TECHNICAL NOTE

Date:	08 July 2024
To:	Andrew Lee
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Approved By:	Simon Urquhart, MIOA, MIEnvSc
Regarding:	Bridgend Green Hydrogen Scheme

Reference: ENV-ACO-03178-005

Bridgend Green Hydrogen Scheme – Noise Assessment

TECHNICAL NOTE

Date: 08 July 2024
Regarding: Noise Assessment
Ref: ENV-ACO-03178-005

1 INTRODUCTION

1.1.1 RPS has been commissioned by Marubeni Europower Ltd to identify and design a noise mitigation strategy for the proposed Bridgend Green Hydrogen Scheme. RPS undertook an initial noise impact assessment in March 2023 to identify the potential for an adverse noise impact at the existing sensitive receptors.

1.1.2 Since the initial noise impact assessment (REF: JAJ03178 -REPT-01-R2) RPS and Marubeni Europower Ltd have undertook an extensive mitigation and design review of the development to reduce any potential noise impacts to a minimum. As part of this review, RPS have investigated potential noise mitigation measures, alternative plant, site re-designs and undertook further acoustic modelling following discussions with plant manufacturers.

1.1.3 This Technical note details the proposed mitigation measures determined as part of the technical review and provides an updated noise impact assessment in accordance with British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'(BS4142).

1.1.4 The cumulative noise impact assessment has been undertaken within the Brycethin Solar PV report reference JAJ03178-REPT-02-R2.

2 MITIGATION MEASURES

2.1.1 Follow a detailed review of plant and practical mitigation measures, Table 2.1 below details the mitigation measure which are proposed to be installed and have been considered in this technical note.

Table 2.1: Proposed Mitigation Measures

Plant Item	Mitigation measure	Approximate Acoustic Reduction provided
HV substation	Transformer housed within block work substation building.	Rw 30 dB
Electrolyser Package	Reduced fan speeds for *air fin-fan* Exhaust vent silencers Low oxygen vent velocityy	10 dB
	Reorentation of plant to minimise directional noise to the south, towards Leyshon Way.	3 dB Reduction at the receptors to the South.
Reciprocating compressor	Enclosures within 100 mm of rockwool insulation.	Rw 39 dB
MP1000 Compressor	Partial enclosures consisting of 50 mm rockwool insulation within the HPU. Insulation cannot be added to the compressor room due to fire risk.	Rw 32 dB

Plant Item	Mitigation measure	Approximate Acoustic Reduction provided
Process chiller (reciprocating compressor)	Specification of equipment with Acoustic Jackets	7dB
Dispenser vents	Minimal operation - Operating for approximately 0.07% of station operational time approximately (~1 minute per day), during the daytime only	N/A
Process chiller (Dispenser Chiller)	Specification of equipment with Acoustic Jackets	7dB
Air compressor	Quieter Plant identified.	-20 dB
HGV movements	5 mph speed limit on site.	best practice measures
Acoustic Barrier	8 m wallwall at a minimum density of 15 kg/m^2 with no gaps or holes. along the southern and eastern perimeter of the site.	Up to 10 dB reduction at the receptors
local directional noise screen on fin-fan exhausts	LocalisedL screening of the fin fan units of the electrolysers	Up to an additional 2 dB reduction at the receptor

3 MODELLING

3.1.1 To calculate the noise impacts associated with the proposed operation at the noise sensitive receptors (NSRs), a 3D sound model has been built using SoundPLAN v8.2 noise modelling software.

3.1.2 The model predicts sound levels under light down-wind conditions based on hemispherical sound propagation with corrections for atmospheric absorption, ground effects, screening and directivity based on the procedure detailed in ISO 9613-2:1996 ‘Acoustics - Attenuation of sound during propagation outdoors - Part 2: General method of calculation’.

3.1.3 The noise generation aspects of the proposed development, including the proposed mitigation measure are summaries within Table 3.1 below.

Table 3.1: Plant List

Name	Quantity	Sound Power Level (dB L_w)	On Time
HV Substation	1	75	100%
Reciprocating Compressor	2	89	100%
Process chiller – Long Facade	2 Units	87	100% - During the daytime – Not operational at night
Process Chiller – Short Façade		85	
Process Chiller - Roof		87	
Air Compressor	1	73	100%
Dispenser Vent	3	96	5 seconds per hour – during the daytime
MP1000	1	85	100% - During the daytime – Not operational at night
Electrolyser Package			
Fin fan unit	3	68 – Daytime 63 - Night-time*	100%
Chiller System	3	79	100%
TCS Pump	3	66	100%
Power Supply	3	80**	100%
HGV Movements			
Hydrogen HGV	1 per hour during the daytime	85	1 movement per hour
Diesel HGV	5 per hour during the night-time	105	5 movements per hour

*Fan speeds are reduced during the night-time period due to low ambient temperatures

** Overall sound power levels have been reduced by 2% to simulate the fans operating at 90% capacity following discussions with the manufacturer.

3.1.4 Full Spectral data for all noise sources remain the same as within the initial noise impact assessment (REF: JAJ03178 -REPT-01-R2). Spectral Data for the Fin-fan units as provided by the manufacturer is detailed below.

Table 3.2 – Fin Fan Octave band data

Nominal Speed (rpm)	125Hz (dB)	250 Hz (dB)	500 Hz (dB)	1000 Hz (dB)	2000 Hz (dB)	4000 Hz (dB)	8000 Hz (dB)
1050	61	68	78	79	77	74	66
1000	59	67	77	78	76	73	65
950	58	66	75	77	75	72	64
900	57	65	74	76	73	71	63

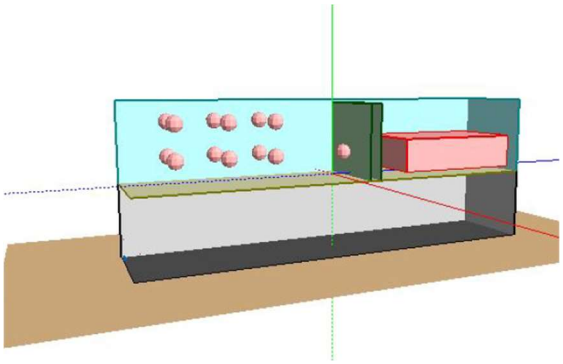
3.1.5 The data provided by the manufacturer is in whole octave bands and therefore we cannot undertake a full assessment of tonality in accordance with BS41412. However, within the model 1/3 octave band spectral data from a similar plant has been used, transposed to the relevant source sound power. The specification of directional shrouding and ducting is available in the market, has been previously installed in existing plants in Europe, and are aligned with the indicated noise reductions.

3.1.6 should there be any tonal components, shrouding/duct should be able to specified to include additional attenuating features to remove the tonal components

3.1.7 The fin fan units have been modelled as individual point sources per fan unit with a typical directionality of a fan unit to allow an accurate model of the localised screening to be considered.

3.1.8 Plate 1 below shows the noise modelling approach for the electrolyser units.

Plate 1: Electrolyser Model



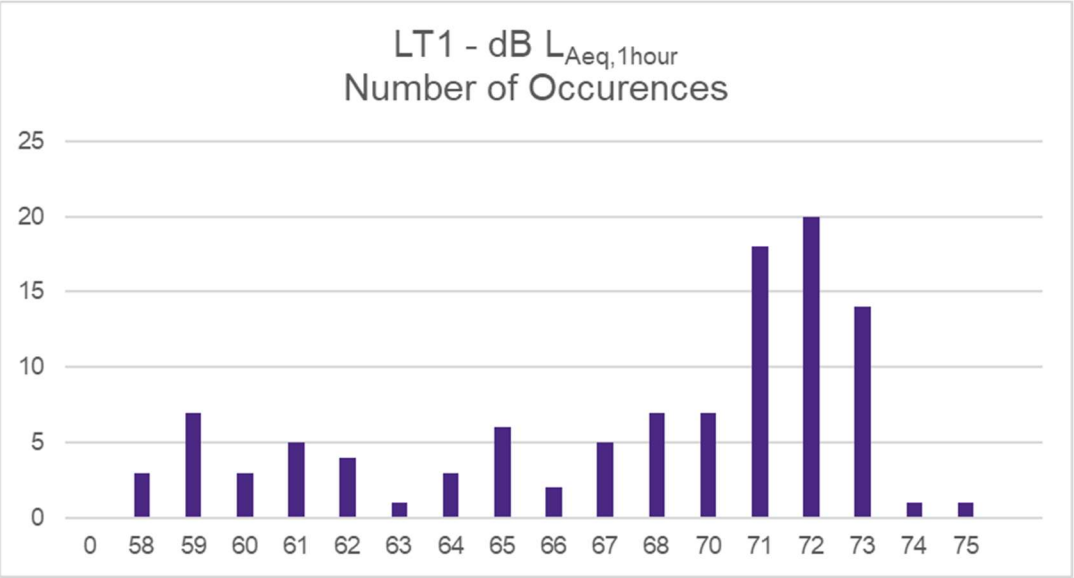
4 AMBIENT NOISE LEVEL ANALYSIS

4.1.1 Following a meeting with the Bridgend County Borough Council (BCBC) on the 21st March 2024 concerns were raised regarding the documented existing ambient noise levels for LT1 (Rowan's Lane and Davis Avenue). To ensure the accuracy of the assessment further analysis of the measurement data has been undertaken to provide justification for the selected sound levels.

4.1.2 The survey was undertaken between,13:15 hours on the 4th October and the 15:15 11th October 2023. The measurement was located approximately 3m (measured from aerial imagery) from the nearside carriageway of the A4065, representative of the residential dwellings on Rowan's Lane and Davis Avenue. The noise monitor was installed at a height of 1.5m. Further details of the noise monitoring location and weather conditions can be found within the noise assessment report (REF: JAJ03178 -REPT-01-R2). A time history of the measured sound levels is provided within Appendix A.

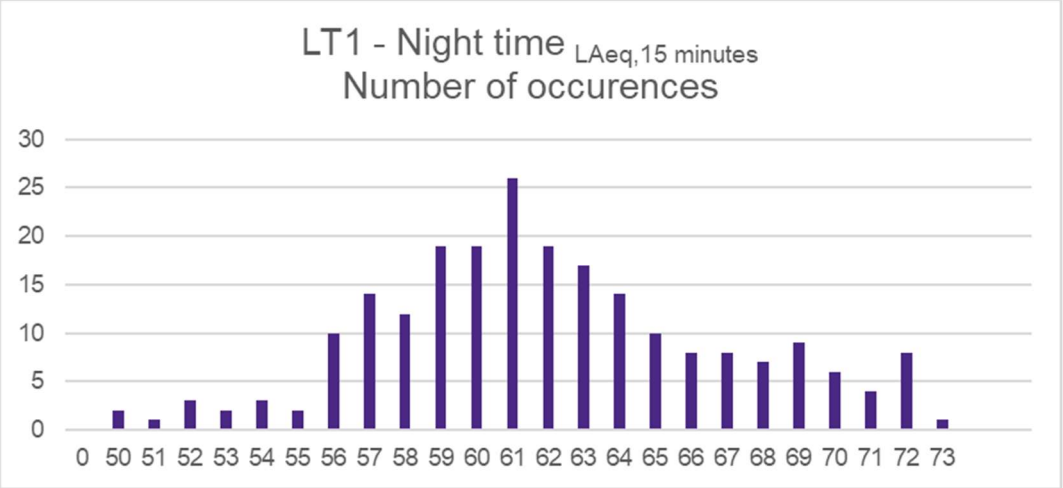
4.1.3 Analysis of the daytime ambient noise level found that a $L_{Aeq,1hour}$ of 71 dB or greater occurred for the majority or the time, with 71 and 72 dB occurring significantly more frequently than any other measured dB $L_{Aeq,1\ hour}$. This is a strong indication that an ambient noise level of 71dB is representative of typical sound levels at local receptors. As shown within Graph 1 below.

Graph 1: Daytime $L_{Aeq,1\ hour}$ Number of Occurrences



4.1.4 Analysis was also undertaken of the night dB $L_{Aeq,\ 15\ minute}$ to ensure the ambient noise level is representative of the night-time period, as shown in Graph 2 below. Analysis found that a $L_{Aeq,15minute}$ of 62 dB or greater occurred for the majority or the time. This is a strong indication that an ambient noise level of 62dB $L_{Aeq,\ 15\ minute}$ is representative of typical sound levels at local receptors.

Graph 2: Night-time $L_{Aeq,\ 15\ minute}$ Number of Occurrences



4.1.5 Table 4.1 below details the measured Range and identified representative $L_{Aeq,T}$ at the measurement location

Table 4.1 – Identification of representative $L_{Aeq,T}$ sound level at NSRs

Location	Residual Noise Level, dB $L_{Aeq,\ T}$ Range	Representative dB $L_{Aeq,\ T}$
Daytime		
Davis Avenue	58 to 75	71
Rowans Lane	58 to 75	71
Property off Leyshon Way	36 to 67	50
Night-time		
Davis Avenue	50 to 73	62
Rowans Lane	50 to 73	62
Property off Leyshon Way	33 to 64	45

4.1.6 To predict the ambient noise level at the NSRs a line source distance calculation has been undertaken using the following calculation:

$$Lp = L^1 + 10\log\left(r^2/r^1\right)$$

Where:

Lp= sound pressure level at receptor

L^1 = Measures Level, dB LAeq

r^1 = distance of measurement from source in meters

r^2 = Distance from receiver from source in meters

4.1.7 Furthermore, A correction of 5dB has been applied to the predicted daytime noise levels due to an existing garden wall, this correction is typical of partial screening. Due to first floor windows being at the increased height of 4m, this barrier will provide no additional screening at first floors. The calculated Daytime and Night-time ambient noise levels at the NSRs are details in Table 4.1 below. This distance correction has not been undertaken for the Property off Leyshon Way as the measurement location is deemed to be representative of the ambient noise level at the NSR.

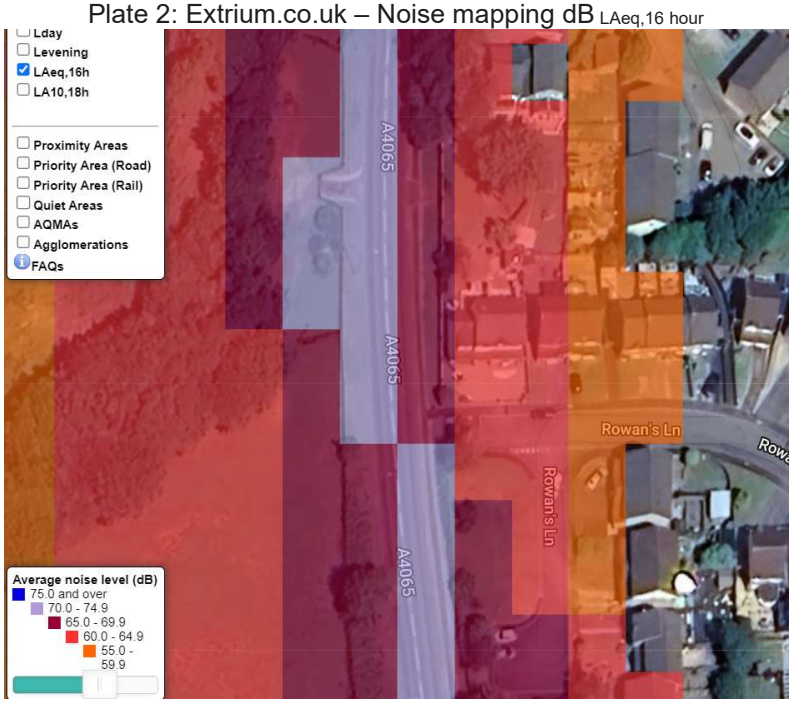
Table 4.1: Predicted Ambient Noise Levels at the NSRs

Receptor	Period	Ambient dB $L_{Aeq,T}$
Davis Avenue	Daytime (07:00 - 23:00) – Ground Floor	60
	Night-time (23:00 – 07:00) – First Floor	56
Rowans Lane	Daytime (07:00 - 23:00) – Ground Floor	60
	Night-time (23:00 – 07:00) – First Floor	56

4.1.8 In addition to the above, we have also reviewed the freely available noise mapping data on Extrium.co.uk. This website provides online noise contour maps based on the most recent strategic noise maps data provided by Welsh government. The calculations undertaken to prepare the noise map follow the methodology contained within the Department for transports Calculation of Road Traffic Noise (CRTN).

4.1.9 This review found that the predicted noise level at the measurement location is in the range of 65.0 – 74.9 dB $L_{Aeq\ 16,hour}$, with the NSR being within the 60.0 – 69.9 dB $L_{Aeq\ 16,hour}$ range. As shown on Plate 2 below.

Plate 2: Extrium.co.uk – Noise mapping dB $L_{Aeq,16\ hour}$



4.1.10 This provides further evidence that the RPS measured sound levels are representative of the typical ambient acoustic climate at the assessed locations.

4.1.11 This ambient sound level analysis has confirmed that the measured sound levels at LT1 are accurate and the selected ambient sound levels are representative of the local noise climate.

4.2 Additional Comments

4.2.1 Further comments were received from BCBC on the 27th March 2024. The comments state:

"*In the first noise assessment in table 5.2 version JAH03178-REPT-01-R2 dated 27 March 2023 it is stipulated that the measured representative L_{Aeq} for Davies Ave and Rowans Lane is 52 dB day and 45 dB night time and not in the 70's*".

4.2.2 We have undertaken a full review of the initial noise impact assessment. Page 20, *Table 5.2: Initial Predicted Specific Sound Levels* in report version JAJ03178-REPT-01-R2 dated 27th March 2023 presents the predicted specific noise levels from the proposed development. This table has been replicated as Table 4.2 below for brevity.

Table 4.2: Table 5.2 from Report JAJ03178-REPT-01-R2 27th March 2023

	NSR Name	Daytime (07:00 to 23:00 hours) $L_{Aeq,1\ hr}$ dB	Night-time (23:00 to 07:00 hours) $L_{Aeq,15\ min}$ dB
NSR A	Davis Ave/Rowans Lane	51	45
	Davis Ave/Rowans Lane Gardens 49	49	42
NSR B	Property Off Leyshon Way 39	39	32
	Property Off Leyshon Way Garden	36	27

4.2.3 The data in the table does not show measured ambient noise levels at the NSRs. The data is taken from our noise modelling results and details the predicted specific sound level from the proposed development, given the information that was available at the time.

4.2.4 The parameters used within this noise model has since been significantly updated with further mitigation measures implemented and alternative plant chosen where possible. Therefore, this table is outdated and should no longer be referenced.

5 BS4142 ASSESSMENT

5.1 Introduction

5.1.1 When undertaking a noise assessment in accordance with BS 4142:2014+A1:2019 it is fundamental that the initial numerical assessment and context in which any impact occurs is considered to determine the potential noise impact at sensitive receptor.

5.1.2 Therefore, this assessment has been set out on two parts, the initial BS 4142:2014+A1:2019 numerical assessment and a consideration of context. The summary of the assessment findings is provided in Section 5.4.

5.2 Initial BS 4142:2014+A1:2019 Assessment

5.2.1 With reference to BS 4142:2014+A1:2019, a character correction can be applied to the specific sound level depending on the acoustic characteristics of the sound, including tonality, intermittency, and impulsivity. In the previous noise assessment (REF: JAJ03178 -REPT-01-R2), a +2 dB correction was applied to account for tonality, as this was deemed a worst-case at the time. However, further analysis has now been undertaken of the predicted sound spectrum at the NSRs. The analysis follows the objective method for identification of tonal components detailed with Annex C of BS 4142:2014+A1:2019. This analysis found that the predicted sound at the NSRs is unlikely to contain any tonal elements. Therefore, no correction has been applied for tonality.

5.2.2 The proposed development produces steady state noise and therefore is not intermittent or impulsive, thus no further corrections have been applied.

5.2.3 Following discussions with BCBC environmental health officer a request has been made to predict the noise impact to the north of the proposed development at the residential dwellings at Gerddi'r Afon. It was agreed that the background sound level from Leyshon Way should be used within this application to identify the possible impacts at these receptors. Due to a survey not being undertaken at this location we have not included this location within the context section of this report. However, it should be noted that the existing acoustic environment is likely to consist of existing industrial processes.

5.2.4 Table 5.1 below provides the initial estimate of the noise impact of the proposed facility at the nearest NSRs in accordance with BS 4142:2014+A1:2019.

Table 5.1: BS4142 Initial Noise Impact Assessment

NSR	Distance From Site Boundary m	Specific Sound Level $L_{Aeq,Tr}$ dB	Character Correction dB	Rating Level dB	Representative Background Sound Level dB $L_{90,T}$	Exceedance dB
Daytime (07:00 – 23:00)						
Davis Avenue	62	39	0	39	47	-8
Rowans Lane	50	40	0	40	47	-7
Property off Leyshon Way	197	34	0	34	40	-6
Gerddi'r Afon	270	31	0	31	40	-9
Night-time (07:00 – 23:00)						
Davis Avenue	62	38	0	38	36	+2
Rowans Lane	50	40	0	40	36	+4
Property off Leyshon Way	197	33	0	33	36	-3
Gerddi'r Afon	270	24	0	24	36	-12

5.2.5 During the daytime periods the predicted rating level is lower than or equal to the background sound level at all existing sensitive receptor locations. This is indicative of a low impact, depending on context.

5.2.6 During the night-time period, rating levels are predicted to exceed the background sound level by up to 4 dB at Rowans Lane. This is indicative of a low to adverse impact, depending on context.

5.3 Consideration of Context

5.3.1 It is important that the context in which the predicted noise impacts occur is considered in accordance with the requirements of BS 4142+A1:2019. The following factors must be considered:

- The absolute level of the sound;
- The character and level of the residual sound compared to the character and the specific sound level; and
- The sensitivity of the receptor.

Absolute Sound level

5.3.2 Section 11 of BS4142:2014+A1:2019 states the following.

"*Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.*

Where residual sound levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts, and the margin by which the rating level exceeds the background might simply be an indication of the extent to which the specific sound source is likely to make those impacts worse."

Table 5.2: Rating Levels and Background Sound Levels

Location	Period	Rating Level, dB	Representative Background Sound Level dB $L_{A90,15min}$	
Davis Avenue	Daytime (T = 07:00 to 23:00)		39	47
Rowans Lane			40	47
Property off Leyshon Way			34	40
Davis Avenue	Night-time (T = 23:00 to 07:00)		38	36
Rowans Lane			40	36
Property off Leyshon Way			33	36

5.3.3 As shown in Table 5.2, the rating level and background sound levels range from low to moderate. Therefore, the absolute level may be as or more important than the difference presented in Table 5.1, particularly during the night-time period.

5.3.4 Due to the high ambient noise level during the daytime period, the ambient noise level will not increase with the introduction of the proposed development and will not result in a change of behaviours for the existing residents. In addition, the rating level is approximately 20 dB below the existing ambient sound level, and therefore has no impact on the absolute sound level and is unlikely to be audible for the majority of the daytime period.

5.3.5 During the night-time period the rating level is predicted to be 38 dB and 40 dB at Davis Avenue and Rowans Lane respectively. The rating level is approximately 14 dB below the existing ambient sound level, and therefore will not increase to the ambient sound level during the daytime period or night time periods. In addition, during the night time period the residents will be located within the dwellings and benefit from the attenuation provided by the façade itself, therefore internal sound

levels will be significant reduced, this has been discussed further within the sensitivity of the receptors section of this technical note.

5.3.6 As detailed within Table 5.2 sound levels at properties off Leyshon Way, are considered to be low in level during both the daytime and night-time periods. The rating level is approximately 12 dB below the existing ambient sound level, and therefore has no notable impact on the absolute sound level and is unlikely to be audible for the majority of the night-time period.

5.3.7 Taking the above into consideration, the potential noise impact at all receptors is anticipated to be less than identified in the initial assessment table, Table 5.1.

Character & Level of the Residual and specific sound

5.3.8 The baseline sound levels were noted to be dominantly road traffic noise with occasional industrial noise being audible from the industrial estate. The land immediately north of the site consists of a large industrial estate with existing HGV movements and localised plant, including air handling units.

5.3.9 Noise from the proposed development will consist of predominantly cooling systems, and HGV movements during the daytime period. Therefore, the character of the sound from the proposed development is in keeping with that of the existing acoustic environment.

5.3.10 Table 5.3 presents a comparison of the residual and specific sound levels and is based on the analysis undertaken in Section 4 of this technical note.

Table 5.3: Residual Sound Levels and Specific Sound Levels Comparison

Location	Representative Residual Noise Level, dB $L_{Aeq,\ T}$	Predicted Specific Sound Level $L_{Aeq,T}$	Difference dB	Comments
Daytime				
Davis Avenue	60	39	-21	The sound levels for the majority of the 1-hour daytime periods are equal to or above 60 dB and therefore this is considered to be a representative sound level. Character is similar to existing, specific sound level is significantly below representative residual sound.
Rowans Lane	60	40	-20	
Property off Leyshon Way	50	34	-16	Character similar to existing, specific sound level significantly below residual sound.
Night-time				
Davis Avenue	56	38	-18	

Rowans Lane	56	40	-16	The sound levels for the majority of the 15-minute night-time periods, are equal to or above 56 dB and therefore this is considered to be a representative sound level. Character is similar to existing, specific sound level is significantly below representative residual sound.
Property off Leyshon Way	45	33	-12	Character similar to existing, specific sound level below residual sound. Character is similar to existing, specific sound level significantly below representative residual sound.

5.3.11 Noise from the proposed development is unlikely to be readily distinctive during the daytime or night-time periods. This is further supported by the low level of the specific sound when compared to the existing ambient sound levels during the assessment periods.

5.3.12 Taking the above into consideration, the potential noise impact at Davis Avenue and Rowans Lane is anticipated to be less than identified in the initial assessment table, Table 5.1.

Sensitivity of Receptors

5.3.13 Section 11 of Section 11 of BS 4142:2014+A1:2019 states the following:

"*The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal design and/or outdoor acoustic conditions, such as:*

- *Façade insulation treatment;*
- *Ventilation and/or cooling that will reduce the need to have windows open as to provide rapid or purge ventilation; and*
- *Acoustic screening."*

5.3.14 Local sensitive receptor properties are unlikely to benefit from specific façade or boundary mitigation, other than existing walls or standard garden fencing. Therefore, it must be assumed that for ventilation the sensitive properties would have open widows.

5.3.15 During the daytime, the assessment has demonstrated that in external areas, the potential noise impact would be low. Furthermore, residual sound levels are more than 10 dB higher than the specific sound levels at all receptors and for most of the time would likely be inaudible over the existing ambient sound levels.

5.3.16 Predictions have been made for the internal noise levels of the proposed development with open and closed windows. Table 5.4 below details the internal noise levels predicted from the proposed development, existing ambient sound and the cumulative sound level. The glazing and ventilation strategy for existing NSRs is not known, therefore, standard double-glazed units and open windows for ventilation can be assumed.

Table 5.4: Predicted internal sound levels.

Receptor	Period	Predicted - Specific Sound Level $L_{Aeq,T}$	Existing	Cumulative	Change
Assumed partial open window -13 dB Rw					
Davis Avenue - GF	Daytime	26	47	47	0
Davis Avenue - F1	Night-time	25	43	43	0
Rowans Lane - GF	Daytime	27	47	47	0
Rowans Lane - F1	Night-time	27	43	43	0
Closed Windows – Assumed 35 dB Rw					
Davis Avenue - GF	Daytime	4	25	25	0
Davis Avenue - F1	Night-time	3	21	21	0
Rowans Lane - GF	Daytime	5	25	25	0
Rowans Lane - F1	Night-time	2	21	21	0

5.3.17 BS8233 provides guidance on internal noise levels during the daytime and night-time period. The guideline noise levels stated within BS8233 are based on the guideline noise levels stated by the WHO. The guideline noise levels detailed within BS8233 are shown in Table 5.5 below.

Table 5.5: Indoor ambient noise levels for dwellings

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aaeq,16hour}$	-
Dining	Dining Room/area	40 dB $L_{Aaeq,16hour}$	-
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aaeq,16hour}$	30 dB $L_{Aeq,\ 8\ hour}$

5.3.18 When analysing the results within Table 5.4 with Table 5.5 this shows that the existing ambient noise levels, without the proposed development, are already exceeding the guideline noise levels during the day and night-time periods with windows open.

5.3.19 With the introduction of the proposed development the ambient noise level within NSRs will not increase during the daytime or night-time periods. Typically, a change of 3 dB or more, is accepted as the threshold of perception. Therefore, any change in sound level is likely to be imperceptible.

5.3.20 Taking the sensitivity of the receptor into consideration, the potential night-time noise impact at Davis Avenue and Rowans Lane is anticipated to be less than identified in the initial assessment table, Table 4.1.

5.4 Summary

5.4.1 The proposed development has been modelled based upon the worst-case scenario while including the proposed mitigation measures. The initial noise impact assessment found that the proposed scheme has the potential to have a low impact during the daytime period and low to adverse during the night-time period.

5.4.2 The proposed development is unlikely to have any readily identifiable characteristics given the high ambient sound level and the existing industrial estate to the north. Furthermore, the proposed development will not cause an increase to the existing ambient levels during either the daytime or night-time periods.

5.4.3 It should also be noted that during the particularly sensitive night-time period residence would be inside their properties and benefit from noise attenuation provided by their building facade. As shown within Table 5.4 the internal ambient noise levels will not change and should not cause a change in behaviour of the residents.

5.4.4 For the reasons set out in this context section the potential noise impact from the proposed development is unlikely to be significant.

5.4.5 In accordance with BS4142:2014+A1:2019, when assessing the potential noise impact in context, the potential noise impact is expected to be Low during the daytime and night-time periods at noise all sensitive receptors.

6 CONCLUSION

6.1.1 The acoustics Team at RPS Environment (RPS) has undertaken a BS4142:2014+A1:2019 noise impact assessment with the proposed mitigation measure implemented to assess the potential noise impact on the noise sensitive receptors (NSRs).

6.1.2 The initial noise impact found that the proposed development has the potential to have a low impact during the daytime period and a low to adverse impact during the night-time period, depending on context.

6.1.3 However, when considered the high existing ambient sound level, it is unlikely that the proposed development will cause an adverse impact and the predicted sound levels are unlikely to cause any change in behaviour of existing residents.

6.1.4 Residents on Davis Avenue and Rowans Lane are already experiencing high ambient sound levels during the night-time periods which would exceed internal guideline noise levels, therefore are unlikely to have open windows for passive ventilation. Furthermore, the proposed development will not increase the ambient noise level at any of the existing sensitive receptors, reducing the potential for a significant adverse impact.

6.1.5 In addition, give the character of the existing acoustic environment, consisting of predominantly road traffic noise and existing industrial noise from the established industrial estate it is unlikely

that the proposed development will be readily identifiable, further reducing the potential of adverse impacts.

6.1.6 In accordance with BS4142:2014+A1:2019, when assessing the potential noise impact in context, the potential noise impact is expected to be Low during the daytime and night-time periods at noise all sensitive receptors.

6.1.7 In accordance with Welsh planning policy, local planning authorities must ensure that noise generating development does not cause an unacceptable degree of disturbance. However, this does not mean that adverse effects cannot occur.

6.1.8 Design and mitigation measures have been incorporated into the development to reduce to a minimum any potential adverse noise impacts on noise sensitive receptors. In doing so, the assessment has demonstrated that the proposed development can integrate with the local area, without being of detriment to the existing noise climate.

6.1.9 Therefore, should planning permission be granted, we would suggest that suitably worded conditions are attached covering compliance monitoring, an operational noise management plan, and active noise management in response to any complaints about noise.

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Appendix A
Time History

TECHNICAL NOTE

Date: 08 July 2024
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