

6th March 2025

Mr Philip Fletcher
302 New Road
Staincross
Barnsley
S75 6GP



Dear Sirs

NOISE IMPACT ASSESSMENT AND AIR QUALITY ASSESSMENT

PROPOSED INTERNAL ALTERATIONS TO CONVERT PUBLIC HOUSE TO ONE DWELLING AT THE ROSE OF YORK, 466 BRADFORD ROAD, BATLEY, WF17 5LW

KIRKLEES PLANNING APPLICATION 2025/62/90019/E

1.00 INTRODUCTION

1.01 RP Acoustics Limited has been commissioned by Mrs Shagufta Fazal to carry out a noise impact assessment and an air quality assessment for proposed internal alterations to convert public house to one dwelling at the Rose of York, 466 Bradford Road, Batley, WF17 5LW (hereafter referred to as the application site).

1.02 The objectives of the noise impact assessment were to:

- Determine the ambient noise levels at the application site
- Provide recommendations for mitigation measures to protect residential amenity in accordance with good practice

1.03 The objectives of the air quality assessment were to:

- Determine the existing air quality at the application site
- Provide recommendations for mitigation measures to protect residential amenity in accordance with good practice

1.04 This report sets out the methodology and findings of the assessments. It has been prepared on behalf of Mrs Shagufta Fazal for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties making reference to the report should consult Mrs Shagufta Fazal (applicant), Mr Philip Fletcher (applicant's agent) and RP Acoustics Limited as to the extent to which the findings may be appropriate for their use.

1.05 A glossary of acoustic terms is contained in Appendix 1 for reference.

2.00 APPLICATION SITE SETTING AND PROPOSED DEVELOPMENT

2.01 The application site is located adjacent to the A652 Bradford Road to the north of Batley town centre in a mixed residential and commercial area (Tesco supermarket is located on the opposite side of the road). The application site location plan is reproduced in Appendix 2 for reference.

2.02 The proposed development consists of internal alterations to convert the public house to one dwelling. The proposed floor plans are reproduced in Appendix 3 for reference. The floor plans illustrate that the habitable rooms may be ventilated from the rear façade (i.e. the quiet façade fully screened from the A652 Bradford Road by the building itself).

3.00 PRE-ASSESSMENT CONSULTATION

- 3.01 The following consultation response (in regards noise and air quality) was made by Mr Mohammed Nasim, Environmental Health (Pollution & Noise Control), Kirklees Council on 10th February 2025:

Noise

The proposed development site sits on Bradford Road and is opposite a large supermarket, noise from which can lead to a loss of amenity to the proposed occupiers. A condition is recommended for the submission of a noise assessment to ensure the internal and any external amenity areas meet with the requirements of BS8233.

Recommended Condition NC9 Noise Assessment Report and Mitigation Scheme

Before construction work commences, a report specifying the measures to be taken to protect the development from noise from all significant noise sources that are likely to affect the proposed development including road traffic/commercial premises etc. shall be submitted to and approved in writing by the Local Planning Authority. The report shall:

- a) Determine the existing noise climate*
- b) Predict the noise climate in living rooms and gardens (daytime), bedrooms (night-time) and other habitable rooms of the development*
- c) Detail the proposed attenuation/design necessary to protect the amenity of the occupants of the new residences (including ventilation if required).*

The development shall not be occupied until all works specified in the approved report have been carried out in full and such works shall be thereafter retained.

Reason: To protect the amenity of occupiers of the proposed development from noise or disturbance from nearby noise generating premises to accord with the aims of Policies LP24 and LP52 of the Kirklees Local Plan and Chapters 12 and 15 of the National Planning Policy Framework.

Air Quality

The development site sits on Bradford which has been identified as a road of concern. A condition is recommended for the submission of an Air Quality Impact Assessment in order to determine the impact that the poor air quality in the area may have on the future occupiers of the proposed development.

Recommended Condition AQIAC2 Air Quality Impact Assessment

Before the application is brought into use, a full Air Quality Impact Assessment shall be submitted to and approved in writing by the Local Planning Authority. The assessment shall determine the impact that the poor air quality in the area will have on the future occupiers of the proposed development and provide details of the required mitigation measures that will be provided to address any such adverse impact. The approved mitigation measures shall be implemented before occupation & retained thereafter.

Reason: For promoting sustainable development and transport and conserving the natural environment in accordance with parts 2, 9 & 15 of the NPPF and LP20, LP24, LP47 of the Local Plan

- 3.02 In order to avoid pre-commencement conditions, which would inevitably delay the scheme, the applicant has commissioned the noise impact and air quality assessments during the determination period of the planning application.

4.00 BASELINE NOISE SURVEY

- 4.01 A baseline noise survey was carried out at the application site from Saturday 22nd February 2025 through to Tuesday 25th February 2025.
- 4.02 For the purpose of the assessment, the following noise monitoring positions were adopted (see Appendix 4):
- NMP1 was located 1 metre from A652 Bradford Road façade at first floor (reflective field)
 - NMP2 was located in the centre of the rear garden area (free field)
- 4.03 Baseline noise measurements were undertaken using NTi Audio XL2 Type 1 integrating sound level meters. A 90 mm windshield was fitted for all measurements. The measurement system calibration was verified immediately before and after measurement sessions and no drift in calibration level was noted (calibration certificates reproduced in Appendix 5 for reference). Weather conditions throughout the survey were appropriate for monitoring.
- 4.04 Baseline noise measurements consisted of A-weighted broadband parameters (1/3 octave) with a logging interval of 1 second. The following table contains a summary of the data rounded to the nearest decibel (note: data at NMP1 includes a – 3 decibel façade enhancement correction in order to establish free field noise levels).

Table 4.1 – Baseline Noise Measurement Data

NMP	Date	Time	L _{Aeq} (dB)	L _{A90} (dB)	L _{A10} (dB)	L _{A1} (dB)	Comments
1	Sunday 23/02/25	0700–2300	64	54	67	71	A652 Bradford Road traffic completely dominates the ambient noise climate
	Monday 24/02/25	0700–2300	65	56	68	71	
	Saturday 22/02/25	2300–0700	60	56	63	70	
	Sunday 23/02/25	2300–0700	60	43	63	70	
	Monday 24/02/25	2300–0700	60	44	63	69	
Day Time Ambient Noise Level = 65 dB L _{Aeq} (0700–2300) based on CRTN Night Time Ambient Noise Level = 60 dB L _{Aeq} (2300–0700) based on TRL 11 th Highest Maxima = 76 dB L _{AFMax} (2300–07000)							
2	Tuesday 25/02/25	0700–1200	47	44	49	58	Road traffic
Circa 18 dB lower than NMP1 due to screening and increased distance to road							

- 4.05 The ambient noise climate was dominated by traffic on the A652 Bradford Road.

5.00 BRITISH STANDARD 8233:2014 GUIDANCE ON SOUND INSULATION AND NOISE REDUCTION FOR BUILDINGS (BS 8233)

- 5.01 BS 8233 sets guideline indoor ambient noise levels for dwellings. These levels are reproduced in the following table.

Table 5.1 – BS 8233 Indoor Ambient Noise Levels in Dwellings

Activity	Location	0700–2300 hours	2300–0700 hours
Resting	Living Room	35 dB L_{Aeq}	–
Dining	Dining Room	40 dB L_{Aeq}	–
Sleeping (daytime resting)	Bedroom	35 dB L_{Aeq}	30 dB L_{Aeq}

- 5.02 Note 5 to the above table states *'If relying on closed windows to meet the guide values, there needs to be an appropriate alternative ventilation that does not compromise the façade insulation or the resulting noise level. If applicable, any room should have adequate ventilation (e.g. trickle ventilators should be open) during assessment.'*
- 5.03 BS 8233:2014 Paragraph 7.7.3.2 Design Criteria for External Noise states *'For traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited.'*
- 5.04 Based on the significant screening to the rear garden area provided by the building itself, no acoustic measures are required to protect garden amenity.

6.00 SCHEME OF NOISE MITIGATION

- 6.01 The sound insulation requirements have been calculated using the methodology advocated in BS 8233:2014 and are set out in the following table.

Table 6.1 – Scheme of Noise Mitigation Measures

Façade	External Level	Noise Mitigation Measures
A652 Bradford Road	65 dB L_{Aeq} (0700–2300) 60 dB L_{Aeq} (2300–0700) 76 dB L_{AFMax} (2300–0700)	Enhanced double glazed unit rated at least 32 dB $R_w + C_{tr}$ 10 mm glass / 6–20 mm cavity / 6 mm glass (Appendix 6) Acoustic window vent rated at least 38 dB $D_{n,e,w} + C_{tr}$ such as Greenwood 5000EAW.AC2 (Appendix 7)
Rear	47 dB L_{Aeq} (0700–2300) 42 dB L_{Aeq} (2300–0700) 58 dB L_{AFMax} (2300–0700)	Quiet rear façade No acoustic measures required as good internal levels met with partially open windows double glazed unit

- 6.02 It is understood that the existing windows are to be replaced. New windows must include trickle ventilation unless there is already a sufficient level of natural background ventilation provided by the existing window set up (note: this is not the case at the application site as the existing windows do not contain trickle vents); this change came into effect on 15th June 2022 as part of the updated Approved Document F 'Ventilation' of the Building Regulations.
- 6.03 Due to road traffic noise levels, the trickle vents on the A652 Bradford Road façade must be acoustically rated as set out in Table 6.1. However, the front-to-back span of the living room and bedrooms allows thermal comfort to be achieved via the opening of windows on the quiet rear façade. As a consequence, mechanical ventilation for thermal comfort is not required at the application site.

7.00 AIR QUALITY

- 7.01 Under Section 82 of the Environment Act (1995) (Part IV), local authorities are required to undertake an ongoing exercise to review air quality within their area of jurisdiction. Derby City Council has declared an Air Quality Management Area (AQMA) due to concerns over nitrogen dioxide concentrations.
- 7.02 Kirklees Council's Air Quality Annual Status Report (ASR) for 2024 contains the following data directly relevant to the application site:

Table 7.1 – ASR Annual Mean NO₂ Monitoring Results (ug/m³)

Diffusion Tube ID	Easting	Northing	Address	Distance To Kerb	2019	2020	2021	2022	2023
K39	424526	424326	Bradford Road, Batley	2.2 metres	31.1	26.7	33.6	32.9	29.6
K14	413667	416467	Oastler Avenue, Springwood	Background	17.7	13.9	14.5	13.0	12.1

- 7.03 For reference, K39 is located 2.2 metres from the kerb (diagonally opposite the application site; see Appendix 8), whilst the application site A652 Bradford Road façade is located circa 3.7 metres from the kerb.
- 7.04 The NO₂ concentration at the application site A652 Bradford Road façade relevant for exposure has been calculated using the Diffusion Tube Data Processing Tool/NO₂ fall-off with distance calculator available on the LAQM Support website.
- 7.05 Based on the 2023 data, the exposure is calculated at 27.3 ug/m³ NO₂ at the application site A652 Bradford Road façade based on K39 data.
- 7.06 Such levels are significantly below the UK legal limit of 40 ug/m³ and also well below the WHO Interim Target Level 2 of 30 ug/m³. No air quality mitigation is required.

8.00 CONCLUSION

- 8.01 A noise impact assessment and an air quality assessment has been undertaken for proposed internal alterations to convert public house to one dwelling at the Rose of York, 466 Bradford Road, Batley, WF17 5LW.
- 8.02 A scheme of noise mitigation has been proposed in accordance with current standards and guidelines.
- 8.03 Air quality is not an issue with NO₂ concentrations significantly below the threshold for mitigation.
- 8.04 In conclusion, noise and air quality do not pose a constraint to the granting of planning permission.

We trust the foregoing is to your satisfaction. Should you have any queries, please do not hesitate to contact us.

Yours sincerely

Jonathan Rigg
Associate Member of the Institute of Acoustics
For and on behalf of RP Acoustics Ltd

APPENDIX 1 GLOSSARY OF ACOUSTIC TERMS

Sound Pressure Level (L_p)

The basic unit of sound measurement is the sound pressure level. As the pressures to which the human ear responds can range from 20 μPa to 200 Pa, a linear measurement of sound levels would involve many orders of magnitude. Consequently, the pressures are converted to a logarithmic scale and expressed in decibels (dB) as follows:

$$L_p = 20 \log_{10}(p/p_0)$$

Where L_p = sound pressure level in dB; p = rms sound pressure in Pa; and p_0 = reference sound pressure (20 μPa).

A-weighting Network

A frequency filtering system in a sound level meter, which approximates under defined conditions the frequency response of the human ear. The A-weighted sound pressure level, expressed in dB(A), has been shown to correlate well with subjective response to noise.

Equivalent continuous A-weighted sound pressure level, $L_{Aeq, T}$

The value of the A-weighted sound pressure level in decibels of continuous steady sound that within a specified time interval, T , has the same mean-square sound pressure as a sound that varies with time. $L_{Aeq, 16h}$ (07:00 to 23:00 hours) and $L_{Aeq, 8h}$ (23:00 to 07:00 hours) are used to qualify daytime and night time noise levels.

$L_{A10, T}$

The A-weighted sound pressure level in decibels exceeded for 10% of the measurement period, T . $L_{A10, 18h}$ is the arithmetic mean of the 18 hourly values from 06:00 to 24:00 hours.

$L_{A90, T}$

The A-weighted sound pressure level of the residual noise in decibels exceeded 90% of a given time interval, T . L_{A90} is typically taken as representative of background noise.

$L_{AF \max}$

The maximum A-weighted noise level recorded during the measurement period. The subscript 'F' denotes fast time weighting, slow time weighting 'S' is also used.

Sound Exposure Level (SEL or L_{AE})

The energy produced by a discrete noise event averaged over one second, no matter how long the event actually took. This allows for comparison between different noise events that occur over different lengths of time.

APPENDIX 2
APPLICATION SITE LOCATION PLAN



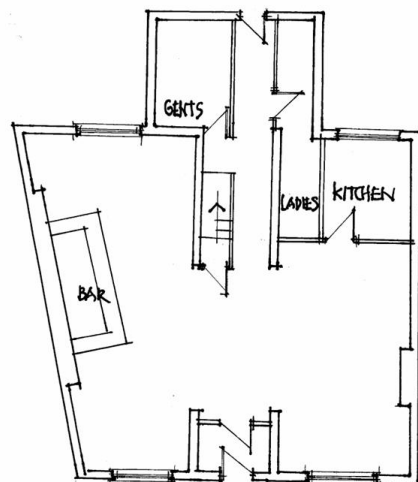
SITE LOCATION PLAN
AREA 2 HA
SCALE 1:1250 on A4
CENTRE COORDINATES: 424492, 424388



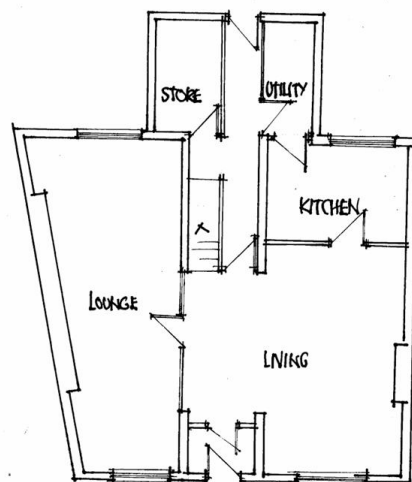
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APPENDIX 3 PROPOSED FLOOR PLANS

466 BRADFORD ROAD - ROSE OF YORK



EXISTING GROUND FLOOR

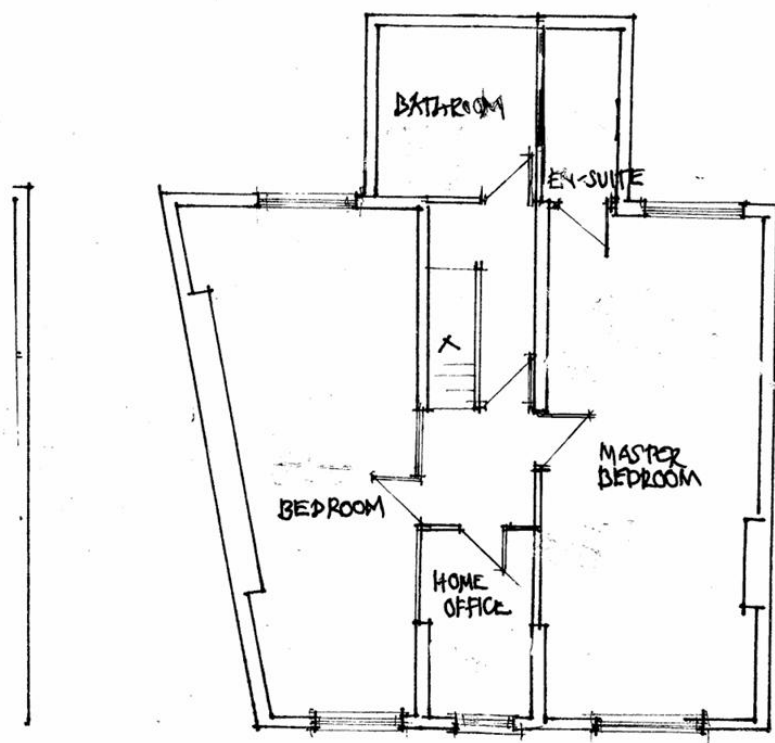


PROPOSED

SCALE 1:100

APPENDIX 3
PROPOSED FLOOR PLANS

ROSE OF YORK, BATLEY



PROPOSED FIRST FLOOR

SCALE 1:100

**APPENDIX 4
NOISE MONITORING POSITIONS**



**SITE LOCATION PLAN
AREA 2 HA
SCALE 1:1250 on A4
CENTRE COORDINATES: 424492, 424388**



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APPENDIX 5

CALIBRATION CERTIFICATE FOR SOUND LEVEL METER (CALIBRATION EVERY 2 YEARS)

Laboratory Location

Campbell Associates Ltd

5b Chelmsford Road Industrial Estate
GREAT DUNMOW, Essex, GB-CM8 1HD
Phone 01371 871030



Certificate of Calibration and Conformance

Certificate number: **U46717**

Test Object: Sound Level Meter, BS EN IEC 61672-1:2013 Class 1
Associated Frequency Analyser to BS EN IEC 61260:1996 Class 1

Producer: NTi Audio
Type: XL2-TA
Serial number: A2A-17283-E0
Customer: RP Acoustics Ltd
Address: 1 Dobcroft Close,
Sheffield. S11 9LL.

Contact Person: Richard Pennell
Order No: RPA/24/CAL/01

Introduction:

Calibration has been performed as set out in CA Technical Procedures which are based on the procedures for periodic verification of sound level meters as per the Test Object listed above. Results and conformance statement are overleaf and detailed results, where appropriate, are provided in the attached Measurement Report.

Tested:	Producer	Type	Serial No	Certificate No
Microphone	NTi Audio	MC230A	A23655	46716
Calibrator*	Larson Davis	CAL200	17115	U46700
Preamplifier	NTi Audio	MA220	11174	Included

* The calibrator was complete with any required coupler for the microphone specified.

Additional items that have also been submitted for verification:

Wind shield N/A
Attenuator N/A
Extension cable N/A

These items have been taken into account wherever appropriate.

Instruction Manual: NTi-Audio XL2 Operating Manual v3.11.02 August 2016 Firmware Version: V4.71 The test object is a single channel instrument.

Conditions	Pressure kPa	Temperature °C	Humidity %RH
Reference conditions	101.325	23	50
Measurement conditions	97.15 ±0.02	22.30 ±0.4	43.48 ±0.65

Calibration Dates:

Received date: 23/01/2024 Reviewed date: 09/02/2024
Calibration date: 09/02/2024 Issued date: 09/02/2024

Technicians: (Electronic certificate)

Calibrated by: *Palanivel Marappan B.Eng (Hons), M.Sc*

Reviewed by: *Darren Batten*

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Doc ref: Slim-Cert-Master-V3-07

APPENDIX 6

SOUND INSULATION DATA OF GLAZING TO A652 BRADFORD ROAD FAÇADE

info.glass@nichollsandclarke.com 0845 6051350



COMPARISON CHART

The charts below show comparisons between various types of glass and insulated glass units and also between the R_w , R_w+C & R_w+C_{tr} indices.

Single Glass	R_w	R_w+C	R_w+C_{tr}
6.4mm Laminated Safety Glass	32 dB	31 dB	29 dB
6.8mm Laminated Safety Glass	33 dB	31 dB	29 dB
10.8mm Laminated Safety Glass	34 dB	33 dB	31 dB
6.8mm Acoustic Laminated	35 dB	34 dB	32 dB
8.8mm Acoustic Laminated	37 dB	36 dB	33 dB
10.8mm Acoustic Laminated	38 dB	37 dB	36 dB
12.8mm Acoustic Laminated	39 dB	39 dB	37 dB
16.8mm Acoustic Laminated	40 dB	40 dB	38 dB

Double Glazed Units	R_w	R_w+C	R_w+C_{tr}
4mm / 20 spacer / 4mm IGU	31 dB	30 dB	25 dB
6mm / 16 spacer / 6mm IGU	31 dB	30 dB	27 dB
8mm / 16 spacer / 6mm IGU	35 dB	33 dB	29 dB
10mm / 16 spacer / 6mm IGU	40 dB	38 dB	35 dB
6.8mm Acoustic / 16 spacer / 6mm IGU	38 dB	36 dB	33 dB
8.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	38 dB	34 dB
10.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	39 dB	35 dB
12.8mm Acoustic / 16 spacer / 6mm IGU	41 dB	40 dB	36 dB
16.8mm Acoustic / 16mm spacer / 16.8mm Acoustic	48 dB	46 dB	42 dB

Triple Glazed Units	R_w	R_w+C	R_w+C_{tr}
4mm / 8mm spacer / 4mm / 8mm spacer / 4mm	31 dB	30 dB	27 dB
4mm / 10mm spacer / 4mm / 10mm spacer / 4mm	32 dB	31 dB	26 dB

Secondary Glazing	R_w		R_w+C_{tr}
6 / 100 / 4	46 dB		37 dB
6 / 150 / 4	47 dB		39 dB
10 / 200 / 6	49 dB		45 dB

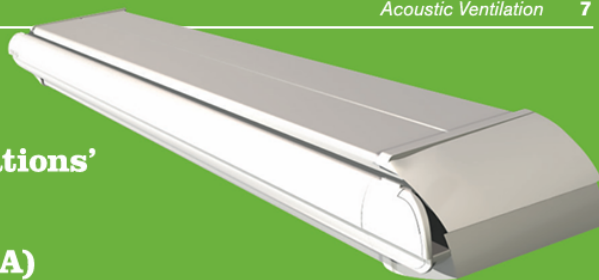
Sound insulation data measured in accordance with BS EN ISO 140-3 and indices derived in accordance with BS EN ISO 717-1

APPENDIX 7

SOUND INSULATION DATA OF ACOUSTIC VENTS TO A652 BRADFORD ROAD FAÇADE

Acoustic Ventilation 7

The best of both worlds... achieves Building Regulations' EA requirements along with fantastic acoustic performances up to 45dB(A)



Features and benefits

- Smallest acoustic window vents providing 2500mm² or 5000mm² equivalent area ventilation on the market
- Achieves the best acoustic performance for window ventilators available within the UK – up to 45dB(A)
- A simple, yet adaptable, solution to meet required specification/ Building Regulation requirements incorporating both high levels of equivalent area ventilation and acoustic noise reduction
- Modularity of acoustic sets provides flexibility for installation and acoustic performance
- Aesthetically pleasing design which is easy to open and control by the homeowner
- Excellent airtightness performance with upward air deflection to reduce the risk of draughts
- May require add on section in some window installations
- Available in any RAL colour on a made-to-order basis, please contact us for more information

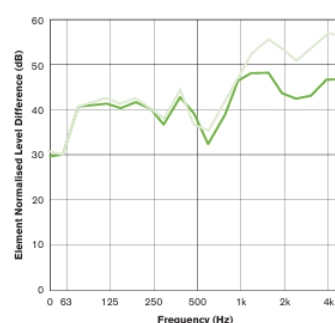
Sets comprise of:

1 EA vent + 1 external acoustic module – providing noise reduction with discreet internal aesthetics.

1 EA vent + 2 acoustic modules (for internal and external install) – providing maximum noise reduction.

Performance

2500EA acoustic performance

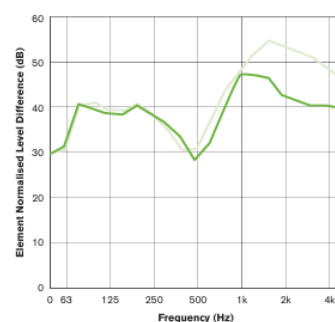


Key

2500EAW.AC1

2500EAW.AC2

5000EA acoustic performance



Key

5000EAW.AC1

5000EAW.AC2

Models, control options and key data

Product code	Description	Controls	Acoustic performance				Equivalent area mm ²	Colour
			Dn,e,w	Dn,e,w (C)	Dn,e,w (Ctr)			
2500EAW.AC1 *	Vent + 1 Acoustic External Module	Front	42dB(A)	41dB	40dB		2749	White
2500EAW.AC2 *	Vent + 2 Acoustic Modules	Front	45dB(A)	43dB	42dB		2736	White
5000EAW.AC1 *	Vent + 1 Acoustic External Module	Front	39dB(A)	38dB	37dB		5713	White
5000EAW.AC2 *	Vent + 2 Acoustic Modules	Front	42dB(A)	40dB	38dB		5497	White

* Pricing is variable depending on quantity ordered - please call for details

APPENIDIX 8
GOOGLE EARTH STREET VIEW IMAGE ILLUSTRATING PROXIMITY OF K39 DIFFUSION TUBE TO APPLICATION SITE

