



Acoustic and Odour Assessment for Proposed conversion to a Mixed Food Hall at The Sheridan, 371 Oldham Road, Manchester, M40 8RR.

Prepared for:

Gusuu Designs Ltd,
18 Marshall Road,
Woolston,
Warrington,
Cheshire,
WA1 4BS .

March 2025



Contents

1.	Introduction	3
	Site Location and Context	3
2.	Policy and Guidance	4
	Noise	4
	Odour	8
3.	The Assessment	9
	The development	9
	Noise	9
	Impact from the development.	9
	Odour	12
	Assessment.....	12
4	Conclusion	14
	Noise	14
	Odour	14
	Figure 1 – Aerial Photograph	15
	Figure 2 – Proposed Layout Plan	16
	Appendix A – Details of Extraction Equipment (noise).....	17
	Appendix B – Modelling Results for Plant Sound Emissions.....	18
	Appendix C - Modelling Results for Combined Plant and customer Sound Emissions.....	20
	Appendix D – EMAQ Odour Risk Assessment	22
	Appendix E - Report Author Details	23



1. Introduction

- 1.1. Martin Environmental Solutions has been commissioned to undertake an acoustic and odour assessment to support a planning application for the conversion to Mixed Food Hall at The Sheridan, 371 Oldham Road, Manchester, M40 8RR.

Site Location and Context

- 1.2. The development site is situated to the north of the busy A62, Oldham Road, a dual carriageway. To the rear of the site is a concrete yard and beyond a raised railway line. To the east, southeast a row of properties with commercial to the ground floor and mixed residential storage to the first. To the south beyond the road and grassed space are residential properties the nearest being +60m from the site.
- 1.3. An aerial Photograph is enclosed in Figure 1, together with a proposed layout drawing in Figure 2.
- 1.4. The report has been produced to clarify the potential impact on the proposed development and to identify mitigation measures if required to ensure the development is appropriate in terms of noise impact.



2. Policy and Guidance

Noise

- 2.1. The impact of noise can be a material consideration in the determination of planning applications. The planning system has the task of guiding development to the most appropriate locations. It is recognised that on occasions it will be difficult to reconcile some land uses, such as housing, hospitals, or schools, with other activities that generate high levels of noise. However, the planning system is tasked to ensure that, wherever practicable, noise-sensitive developments are separated from major sources of noise (such as road, rail and air transport and certain types of industrial development).
- 2.2. The Government's publication of the National Planning Policy Framework (NPPF), updated in December 2024, states that planning policies and decisions should prevent new and existing development from contributing to or being put at unacceptable risk from, of being adversely affected by unacceptable levels of noise pollution.
- 2.3. The Government have also issued the Noise Policy Statement for England (NPSE). The NPSE clarifies the Government's underlying principles and aims in relation to noise and sets a vision to promote good health and a good quality of life through the effective management of noise while having regard to the Government's sustainable development strategy. The NPSE aims to mitigate and minimise adverse impacts on health and quality of life through the effective management and control of noise.
- 2.4. The NPSE introduces the following terms, although no sound levels are given to represent these, many authorities have identified the sound level criteria in line with the World Health Organisation, BS8233:2014 and BS4142: 2014 levels. The terms introduced by the NPSE are:
NOEL – No Observed Effect Level (<30dB(A) inside <50dB(A) outside, 10dB below background)
LOAEL – Lowest Observed Adverse Effect Level (30-35dB(A) inside 50-55dB(A) outside, background to +5dB)
SOAEL – Significant Observed Adverse Effect Level (>35dB(A) inside, >55dB(A) outside, >+10dB above background)
- 2.5. The sound levels within the brackets of the previous paragraph are those determined as appropriate levels to indicate the relevant effect levels represented by the NPSE.



- 2.6. Other commonly used examples of standards utilised by Local Planning authorities for the consideration of noise impacts include comparison of the likely noise levels to be experienced at a development, with levels that have been recommended by the World Health Organisation (WHO) as Guidelines for the prevention of Community Noise Annoyance and within BS8233: 2014.
- 2.7. The WHO recommended noise levels for outdoor amenity areas (gardens) that should not be exceeded are 55dB(A) $L_{Aeq,16hr}$ in order to avoid 'Serious Community Annoyance' or 50dB(A) $L_{Aeq,16hr}$ to avoid 'Moderate Community Annoyance' during the day. For indoor levels WHO set 35dB(A) $L_{Aeq,16hr}$ during the day to prevent Moderate Annoyance and 30 dB(A) $L_{Aeq,8hr}$ at night to prevent sleep disturbance.
- 2.8. The WHO guidance also recommends that maximum sound levels at night should not regularly exceed 45dB(A) within bedrooms to prevent sleep disturbance. Regularly is considered to be more than 10 times during any 8-hour night-time period.
- 2.9. BS 8233:2014 'Guidance on sound insulation and noise reduction for buildings' also specifies desirable noise levels to be achieved inside dwellings.
- 2.10. BS 8233:2014 'Sound insulation and noise reduction for buildings – Code of Practice' also specifies desirable noise levels to be achieved inside dwellings. BS 8233 presents two levels, the first between the hours of 07:00 – 23:00 and the second between 23:00 -07:00.
- 2.11. The daytime period suggests internal noise levels of 35dB $L_{Aeq,16hr}$, for resting in living rooms and bedrooms while for night-time a level of 30dB $L_{Aeq,8hr}$ is recommended. Criteria for external areas mirrors that within the WHO guidance.
- 2.12. Another commonly used standard is British Standard 4142:2014 'Method for rating industrial and commercial sound' compares the sound predicted by the source in question against the background, L_{A90} sound levels.



- 2.13. The "residual" L_{Aeq} measurement is then subtracted from the "ambient" L_{Aeq} measurement (with the sound source) to calculate the sound level created by the "problem" sound alone -termed the "specific" sound level.
- 2.14. If the "problem" sound is tonal, such as whine or hum, or if it is impulsive such as bangs or clatters or if it is irregular enough to attract attention a correction is added to the "specific level" to produce the "rating level". The "background" L_{A90} measurement is then compared against the "rating level".
- 2.15. If the "rating level" exceeds the "background" by around 10dB(A) or more this "indicates a significant adverse impact". A difference of around 5dB(A) 'indicates an adverse impact. The lower the commercial noise level is, the lower the likely impact.
- 2.16. In addition, the 'ProPG Planning & Noise, Professional Practice Guidance on Planning & Noise, New Residential Development' provides a 4-staged approach to undertaking a risk assessment in relation to anticipated sound levels at new residential development and the provision of mitigation measures. The guidance is principally aimed at sites exposed predominantly to noise from transportation sources.
- 2.17. The first stage consists of an initial noise risk assessment, based on indicative day and night-time *noise* levels. Simply put, the higher the ambient noise in an area the greater the impact. The levels given are shown below although it should be noted that these are in excess of both the WHO and BS 8233: 2014 guidance.

Noise Risk Category*	Potential Effect if Unmitigated	Pre-Planning Application Guidance
0 – Negligible $L_{Aeq,16hr} < 50dB$ $L_{Aeq,8hr} < 40dB$	May be noticeable but no adverse effect on health and quality of life	In this category the development is likely to be acceptable from a noise perspective, nevertheless a good acoustic design process is encouraged to improve the existing environment and/or safeguard against possible future deterioration and to protect any designated tranquil areas. A noise assessment may be requested to demonstrate no adverse impact from noise. Application need not normally be delayed on noise grounds.
1 – Low $L_{Aeq,16hr} 50-63dB$ $L_{Aeq,8hr} 40-55dB$	Adverse effect on health and quality of life	In this category the development may be refused unless a good acoustic design process is followed and is demonstrated via a Level 1 Acoustic Design Statement which confirms how the adverse impacts of noise on the new development will be mitigated and minimised and that a significant adverse impact will not arise in the finished development. Planning conditions and other measures to control noise may be required.
2 – Medium $L_{Aeq,16hr} 63-69dB$ $L_{Aeq,8hr} 55-60dB$ $L_{AFmax} > 80dB^{**}$	Significant adverse effect on health and quality of life	In this category the development is likely to be refused unless good acoustic design process is followed and is demonstrated via a Level 2 Acoustic Design Statement which confirms how the adverse impacts of noise on the new development will be mitigated and minimised, and clearly demonstrates that a significant adverse noise impact will not arise in the finished development. Planning conditions and other measures to control noise will normally be required.
3 – High $L_{Aeq,16hr} > 69dB$ $L_{Aeq,8hr} > 60dB$ $L_{AFmax} > 80dB^{**}$	Unacceptable adverse effect of health and quality of life	In this category the development is very likely to be refused on noise grounds, even if a good acoustic design process is followed and is demonstrated via a Level 2 Acoustic Design Statement. Applicants are advised to seek expert advice on possible mitigation measures. Advice on the circumstances when the refusal of a new housing on noise grounds should normally be anticipated is included in the ProPG.

2.18. Stage 2, consists of a full assessment of the prevailing ambient noise and requires 4 elements to be considered:

- I. Element 1 – Good Acoustic Design
- II. Element 2 – Internal Noise Level Guidelines
- III. Element 3 – External Amenity Area Noise Assessment
- IV. Element 4 – Assessment of Other Relevant Issues

2.19. A good acoustic design is implicit in meeting the requirements of the NPPF and can help to resolve many potential acoustic issues.

2.20. Details of the criteria considered suitable are provided above for both internal and external sound levels. Element 4 includes such issues as local and national policy, likely occupants, wider planning objectives.



Odour

- 2.21. The Government sets out its policy in relation to planning in the National Planning Policy Framework (NPPF). The NPPF states that planning policies and decisions should “preventing new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability”; and “In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment”.
- 2.22. While Odour is not specifically mentioned in is implied by the above and the Planning Practice Guidance (PPG) note issued by the government on Air Quality states “odour and dust can also be a planning concern, for example, because of the effects on local amenity” it continues to state, “mitigation options where necessary, will depend on the proposed development and should be proportionate to the likely impact”.
- 2.23. Before an odour can be present an adverse effect, there must be exposure to the odour and therefore a source, a pathway, and a receptor without these three links no exposure can occur. In the case of this application the source is the take-away. The pathway is the air, and the receptor are the occupants of the nearby existing dwellings.
- 2.24. In assessing the impact of odour on or from a development the scale of the exposure and therefore impact is determined by the parameters collectively known as the FIDO factors (Frequency, Intensity, Duration and Offensiveness) In addition the sensitivity of the receptor (location) will determine the magnitude of the exposure. Factors that influence the magnitude of a commercial odour problem include the size/volume of the cooking facility, the type of food being prepared, and the type of cooking appliances being used.



- 2.25. Furthermore, updated guidance on assessing the impact of extraction systems from commercial kitchens has been published by EMAQ '*Control of Odour and Noise from Commercial Kitchen Extraction Systems*' 2018.
- 2.26. This document details a methodology which should be followed to assess the potential impact from commercial kitchen extraction systems on nearby land uses and how to identify suitable control and mitigation measures as required.

3. The Assessment

The development

- 3.1 The proposed development consists of the conversion of the former building into a mixed food hall containing offices, retail units and 20 small food units.
- 3.2 A pair of food units will share an extraction system, all of which are planned to disperse to the rear of the property. Equipment for the extraction systems has been identified and details included in Appendix A. A Flaktwood 45 MaXfan Compac will be used in each extraction system, together with a CDAP.1D silencer.
- 3.3 12 existing AC units will be retained to the rear of the site.
- 3.4 In addition, outside seating areas are to be provided at the front of the site for customers.
- 3.5 Figure 2 below provides an overview of the proposed development.

Noise

Impact from the development.

- 3.6 The site is located adjacent to a busy A road with a daily traffic flow of over 23,000 vehicles including HDV/buses, data obtained from the Department of Transport traffic data, <https://roadtraffic.dft.gov.uk/manualcountpoints/16589>.
- 3.7 Background sound levels in the area and at the nearby residential properties is therefore expected to be fairly high. A recent sound survey for a development slightly to the west as part of planning application 127971/FO/2020, identified

sound levels of 71dB $L_{Aeq,16hr}$ during the day and 66dB $L_{Aeq,8hr}$ at night. Since this assessment was conducted Department of Transport figures identify an increase in traffic flows and thus the current background sound level is likely to be higher than stated.

- 3.8 The proposed plant has been modelled (Appendix B) to identify the potential impact on the nearby sensitive receptor locations. The model has confirmed that the sound levels to be experienced at the sensitive receptor locations are below the guideline levels within BS8233:2014 and detailed by the World Health Organisation, see section 2 above, and below the prevailing background sound levels identified in the above assessment.
- 3.9 In terms of a BS4142:2014 assessment, the plant will on continuously during the operational hours of the units, given the distance to the receptor locations and the difference over the prevailing background sound levels the extraction is not considered to be distinctive, there will be no impulsive sounds associated with the extraction system and the fans are not tonal. No corrections to the specific levels are therefore required. The lowest historic background L_{A90} sound levels reported in the above assessment have been used in the following BS4142:2014+A1:2019 assessment.

	Day	Night	
Measured Ambient sound level	-	-	Plant not present
Residual Sound level	$L_{Aeq} = 56dB$	$L_{Aeq} = 58dB$	Identified from previous report
Background Sound Level	$L_{A90} = 55dB$	$L_{A90} = 53dB$	Identified from previous report, 15min averages used for both .
Reference period	60 minutes	15 minutes	Normal ref period,
Specific sound Level	$L_{Aeq} = 32dB$	$L_{Aeq} = 32dB$	Calculated to nearest / highest receptor position
Acoustic feature	-	-	No correction applied
Rating level	32dB	32dB	
Background sound level	$L_{A90} = 55dB$	$L_{A90} = 53dB$	
Excess of Rating level over background level	(32-55) dB = - 23dB	(32-53) dB = - 21dB	

	indicates no significant adverse impact	indicates no significant adverse impact	
Uncertainty	Background sound level used from previous assessment is the lowest observed, not the average. Background at previous monitoring positions may be louder due to increased traffic flows. Levels may be slightly lower at receptor locations ~5dB lower. Daytime background is 15min average not 60mins average resulting		

- 3.10 The assessment; even if considering a slightly lower background sound level at the receptor locations and an acoustic correction for a slight tonal (+2dB) and distinctive characteristic(+3dB) still identifies no adverse impact on the nearby residents.
- 3.11 In addition to the new plant to be installed, outdoor seating areas are to be created to the front of the site along the roadside. The impact from this area has also been modelled on the following assumptions:
- 100% occupancy
 - 50% people speaking at anyone time,
 - each person at an average of 65dB(A) at 1m.
- 3.12 The modelling results, Appendix C show a combined impact (seating area and plant) at the nearby sensitive receptor locations. The highest level identified of 44dB(A) at the façade of the flats on the opposite side of the road, with a 15dB reduction for an open window the internal sound levels would be 29dB(A). The highest sound level within garden amenity areas is identified at 39dB(A).
- 3.13 The combined impact is below the identified prevailing background sound level for the area (both day and night-time periods) and below the recommended guidance figure detailed in by the World Health Organisation and BS8233:2025.
- 3.14 The proposed development will therefore result in a no observed effect on the nearby sensitive receptors.



Odour

Assessment

- 3.15 The extraction system is to terminate directly from the development rear wall at 90° and below the eaves of the building, nearby sensitive receptor locations are located over 87m away on the far side of the building. The size of the kitchen(s) is considered to be large.
- 3.16 An assessment of the potential impact on the identified receptors has been undertaken in accordance to the EMAQ guidance document. This assessment is shown in Appendix D and includes the following considerations;
- 3.17 The extraction system will terminate below the eaves out of the rear wall of the building, in line with the guidance a score of 15 is applied.
- 3.18 The nearest residential receptor is located over 87m, as such a score of 5 is applied.
- 3.19 The business has identified as 'large', with numerous extraction points and variety of cooking, therefore score 5 has been applied.
- 3.20 The odour characteristics from the venue are considered to be very high, in line with the guidance document, a score of 10 has therefore been applied.
- 3.21 This results in a score of 35 or very high and as such a high level of odour control is required.
- 3.22 In order to mitigate against this potential impact and to ensure no adverse impact will be experienced by the identified receptors, in line with the guidance, the following measures are recommended as part of the extraction system..
- Prefilters (baffle filters) attached to the extraction hood, reducing grease loading by 65-80%
 - Followed by panel/fine mesh pre-filters to remove residual grease, these will be changed at least every 3 months or sooner if required.
 - Electrostatic Precipitator (ESP) with a combined dwell time of ≥0.8s
 - Ozone system to remove any residual odour.
- 3.23 The system will need to be maintained and cleaned in line with the manufacturer's instructions and a separate cleaning schedule will be produced and maintained once the chosen unit has been installed.



3.24 The installation of the above mitigation measures will ensure high level of grease and odour removal from the extraction system, preventing any adverse impact on the identified receptors.



4 Conclusion

Noise

- 4.1 An assessment of the impact from the proposed development on nearby sensitive receptors has been undertaken and modelling has confirmed no adverse impact will be experienced from the development.
- 4.2 The development will ensure that sound levels at the nearby sensitive receptors are acceptable and will result in a No Observe Effect on the residents in line with the Noise Policy Statement for England, both for internal and external sound levels.
- 4.3 As such the development will meet the objectives of the National Planning Policy Framework in ensuring that no significant adverse impact is experienced by the future residents. The development is therefore considered to be acceptable in terms of noise.

Odour

- 4.4 A consideration of the proposed development has been undertaken and a risk assessment produced in accordance with the EMAQ '*Control of Odour and Noise from Commercial Kitchen Extraction Systems*' 2018 guidance document.
- 4.5 This has identified a very high risk of adverse impact from odour and as such control measures in the form of baffles, pre-filters and ESP and ozone system have been recommended.
- 4.6 The inclusion of the above control measures will treat and remove odour and grease from the extracted air resulting in no adverse impact on the nearby residential receptor locations.
- 4.7 As such the development will meet the objectives of the National Planning Policy Framework in ensuring that no significant adverse impact is experienced by the future residents. The development is therefore considered to be acceptable in terms of odour.

Figure 1 – Aerial Photograph



Figure 2 – Proposed Layout Plan



Appendix A – Details of Extraction Equipment (noise)

Fan Code	45 MaXfan Compac
Fan Diameter / Size	450 Size / mm
Fan Speed	2910 rpm
Velocity	7.5 m/s
Blade Angle	16°
Installation Type / Form of Running	D / AB
Fan Casing	Long
Requested Duty	1.19m³/s @ 622 Pa (static)
Outlet Dynamic Pressure	34 Pa
Duty Shaft Power	1.32 kW
Max Shaft Power	1.43 kW
Total Efficiency	60.3 %
Motor Frame	80 [Class F]
Motor Rating	1.32 kW [IE2]
Full Load Current	4.71 A
Starting Current	25.5 A
Motor Mounting	Pad
Electrical Supply	220-240 Volts 50 Hz 1 Phase
Start Type	DOL
Motor Winding	Standard
Enclosure	Standard All
ErP [FMEG] Rating	N 60 (ErP Compliant 2015)
ErP [FMEG] Target	N 58
FMEG Blade Angle [Range]	0° [0° - 0°]
Measurement Category	D (Total)
VSD	N
Fan + Motor Efficiency	55.4% (1.67 m³/s @ 515 Pa)
Motor Input Power (ErP)	1.55 kW
SFP value	1.36 W/(l/s) @ Requested Duty
Power from mains	1.63 kW
Energy Consumption	4904 kWh (3000 h/year)
Running Cost / Year	£589
Air Density	1.2 kg/m³ / 20 °C / 0 m / 50% RH
Smoke Venting	Non Smoke Venting
Product Number	EJ463266

Performance data has been derived from tests carried out in a Flakt Woods laboratory, in accordance with ISO 5801 and is specifically applicable for Ducted installations. When an electronic controller is incorporated, enhanced motor noise can occur - particularly when the operating speed is well below maximum. FWL therefore recommend using an auto transformer speed controller for noise sensitive applications. Bifurcateds are Erp exempt when used continuously at >100C. They are not for use in the EEA at lower temperatures.

The MaXfan Compac includes a preprogrammed inverter drive to operate via 1 phase supply, offering full speed control and optimised performance.

Acoustic data has been derived from tests carried out in a Flakt Woods laboratory, in accordance with BS 848 Pt 2, 1985 / BS EN ISO 5136 under Ducted conditions. The single figure provided is the overall Inlet sound pressure level at the specified distance, under spherical, free field conditions.

Acoustic figures for adjusted running speeds have been interpolated and are for reference only.

Terms and Conditions: This offer is made subject to the terms and conditions detailed on the accompanying letter.

	Sound Spectrum (Hz)								Overall	
	63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3 m**
Inlet*	91	89	96	98	95	94	90	87	103	81
Outlet*	93	89	98	99	95	94	90	87	104	81
Breakout*	83	71	76	76	70	66	68	63	85	57

* Lw dB re 10⁻¹² W
Sound data at requested duty.

** dBA re 2x10⁻⁵ Pa

(DBA) Technical Services Ltd. >))))))

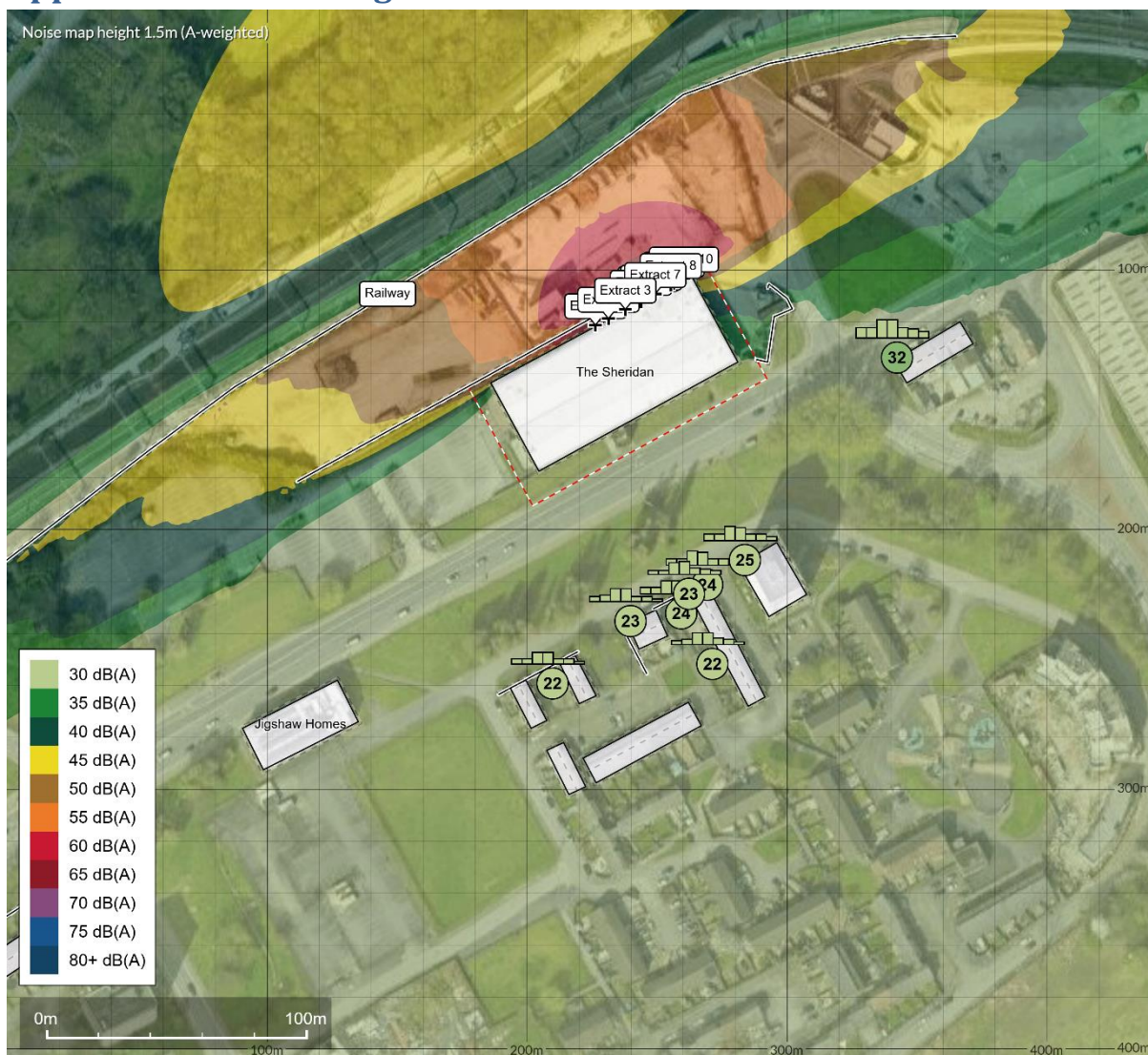


STANDARD CIRCULAR SILENCER INSERTION LOSS DATA

@ +20oC and 5m/sec FACE VELOCITY

SILENCER SIZE	CODE	P.A	OCTAVE BAND CENTRE FREQUENCIES (Hz)							
			63	125	250	500	1K	2K	4K	8K
200-550 dia	CDA.1D	ALL	2	4	6	10	14	10	7	8
		A	4	8	13	17	23	17	12	11
		B	4	8	12	17	23	17	12	10
		C	4	7	10	15	19	16	12	9
	CDAP.1D	A	4	6	8	12	21	21	18	15
		B	4	6	8	11	18	19	17	14
		C	4	6	8	11	14	16	11	10
	CDAP.2D	A	7	10	12	24	29	29	27	23
		B	7	10	12	21	26	26	24	22
		C	7	10	11	18	21	20	17	15

Appendix B – Modelling Results for Plant Sound Emissions

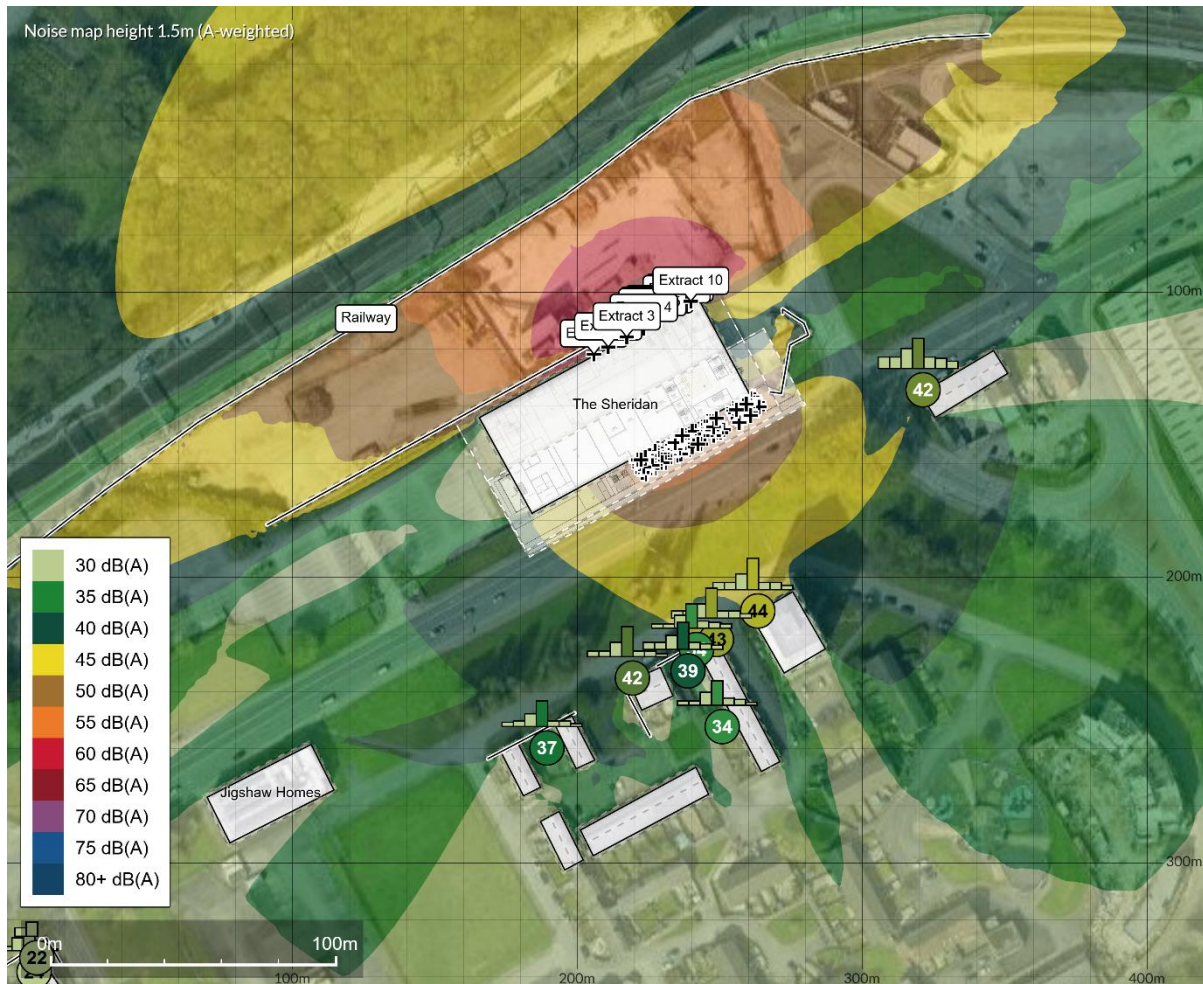


--- Receiver Results - Summary ---		
Receiver Name	Height (m)	Total dB(A)
Receiver 1	4	31.5
Receiver-2	1.5	23.7
Receiver-3	1.5	22.0
Receiver-4	1.5	22.3
Receiver-5	2	23.4
Receiver-5	4.5	23.6
Receiver-5	7.5	23.6
Receiver-6	2	24.4
Receiver-6	4.5	24.5
Receiver-6 rear	2	22.5
Receiver-6 rear	4.5	23.5



Receiver-8	2	24.9
Receiver-8	4.8	25.1
Receiver-8	7.6	25.2
Receiver-8	10.4	25.3
Receiver-8	13.2	29.5
Receiver-8	16	29.5
Receiver-8	18.8	29.6
Receiver-8	21.6	29.7
Receiver-8	24.4	29.8
Receiver-8	27.2	29.9
Receiver-8	30	30.0
Receiver-8	32.8	30.0
Receiver-8	35.6	30.1
Receiver-9	1.5	15.8
Receiver-10	2	20.7
Receiver-10	4	20.7

Appendix C - Modelling Results for Combined Plant and customer Sound Emissions



--- Receiver Results - Summary ---		
Receiver Name	Height (m)	Total dB(A)
Receiver 1	4	42.2
Receiver-2	1.5	39.0
Receiver-3	1.5	34.3
Receiver-4	1.5	36.5
Receiver-5	2	41.5
Receiver-5	4.5	41.5
Receiver-5	7.5	41.5
Receiver-6	2	43.0
Receiver-6	4.5	43.0
Receiver-6 rear	2	34.4
Receiver-6 rear	4.5	36.2
Receiver-8	2	43.6
Receiver-8	4.8	43.6



Receiver-8	7.6	43.6
Receiver-8	10.4	43.6
Receiver-8	13.2	43.6
Receiver-8	16	43.5
Receiver-8	18.8	43.5
Receiver-8	21.6	43.4
Receiver-8	24.4	43.3
Receiver-8	27.2	43.2
Receiver-8	30	43.0
Receiver-8	32.8	42.9
Receiver-8	35.6	42.8
Receiver-9	1.5	21.7
Receiver-10	2	23.9
Receiver-10	4	26.6



Appendix D – EMAQ Odour Risk Assessment

Impact Risk		Odour Control Requirement		Significance Score*
Low to Medium		Low level odour control		Less than 20
High		High level odour control		20 to 35
Very high		Very high level odour control		more than 35
Criteria	Score	Score	Details	
Dispersion	Moderate	15	Discharging below the eaves	
Proximity to Receptors	Medium	5	Closest sensitive receptor +87m from kitchen discharge	
Size of Kitchen	Large	5	Large multiple kitchens/extraction points	
Cooking type	V.High	10	Fast food	
Total	Very High	35		



Appendix E - Report Author Details

This report has been produced by Neil Martin, BSc (Hons), PGDip, CEnvH MCIEH, MIOA. Neil is the principal acoustic consultant at Martin Environmental Solutions Ltd, a consultancy company specialising in Environmental Health disciplines including environmental noise assessment and control. He holds a Bachelor's degree in Environmental Health and Diploma in Acoustics. He is a Chartered Member of the Chartered Institute of Environmental Health and a Full member of the Institute of Acoustics.

Neil has over 20 years' experience working within a Local Authority Environmental Health setting, principally in the Environmental Protection and Public Health areas and has been working as an acoustic consultant since 2011.

Since its formation, Martin Environmental Solutions has advised and assisted many groups including residents, developers and local authorities about the problems of noise and vibration in the environment and the possible solutions. Neil also acts as an expert witness in the area of acoustics.