00	47.9	59.7	42.0	52.2	46.6	45.3	44.0	43.8	39.0	36.7	35.9	19.0
02:00 - 02:15	51.0	71.3	41.0	55.2	45.7	48.6	50.3	46.6	40.3	35.4	34.5	17.8
02:15 - 02:30	48.7	61.5	41.0	52.2	46.4	45.3	43.9	45.2	40.1	37.2	36.3	19.3
02:30 - 02:45	48.9	60.9	42.0	52.2	46.0	44.6	44.7	45.8	39.8	36.1	35.3	18.5
02:45 - 03:00	48.3	61.8	40.0	52.3	46.0	44.3	43.8	45.2	39.1	34.9	34.2	17.5
03:00 - 03:15	47.3	61.8	39.0	50.0	43.8	43.2	44.0	44.0	38.2	33.8	32.9	16.6
03:15 - 03:30	48.8	61.8	39.0	50.8	43.6	44.8	44.6	46.0	39.7	33.5	32.4	16.2
03:30 - 03:45	47.7	62.8	36.0	53.1	39.7	39.5	44.4	45.0	38.7	28.8	27.1	13.3
03:45 - 04:00	48.6	64.7	38.0	53.0	41.8	41.8	45.2	45.9	39.2	31.3	29.5	14.4
04:00 - 04:15	49.9	63.1	40.0	52.5	43.8	44.1	45.9	47.3	40.9	33.7	32.2	16.1
04:15 - 04:30	49.7	59.8	40.0	55.8	42.5	42.6	46.4	47.1	40.2	31.4	29.8	14.5
04:30 - 04:45	50.6	62.7	40.0	55.8	47.9	43.4	46.3	48.0	41.7	35.5	35.0	13.9
04:45 - 05:00	51.5	67.2	43.0	53.3	44.3	45.1	47.3	48.2	42.7	39.3	38.5	16.5
05:00 - 05:15	53.3	67.1	45.0	54.0	43.3	44.4	48.5	49.8	45.4	42.2	41.3	15.9
05:15 - 05:30	54.6	64.8	48.0	55.3	45.3	47.4	49.5	50.8	45.4	44.5	45.1	18.2
05:30 - 05:45	58.9	74.2	51.0	57.2	47.2	50.8	52.6	54.3	48.2	53.9	40.5	18.8
05:45 - 06:00	59.7	71.6	54.0	56.5	46.0	48.1	51.4	54.3	48.6	55.7	43.2	18.9
06:00 - 06:15	60.4	75.1	54.0	57.9	48.2	50.4	53.0	55.5	49.5	55.9	43.8	19.6
06:15 - 06:30	59.2	71.1	53.0	59.9	49.2	51.1	54.3	56.7	50.2	47.1	41.3	22.0
06:30 - 06:45	59.8	72.2	54.0	60.5	51.1	55.4	54.7	57.5	51.1	42.4	34.8	17.3
06:45 - 07:00	61.9	83.1	57.0	61.9	51.1	55.6	59.1	59.0	52.7	43.3	33.9	15.5

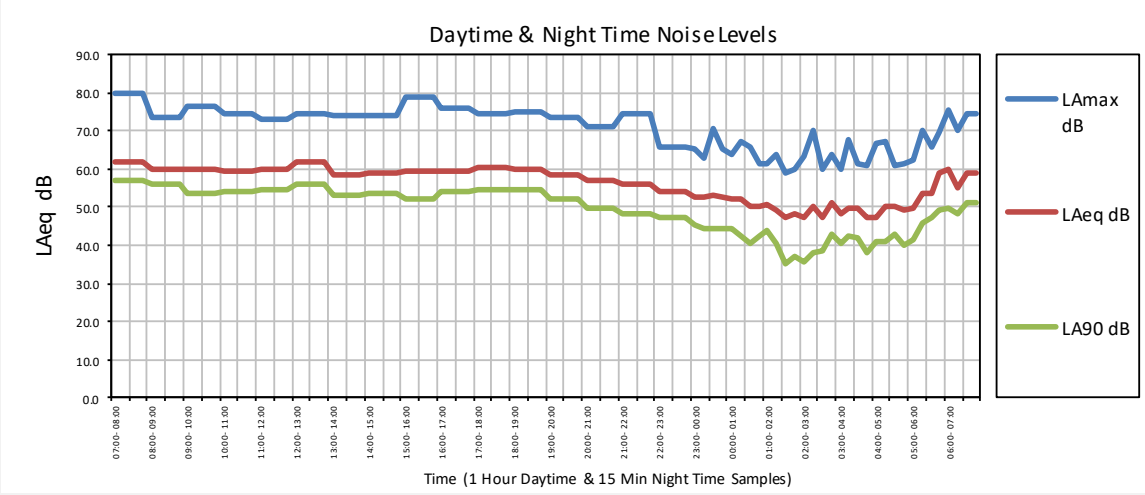


12.6 22nd – 23rd April 2022 Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	59.4	79.8	54.0	60.7	53.6	52.6	53.9	55.9	50.3	51.0	43.7	19.8
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	53.3	75.3	44.0	53.6	44.9	44.7	47.0	48.9	43.4	47.6	37.7	16.7

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	61.7	79.8	57.0	62.1	51.9	53.6	56.2	57.9	51.7	54.4	49.0	24.4
08:00 - 09:00	60.0	73.7	56.0	61.3	50.0	50.2	54.6	56.9	51.7	50.5	42.3	18.2
09:00 - 10:00	59.8	76.2	54.0	61.3	52.5	51.4	54.3	56.6	50.7	50.5	46.1	19.4
10:00 - 11:00	59.5	74.4	54.0	61.6	53.3	52.2	54.4	56.2	50.1	51.1	41.0	18.0
11:00 - 12:00	59.8	73.2	55.0	61.3	57.8	55.0	54.7	56.6	51.1	49.0	40.3	18.1
12:00 - 13:00	61.9	74.5	56.0	62.6	58.8	58.4	55.4	57.3	55.0	53.6	44.4	21.1
13:00 - 14:00	58.3	74.0	53.0	61.9	53.6	52.2	53.8	55.6	49.0	46.0	39.6	18.5
14:00 - 15:00	58.7	73.9	53.0	60.5	52.4	50.6	53.4	55.6	49.2	49.5	43.5	18.9
15:00 - 16:00	59.1	79.0	52.0	60.4	50.8	47.8	51.7	55.0	48.5	53.0	49.2	21.5
16:00 - 17:00	59.5	75.8	54.0	60.5	54.1	55.4	55.2	55.8	49.5	51.5	42.7	19.0
17:00 - 18:00	60.6	74.5	54.0	61.8	53.2	50.7	53.5	55.8	50.0	55.7	45.4	22.2
18:00 - 19:00	59.7	74.9	54.0	61.6	55.2	51.1	53.6	56.3	50.1	52.2	40.4	19.9
19:00 - 20:00	58.5	73.7	52.0	59.2	50.6	50.0	53.9	55.8	49.3	48.0	36.9	18.8
20:00 - 21:00	56.8	70.8	49.0	57.6	48.5	50.9	52.7	54.4	48.1	35.0	31.6	15.8
21:00 - 22:00	55.8	74.5	48.0	56.5	48.3	49.0	50.9	53.3	48.1	36.8	33.1	16.9
22:00 - 23:00	54.2	65.6	47.0	55.8	48.0	46.9	49.5	52.0	45.4	34.6	32.7	16.6

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	52.6	65.3	45.0	55.6	47.1	45.8	48.3	50.2	43.6	34.6	32.8	16.8
23:15 - 23:30	52.5	62.6	44.0	57.4	48.1	43.0	47.2	50.4	43.8	29.8	25.5	13.0
23:30 - 23:45	52.9	70.5	44.0	53.1	42.2	42.5	47.5	51.0	44.5	30.9	26.0	13.0
23:45 - 00:00	52.8	65.1	45.0	53.7	44.5	43.1	47.3	50.8	44.6	32.5	29.6	14.7
00:00 - 00:15	52.0	63.8	44.0	53.1	44.0	43.5	47.4	49.8	43.2	33.2	31.7	15.7
00:15 - 00:30	51.9	67.0	42.0	53.7	44.8	42.8	47.8	49.6	43.1	30.9	28.1	13.7
00:30 - 00:45	50.3	65.8	40.0	51.2	44.6	44.4	46.3	47.8	41.7	31.6	29.9	14.6
00:45 - 01:00	50.3	61.3	43.0	54.0	45.3	44.3	45.4	47.5	41.7	36.2	35.1	18.3
01:00 - 01:15	50.6	61.5	44.0	54.2	47.5	46.0	46.5	47.4	41.8	37.6	36.7	19.6
01:15 - 01:30	49.3	63.6	40.0	52.2	42.7	42.3	45.3	46.7	40.6	32.3	30.8	15.1
01:30 - 01:45	47.3	59.0	35.0	47.9	38.6	37.2	41.7	45.3	39.0	27.1	24.9	12.6
01:45 - 02:00	48.3	59.9	37.0	50.2	40.0	39.8	44.2	45.9	39.4	29.6	27.9	13.6
02:00 - 02:15	47.4	63.1	35.0	49.2	40.7	39.4	44.1	44.8	38.5	29.6	28.4	13.9
02:15 - 02:30	50.2	70.0	38.0	52.3	42.2	44.4	46.7	47.5	41.1	31.6	29.6	14.4
02:30 - 02:45	47.0	59.9	39.0	49.0	43.3	42.2	41.9	44.0	38.3	33.9	33.0	16.5
02:45 - 03:00	51.1	63.8	43.0	53.2	47.1	47.7	47.6	47.8	41.7	37.2	36.2	19.1
03:00 - 03:15	48.1	59.8	40.0	50.7	44.8	43.8	43.4	45.1	39.3	35.2	34.3	17.5
03:15 - 03:30	49.9	67.8	43.0	53.9	46.3	46.6	46.5	46.4	40.5	36.6	35.5	18.4
03:30 - 03:45	49.7	61.5	42.0	53.2	43.9	43.3	46.4	46.8	40.3	33.7	32.5	16.2
03:45 - 04:00	47.2	60.9	38.0	51.5	44.4	43.4	42.6	44.3	38.2	33.3	32.4	16.1
04:00 - 04:15	47.1	66.6	41.0	50.8	44.7	43.1	42.8	43.5	38.1	35.5	35.0	19.0
04:15 - 04:30	50.1	67.3	41.0	51.8	44.7	45.8	45.6	47.2	41.7	35.5	32.7	16.3
04:30 - 04:45	50.3	60.9	43.0	55.3	49.9	44.5	45.6	47.6	41.4	34.4	33.3	16.9
04:45 - 05:00	49.1	61.4	40.0	51.7	44.6	43.2	44.2	46.4	40.4	34.9	33.7	16.9
05:00 - 05:15	49.7	62.1	42.0	53.2	43.3	42.3	45.4	46.5	41.5	36.3	34.6	15.4
05:15 - 05:30	53.6	69.9	46.0	54.0	43.2	52.2	49.2	48.7	44.8	44.2	43.9	16.7
05:30 - 05:45	53.6	65.5	47.0	57.6	42.8	42.6	48.7	49.4	43.5	45.4	44.5	17.3
05:45 - 06:00	58.8	69.4	49.0	52.4	41.2	41.6	47.1	50.0	45.4	56.6	44.7	19.6
06:00 - 06:15	60.0	75.3	50.0	54.1	39.8	40.9	48.7	50.3	45.8	58.0	45.7	20.8
06:15 - 06:30	55.1	69.9	48.0	55.5	45.8	46.1	49.9	51.9	46.0	46.2	38.0	13.4
06:30 - 06:45	59.1	74.6	51.0	55.7	45.8	46.3	50.9	53.7	49.5	54.7	38.7	15.4
06:45 - 07:00	59.1	74.6	51.0	55.7	45.8	46.3	50.9	53.7	49.5	54.7	38.7	15.4

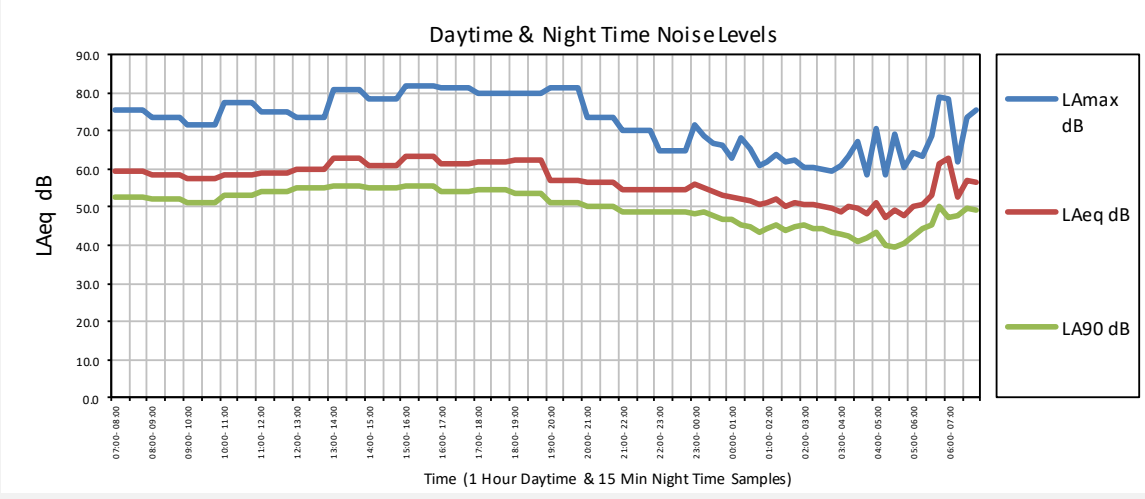


12.7 23rd – 24th April 2022 Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	59.9	81.6	55.0	60.3	53.3	52.2	53.3	55.6	49.3	53.2	51.0	24.1
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	54.0	78.9	44.0	54.5	48.2	47.1	47.1	48.9	43.4	49.3	38.6	19.3

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	59.4	75.6	52.0	57.5	48.9	49.0	52.5	55.0	49.3	54.1	41.0	17.0
08:00 - 09:00	58.4	73.5	52.0	59.2	49.3	49.5	53.0	55.8	49.4	47.6	41.9	18.6
09:00 - 10:00	57.5	71.7	51.0	58.7	50.3	46.8	50.9	55.1	48.7	45.9	39.3	15.4
10:00 - 11:00	58.3	77.6	53.0	60.8	55.8	53.1	53.3	55.6	49.1	45.7	39.3	17.4
11:00 - 12:00	58.7	74.8	54.0	61.6	54.3	51.9	53.2	56.1	49.7	47.3	38.9	20.0
12:00 - 13:00	59.8	73.7	55.0	62.5	56.1	53.6	53.6	56.5	50.4	51.8	42.0	23.5
13:00 - 14:00	62.9	80.8	55.0	62.4	55.5	54.4	54.7	56.7	50.7	57.5	56.7	29.2
14:00 - 15:00	60.7	78.5	55.0	61.5	55.3	53.5	54.3	56.6	50.3	53.3	52.3	25.7
15:00 - 16:00	63.3	81.6	55.0	61.8	55.7	54.1	54.3	56.7	50.4	58.6	56.8	28.2
16:00 - 17:00	61.3	81.1	54.0	61.0	54.3	53.3	55.4	56.8	50.6	54.3	52.8	26.2
17:00 - 18:00	61.6	80.0	55.0	60.8	53.2	52.7	53.7	56.5	50.2	55.5	54.7	27.2
18:00 - 19:00	62.2	80.0	54.0	59.9	52.7	51.9	54.3	56.1	49.9	57.4	55.2	26.5
19:00 - 20:00	56.9	81.1	51.0	59.1	51.9	51.0	52.4	54.6	48.2	38.6	35.8	18.9
20:00 - 21:00	56.3	73.3	50.0	57.5	50.0	53.6	53.0	53.4	47.2	38.7	37.2	20.3
21:00 - 22:00	54.7	70.1	49.0	57.5	48.9	49.6	50.3	52.2	45.9	38.0	36.6	19.8
22:00 - 23:00	54.5	64.6	49.0	56.3	48.4	48.2	49.4	52.2	45.8	36.8	35.4	18.6

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	56.1	71.6	48.0	58.0	57.6	50.2	51.1	53.4	47.7	40.1	33.0	14.7
23:15 - 23:30	54.8	68.4	49.0	57.6	48.8	50.1	50.2	52.3	46.0	36.5	35.0	18.1
23:30 - 23:45	53.8	66.8	48.0	55.5	48.5	47.9	48.8	51.3	45.1	38.6	37.7	20.6
23:45 - 00:00	52.9	66.4	47.0	55.5	48.6	48.9	48.3	50.0	44.0	38.5	37.6	20.5
00:00 - 00:15	52.5	62.9	47.0	54.3	48.7	48.7	47.6	49.6	43.8	38.9	38.1	21.0
00:15 - 00:30	52.3	68.1	45.0	53.7	47.4	50.2	48.0	49.6	43.2	36.0	34.8	18.6
00:30 - 00:45	51.7	65.2	45.0	52.7	46.4	46.4	47.5	49.2	42.9	33.1	31.5	15.8
00:45 - 01:00	50.7	60.6	44.0	54.6	45.9	44.9	45.9	48.1	41.8	35.5	34.6	18.0
01:00 - 01:15	51.0	61.8	44.0	54.8	45.5	44.3	46.4	48.4	42.2	35.7	34.7	18.1
01:15 - 01:30	52.0	63.7	45.0	55.2	48.2	47.7	47.7	48.9	43.2	38.6	37.6	20.5
01:30 - 01:45	50.1	61.6	44.0	53.5	48.1	47.1	45.5	46.6	41.2	37.9	37.1	20.0
01:45 - 02:00	51.0	62.2	45.0	55.4	48.8	47.2	46.1	47.6	42.5	39.3	38.4	21.2
02:00 - 02:15	50.7	60.5	45.0	53.8	47.9	46.1	45.7	47.7	42.1	38.0	37.1	20.1
02:15 - 02:30	50.6	60.3	44.0	54.9	48.5	46.5	45.9	47.4	42.0	38.0	37.1	20.1
02:30 - 02:45	50.3	59.7	44.0	54.7	48.3	46.3	45.4	46.9	41.6	38.2	37.5	20.3
02:45 - 03:00	49.5	59.2	43.0	53.5	48.1	45.7	45.1	45.8	40.7	38.0	37.3	20.3
03:00 - 03:15	48.9	61.0	43.0	52.0	45.3	43.9	44.4	46.1	40.1	35.1	34.3	17.6
03:15 - 03:30	50.2	63.4	43.0	53.8	45.9	44.5	46.0	47.4	41.2	35.2	34.3	17.7
03:30 - 03:45	49.9	66.9	41.0	51.9	46.0	45.6	45.5	47.2	41.0	34.5	33.6	17.2
03:45 - 04:00	48.3	58.4	42.0	51.3	46.2	44.5	43.6	44.9	39.5	36.3	35.6	18.7
04:00 - 04:15	50.9	70.6	44.0	53.2	47.2	48.5	47.9	47.5	41.4	37.1	36.2	19.2
04:15 - 04:30	47.2	58.2	40.0	50.2	43.0	41.9	42.8	44.3	38.3	32.6	31.7	15.8
04:30 - 04:45	49.1	69.0	40.0	50.1	42.4	43.2	44.5	46.7	40.4	31.7	30.2	14.7
04:45 - 05:00	47.8	60.4	41.0	50.5	43.0	42.3	43.0	44.8	39.5	33.6	32.6	16.2
05:00 - 05:15	50.3	64.4	42.0	52.3	43.3	43.3	45.3	46.5	42.6	40.0	37.4	16.7
05:15 - 05:30	50.8	63.1	44.0	51.6	44.0	44.1	44.8	47.5	42.2	40.9	39.2	17.5
05:30 - 05:45	53.2	68.8	45.0	52.0	45.0	46.4	47.1	49.1	43.5	46.8	37.3	17.6
05:45 - 06:00	61.2	78.9	50.0	56.0	46.1	47.5	48.0	49.3	46.3	59.5	46.5	23.2
06:00 - 06:15	62.6	78.2	47.0	54.4	46.3	46.1	47.0	48.5	46.2	61.2	47.3	23.5
06:15 - 06:30	52.7	61.9	48.0	58.1	48.8	46.7	47.3	49.8	44.1	41.3	36.5	18.8
06:30 - 06:45	57.0	73.4	50.0	56.6	47.8	50.2	48.9	52.2	46.6	52.3	40.6	19.3
06:45 - 07:00	56.5	75.2	49.0	55.7	47.9	50.2	50.0	52.0	46.2	51.1	38.9	19.3

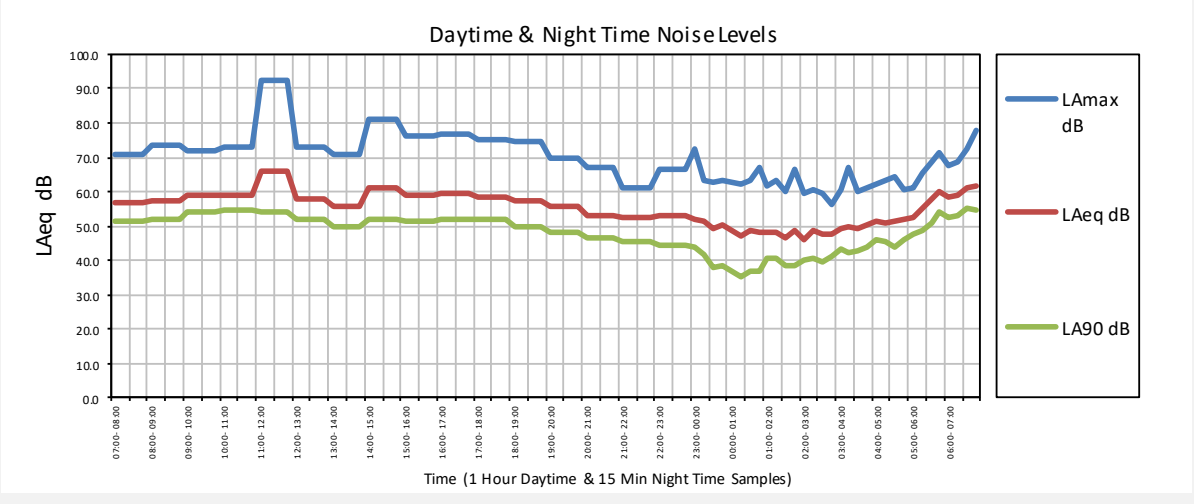


12.8 24th – 25th April 2022 Position 2

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	59.0	92.1	52.0	58.9	52.0	49.1	51.5	54.2	47.6	53.0	51.2	22.7
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	54.3	77.7	41.0	54.9	46.3	47.8	49.4	50.9	44.9	45.4	37.1	18.0

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	56.9	71.0	51.0	57.4	50.3	50.7	52.7	53.7	47.9	46.6	38.5	18.1
08:00 - 09:00	57.5	73.3	52.0	58.0	49.8	50.8	52.2	54.9	48.7	46.3	40.7	18.9
09:00 - 10:00	58.9	71.9	54.0	60.3	54.5	51.6	53.9	56.5	49.9	45.1	38.6	19.5
10:00 - 11:00	59.1	72.8	54.0	60.2	52.7	51.0	53.4	56.8	50.1	46.9	39.3	18.3
11:00 - 12:00	65.9	92.1	54.0	61.0	55.4	51.7	53.2	55.7	49.4	61.7	61.8	32.1
12:00 - 13:00	58.1	73.1	52.0	61.4	54.9	49.6	51.3	54.1	47.5	52.1	43.4	20.6
13:00 - 14:00	55.8	70.7	50.0	59.6	53.5	47.7	49.5	52.5	45.9	48.3	38.7	17.7
14:00 - 15:00	60.9	80.9	52.0	59.1	51.5	49.3	51.4	54.6	47.9	55.8	55.2	25.8
15:00 - 16:00	59.1	76.2	51.0	59.1	52.8	50.1	52.3	54.8	48.9	53.7	39.6	17.9
16:00 - 17:00	59.6	76.8	52.0	58.8	52.1	48.5	50.8	53.9	47.1	54.7	52.5	24.2
17:00 - 18:00	58.6	75.2	52.0	60.0	52.6	47.9	51.1	54.5	47.8	53.4	40.9	17.7
18:00 - 19:00	57.4	74.8	50.0	57.6	49.3	46.5	50.4	54.0	46.6	51.2	40.0	16.1
19:00 - 20:00	55.5	69.7	48.0	57.1	48.2	45.6	50.5	53.4	45.9	41.8	27.9	12.6
20:00 - 21:00	53.3	66.8	46.0	55.4	44.0	41.9	48.2	51.6	43.8	30.5	20.6	11.5
21:00 - 22:00	52.7	61.4	46.0	55.8	49.9	45.0	48.3	50.6	43.3	26.1	15.8	11.7
22:00 - 23:00	53.1	66.3	44.0	54.7	43.1	46.3	49.5	50.7	44.1	27.4	16.5	11.5

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	52.1	72.5	44.0	52.2	43.8	49.2	47.8	49.6	42.9	27.5	22.3	12.0
23:15 - 23:30	51.3	63.4	42.0	52.2	40.4	41.6	47.0	49.0	42.6	27.0	18.9	11.6
23:30 - 23:45	49.3	63.0	38.0	52.2	39.7	40.0	45.0	47.1	40.2	25.7	21.3	11.9
23:45 - 00:00	50.1	63.4	38.0	49.3	39.8	41.5	45.8	47.8	41.4	26.6	22.6	12.1
00:00 - 00:15	48.8	62.9	37.0	51.7	38.3	41.3	45.6	46.3	39.2	26.7	23.9	12.3
00:15 - 00:30	47.2	62.2	35.0	48.0	37.7	38.1	42.4	45.3	37.9	27.3	25.8	12.7
00:30 - 00:45	48.9	63.5	37.0	49.3	38.3	40.0	45.8	46.3	39.7	28.1	26.0	12.8
00:45 - 01:00	48.1	66.8	37.0	54.0	42.5	47.7	45.6	44.1	37.7	32.8	32.1	15.8
01:00 - 01:15	48.4	61.7	41.0	49.9	43.5	43.8	44.2	45.5	39.2	34.5	33.9	17.2
01:15 - 01:30	48.2	63.2	41.0	52.0	45.6	44.6	44.7	44.1	38.9	36.8	36.4	19.2
01:30 - 01:45	46.8	60.1	39.0	49.3	41.2	41.1	42.3	44.1	37.7	32.4	31.8	15.5
01:45 - 02:00	48.5	66.7	38.0	51.1	42.5	42.4	46.5	44.9	38.3	33.9	33.3	16.6
02:00 - 02:15	46.2	59.6	40.0	48.9	43.5	42.6	41.4	42.6	37.4	35.2	34.7	17.6
02:15 - 02:30	48.5	60.6	41.0	53.8	44.3	43.9	44.6	45.3	39.1	35.8	35.3	18.1
02:30 - 02:45	47.9	59.5	40.0	51.2	44.8	43.9	43.9	44.5	38.7	35.6	35.1	17.9
02:45 - 03:00	47.4	56.4	41.0	52.6	45.7	44.4	43.6	43.1	38.3	37.0	36.5	19.2
03:00 - 03:15	49.2	60.7	43.0	53.4	48.5	46.8	44.7	44.6	40.3	39.3	38.7	21.4
03:15 - 03:30	49.8	67.1	42.0	54.7	46.8	47.5	46.2	45.6	40.7	37.8	37.1	19.7
03:30 - 03:45	49.4	59.8	43.0	53.0	46.3	46.1	45.0	45.7	40.6	37.9	37.2	19.8
03:45 - 04:00	50.4	61.1	44.0	53.4	47.8	47.0	46.5	46.6	41.2	39.1	38.4	20.8
04:00 - 04:15	51.2	62.0	46.0	54.8	49.2	48.1	46.6	47.1	42.5	40.8	39.9	22.1
04:15 - 04:30	50.7	63.2	45.0	54.0	48.1	46.9	46.1	47.5	42.0	38.5	37.6	20.1
04:30 - 04:45	51.2	64.2	44.0	54.0	45.7	46.7	47.2	48.5	42.2	36.1	35.1	17.7
04:45 - 05:00	52.1	60.4	46.0	54.7	47.2	47.1	47.8	49.1	43.4	38.1	37.1	19.4
05:00 - 05:15	52.6	61.0	48.0	54.0	47.7	47.2	47.0	49.4	45.3	39.9	37.5	19.6
05:15 - 05:30	55.0	65.2	49.0	57.1	48.6	48.4	50.0	52.6	46.3	39.6	36.5	18.5
05:30 - 05:45	58.1	68.7	51.0	55.8	46.4	49.3	51.0	54.0	47.9	52.7	39.6	18.1
05:45 - 06:00	60.1	71.5	54.0	57.2	47.3	54.9	53.2	54.5	48.7	55.9	43.4	19.1
06:00 - 06:15	58.5	67.7	53.0	57.5	48.0	50.5	52.3	55.1	48.9	51.6	39.7	18.3
06:15 - 06:30	58.9	68.7	53.0	59.7	50.2	51.4	54.4	56.6	50.0	42.9	35.7	17.6
06:30 - 06:45	60.9	72.5	55.0	61.0	49.3	51.0	55.2	57.6	51.5	52.8	44.4	18.1
06:45 - 07:00	61.7	77.7	55.0	60.5	50.5	54.1	58.3	58.6	52.9	48.8	37.1	15.3

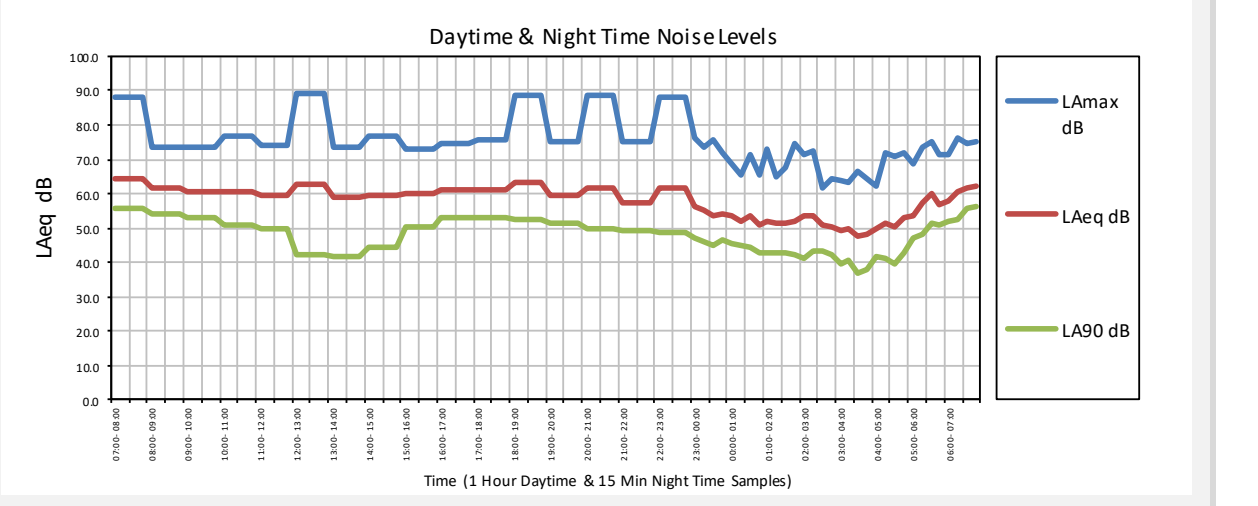


12.9 21st – 22nd April 2022 Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	61.2	89.2	53.0	65.2	60.1	58.7	54.5	58.0	53.8	47.9	44.6	29.8
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	55.4	76.2	43.0	60.1	52.4	48.4	48.6	52.5	47.7	43.4	42.3	25.8

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	64.5	88.3	56.0	65.6	61.5	64.8	57.4	60.9	57.0	48.3	41.5	24.0
08:00 - 09:00	61.8	73.8	54.0	64.7	58.2	54.4	53.4	59.3	55.3	46.4	40.4	21.7
09:00 - 10:00	60.5	73.8	53.0	64.2	57.9	53.5	52.4	58.1	53.7	44.2	37.4	20.8
10:00 - 11:00	60.4	76.8	51.0	64.8	59.5	55.1	52.8	57.7	53.6	44.7	37.5	21.9
11:00 - 12:00	59.6	73.9	50.0	64.7	59.7	55.3	52.2	56.9	52.5	43.6	36.0	20.1
12:00 - 13:00	62.7	89.2	42.0	65.1	62.3	60.1	57.5	58.3	54.8	53.0	50.8	37.3
13:00 - 14:00	58.8	73.8	41.0	64.7	59.9	54.6	51.4	55.8	51.8	43.4	35.2	20.5
14:00 - 15:00	59.5	76.9	44.0	69.1	60.2	56.0	52.0	56.1	52.2	47.1	47.3	24.3
15:00 - 16:00	60.0	73.0	50.0	66.4	60.5	55.6	52.7	57.3	52.8	43.6	36.6	22.1
16:00 - 17:00	61.3	74.4	53.0	67.4	62.3	56.5	53.7	58.7	54.1	45.1	37.7	24.1
17:00 - 18:00	61.3	75.8	53.0	67.3	62.2	56.6	54.0	58.7	54.1	45.0	38.0	24.1
18:00 - 19:00	63.2	88.8	52.0	64.9	61.3	60.0	57.3	59.4	55.3	52.8	50.4	36.4
19:00 - 20:00	59.5	75.2	52.0	63.4	57.3	52.8	52.9	57.1	52.1	42.6	36.2	23.5
20:00 - 21:00	61.8	88.7	50.0	60.6	59.0	64.6	55.8	57.3	52.7	46.6	39.8	25.0
21:00 - 22:00	57.3	75.2	49.0	59.7	55.1	50.7	50.4	54.9	50.1	42.0	34.9	22.0
22:00 - 23:00	61.6	88.1	49.0	60.3	58.6	57.9	56.7	57.3	53.4	52.5	49.8	34.9

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	56.3	76.1	47.0	58.6	51.6	47.8	48.8	53.7	49.4	41.1	35.7	23.9
23:15 - 23:30	55.2	73.7	46.0	58.6	52.6	48.0	47.3	52.4	48.4	41.4	36.3	23.9
23:30 - 23:45	53.8	75.6	45.0	58.7	52.4	46.9	47.2	51.1	45.9	40.4	36.4	24.0
23:45 - 00:00	54.1	72.1	47.0	62.7	54.0	49.9	49.1	50.2	46.2	43.1	40.3	28.5
00:00 - 00:15	53.5	68.6	45.0	60.3	51.4	48.1	47.7	50.5	45.7	41.0	38.4	26.6
00:15 - 00:30	52.0	65.7	45.0	60.8	51.5	47.9	47.0	48.2	43.9	41.2	38.8	26.9
00:30 - 00:45	53.4	71.5	45.0	60.3	51.5	48.1	47.8	50.1	45.8	41.4	38.5	26.6
00:45 - 01:00	50.9	65.5	43.0	59.1	50.1	46.3	45.2	47.4	42.9	39.7	37.1	25.4
01:00 - 01:15	52.0	73.0	43.0	58.0	49.2	46.0	45.5	48.7	45.1	39.8	36.5	24.7
01:15 - 01:30	51.6	64.8	43.0	59.6	50.4	46.4	46.9	48.3	42.9	40.2	37.7	25.9
01:30 - 01:45	51.2	67.6	43.0	60.2	50.6	47.0	45.9	47.0	43.4	41.1	38.4	29.9
01:45 - 02:00	51.9	74.7	42.0	59.3	50.0	46.5	45.8	48.4	44.6	40.5	37.7	26.6
02:00 - 02:15	53.3	71.6	41.0	61.8	52.5	49.4	48.6	49.1	45.8	42.4	39.5	27.7
02:15 - 02:30	53.4	72.5	43.0	62.7	55.7	50.4	47.9	49.1	46.0	42.8	39.8	27.9
02:30 - 02:45	51.1	61.6	44.0	60.1	50.8	47.9	46.4	46.9	42.9	40.9	38.1	26.2
02:45 - 03:00	50.2	64.3	42.0	58.7	49.8	46.7	45.3	46.2	41.9	39.6	37.0	25.2
03:00 - 03:15	49.3	63.9	40.0	58.6	49.3	46.2	45.1	44.8	41.3	39.1	36.5	24.5
03:15 - 03:30	49.9	63.4	41.0	57.6	48.7	45.6	44.7	46.2	41.9	39.2	36.5	24.6
03:30 - 03:45	47.9	66.3	37.0	52.8	43.8	40.5	42.2	45.7	39.1	32.0	29.6	18.1
03:45 - 04:00	48.1	64.5	38.0	55.4	46.5	42.8	43.2	45.2	39.1	35.6	33.0	21.2
04:00 - 04:15	49.8	62.0	42.0	56.6	47.7	44.2	44.3	46.9	41.3	37.9	35.2	23.4
04:15 - 04:30	51.2	72.1	41.0	57.9	48.5	45.0	45.2	48.6	43.0	37.7	34.9	23.1
04:30 - 04:45	50.5	71.0	40.0	55.3	47.8	44.2	43.6	48.0	43.0	36.0	33.0	21.2
04:45 - 05:00	52.9	71.7	43.0	58.3	50.4	47.0	46.1	49.9	45.8	40.2	36.8	24.6
05:00 - 05:15	53.6	68.4	47.0	57.0	48.4	44.5	46.4	50.1	45.9	44.1	42.4	23.4
05:15 - 05:30	57.1	73.6	48.0	60.4	52.2	49.2	49.2	54.2	50.4	44.2	43.2	25.1
05:30 - 05:45	60.1	75.0	51.0	62.6	53.5	50.5	50.6	53.9	48.3	54.0	55.1	31.2
05:45 - 06:00	56.7	71.1	51.0	59.6	51.2	47.2	49.7	54.3	48.7	43.9	40.1	24.0
06:00 - 06:15	57.8	71.2	52.0	58.7	50.6	48.0	50.8	55.9	49.7	41.9	39.7	24.7
06:15 - 06:30	60.5	76.2	53.0	61.5	58.2	51.2	52.8	58.2	53.3	44.8	40.0	24.8
06:30 - 06:45	61.6	74.7	56.0	65.0	58.8	54.2	54.0	59.3	54.2	45.8	41.5	26.1
06:45 - 07:00	62.2	74.9	56.0	63.4	56.6	53.9	55.7	60.0	54.9	45.2	39.2	22.6

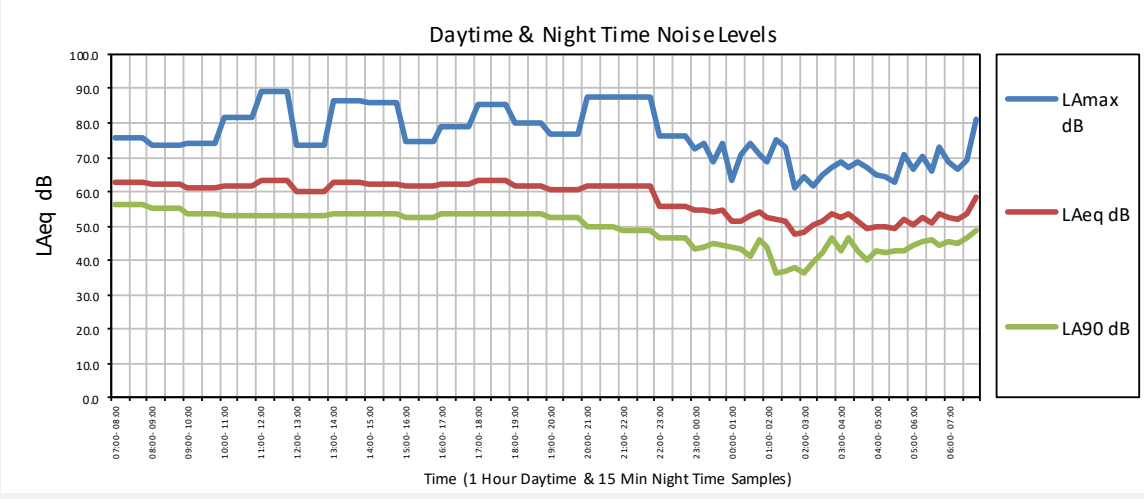


12.10 22nd – 23rd April 2022 Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	61.8	88.9	53.0	65.4	61.3	57.8	55.1	58.6	54.5	49.4	47.0	31.0
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	52.7	81.1	43.0	58.2	51.3	46.7	45.8	49.5	45.0	41.4	39.2	23.7

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	62.6	75.7	56.0	65.9	59.3	55.2	55.4	60.1	55.5	47.0	42.3	26.8
08:00 - 09:00	62.2	73.3	55.0	65.0	57.5	54.3	54.0	59.5	55.2	48.9	48.6	25.3
09:00 - 10:00	61.0	74.2	54.0	64.4	57.5	54.2	53.2	58.4	54.3	45.5	40.3	22.5
10:00 - 11:00	61.6	81.6	53.0	65.6	62.5	56.7	53.8	58.1	53.9	50.5	50.4	27.7
11:00 - 12:00	63.4	88.9	53.0	67.5	63.8	61.1	57.8	59.2	55.4	53.4	51.6	36.9
12:00 - 13:00	60.3	73.4	53.0	65.3	58.6	54.8	52.8	57.4	53.2	45.5	44.6	25.5
13:00 - 14:00	62.9	86.3	53.0	66.0	63.1	59.0	56.9	59.2	55.2	51.9	50.2	33.7
14:00 - 15:00	62.3	85.8	53.0	66.7	63.7	59.6	55.8	58.6	55.0	50.8	47.5	33.7
15:00 - 16:00	61.8	74.8	53.0	66.0	59.5	57.0	53.8	59.1	55.1	45.8	37.2	22.5
16:00 - 17:00	62.1	78.9	53.0	67.0	62.6	56.8	54.7	59.3	55.2	46.6	39.1	24.7
17:00 - 18:00	63.2	85.6	53.0	67.8	63.7	60.0	56.5	59.6	56.0	51.5	47.3	32.0
18:00 - 19:00	61.8	80.0	53.0	64.5	61.6	60.5	55.5	58.8	54.5	45.7	38.6	25.2
19:00 - 20:00	60.5	76.7	52.0	64.5	59.6	54.2	53.0	57.9	53.5	44.6	37.8	24.7
20:00 - 21:00	61.7	87.3	50.0	62.3	62.5	59.5	55.9	57.4	53.5	51.6	50.5	35.7
21:00 - 22:00	61.6	87.5	49.0	60.3	58.3	57.6	56.7	57.6	53.7	51.6	48.4	33.5
22:00 - 23:00	55.5	76.3	47.0	57.2	55.3	49.4	47.4	52.9	48.5	40.6	34.2	21.2

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	54.8	72.7	43.0	57.7	50.1	47.2	46.4	52.2	48.3	38.9	32.9	21.0
23:15 - 23:30	54.6	74.3	44.0	55.7	52.0	46.2	46.6	52.1	47.6	40.2	32.9	19.5
23:30 - 23:45	54.0	68.6	45.0	55.1	47.3	44.4	45.7	51.8	47.0	37.0	30.6	18.7
23:45 - 00:00	54.6	73.8	44.0	54.7	51.0	46.6	46.7	52.2	47.6	40.0	33.2	20.0
00:00 - 00:15	51.3	63.2	44.0	58.2	48.6	44.8	45.1	48.7	43.1	38.8	36.2	24.5
00:15 - 00:30	51.6	70.8	43.0	58.1	50.4	43.4	44.5	49.4	43.6	35.5	32.0	20.3
00:30 - 00:45	53.2	74.3	41.0	58.1	50.3	47.0	46.3	50.1	46.2	40.6	36.8	25.0
00:45 - 01:00	54.2	71.0	46.0	63.9	53.8	50.3	48.9	50.1	46.8	43.7	40.7	28.7
01:00 - 01:15	52.3	68.6	44.0	59.8	50.3	47.2	46.5	49.0	44.8	40.3	37.2	25.3
01:15 - 01:30	52.2	75.2	36.0	55.8	60.1	52.3	44.5	48.1	43.4	38.6	33.8	21.8
01:30 - 01:45	51.6	73.2	37.0	51.8	48.0	43.8	42.8	49.1	45.0	36.8	30.1	17.6
01:45 - 02:00	47.6	60.9	38.0	52.5	43.8	40.0	41.4	45.4	38.8	33.4	30.9	19.3
02:00 - 02:15	48.4	64.4	36.0	54.8	45.9	42.7	42.9	45.5	40.3	35.7	32.8	21.1
02:15 - 02:30	50.4	61.7	40.0	57.8	49.0	46.1	45.3	46.9	42.0	39.2	36.2	24.3
02:30 - 02:45	51.5	65.0	42.0	60.2	51.1	48.4	46.7	47.1	44.0	41.2	38.2	26.2
02:45 - 03:00	53.5	67.3	47.0	62.6	53.4	50.4	48.9	49.1	45.7	42.9	39.7	27.7
03:00 - 03:15	52.3	68.4	43.0	62.0	52.5	49.5	47.7	47.6	44.6	41.9	38.7	27.0
03:15 - 03:30	53.3	67.2	47.0	62.1	52.9	50.1	48.8	48.9	45.6	42.7	39.6	27.5
03:30 - 03:45	51.3	68.5	43.0	57.9	49.6	46.7	45.3	48.1	43.7	38.5	35.3	23.3
03:45 - 04:00	49.4	67.2	40.0	57.0	48.5	45.6	44.0	45.8	41.9	37.9	35.0	23.1
04:00 - 04:15	50.0	64.9	43.0	59.3	50.5	47.4	45.6	45.3	42.1	40.0	37.0	26.2
04:15 - 04:30	49.8	64.6	42.0	57.0	48.3	45.3	44.4	46.7	41.5	37.5	34.8	23.0
04:30 - 04:45	49.5	62.5	43.0	55.8	47.1	43.6	43.3	47.1	40.7	35.9	33.3	21.5
04:45 - 05:00	52.1	70.7	43.0	58.8	50.3	47.5	45.7	48.7	44.9	40.0	36.7	24.8
05:00 - 05:15	50.3	66.6	44.0	56.9	47.6	43.3	42.9	45.9	42.9	41.9	40.3	22.5
05:15 - 05:30	52.6	70.5	46.0	55.4	46.7	45.2	45.9	49.2	46.4	40.4	35.1	20.6
05:30 - 05:45	51.1	65.9	46.0	55.1	47.2	41.7	43.9	48.6	42.7	40.4	36.8	19.2
05:45 - 06:00	53.3	72.9	45.0	56.6	47.4	42.2	44.6	50.8	46.3	41.0	35.5	19.0
06:00 - 06:15	52.3	68.4	45.0	54.6	46.2	41.7	46.0	50.1	44.1	38.1	36.4	20.8
06:15 - 06:30	52.1	66.5	45.0	54.1	50.4	40.9	44.0	50.1	43.3	39.0	37.3	23.2
06:30 - 06:45	53.5	69.1	47.0	53.9	48.8	41.5	45.2	51.6	45.1	38.4	38.8	15.7
06:45 - 07:00	58.5	81.1	49.0	58.2	55.1	47.2	47.8	54.2	49.2	51.5	51.0	24.1

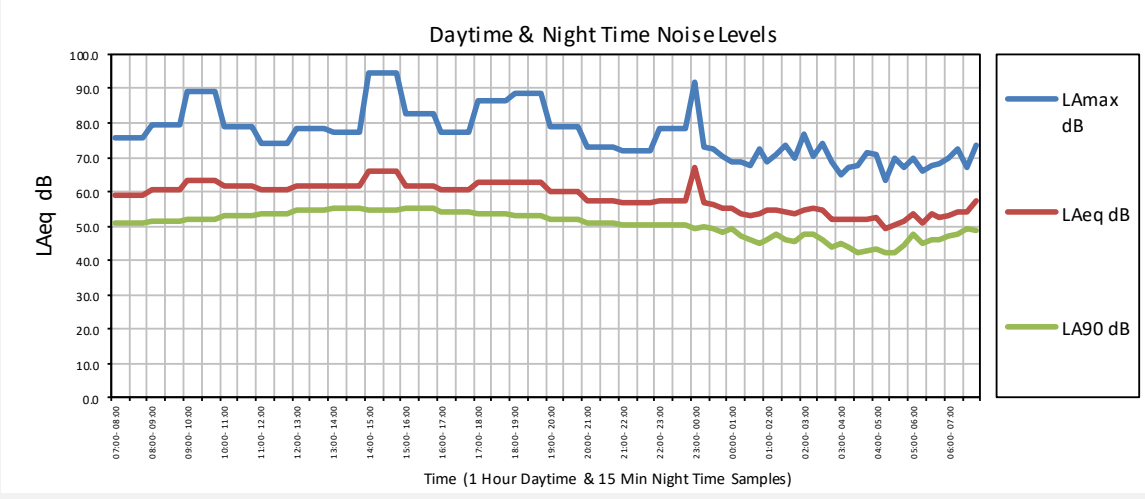


12.11 23rd – 24th April 2022 Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	61.5	94.8	55.0	65.4	61.0	57.6	54.8	58.3	54.2	48.7	46.2	31.3
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	55.9	91.9	46.0	62.0	59.1	54.2	50.1	51.5	47.7	45.3	43.1	29.6

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	58.8	75.5	51.0	60.5	57.6	51.8	50.7	56.4	51.9	43.0	38.0	20.7
08:00 - 09:00	60.8	79.3	52.0	62.9	62.1	57.1	52.0	57.5	53.4	48.2	49.9	25.5
09:00 - 10:00	63.1	88.9	52.0	64.5	62.7	59.9	57.2	59.1	55.6	52.5	50.7	37.0
10:00 - 11:00	61.4	79.1	53.0	65.7	60.7	55.6	53.3	58.1	53.8	50.9	49.7	27.7
11:00 - 12:00	60.8	74.1	54.0	65.5	59.6	55.4	53.3	58.2	53.8	44.8	39.3	26.8
12:00 - 13:00	61.5	78.5	55.0	67.4	61.6	56.7	54.2	58.7	53.9	47.6	45.1	29.2
13:00 - 14:00	61.7	77.2	55.0	68.3	63.0	57.2	54.7	58.8	54.3	47.6	43.5	31.8
14:00 - 15:00	66.1	94.8	55.0	67.1	64.5	63.5	59.7	62.6	59.5	52.0	45.7	30.9
15:00 - 16:00	61.7	82.9	55.0	67.4	62.7	56.8	54.6	58.9	54.4	47.3	42.7	30.2
16:00 - 17:00	60.7	77.4	54.0	66.7	59.1	54.5	53.2	58.1	53.2	46.0	42.4	29.8
17:00 - 18:00	62.7	86.6	54.0	65.5	60.5	58.7	57.2	59.1	54.9	52.0	48.3	34.1
18:00 - 19:00	63.0	88.4	53.0	65.2	61.5	59.5	56.9	59.4	55.1	52.0	50.2	36.5
19:00 - 20:00	59.9	79.0	52.0	64.6	57.3	57.8	53.4	57.1	52.1	44.7	40.0	28.2
20:00 - 21:00	57.5	73.1	51.0	61.1	54.3	51.5	50.7	55.1	50.1	42.8	38.6	28.2
21:00 - 22:00	56.9	72.0	50.0	62.3	54.5	51.2	50.7	54.0	49.4	43.3	39.9	28.1
22:00 - 23:00	57.4	78.3	50.0	62.7	62.1	56.1	51.1	54.0	49.1	43.1	39.3	27.3

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	66.9	91.9	49.0	70.0	73.1	67.7	61.6	60.8	57.3	57.3	55.8	41.1
23:15 - 23:30	56.9	73.1	50.0	62.4	54.7	50.8	50.4	53.9	49.6	43.5	40.5	28.6
23:30 - 23:45	56.0	72.2	49.0	62.6	55.0	50.8	49.6	52.8	48.8	43.5	40.4	28.6
23:45 - 00:00	55.0	70.1	48.0	62.5	53.8	50.1	48.8	51.8	47.3	42.8	39.8	28.0
00:00 - 00:15	55.3	68.9	49.0	63.9	54.6	51.3	49.6	51.5	47.8	44.4	41.4	29.5
00:15 - 00:30	53.6	68.5	47.0	59.2	51.7	48.6	47.3	50.8	45.9	40.2	37.3	25.5
00:30 - 00:45	52.8	67.7	46.0	59.4	52.1	47.3	46.7	49.9	44.7	40.3	37.6	25.9
00:45 - 01:00	53.3	72.2	45.0	60.1	51.4	48.1	46.9	49.8	46.1	41.7	38.4	26.5
01:00 - 01:15	54.4	68.9	46.0	60.2	51.4	48.3	47.5	51.2	47.5	41.6	38.0	26.0
01:15 - 01:30	54.5	70.7	48.0	63.3	53.9	50.5	49.2	50.3	47.0	44.1	41.3	29.4
01:30 - 01:45	54.3	73.6	46.0	61.1	53.7	50.0	48.1	50.7	47.2	42.8	39.5	27.6
01:45 - 02:00	53.6	69.8	46.0	63.3	53.5	50.6	48.3	48.9	46.2	43.6	40.6	28.7
02:00 - 02:15	54.5	76.5	48.0	62.4	55.4	51.4	48.9	50.4	47.0	43.2	40.1	28.2
02:15 - 02:30	55.3	70.3	48.0	64.8	55.0	51.7	50.1	50.7	48.1	45.3	42.6	30.6
02:30 - 02:45	54.7	73.8	46.0	63.4	53.8	50.6	48.8	50.8	47.4	44.2	40.8	28.9
02:45 - 03:00	52.0	68.5	44.0	61.1	51.8	48.2	46.7	47.4	44.8	42.2	39.4	27.4
03:00 - 03:15	51.9	64.8	45.0	60.9	51.3	48.1	46.7	47.5	44.3	42.0	39.2	27.3
03:15 - 03:30	52.2	67.2	44.0	60.6	51.6	48.1	46.9	48.2	44.3	41.7	38.8	27.0
03:30 - 03:45	51.7	67.6	43.0	59.2	51.0	48.0	46.3	47.9	43.8	40.7	37.8	25.9
03:45 - 04:00	51.8	71.3	43.0	59.9	51.3	47.5	45.9	47.7	44.5	41.7	38.7	26.6
04:00 - 04:15	52.7	70.7	44.0	60.3	51.0	47.7	47.5	49.2	44.7	41.1	38.1	26.3
04:15 - 04:30	49.1	63.2	42.0	57.2	48.4	44.8	43.8	45.2	41.1	38.8	36.3	24.5
04:30 - 04:45	50.1	69.5	42.0	57.1	48.5	45.0	44.9	46.8	41.7	39.2	36.1	24.3
04:45 - 05:00	51.3	67.0	44.0	59.2	50.0	47.1	45.7	46.9	44.1	41.5	38.3	26.1
05:00 - 05:15	53.8	69.5	48.0	59.6	50.6	47.7	47.0	48.9	47.6	45.0	40.8	26.4
05:15 - 05:30	51.1	65.9	45.0	56.1	48.4	45.2	44.5	47.5	43.9	40.8	36.9	26.7
05:30 - 05:45	53.3	67.4	46.0	59.5	53.1	48.0	47.3	50.0	45.1	43.0	40.0	25.6
05:45 - 06:00	52.6	68.0	46.0	60.2	50.0	46.9	46.5	49.1	45.2	41.7	37.7	25.2
06:00 - 06:15	53.0	69.7	47.0	59.4	50.5	47.3	47.0	49.5	45.1	42.5	40.1	26.0
06:15 - 06:30	54.2	72.4	48.0	59.2	50.7	47.4	47.2	51.3	47.1	41.6	38.0	25.6
06:30 - 06:45	54.3	67.3	49.0	60.3	51.2	48.0	47.8	51.6	46.3	41.3	39.1	25.7
06:45 - 07:00	57.5	73.3	49.0	62.3	56.8	50.7	50.0	54.8	50.4	43.3	39.4	26.1

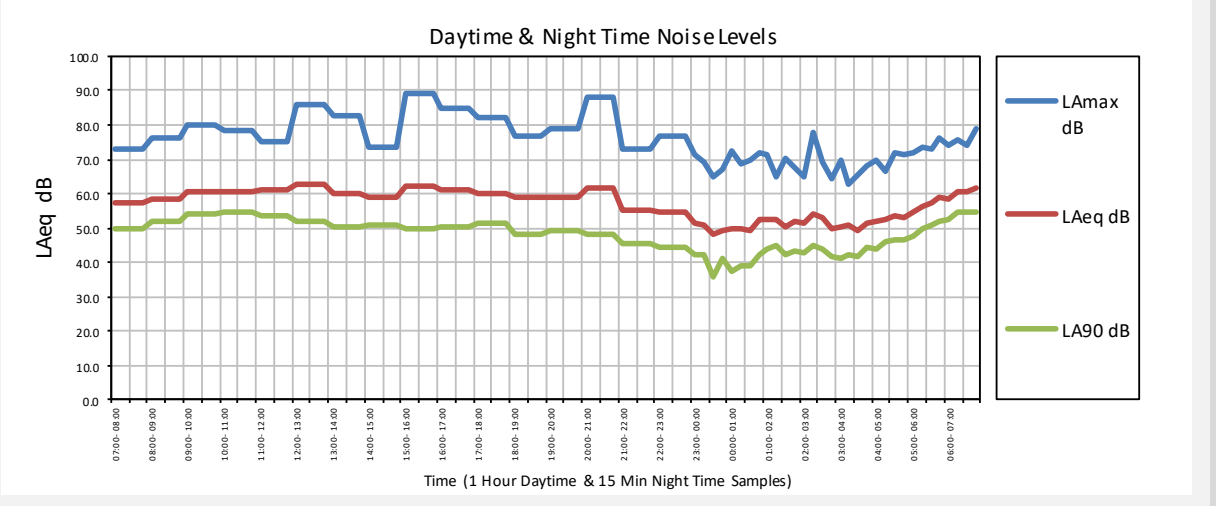


12.12 24th – 25th April 2022 Position 3

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	60.0	89.0	50.0	63.4	60.9	56.6	53.5	57.0	52.5	46.8	43.1	28.3
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	54.9	79.0	42.0	59.8	52.1	47.8	48.3	52.0	47.5	42.4	38.8	26.2

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	57.3	73.0	50.0	59.7	54.2	49.0	50.4	54.9	50.0	41.9	37.9	23.4
08:00 - 09:00	58.7	76.4	52.0	60.9	54.0	50.8	51.0	56.4	51.3	43.1	38.6	24.6
09:00 - 10:00	60.8	80.0	54.0	64.8	62.6	56.6	54.6	57.9	53.2	46.4	40.7	26.7
10:00 - 11:00	60.8	78.2	55.0	64.3	58.1	56.3	53.9	58.3	53.3	44.5	39.1	25.8
11:00 - 12:00	61.1	75.1	54.0	66.1	61.8	55.8	53.7	58.5	53.9	45.7	42.0	26.6
12:00 - 13:00	62.7	86.2	52.0	65.7	62.3	58.5	57.1	59.3	55.0	51.1	47.3	33.2
13:00 - 14:00	59.9	82.6	50.0	64.1	61.0	56.7	53.9	57.1	52.1	44.3	37.9	23.5
14:00 - 15:00	59.0	73.3	51.0	63.0	59.4	54.9	51.8	56.5	51.4	42.0	34.7	21.6
15:00 - 16:00	62.4	89.0	50.0	63.8	60.9	58.0	57.2	58.4	54.8	52.0	49.6	35.7
16:00 - 17:00	60.9	84.7	50.0	65.1	67.9	62.0	53.2	56.9	52.6	46.3	37.7	22.5
17:00 - 18:00	60.3	82.3	51.0	64.3	60.7	59.6	53.3	57.2	52.2	46.3	42.7	22.4
18:00 - 19:00	58.8	76.5	48.0	62.7	57.1	52.3	51.2	56.3	51.7	42.6	34.3	19.7
19:00 - 20:00	58.8	78.9	49.0	62.6	60.3	55.4	51.3	55.9	51.8	43.3	35.9	19.6
20:00 - 21:00	61.5	88.2	48.0	60.1	59.6	57.0	55.6	57.3	54.1	52.0	49.7	33.3
21:00 - 22:00	55.1	73.2	46.0	60.1	52.5	48.9	47.7	52.8	47.7	37.8	28.6	14.9
22:00 - 23:00	54.5	76.7	44.0	58.7	55.6	48.1	47.2	51.8	47.4	38.8	30.7	17.3

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	51.4	71.2	42.0	53.6	48.7	45.1	44.6	49.3	43.5	34.0	29.4	17.6
23:15 - 23:30	50.7	69.3	42.0	51.3	43.9	40.5	43.4	48.7	43.1	33.5	27.8	16.4
23:30 - 23:45	48.4	64.9	36.0	52.6	43.8	39.8	41.7	46.4	39.8	31.6	29.1	17.7
23:45 - 00:00	49.1	67.2	41.0	51.6	44.9	40.3	41.8	47.0	41.1	34.8	31.7	20.1
00:00 - 00:15	49.8	72.3	37.0	53.0	44.8	41.1	43.1	47.3	42.5	35.0	31.7	20.0
00:15 - 00:30	49.9	68.6	39.0	54.0	45.6	41.1	41.9	47.3	43.0	36.0	32.3	20.6
00:30 - 00:45	49.1	69.7	39.0	52.9	44.3	41.7	44.3	46.5	40.5	35.5	33.3	21.7
00:45 - 01:00	52.7	71.9	42.0	58.5	49.7	46.8	46.1	49.1	45.8	41.9	38.6	26.8
01:00 - 01:15	52.4	71.1	44.0	60.4	51.0	48.0	46.6	47.7	45.5	43.2	40.3	28.5
01:15 - 01:30	52.5	65.1	45.0	61.9	52.3	49.0	47.4	46.8	45.1	44.0	41.1	29.2
01:30 - 01:45	50.5	70.4	42.0	58.4	53.7	45.7	43.9	47.0	43.0	39.3	36.0	23.9
01:45 - 02:00	52.1	67.7	43.0	60.8	51.4	48.1	47.2	47.0	44.5	43.3	40.5	28.6
02:00 - 02:15	51.6	64.9	43.0	61.3	51.7	48.5	46.4	45.7	44.4	43.1	40.2	28.4
02:15 - 02:30	54.0	77.6	45.0	61.3	53.8	49.3	47.6	49.6	47.2	44.1	40.7	28.8
02:30 - 02:45	53.2	69.0	44.0	63.0	53.3	49.5	48.0	47.5	45.8	44.8	41.8	29.9
02:45 - 03:00	50.0	64.2	42.0	58.8	49.1	46.2	45.0	44.6	42.5	41.6	38.3	26.4
03:00 - 03:15	50.5	69.9	41.0	57.8	48.8	45.8	44.7	46.1	43.5	40.8	37.4	25.4
03:15 - 03:30	50.6	63.0	42.0	58.7	49.3	46.3	45.5	46.3	42.7	41.4	38.0	26.1
03:30 - 03:45	49.4	65.4	42.0	57.3	48.3	45.2	44.2	45.1	41.8	39.8	36.4	24.6
03:45 - 04:00	51.4	67.9	45.0	59.4	50.3	47.3	46.2	47.0	43.8	42.0	38.6	26.6
04:00 - 04:15	51.8	69.6	44.0	59.2	50.2	47.3	46.1	47.5	44.4	42.2	38.8	26.8
04:15 - 04:30	52.5	66.6	46.0	60.0	50.9	47.9	46.9	48.2	44.9	43.2	39.2	27.2
04:30 - 04:45	53.6	71.7	47.0	59.4	50.5	47.5	47.6	50.2	46.3	42.6	38.4	26.4
04:45 - 05:00	53.2	71.2	47.0	59.3	50.3	47.2	46.9	49.7	45.7	42.7	39.0	26.3
05:00 - 05:15	54.5	72.0	48.0	59.7	50.4	47.1	47.3	51.3	47.5	43.5	39.6	25.6
05:15 - 05:30	56.0	73.6	50.0	60.1	51.2	47.7	49.2	53.1	48.6	44.1	40.7	26.8
05:30 - 05:45	57.6	72.9	51.0	61.2	52.2	48.8	50.1	55.1	49.9	44.8	42.0	27.1
05:45 - 06:00	58.7	76.2	52.0	63.7	54.6	51.5	52.1	56.1	51.3	45.4	41.4	28.0
06:00 - 06:15	58.6	74.2	53.0	62.0	53.5	49.9	51.3	56.3	50.9	44.5	40.8	29.8
06:15 - 06:30	60.4	75.7	54.0	62.6	59.5	51.3	53.1	58.0	53.1	44.9	39.4	25.9
06:30 - 06:45	60.5	73.8	55.0	61.2	57.3	50.6	52.8	58.3	53.0	44.6	41.2	22.1
06:45 - 07:00	61.8	79.0	55.0	62.5	56.2	52.6	55.2	59.4	54.7	45.1	37.5	20.1



12.13 21st – 22nd April 2022 Position 4

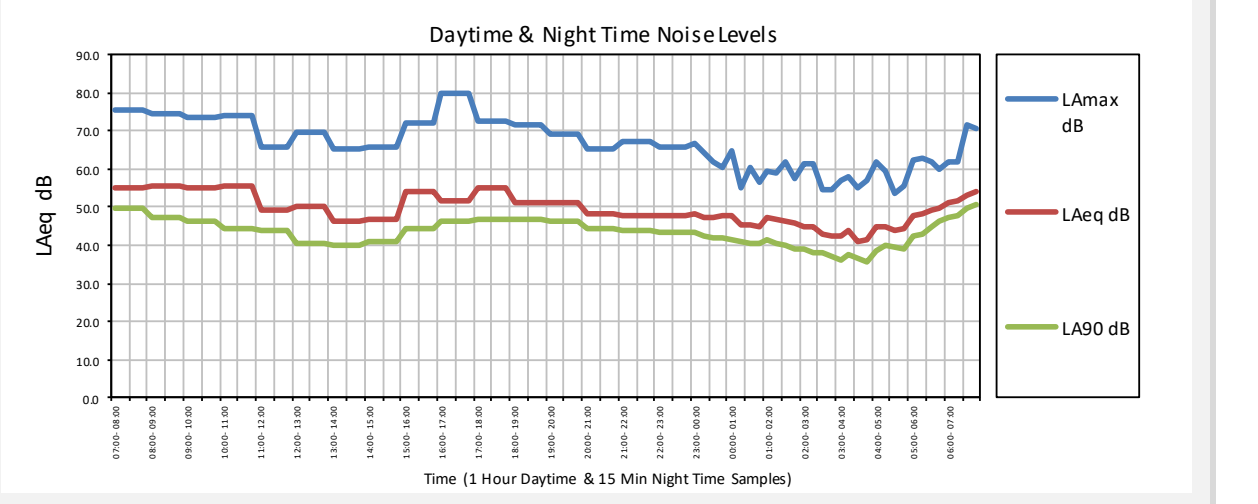
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	52.4	79.6	44.0	54.5	51.1	45.5	45.6	46.8	37.8	48.4	39.9	24.8
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	47.7	71.6	40.0	50.3	44.5	41.5	44.4	44.8	37.3	35.8	28.0	22.5

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	55.2	75.5	50.0	55.4	49.5	44.8	48.5	51.3	40.8	50.1	42.6	25.6
08:00 - 09:00	55.7	74.4	47.0	54.9	48.6	41.9	45.3	48.1	39.9	53.3	43.7	27.9
09:00 - 10:00	55.0	73.6	46.0	54.2	48.0	40.2	44.3	47.3	37.2	52.3	45.2	28.3
10:00 - 11:00	55.3	73.8	44.0	55.3	49.5	45.4	44.0	45.4	37.4	53.1	44.9	27.5
11:00 - 12:00	49.2	65.9	44.0	54.5	50.7	45.6	44.7	44.5	36.0	43.4	32.9	20.9
12:00 - 13:00	50.1	69.5	40.0	54.1	48.6	43.3	39.6	39.4	33.2	47.7	40.7	23.8
13:00 - 14:00	46.2	65.3	40.0	57.4	58.2	46.8	40.5	39.3	31.3	30.0	17.6	13.5
14:00 - 15:00	46.9	65.6	41.0	56.5	51.2	47.4	43.2	41.9	34.6	38.7	25.3	15.9
15:00 - 16:00	53.8	71.9	44.0	55.2	52.3	48.9	46.9	46.3	39.3	50.6	41.8	26.4
16:00 - 17:00	51.5	79.6	46.0	55.7	50.1	45.2	45.8	48.5	39.5	44.0	32.6	23.8
17:00 - 18:00	55.1	72.7	47.0	55.0	51.7	46.5	46.9	48.2	40.1	52.1	41.8	29.0
18:00 - 19:00	51.0	71.7	47.0	53.4	49.9	46.2	47.6	48.1	38.8	41.1	32.8	24.7
19:00 - 20:00	50.9	68.9	46.0	52.1	52.3	48.2	47.9	48.2	39.2	34.4	27.6	22.6
20:00 - 21:00	48.3	65.0	44.0	50.7	45.1	40.4	44.7	46.3	36.8	34.4	21.2	17.3
21:00 - 22:00	47.6	67.3	44.0	50.7	45.8	43.0	45.1	45.5	34.1	25.0	22.3	18.5
22:00 - 23:00	47.9	65.7	43.0	50.4	45.9	44.2	45.9	45.3	35.0	27.8	24.7	20.8

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	48.1	66.8	44.0	51.1	44.4	42.6	46.1	45.5	36.5	30.6	27.2	23.5
23:15 - 23:30	47.0	64.0	43.0	50.5	45.9	42.6	43.6	44.3	36.9	31.6	28.3	24.2
23:30 - 23:45	47.1	61.8	42.0	50.1	46.6	42.8	44.0	44.2	37.2	31.7	28.7	24.2
23:45 - 00:00	47.7	60.4	42.0	49.5	44.7	42.5	44.2	44.4	39.1	34.3	31.5	26.7
00:00 - 00:15	47.8	64.8	42.0	49.2	45.2	42.5	45.0	44.6	38.0	33.5	31.4	25.7
00:15 - 00:30	45.3	54.9	41.0	48.1	43.6	40.3	42.6	42.3	35.3	30.3	27.1	23.0
00:30 - 00:45	45.2	60.2	40.0	49.1	43.0	39.6	43.1	42.0	35.0	30.0	26.9	22.6
00:45 - 01:00	44.6	56.5	40.0	48.9	43.6	39.7	41.5	41.7	34.7	29.6	26.3	22.3
01:00 - 01:15	47.1	59.3	42.0	50.0	44.9	42.4	43.8	43.5	38.7	34.0	31.0	25.8
01:15 - 01:30	46.6	58.9	40.0	50.2	44.7	41.5	43.8	43.4	37.2	32.4	29.8	24.5
01:30 - 01:45	46.5	62.0	40.0	49.9	44.4	41.7	43.2	42.9	37.9	33.3	30.4	25.3
01:45 - 02:00	45.6	57.2	39.0	49.3	44.0	41.2	42.3	41.8	37.3	32.9	29.9	25.0
02:00 - 02:15	44.8	61.4	39.0	49.1	43.1	40.2	43.2	41.2	34.8	30.1	26.7	22.7
02:15 - 02:30	44.9	61.4	38.0	48.4	43.2	40.3	41.5	41.4	36.5	31.5	27.8	23.9
02:30 - 02:45	43.1	54.5	38.0	48.0	42.2	38.1	40.3	40.1	32.9	28.1	24.7	21.1
02:45 - 03:00	42.5	54.7	37.0	47.7	41.6	37.9	39.8	39.6	32.2	27.2	24.0	20.4
03:00 - 03:15	42.5	56.8	36.0	47.3	41.2	37.8	40.4	39.1	32.6	27.2	23.6	20.2
03:15 - 03:30	43.7	57.8	38.0	48.1	42.5	39.1	40.8	40.6	34.3	29.1	25.4	21.7
03:30 - 03:45	41.1	55.1	37.0	48.3	39.9	35.2	38.6	38.6	28.9	22.9	20.0	16.9
03:45 - 04:00	41.2	56.8	36.0	48.7	41.3	34.4	39.0	38.7	28.0	21.2	18.1	15.4
04:00 - 04:15	44.8	61.9	39.0	49.2	43.0	39.2	42.0	42.0	34.6	29.0	25.1	21.6
04:15 - 04:30	44.7	59.6	40.0	49.8	42.4	38.7	41.9	42.0	34.4	28.6	24.6	21.3
04:30 - 04:45	43.9	53.4	39.0	49.7	43.9	40.6	41.0	41.3	32.5	26.3	22.8	19.6
04:45 - 05:00	44.4	55.4	39.0	49.2	42.2	39.1	41.3	41.7	33.6	31.1	24.1	20.4
05:00 - 05:15	47.7	62.5	43.0	48.8	42.1	39.1	43.0	43.3	40.9	38.6	24.4	19.9
05:15 - 05:30	48.2	62.9	43.0	50.4	43.9	40.3	44.0	44.4	39.4	39.7	27.8	20.9
05:30 - 05:45	49.3	61.7	45.0	50.4	44.3	43.1	45.1	46.0	39.1	40.4	27.3	20.1
05:45 - 06:00	49.8	59.8	46.0	51.4	44.5	42.0	45.6	47.5	38.6	38.9	23.7	17.1
06:00 - 06:15	51.2	61.9	47.0	52.5	46.7	44.1	47.7	48.8	40.2	38.7	24.4	18.9
06:15 - 06:30	51.7	61.9	48.0	53.0	46.6	42.7	48.0	49.6	40.2	38.7	25.5	18.5
06:30 - 06:45	53.0	71.6	50.0	54.2	48.4	45.7	48.8	50.0	40.2	45.1	35.6	20.1
06:45 - 07:00	54.0	70.6	50.0	55.1	49.0	46.9	51.5	51.5	41.8	40.7	26.6	17.9



12.14 22nd – 23rd April 2022 Position 4

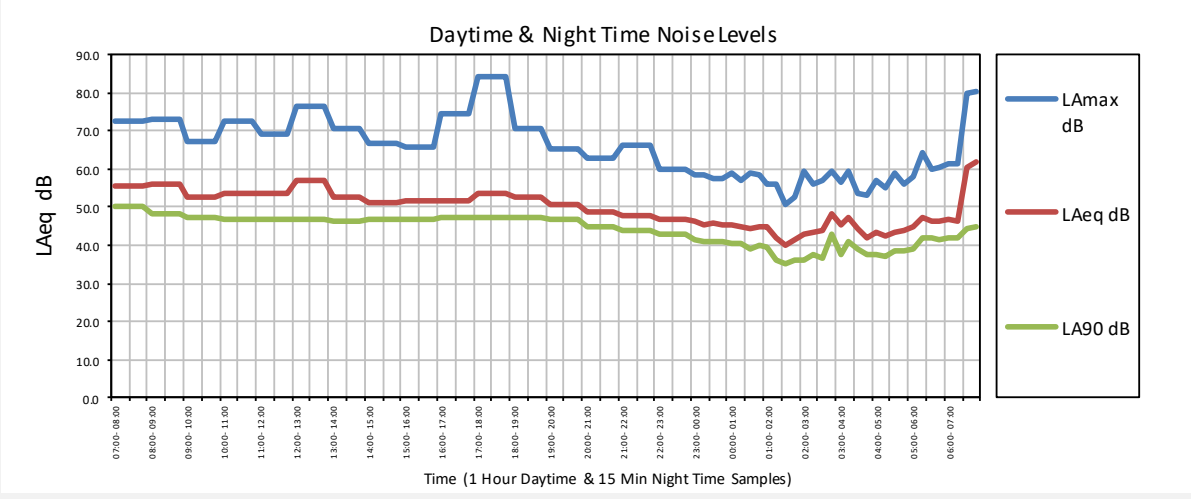
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	52.9	84.3	47.0	54.5	49.7	46.7	47.4	48.3	40.1	47.6	40.0	27.3
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	50.5	80.3	41.0	49.1	42.8	38.9	41.5	42.2	36.2	47.9	39.8	26.9

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	55.6	72.4	50.0	55.4	49.7	46.7	49.9	50.3	41.2	51.3	43.0	28.0
08:00 - 09:00	55.9	73.1	48.0	55.0	48.5	45.1	47.3	48.9	39.1	52.8	45.8	27.6
09:00 - 10:00	52.5	67.0	47.0	54.1	48.4	46.0	47.0	48.4	39.6	46.5	40.6	26.2
10:00 - 11:00	53.3	72.5	47.0	55.6	50.8	49.4	49.4	48.8	41.2	46.8	40.5	28.5
11:00 - 12:00	53.4	69.0	47.0	55.9	55.5	52.7	49.7	48.9	41.7	45.1	36.8	27.2
12:00 - 13:00	56.7	76.3	47.0	56.0	50.5	46.9	47.1	47.6	41.7	54.2	45.6	31.6
13:00 - 14:00	52.7	70.6	46.0	55.9	50.4	47.7	47.3	47.8	40.4	47.4	39.2	27.1
14:00 - 15:00	51.1	66.6	47.0	54.9	49.1	46.7	46.9	47.9	39.6	42.0	36.4	26.5
15:00 - 16:00	51.7	65.8	47.0	54.8	48.9	44.4	46.3	47.7	40.1	45.5	38.9	27.9
16:00 - 17:00	51.6	74.5	47.0	54.7	49.8	46.6	47.6	48.8	40.7	41.0	34.7	27.5
17:00 - 18:00	53.4	84.3	47.0	55.2	49.5	45.3	47.2	50.4	41.7	46.1	37.2	28.7
18:00 - 19:00	52.3	70.6	47.0	53.6	48.3	44.6	47.6	49.0	41.1	45.0	37.1	27.9
19:00 - 20:00	50.8	65.3	47.0	52.4	46.6	43.7	46.5	48.0	38.9	42.4	32.2	24.7
20:00 - 21:00	48.8	62.8	45.0	51.5	46.1	42.8	45.6	46.7	36.9	30.2	28.1	22.2
21:00 - 22:00	48.0	66.2	44.0	50.7	44.9	41.8	44.9	45.9	36.3	29.2	27.0	21.8
22:00 - 23:00	46.7	59.8	43.0	50.4	45.0	41.4	43.2	44.6	35.4	29.6	27.7	22.5

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	46.1	58.4	41.0	50.2	44.1	41.8	42.7	43.4	35.8	30.9	28.5	23.7
23:15 - 23:30	45.5	58.6	41.0	49.6	42.9	39.7	41.8	43.7	33.0	24.7	22.0	18.2
23:30 - 23:45	45.6	57.2	41.0	49.3	42.1	37.6	41.6	43.9	33.7	27.8	26.5	21.5
23:45 - 00:00	45.1	57.4	41.0	48.3	41.5	36.7	40.7	43.6	33.1	24.6	22.3	18.4
00:00 - 00:15	45.5	58.7	40.0	48.8	42.5	39.0	42.0	43.2	34.9	29.3	26.8	22.0
00:15 - 00:30	44.9	56.8	40.0	49.7	45.0	38.2	42.0	42.7	32.9	26.1	23.9	19.5
00:30 - 00:45	44.3	59.1	39.0	48.4	43.1	38.8	41.8	41.7	32.8	27.1	24.7	20.6
00:45 - 01:00	44.8	58.4	40.0	48.4	42.5	39.3	41.3	42.0	35.3	29.9	26.7	22.8
01:00 - 01:15	44.6	56.1	40.0	48.7	42.6	39.5	41.6	41.6	35.1	29.9	26.6	22.9
01:15 - 01:30	41.9	55.9	36.0	48.1	41.1	35.9	38.7	39.6	30.7	24.7	21.7	18.7
01:30 - 01:45	40.1	50.5	35.0	48.7	40.4	33.7	36.4	38.2	27.8	21.2	18.8	16.0
01:45 - 02:00	41.5	52.6	36.0	48.8	40.2	34.2	38.3	39.5	28.8	21.2	18.4	15.8
02:00 - 02:15	42.8	59.4	36.0	49.0	41.0	37.0	40.0	39.8	32.9	27.6	24.6	20.2
02:15 - 02:30	43.3	55.9	38.0	48.3	41.1	37.4	40.3	40.6	33.4	27.0	22.7	19.7
02:30 - 02:45	43.9	56.8	37.0	48.4	42.0	39.7	40.9	40.6	34.7	29.1	25.6	22.4
02:45 - 03:00	48.2	59.3	43.0	50.7	46.7	43.7	45.3	44.8	39.4	33.2	29.2	25.6
03:00 - 03:15	45.2	56.5	38.0	49.6	43.3	40.9	42.0	41.8	36.5	30.6	26.9	23.4
03:15 - 03:30	47.4	59.2	41.0	50.4	44.9	42.9	44.3	43.9	39.0	33.0	29.0	25.4
03:30 - 03:45	44.5	53.7	39.0	50.0	43.8	39.5	41.7	41.5	34.6	28.8	25.1	21.8
03:45 - 04:00	41.9	53.0	37.0	48.7	42.2	37.8	39.1	38.9	31.8	26.4	23.0	19.8
04:00 - 04:15	43.2	56.8	38.0	48.3	41.8	38.8	40.2	39.9	34.1	28.8	25.1	21.7
04:15 - 04:30	42.4	55.1	37.0	48.4	41.3	36.4	39.5	39.9	31.1	25.1	21.5	18.5
04:30 - 04:45	43.5	59.0	39.0	49.8	43.8	38.1	40.2	41.1	32.6	26.5	23.3	19.4
04:45 - 05:00	44.0	55.9	38.0	48.7	42.1	38.9	40.5	40.8	34.8	31.2	26.0	22.5
05:00 - 05:15	45.0	57.8	39.0	48.9	40.7	35.7	39.2	39.7	39.5	35.9	22.9	18.3
05:15 - 05:30	47.4	64.2	42.0	47.8	40.1	39.6	42.6	41.5	41.0	40.0	27.3	17.0
05:30 - 05:45	46.2	59.7	42.0	48.6	41.2	35.3	40.5	41.5	38.1	39.9	26.5	15.5
05:45 - 06:00	46.4	60.2	41.0	47.7	39.8	34.2	40.1	42.4	37.3	40.1	25.5	15.5
06:00 - 06:15	46.7	61.1	42.0	48.2	39.6	33.0	40.7	42.6	37.8	40.1	24.8	13.3
06:15 - 06:30	46.5	61.2	42.0	49.3	44.2	38.7	42.5	43.8	35.7	36.5	26.2	12.8
06:30 - 06:45	60.5	79.7	44.0	50.6	45.7	38.9	42.3	44.5	38.4	58.7	52.5	37.5
06:45 - 07:00	61.9	80.3	45.0	50.5	44.7	40.7	44.5	45.3	41.7	60.6	50.7	38.1



12.15 23rd – 24th April 2022 Position 4

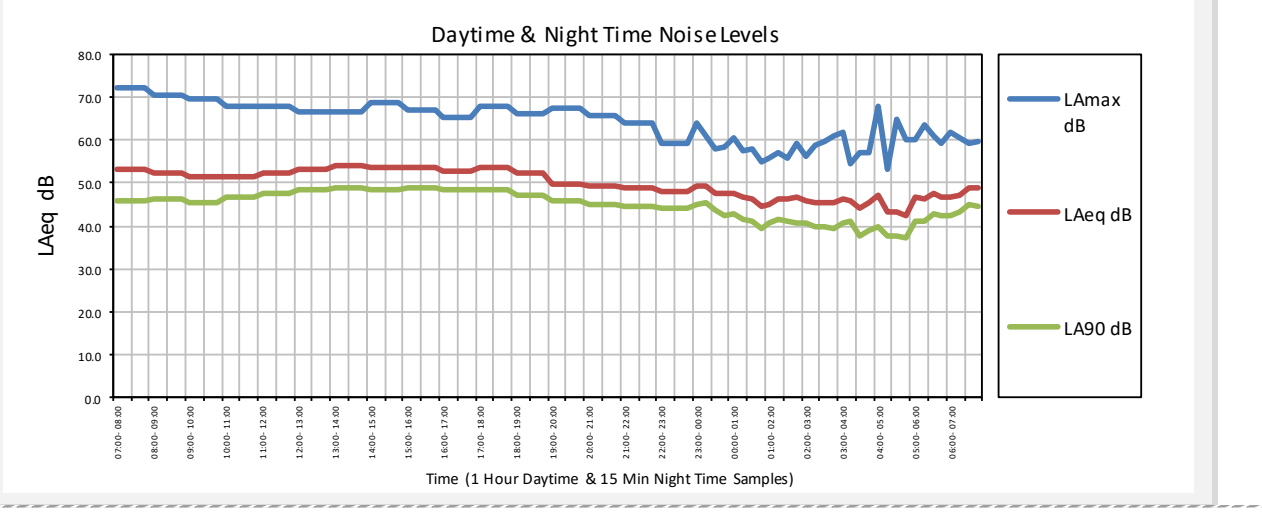
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	52.2	72.1	48.0	54.6	50.0	46.8	47.8	48.8	42.5	43.0	37.8	29.6
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	46.6	67.7	41.0	51.8	44.5	41.1	43.1	43.3	37.4	34.8	29.5	24.5

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	53.1	72.1	46.0	51.9	47.4	43.6	45.2	46.9	37.5	49.6	41.9	25.7
08:00 - 09:00	52.4	70.3	46.0	52.5	47.0	43.9	45.5	47.5	38.1	47.7	41.3	25.2
09:00 - 10:00	51.6	69.6	45.0	52.5	47.4	42.9	44.1	46.6	37.7	47.5	38.4	24.8
10:00 - 11:00	51.3	67.9	47.0	56.4	51.6	49.1	47.8	48.4	40.7	36.9	34.0	27.6
11:00 - 12:00	52.3	67.7	48.0	55.1	51.1	46.8	47.6	48.8	42.0	43.8	38.6	29.2
12:00 - 13:00	53.2	66.6	48.0	56.4	52.0	48.8	49.2	50.1	44.5	39.7	37.1	30.9
13:00 - 14:00	54.1	66.8	49.0	55.9	51.2	48.5	50.1	50.8	46.0	41.4	39.1	32.9
14:00 - 15:00	53.7	68.7	48.0	55.5	51.9	48.2	49.7	50.6	45.3	40.6	38.2	32.0
15:00 - 16:00	53.6	67.2	49.0	56.2	53.4	48.9	49.6	50.5	44.9	40.5	38.6	32.4
16:00 - 17:00	52.9	65.3	48.0	53.9	50.3	47.4	48.8	50.0	43.8	39.5	37.8	31.4
17:00 - 18:00	53.4	67.7	48.0	54.8	51.0	48.8	49.4	50.4	44.8	39.9	38.1	31.9
18:00 - 19:00	52.3	66.3	47.0	53.3	49.3	46.7	48.5	49.5	42.9	39.0	36.1	29.9
19:00 - 20:00	49.9	67.3	46.0	52.3	47.7	44.6	46.3	47.6	38.9	33.7	31.4	25.9
20:00 - 21:00	49.4	65.7	45.0	52.3	46.1	43.6	46.3	46.6	39.2	35.3	32.2	26.3
21:00 - 22:00	49.1	64.0	44.0	54.5	47.0	44.8	45.9	46.1	39.2	34.6	33.0	27.3
22:00 - 23:00	48.0	59.3	44.0	55.4	46.2	42.1	44.4	45.7	37.1	32.1	30.5	24.8

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	49.3	64.2	45.0	55.4	49.1	43.4	46.4	46.8	37.9	32.0	29.8	24.3
23:15 - 23:30	49.2	61.0	45.0	55.8	47.1	43.7	46.0	46.4	39.4	34.2	31.8	26.9
23:30 - 23:45	47.6	57.8	44.0	56.3	45.2	42.1	44.0	44.8	38.0	33.1	30.3	25.7
23:45 - 00:00	47.6	58.4	43.0	54.6	45.4	42.5	44.1	44.5	38.4	33.5	30.8	26.2
00:00 - 00:15	47.6	60.5	43.0	54.0	46.2	43.2	44.0	44.3	38.6	34.0	31.3	26.5
00:15 - 00:30	46.6	57.5	42.0	54.0	46.2	41.8	43.5	43.7	36.7	32.2	30.2	25.3
00:30 - 00:45	46.3	57.9	41.0	49.3	44.8	41.3	43.0	43.4	36.2	32.0	30.4	24.9
00:45 - 01:00	44.6	54.8	39.0	48.7	43.4	38.7	41.0	41.8	34.5	30.4	28.7	23.5
01:00 - 01:15	45.0	55.6	41.0	49.0	42.3	39.3	41.5	42.1	35.0	31.3	29.5	24.2
01:15 - 01:30	46.5	57.3	42.0	49.4	43.8	41.2	43.1	43.3	37.6	32.9	30.2	25.6
01:30 - 01:45	46.3	56.0	41.0	49.9	44.0	42.0	42.9	42.9	37.6	32.7	29.9	25.3
01:45 - 02:00	46.9	59.2	41.0	50.0	44.2	42.0	43.2	43.3	38.5	34.1	31.4	26.6
02:00 - 02:15	45.9	56.4	41.0	48.7	43.4	40.8	42.5	42.7	37.0	32.2	29.0	24.6
02:15 - 02:30	45.4	59.0	40.0	48.6	43.3	40.4	42.0	42.0	36.6	32.7	30.3	25.1
02:30 - 02:45	45.5	59.6	40.0	48.7	43.0	40.3	42.0	42.1	36.6	32.6	29.8	25.1
02:45 - 03:00	45.4	60.8	39.0	48.8	42.9	40.5	41.9	41.8	36.8	32.8	30.3	25.6
03:00 - 03:15	46.4	62.0	41.0	49.3	43.6	41.5	42.9	43.0	37.8	32.9	29.4	25.3
03:15 - 03:30	45.8	54.7	41.0	49.8	43.9	40.5	42.7	42.8	36.2	31.2	27.7	24.1
03:30 - 03:45	44.1	57.2	38.0	48.8	43.5	39.6	41.3	41.0	34.0	29.3	26.1	22.3
03:45 - 04:00	45.6	57.3	39.0	48.7	43.2	40.9	42.1	42.2	37.2	32.5	28.9	25.0
04:00 - 04:15	47.3	67.7	40.0	49.6	43.2	41.7	45.7	43.8	36.6	31.7	28.3	24.5
04:15 - 04:30	43.1	53.4	38.0	47.9	41.7	38.3	40.0	39.9	33.5	29.7	26.6	22.6
04:30 - 04:45	43.3	64.8	38.0	47.7	41.4	36.8	40.7	40.7	31.9	28.4	23.6	20.2
04:45 - 05:00	42.4	60.3	37.0	47.5	41.2	37.2	39.0	39.1	33.1	30.9	24.2	20.5
05:00 - 05:15	46.7	60.3	41.0	48.3	41.8	38.7	41.4	41.3	40.2	38.9	27.7	22.7
05:15 - 05:30	46.4	63.7	41.0	49.0	42.6	38.1	40.6	41.4	38.2	39.9	29.5	21.9
05:30 - 05:45	47.5	61.0	43.0	49.7	44.8	40.0	42.6	43.2	39.0	39.9	29.2	22.8
05:45 - 06:00	46.9	59.4	43.0	50.9	43.8	40.8	43.0	43.1	37.9	38.1	28.9	22.6
06:00 - 06:15	46.6	62.0	43.0	58.1	45.5	40.3	42.5	42.8	37.5	37.1	28.7	22.8
06:15 - 06:30	47.2	60.5	43.0	50.7	44.2	41.2	43.6	44.0	37.7	35.1	32.3	23.8
06:30 - 06:45	48.7	59.2	45.0	52.3	45.8	42.8	44.3	45.4	39.7	38.5	27.5	23.0
06:45 - 07:00	49.1	59.7	45.0	51.4	46.6	43.2	45.2	45.8	39.8	38.5	30.9	24.1

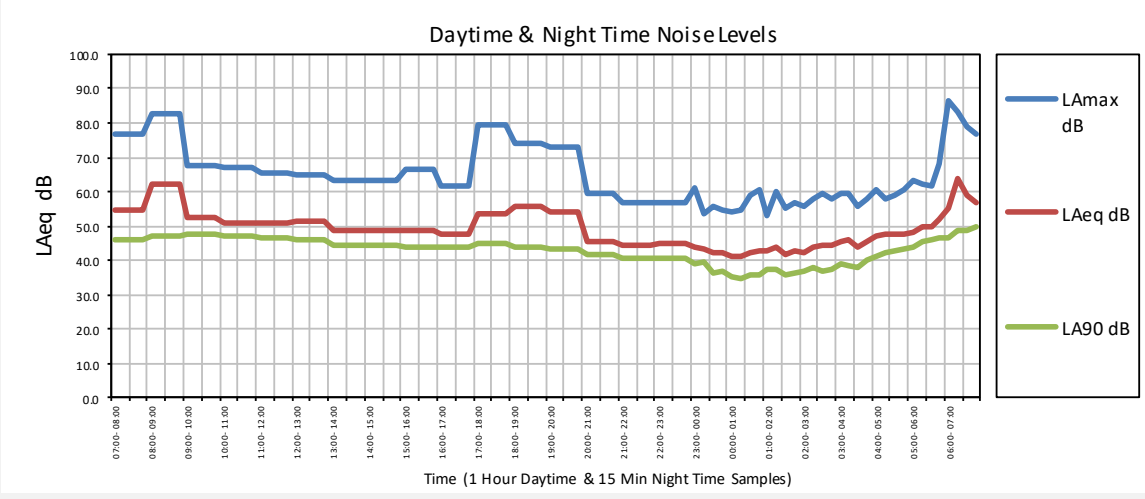


12.16 24th – 25th April 2022 Position 4

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	53.6	82.8	44.0	52.3	47.8	43.8	45.2	46.5	38.9	50.5	42.7	29.1
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	51.9	86.3	36.0	48.5	42.7	40.4	43.7	44.2	37.5	48.7	42.7	28.0

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	54.4	76.6	46.0	52.6	48.8	43.3	46.9	47.1	39.0	51.1	44.9	27.7
08:00 - 09:00	62.0	82.8	47.0	51.8	47.2	44.0	46.1	47.5	41.9	60.4	52.3	38.7
09:00 - 10:00	52.3	67.8	48.0	53.0	47.8	44.6	46.9	48.4	40.2	46.4	37.4	26.5
10:00 - 11:00	51.1	66.9	47.0	53.8	49.0	46.4	46.6	48.4	39.1	41.8	34.7	25.6
11:00 - 12:00	51.1	65.4	47.0	54.6	50.7	47.5	47.3	48.3	40.7	37.7	34.8	27.2
12:00 - 13:00	51.3	65.0	46.0	54.2	49.3	45.6	47.6	48.2	42.3	38.6	34.4	28.6
13:00 - 14:00	48.9	63.1	44.0	52.5	48.8	44.5	45.4	46.0	39.1	35.0	32.0	26.5
14:00 - 15:00	48.6	63.1	44.0	52.4	48.6	43.3	44.6	46.3	37.9	33.2	29.9	24.6
15:00 - 16:00	48.8	66.2	44.0	52.1	49.9	45.4	45.7	46.2	36.8	34.6	29.9	23.0
16:00 - 17:00	47.8	61.7	44.0	54.1	48.5	43.4	44.2	45.5	35.8	32.7	28.3	22.8
17:00 - 18:00	53.7	79.5	45.0	52.2	47.4	43.8	44.6	47.9	40.2	50.1	42.8	27.3
18:00 - 19:00	55.7	74.2	44.0	50.2	44.5	40.0	42.9	45.3	38.6	53.6	46.3	30.1
19:00 - 20:00	53.9	72.9	43.0	49.9	44.1	39.5	42.9	44.7	38.0	51.7	42.2	25.6
20:00 - 21:00	45.6	59.3	42.0	49.5	42.7	38.1	40.9	43.0	35.5	34.8	17.4	13.2
21:00 - 22:00	44.2	56.5	41.0	49.5	45.1	37.8	40.9	42.5	29.4	13.2	12.4	11.4
22:00 - 23:00	44.8	56.5	40.0	48.8	41.5	37.9	41.7	43.1	30.4	13.4	12.1	11.3

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	43.7	61.3	39.0	48.1	44.2	40.6	41.0	41.5	29.5	19.8	17.2	14.0
23:15 - 23:30	43.3	53.3	39.0	48.0	40.1	35.9	40.3	41.6	29.7	15.8	14.3	12.8
23:30 - 23:45	42.1	55.8	36.0	46.4	37.5	34.5	39.0	40.4	27.7	14.7	13.6	12.1
23:45 - 00:00	42.5	54.6	37.0	46.7	39.3	35.0	39.2	40.8	29.1	17.0	15.3	13.2
00:00 - 00:15	41.3	54.0	35.0	45.8	37.9	34.2	39.0	39.2	27.7	20.6	18.4	15.6
00:15 - 00:30	41.0	54.5	35.0	44.9	36.8	33.0	37.7	39.2	28.2	22.3	19.9	16.9
00:30 - 00:45	42.0	58.8	36.0	44.9	36.8	33.3	40.8	39.3	28.4	22.9	20.3	17.1
00:45 - 01:00	43.0	60.6	36.0	46.7	40.0	38.8	40.8	39.7	32.7	28.4	25.7	21.9
01:00 - 01:15	42.7	52.9	38.0	45.5	39.5	37.4	39.9	39.7	32.8	28.8	26.0	22.1
01:15 - 01:30	43.9	60.3	38.0	46.8	41.6	39.0	40.9	40.3	34.8	31.1	28.1	24.1
01:30 - 01:45	41.9	55.4	36.0	45.7	39.8	36.5	38.8	38.9	31.8	28.2	26.3	21.7
01:45 - 02:00	42.6	56.8	36.0	45.8	39.5	36.8	40.4	39.3	32.2	28.5	26.3	21.6
02:00 - 02:15	42.3	55.7	37.0	44.8	40.0	37.6	38.8	38.8	33.5	29.8	27.0	22.6
02:15 - 02:30	43.7	58.0	38.0	46.7	40.7	38.4	40.8	40.5	34.2	30.3	27.1	23.3
02:30 - 02:45	44.3	59.5	37.0	46.3	41.3	39.5	41.1	40.7	35.7	31.6	28.6	24.5
02:45 - 03:00	44.5	57.8	38.0	47.1	41.6	40.0	41.2	40.7	36.1	32.3	29.0	24.9
03:00 - 03:15	45.4	59.3	39.0	46.5	42.1	40.8	41.9	41.6	37.2	33.2	30.1	25.8
03:15 - 03:30	46.0	59.3	39.0	47.4	42.2	41.2	42.8	42.4	37.5	33.4	29.8	25.5
03:30 - 03:45	43.8	55.6	38.0	46.4	40.8	38.9	40.7	40.5	34.7	30.8	27.4	23.3
03:45 - 04:00	45.4	57.8	40.0	47.0	42.1	40.2	42.5	41.9	36.4	32.2	28.7	24.4
04:00 - 04:15	47.0	60.6	41.0	48.1	43.6	42.0	43.4	43.4	38.9	34.3	30.9	26.6
04:15 - 04:30	47.9	57.8	42.0	48.4	44.0	42.6	44.2	44.4	39.7	35.1	31.3	26.9
04:30 - 04:45	47.5	58.9	43.0	48.8	43.8	42.1	44.3	44.2	38.6	34.8	30.0	25.7
04:45 - 05:00	47.4	60.7	43.0	48.6	43.4	41.8	43.9	44.2	38.6	35.4	30.0	25.7
05:00 - 05:15	48.4	63.2	44.0	49.1	43.7	41.5	43.5	44.4	40.6	39.7	29.9	25.1
05:15 - 05:30	49.8	62.1	46.0	49.9	43.9	42.0	45.6	46.4	41.0	40.2	29.3	24.5
05:30 - 05:45	49.6	61.7	46.0	49.8	43.7	41.0	45.3	46.8	39.8	39.7	27.2	21.9
05:45 - 06:00	51.7	68.0	47.0	50.2	46.1	44.1	47.9	47.4	40.6	44.8	38.7	22.3
06:00 - 06:15	55.0	86.3	47.0	51.1	44.7	40.8	46.2	47.7	39.4	51.3	47.4	25.3
06:15 - 06:30	63.6	83.2	49.0	52.0	45.7	42.9	47.8	49.1	42.7	61.8	55.6	40.5
06:30 - 06:45	59.1	79.1	49.0	52.8	46.3	42.7	48.2	50.0	41.3	56.6	50.4	33.7
06:45 - 07:00	56.6	76.5	50.0	53.6	46.7	44.8	49.8	50.4	41.9	52.9	46.0	24.7

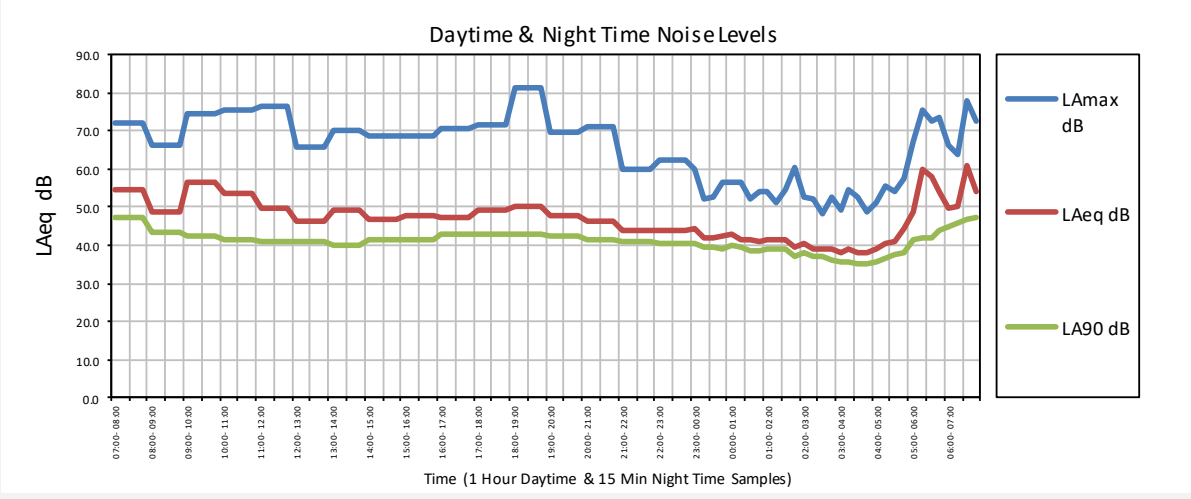


12.17 21st – 22nd April 2022 Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	50.4	81.1	41.0	56.2	52.0	45.7	42.8	42.9	37.0	44.8	44.5	20.2
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	50.7	77.9	39.0	51.5	43.9	40.4	40.1	40.1	37.6	46.4	46.1	17.7

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	54.5	72.1	47.0	55.5	48.5	43.8	44.5	46.7	38.7	50.0	49.5	21.0
08:00 - 09:00	48.7	66.1	44.0	54.7	47.9	41.6	40.8	42.8	36.7	43.6	40.5	14.6
09:00 - 10:00	56.6	74.6	42.0	53.9	47.9	39.5	39.7	41.9	34.5	52.4	53.6	24.2
10:00 - 11:00	53.4	75.3	42.0	56.2	49.5	45.8	43.0	43.0	40.3	49.0	48.6	25.7
11:00 - 12:00	49.6	76.5	41.0	55.6	51.2	45.7	44.0	43.1	39.9	42.6	42.1	23.7
12:00 - 13:00	46.2	65.5	41.0	56.7	51.2	45.0	40.4	40.5	35.8	39.4	34.2	12.8
13:00 - 14:00	49.2	70.1	40.0	58.4	59.9	49.7	41.8	40.4	36.1	41.1	36.7	20.7
14:00 - 15:00	47.0	68.6	41.0	58.1	51.1	47.1	42.7	42.0	37.0	36.4	34.8	19.2
15:00 - 16:00	47.9	68.8	41.0	57.9	52.6	48.1	44.1	42.7	38.1	37.1	32.3	17.4
16:00 - 17:00	47.2	70.7	43.0	57.5	50.9	47.0	43.3	43.0	37.0	35.9	29.8	16.4
17:00 - 18:00	49.2	71.6	43.0	59.2	52.9	46.7	43.4	43.3	36.6	42.2	40.9	16.1
18:00 - 19:00	50.1	81.1	43.0	57.5	50.0	45.9	44.7	44.9	38.2	44.3	39.8	23.1
19:00 - 20:00	47.5	69.6	42.0	52.9	52.4	47.6	44.5	43.4	35.7	34.0	31.9	13.2
20:00 - 21:00	46.1	70.8	41.0	51.0	45.6	40.3	41.3	42.1	35.3	38.1	35.1	17.1
21:00 - 22:00	43.8	59.7	41.0	50.5	44.9	41.8	41.3	41.0	31.3	21.4	18.5	10.8
22:00 - 23:00	43.7	62.4	40.0	50.7	44.9	42.8	41.6	40.4	31.1	24.5	21.5	11.7

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	44.2	59.8	41.0	52.5	44.5	42.3	42.5	40.8	32.3	27.1	23.1	12.6
23:15 - 23:30	41.9	52.2	40.0	51.8	44.3	40.2	38.4	38.7	30.8	27.9	24.6	13.2
23:30 - 23:45	41.8	52.6	40.0	50.9	43.3	40.0	38.8	38.5	30.6	27.2	23.8	12.4
23:45 - 00:00	42.3	56.4	39.0	51.3	44.5	40.3	39.1	38.9	31.6	28.6	25.5	13.4
00:00 - 00:15	43.0	56.7	40.0	51.5	44.5	41.0	40.3	39.2	32.1	30.1	26.4	14.0
00:15 - 00:30	41.6	56.5	40.0	50.3	43.0	39.5	39.1	37.7	30.8	29.3	26.2	13.5
00:30 - 00:45	41.3	52.0	39.0	51.3	43.0	39.7	39.0	37.1	30.2	29.0	25.6	14.0
00:45 - 01:00	40.7	53.8	38.0	50.2	43.1	38.6	37.8	37.1	30.0	27.5	24.1	12.7
01:00 - 01:15	41.6	53.8	39.0	51.5	43.7	40.4	38.8	37.2	30.9	30.2	26.6	14.1
01:15 - 01:30	41.4	50.9	39.0	50.7	43.1	39.4	38.9	37.5	30.4	28.8	25.1	12.8
01:30 - 01:45	41.6	54.3	39.0	51.8	43.8	39.8	38.9	37.3	30.8	30.0	26.7	13.8
01:45 - 02:00	39.7	60.5	37.0	52.4	44.0	38.7	36.9	35.1	28.7	27.7	24.5	12.9
02:00 - 02:15	40.6	52.5	38.0	51.0	43.0	39.2	39.1	35.9	29.0	28.0	24.9	13.3
02:15 - 02:30	39.0	52.3	37.0	51.0	42.3	38.1	36.1	34.6	27.9	27.0	24.1	13.0
02:30 - 02:45	39.1	48.2	37.0	49.5	41.8	36.9	36.5	35.2	27.9	26.5	23.5	12.1
02:45 - 03:00	38.8	52.4	36.0	48.9	41.0	36.2	36.1	35.2	27.3	25.5	22.9	12.2
03:00 - 03:15	38.0	49.3	36.0	48.9	40.8	36.4	36.2	34.1	26.1	23.2	20.1	11.3
03:15 - 03:30	39.0	54.4	36.0	50.7	41.9	37.9	36.0	35.1	27.8	25.8	22.8	12.6
03:30 - 03:45	37.8	52.6	35.0	50.6	41.0	37.8	34.8	34.1	25.5	22.3	19.5	11.8
03:45 - 04:00	38.1	48.9	35.0	49.4	40.2	34.1	35.6	35.3	26.0	18.1	14.8	10.3
04:00 - 04:15	39.1	50.9	36.0	48.9	40.9	36.5	36.6	35.8	27.4	24.8	22.0	11.9
04:15 - 04:30	40.2	55.7	37.0	52.5	42.8	38.9	36.8	36.2	29.3	28.1	24.5	13.8
04:30 - 04:45	41.0	54.0	38.0	52.9	48.9	40.5	37.4	37.1	29.3	25.3	21.9	12.6
04:45 - 05:00	44.5	57.3	38.0	51.4	42.8	38.4	36.8	36.8	30.9	41.5	29.7	12.9
05:00 - 05:15	48.8	67.2	42.0	49.1	41.1	37.5	37.8	38.6	44.2	43.6	31.2	12.2
05:15 - 05:30	59.8	75.2	42.0	50.7	42.4	39.4	39.8	40.0	49.8	55.8	55.6	25.9
05:30 - 05:45	57.8	72.7	42.0	50.3	42.5	39.4	40.9	41.8	34.2	54.5	53.9	24.0
05:45 - 06:00	53.9	73.3	44.0	52.3	44.5	43.0	41.9	43.2	37.4	49.9	49.6	19.4
06:00 - 06:15	49.8	66.0	45.0	53.2	45.3	43.4	43.3	44.7	39.3	43.2	41.9	14.6
06:15 - 06:30	50.0	63.7	46.0	53.2	45.6	42.6	44.2	45.2	36.4	44.5	40.5	13.7
06:30 - 06:45	60.6	77.9	47.0	53.7	47.8	45.2	44.8	45.8	37.3	56.8	57.2	27.3
06:45 - 07:00	53.8	72.5	47.0	55.1	47.6	46.2	47.0	47.0	41.2	48.7	47.2	18.8

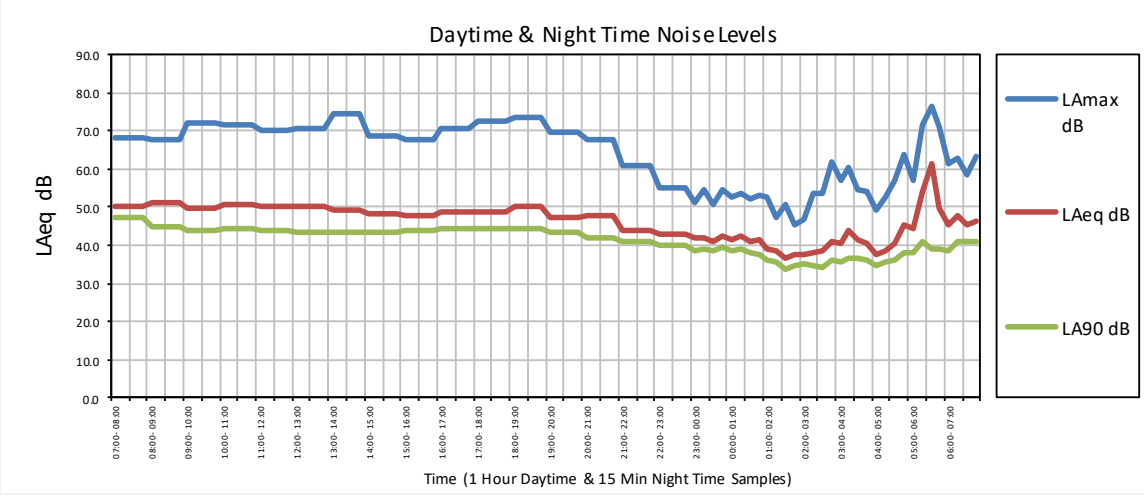


12.18 22nd – 23rd April 2022 Position 5

NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	49.0	74.2	44.0	58.0	50.5	46.3	43.8	43.8	38.4	41.6	39.6	18.4
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	48.4	76.5	39.0	53.1	43.8	39.5	37.0	37.1	36.1	44.2	43.6	16.8

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	50.3	68.2	47.0	55.7	48.4	45.9	46.0	46.2	38.9	42.9	38.5	13.8
08:00 - 09:00	51.3	67.7	45.0	54.5	47.6	44.7	43.4	44.2	36.0	46.9	44.5	17.5
09:00 - 10:00	49.6	71.9	44.0	56.6	48.4	44.8	42.6	43.3	36.7	43.9	42.9	18.8
10:00 - 11:00	50.7	71.3	44.0	60.0	51.8	49.4	45.2	44.5	39.9	43.5	42.5	19.1
11:00 - 12:00	50.2	70.1	44.0	60.0	55.1	50.2	45.9	44.6	40.8	40.3	36.3	17.3
12:00 - 13:00	50.1	70.6	43.0	58.5	54.9	48.9	44.8	43.3	37.6	43.4	42.1	19.8
13:00 - 14:00	49.2	74.2	43.0	58.6	50.4	47.5	44.1	43.3	39.3	41.6	40.6	18.7
14:00 - 15:00	48.4	68.5	44.0	59.0	51.6	47.4	44.1	44.0	39.1	37.9	34.6	18.0
15:00 - 16:00	47.7	67.7	44.0	60.7	50.8	44.9	42.5	43.3	37.7	39.0	36.1	17.6
16:00 - 17:00	48.7	70.7	44.0	59.4	50.8	46.8	43.5	44.0	38.5	40.0	37.3	16.2
17:00 - 18:00	48.6	72.5	44.0	59.0	49.8	45.3	43.1	43.7	36.9	40.7	40.7	17.0
18:00 - 19:00	50.1	73.3	44.0	60.2	50.3	45.4	44.3	45.0	40.8	42.6	40.6	24.2
19:00 - 20:00	47.2	69.4	43.0	54.9	46.3	43.0	42.6	43.9	37.6	36.7	34.4	19.1
20:00 - 21:00	47.7	67.6	42.0	52.3	44.8	42.0	43.2	42.7	40.3	38.8	36.0	16.4
21:00 - 22:00	44.1	61.0	41.0	52.5	44.6	41.2	40.6	41.3	33.6	27.8	23.9	13.2
22:00 - 23:00	42.7	54.9	40.0	51.3	44.1	39.9	39.0	40.2	31.5	26.1	22.5	12.3

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	41.9	51.1	39.0	51.2	43.5	40.9	38.5	38.5	31.0	28.0	24.6	13.1
23:15 - 23:30	42.0	54.6	39.0	51.7	43.1	40.6	38.4	38.9	30.7	28.4	25.5	13.8
23:30 - 23:45	41.1	50.4	39.0	50.9	41.6	36.1	37.1	38.8	29.8	23.9	20.6	11.6
23:45 - 00:00	42.3	54.4	39.0	52.7	43.4	38.9	38.4	39.5	31.6	27.9	24.2	13.7
00:00 - 00:15	41.6	52.6	39.0	52.9	42.8	37.7	37.6	38.9	30.6	26.1	22.4	12.8
00:15 - 00:30	42.4	53.4	39.0	53.3	44.1	39.5	39.2	39.0	31.9	29.5	25.8	14.1
00:30 - 00:45	40.8	52.1	38.0	51.7	44.2	38.9	37.6	37.2	29.9	27.3	23.7	13.2
00:45 - 01:00	41.2	53.1	38.0	52.7	43.3	38.8	37.8	37.7	30.9	28.6	24.7	13.6
01:00 - 01:15	39.0	52.5	36.0	50.9	41.8	37.4	35.9	35.3	28.1	25.5	22.5	13.0
01:15 - 01:30	38.3	47.3	36.0	49.3	40.4	35.6	34.9	35.4	27.1	23.1	20.2	15.8
01:30 - 01:45	36.5	50.5	34.0	49.2	39.6	33.9	32.8	33.7	24.9	21.1	18.6	11.1
01:45 - 02:00	37.4	45.2	35.0	49.8	40.0	33.8	34.3	34.6	25.4	19.7	17.2	10.8
02:00 - 02:15	37.5	46.8	35.0	49.7	40.0	34.3	34.7	34.5	25.8	20.7	17.5	10.8
02:15 - 02:30	38.2	53.6	35.0	50.7	41.0	35.6	35.0	35.2	26.6	21.9	18.4	11.4
02:30 - 02:45	38.4	53.7	34.0	53.8	43.2	39.9	34.6	33.2	26.7	26.2	23.2	14.0
02:45 - 03:00	41.0	61.9	36.0	56.1	46.2	42.4	37.6	35.6	28.7	28.8	26.0	15.7
03:00 - 03:15	40.3	56.8	36.0	56.1	45.9	42.7	36.3	33.9	28.0	28.8	26.1	15.6
03:15 - 03:30	43.6	60.4	37.0	61.2	50.6	46.6	39.2	35.3	31.0	32.8	29.8	19.4
03:30 - 03:45	41.5	54.6	37.0	57.0	47.0	43.7	37.6	35.6	29.1	29.8	27.1	16.8
03:45 - 04:00	40.3	54.0	36.0	55.4	45.1	42.4	36.5	34.7	28.0	28.7	26.0	16.0
04:00 - 04:15	37.5	49.1	35.0	51.0	41.3	38.5	33.7	32.6	26.1	26.4	23.6	13.4
04:15 - 04:30	38.7	52.5	36.0	51.1	41.3	38.0	35.5	35.1	27.2	24.3	21.3	12.3
04:30 - 04:45	40.2	57.0	36.0	54.0	48.8	40.4	36.1	35.6	28.2	26.5	23.8	13.8
04:45 - 05:00	45.3	63.7	38.0	53.7	43.5	40.2	35.7	35.3	31.1	42.8	31.6	15.5
05:00 - 05:15	44.2	57.1	38.0	49.4	40.1	35.3	34.5	34.5	30.9	42.0	29.8	11.9
05:15 - 05:30	54.2	71.5	41.0	48.0	39.0	36.7	38.0	37.2	49.8	48.2	46.9	18.1
05:30 - 05:45	61.3	76.5	39.0	47.6	40.0	34.7	36.1	37.2	34.4	58.0	57.8	28.3
05:45 - 06:00	49.8	71.1	39.0	48.5	39.5	34.1	36.7	38.2	35.3	45.7	45.6	17.6
06:00 - 06:15	45.4	61.3	39.0	48.0	39.0	32.7	36.3	38.2	30.9	41.1	39.4	13.2
06:15 - 06:30	47.9	62.6	41.0	48.8	40.3	36.2	37.6	39.3	32.1	44.3	41.5	13.8
06:30 - 06:45	45.4	58.4	41.0	50.2	44.4	38.2	38.8	39.9	33.2	39.7	37.8	11.9
06:45 - 07:00	46.4	63.1	41.0	50.7	44.2	39.4	39.4	40.8	33.9	41.0	39.1	12.6



12.19 23rd – 24th April 2022 Position 5

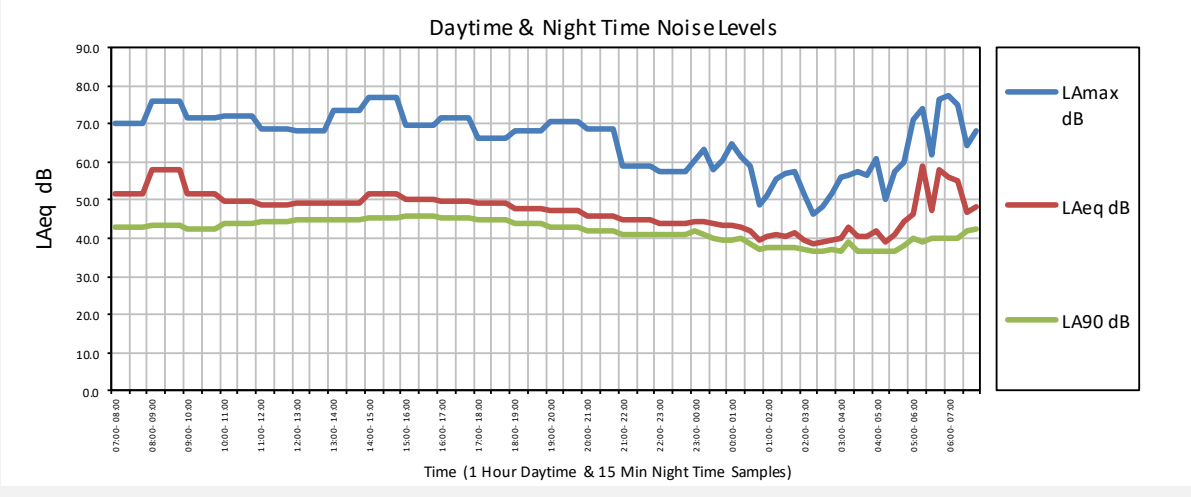
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	50.7	76.8	45.0	59.2	51.1	46.3	43.6	43.6	38.9	44.7	44.6	20.1
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	49.2	77.2	37.0	54.5	44.9	40.8	38.1	37.5	31.7	44.9	45.2	18.7

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	51.8	70.0	43.0	51.7	46.1	42.8	41.2	42.4	37.0	47.1	47.6	18.1
08:00 - 09:00	57.9	75.9	43.0	54.4	46.2	42.6	41.2	42.7	37.3	53.9	54.7	25.1
09:00 - 10:00	51.6	71.7	42.0	54.3	47.6	42.6	40.4	41.5	37.8	47.5	46.8	19.2
10:00 - 11:00	49.8	72.2	44.0	60.0	52.0	48.7	44.8	43.6	38.4	42.5	40.8	17.1
11:00 - 12:00	48.7	68.5	44.0	61.3	52.6	46.8	43.4	43.7	38.3	40.4	37.4	20.4
12:00 - 13:00	49.4	68.3	45.0	62.0	54.4	48.5	44.8	44.5	39.2	39.9	35.4	18.9
13:00 - 14:00	49.3	73.3	45.0	61.8	53.0	47.3	44.7	44.5	40.3	40.1	35.4	20.0
14:00 - 15:00	51.4	76.8	45.0	63.0	54.1	48.9	46.8	46.2	42.7	42.4	39.6	24.1
15:00 - 16:00	50.0	69.7	46.0	60.7	54.4	48.4	45.4	45.1	40.4	41.2	36.9	21.4
16:00 - 17:00	49.7	71.3	45.0	61.7	52.3	47.4	44.6	44.9	41.1	40.6	37.8	22.1
17:00 - 18:00	49.1	66.3	45.0	58.9	51.7	48.3	45.2	44.7	39.7	38.2	33.3	18.7
18:00 - 19:00	47.8	68.3	44.0	57.3	49.1	45.2	43.4	44.1	38.7	37.0	32.8	18.1
19:00 - 20:00	47.3	70.4	43.0	53.8	47.5	43.8	41.7	42.5	37.0	39.2	38.8	16.2
20:00 - 21:00	45.9	68.5	42.0	52.9	45.5	42.3	41.7	41.5	38.8	34.6	28.8	15.0
21:00 - 22:00	44.6	59.0	41.0	55.0	46.7	43.7	41.3	40.8	34.0	32.1	28.8	16.0
22:00 - 23:00	43.6	57.5	41.0	54.3	45.0	41.6	40.1	40.7	32.6	28.9	25.5	13.9

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES

Date / Time	LAeq	LAmax	LA90	Octave Band Centre Frequency (Hz)								
				63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	44.3	60.3	42.0	54.4	45.5	42.0	41.8	41.2	32.7	28.3	25.3	14.1
23:15 - 23:30	44.4	63.3	41.0	57.8	48.4	44.0	40.9	40.4	32.6	31.9	29.3	18.0
23:30 - 23:45	43.7	57.7	40.0	57.5	47.5	43.4	39.9	39.5	32.4	31.8	29.0	17.5
23:45 - 00:00	43.3	60.3	40.0	58.0	47.8	43.8	39.1	38.4	32.2	32.5	29.8	18.1
00:00 - 00:15	43.5	64.5	40.0	58.2	48.6	43.7	39.5	38.1	32.3	33.1	30.5	18.7
00:15 - 00:30	43.0	61.1	40.0	56.1	47.2	42.7	40.0	38.6	31.5	30.7	28.0	16.4
00:30 - 00:45	41.8	58.7	39.0	51.5	44.6	40.5	39.1	38.1	30.3	28.3	25.5	13.6
00:45 - 01:00	39.3	48.5	37.0	48.7	41.8	35.5	35.7	36.5	28.3	25.3	22.6	12.1
01:00 - 01:15	40.5	51.2	38.0	51.0	41.8	38.0	36.4	36.4	29.9	30.7	27.8	14.9
01:15 - 01:30	40.8	55.6	38.0	51.8	42.5	38.2	36.7	36.9	30.6	30.1	26.8	14.3
01:30 - 01:45	40.6	56.8	37.0	53.9	44.1	41.3	37.4	36.0	29.2	28.4	25.5	14.2
01:45 - 02:00	41.2	57.6	38.0	55.6	45.3	41.7	37.1	36.2	30.3	30.4	27.7	16.1
02:00 - 02:15	39.5	51.7	37.0	50.1	41.7	37.0	36.0	36.1	29.1	26.8	23.6	12.5
02:15 - 02:30	38.6	46.5	37.0	49.2	40.4	35.4	35.6	35.4	27.9	23.7	20.1	11.2
02:30 - 02:45	39.1	48.4	37.0	49.9	41.2	37.0	36.0	35.3	28.6	26.6	23.2	13.1
02:45 - 03:00	39.6	51.4	37.0	50.0	41.4	37.3	36.4	35.6	29.3	28.0	24.7	12.7
03:00 - 03:15	40.0	56.0	37.0	53.1	43.1	39.2	36.2	35.3	29.3	29.7	26.8	15.2
03:15 - 03:30	42.9	56.3	39.0	57.7	46.8	43.6	38.8	37.4	31.7	32.9	30.1	18.5
03:30 - 03:45	40.5	57.6	37.0	53.6	44.2	40.3	36.8	35.7	29.4	29.9	27.0	15.9
03:45 - 04:00	40.3	56.4	37.0	54.5	44.4	41.1	36.4	35.1	28.9	29.6	26.8	15.7
04:00 - 04:15	41.9	60.8	37.0	53.3	43.4	40.6	40.1	37.1	30.2	29.5	26.6	15.0
04:15 - 04:30	38.8	50.2	37.0	48.5	40.8	36.6	35.8	34.9	28.4	27.1	23.8	12.4
04:30 - 04:45	40.7	57.5	36.0	48.4	40.8	36.0	37.7	36.2	28.5	33.5	24.3	11.7
04:45 - 05:00	44.1	59.9	38.0	47.8	40.1	35.4	34.4	34.7	30.2	41.8	29.7	12.0
05:00 - 05:15	46.1	70.9	40.0	48.9	40.2	35.4	36.1	35.8	33.5	42.7	39.4	13.4
05:15 - 05:30	58.8	73.9	39.0	50.2	40.7	36.1	35.6	36.4	35.0	55.2	55.6	25.3
05:30 - 05:45	47.0	61.7	40.0	55.5	45.5	41.6	38.0	37.3	31.6	43.0	41.1	17.6
05:45 - 06:00	58.1	76.3	40.0	53.5	44.0	41.0	38.2	37.8	34.5	54.1	55.1	25.2
06:00 - 06:15	55.8	77.2	40.0	58.5	47.4	41.3	38.8	37.5	35.5	52.1	52.3	27.2
06:15 - 06:30	55.1	74.9	40.0	54.3	44.2	41.0	38.3	38.4	34.0	51.2	51.7	22.4
06:30 - 06:45	46.7	64.1	42.0	57.0	47.2	43.3	39.0	39.8	34.1	41.7	38.8	18.0
06:45 - 07:00	48.1	68.0	43.0	56.3	47.0	43.7	39.8	40.2	33.8	44.1	40.0	17.2

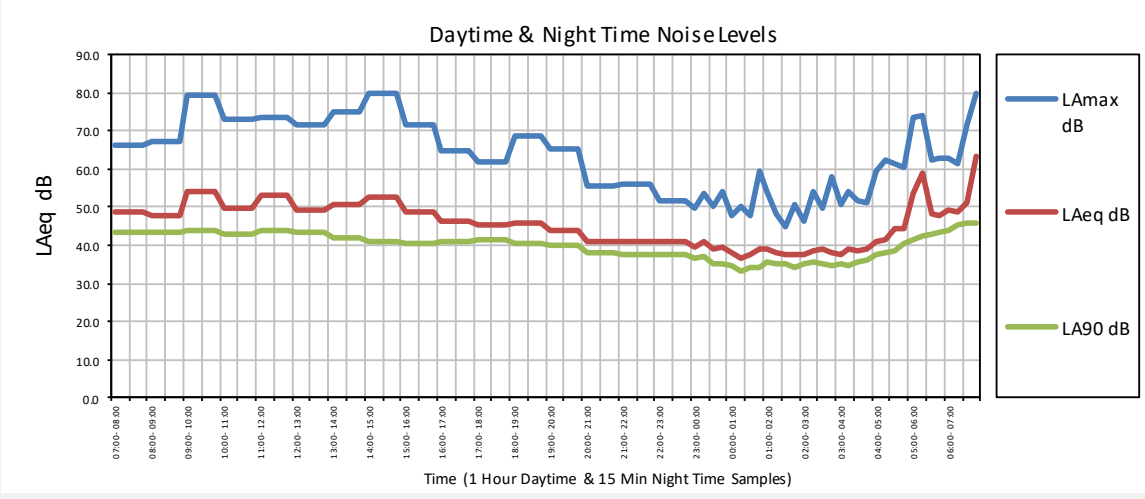


12.20 24th – 25th April 2022 Position 5

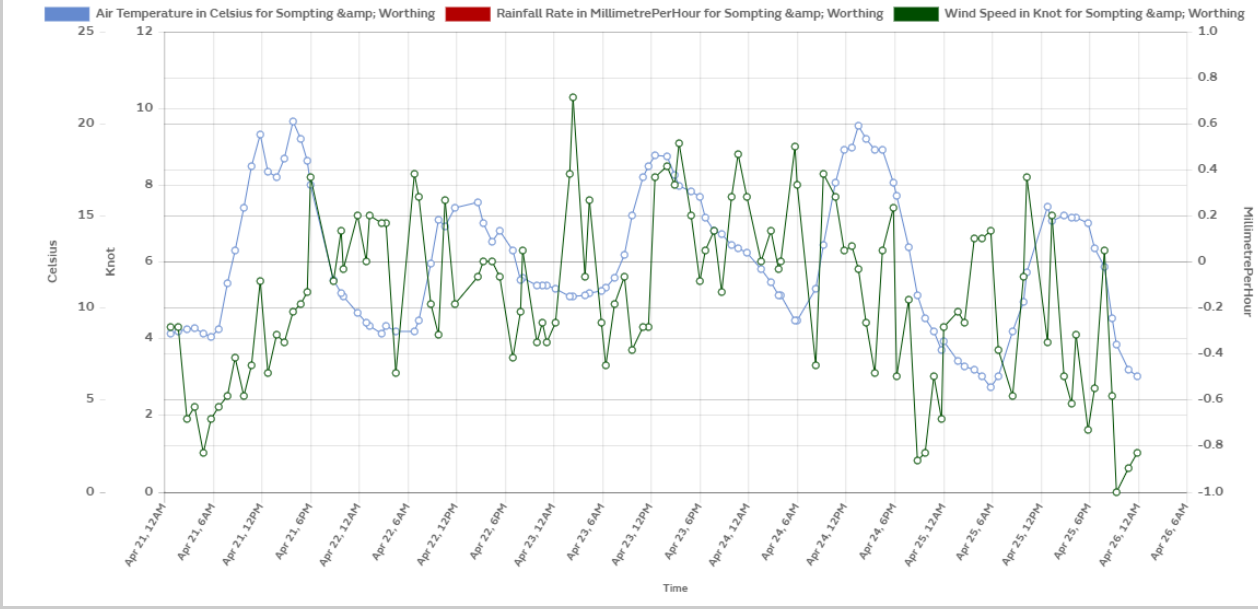
NOISE LEVEL SUMMARY ASSESSMENT				Octave Band Centre Frequency (Hz)							
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0k	2.0k	4.0k	8.0k	16.0k
DAYTIME 07:00 - 23:00 LAeq 16 HOUR & Corresponding LAmax 16 HOUR	49.2	79.8	41.0	57.3	49.0	44.3	43.3	43.3	39.3	42.6	40.5	22.5
NIGHT TIME 23:00 - 07:00 LAeq 8 HOUR & Corresponding LAmax 8 HOUR	50.7	79.8	35.0	50.8	41.9	38.8	38.8	39.2	35.2	46.4	46.8	18.6

DAYTIME NOISE LEVELS 07:00 - 23:00 1 HOUR SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
07:00 - 08:00	48.6	66.3	43.0	53.7	47.8	43.1	43.4	43.0	37.6	42.6	39.2	14.7
08:00 - 09:00	47.7	67.4	43.0	54.0	46.7	43.3	42.0	42.8	36.7	41.5	37.2	18.7
09:00 - 10:00	54.0	79.2	44.0	56.8	48.8	45.8	47.3	46.8	42.7	48.7	47.6	28.4
10:00 - 11:00	49.5	72.7	43.0	56.3	48.5	45.4	43.4	43.7	38.7	43.0	41.6	24.6
11:00 - 12:00	53.2	73.7	44.0	60.2	52.8	48.5	45.1	46.6	45.5	46.9	44.0	25.3
12:00 - 13:00	49.1	71.4	43.0	61.0	51.5	45.4	43.9	43.3	39.1	42.2	39.6	21.7
13:00 - 14:00	50.7	75.0	42.0	61.7	52.0	46.6	45.8	43.9	40.6	44.4	42.0	26.0
14:00 - 15:00	52.7	79.8	41.0	57.6	49.4	45.0	47.2	46.6	42.2	46.6	44.6	26.5
15:00 - 16:00	48.8	71.3	41.0	59.1	52.2	46.1	43.3	43.3	39.1	41.1	39.3	23.2
16:00 - 17:00	46.2	64.9	41.0	58.7	49.7	44.2	41.9	41.0	36.9	36.9	33.5	18.2
17:00 - 18:00	45.2	61.7	41.0	57.5	49.1	42.8	40.7	40.5	36.7	35.5	28.2	14.8
18:00 - 19:00	45.7	68.6	41.0	55.1	46.0	42.7	40.5	41.4	36.4	36.8	34.0	18.0
19:00 - 20:00	44.0	65.3	40.0	52.6	43.7	39.6	38.9	40.2	35.4	34.7	29.6	13.4
20:00 - 21:00	40.9	55.3	38.0	48.5	41.2	35.8	36.9	38.7	29.7	23.8	18.1	10.8
21:00 - 22:00	40.7	55.8	38.0	48.1	42.6	38.5	37.7	38.4	27.4	14.6	13.2	13.7
22:00 - 23:00	41.0	51.5	38.0	47.3	40.6	37.6	37.8	38.8	28.6	13.2	11.8	10.6

NIGHT TIME NOISE LEVELS 23:00 - 07:00 15 MINUTE SAMPLES				Octave Band Centre Frequency (Hz)								
Date / Time	LAeq	LAmax	LA90	63	125	250	500	1.0 k	2.0 k	4.0 k	8.0 k	16.0 k
23:00 - 23:15	39.5	49.6	37.0	45.6	40.9	37.8	35.4	37.3	27.2	13.9	12.3	10.0
23:15 - 23:30	40.8	53.7	37.0	48.5	41.7	38.3	38.4	38.2	28.1	12.9	11.5	10.0
23:30 - 23:45	38.9	50.0	35.0	45.2	38.2	35.0	35.4	36.9	26.6	12.5	11.3	10.0
23:45 - 00:00	39.6	54.1	35.0	45.8	38.7	34.3	36.9	37.5	27.4	13.7	12.1	10.0
00:00 - 00:15	38.1	47.5	35.0	44.7	36.3	32.8	35.7	35.7	25.7	19.1	16.4	10.4
00:15 - 00:30	36.8	50.1	33.0	44.6	35.9	31.8	33.4	34.4	25.7	21.7	18.5	10.8
00:30 - 00:45	37.6	47.7	34.0	44.4	36.0	32.2	34.4	35.1	26.0	22.2	19.3	10.9
00:45 - 01:00	38.9	59.6	34.0	46.7	37.8	38.1	37.3	34.6	27.2	24.6	21.2	11.5
01:00 - 01:15	38.8	54.2	36.0	49.6	40.3	36.5	35.6	34.9	28.0	27.3	24.2	13.0
01:15 - 01:30	37.9	48.4	35.0	47.4	39.2	35.5	34.9	33.8	27.5	27.0	23.8	12.2
01:30 - 01:45	37.6	45.0	35.0	46.0	38.4	34.5	34.5	34.0	27.2	25.7	22.5	11.8
01:45 - 02:00	37.7	50.4	34.0	45.4	37.2	33.2	35.8	34.4	26.3	23.4	20.1	11.1
02:00 - 02:15	37.3	46.2	35.0	46.1	38.5	34.3	33.7	33.5	27.5	26.5	23.1	12.0
02:15 - 02:30	38.7	53.8	36.0	49.1	39.8	35.9	35.6	34.8	28.0	27.3	24.1	12.9
02:30 - 02:45	38.9	49.5	35.0	48.0	40.1	37.0	35.7	34.4	28.7	28.8	25.6	13.7
02:45 - 03:00	38.0	57.7	35.0	52.7	42.0	37.1	34.4	33.3	27.1	26.9	23.7	13.2
03:00 - 03:15	37.7	50.8	35.0	48.9	39.7	37.3	34.4	33.1	27.3	27.1	23.8	13.3
03:15 - 03:30	38.8	54.1	35.0	50.4	40.8	38.6	35.7	34.1	27.7	27.7	24.5	14.2
03:30 - 03:45	38.6	51.7	36.0	49.1	39.8	36.8	35.3	34.8	27.6	26.8	23.7	13.1
03:45 - 04:00	38.9	51.3	36.0	50.8	41.0	38.2	35.5	34.4	28.1	28.3	25.2	14.6
04:00 - 04:15	41.0	59.2	37.0	56.0	45.6	41.0	36.7	35.6	30.2	31.1	27.9	16.8
04:15 - 04:30	41.6	62.1	38.0	57.0	46.4	41.4	37.3	36.3	30.8	31.4	28.1	16.9
04:30 - 04:45	44.4	61.5	39.0	53.4	43.8	40.0	37.9	37.2	31.3	40.7	30.8	15.6
04:45 - 05:00	44.3	60.4	40.0	51.9	42.2	39.3	37.9	37.7	35.1	39.6	29.1	15.0
05:00 - 05:15	53.6	73.6	41.0	53.6	43.6	40.2	37.8	38.5	47.6	48.6	47.3	19.7
05:15 - 05:30	58.7	74.1	42.0	53.0	43.8	40.6	40.1	40.7	35.0	55.0	55.4	25.5
05:30 - 05:45	48.0	62.3	43.0	50.7	42.6	39.4	41.0	42.3	34.3	43.0	40.3	14.7
05:45 - 06:00	47.7	62.9	44.0	50.1	43.3	42.4	43.6	43.3	35.0	40.6	37.9	13.4
06:00 - 06:15	49.3	63.0	44.0	51.8	43.5	41.1	42.2	43.2	36.8	44.3	41.9	15.4
06:15 - 06:30	48.9	61.1	45.0	51.8	44.6	41.3	43.5	44.6	36.7	42.6	39.0	14.2
06:30 - 06:45	51.1	71.6	46.0	52.3	43.6	40.6	43.2	45.3	38.4	45.8	44.5	17.0
06:45 - 07:00	63.4	79.8	46.0	52.6	45.5	44.2	45.6	45.9	37.9	59.4	60.3	30.8



13 APPENDIX C - ENVIRONMENTAL CONDITIONS



21st – 25th April 2022

#END OF REPORT#