NOISE IMPACT ASSESSMENT

Site:	Fabric Church, Manchester
References:	51-914-R1
Date:	06 January 2026
Client:	Ashton Hale Ltd

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QUALITY ASSURANCE

Report references	51-914-R1

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02		

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EXECUTIVE SUMMARY

Site Address	Fabric Church, 1 Ardwick Green North, Manchester, M12 6HD.
Grid Reference	E 384977, N 397311
Proposed Development	Application for the erection of fixed plant associated with Fabric Church along with use of existing buildings to host live music events.
Surveys Completed	E3P has undertaken a full unattended weekday and weekend background sound survey to quantify noise levels across site, in order to set fixed plant limits and internal music noise limits in order to comply with conditions 10 and 11 set by Manchester City Council.
Assessments Completed	Fixed plant noise impact upon the existing receptors in accordance with the criterion given in BS 4142:2014+A1:2019. Music noise limits have been set to ensure compliance with MCC criterion.
Mitigation Recommended	The assessment determined that no adverse impact is predicted at existing receptors due to the proposed development. Music noise limits have been set, to ensure compliance with MCC criterion.
Conclusions and Discussions	With mitigation measures in place, this assessment has shown that no adverse impact is predicted at the existing receptors due to proposed sound sources. As such, noise need not be a material consideration in the granting of planning permission if the recommendations of this report are followed and included within the design stage.

CONTENTS

1. INTRODUCTION 4
1.1. Background 4
1.2. Report Objectives 4
1.3. Proposed Development 4

2. ASSESSMENT METHODOLOGY 6
2.1. National Planning Policy Framework (2024) 6
2.2. National Planning Practice Guidance 6
2.3. British Standard BS 4142:2014+A1: 2019 – Methods for rating and assessing industrial and commercial sound 8

3. SURVEY RESULTS 10
3.1. Unattended Background and Ambient Sound Survey 10

4. NOISE IMPACT ASSESSMENT 12
4.1. Daytime Assessment 12
4.2. Night-time Assessment 13

5. INTERNAL MUSIC NOISE LIMITS 14

6. CONCLUSIONS AND DISCUSSION 16

APPENDIX I: LIMITATIONS 0

APPENDIX II: GLOSSARY 2

APPENDIX III: FIGURES 5

1. INTRODUCTION

1.1. BACKGROUND

E3P was commissioned by Ashton Hale Ltd to undertake a Noise Impact Assessment for a proposed development at a site at Fabric Church, to be referred to hereafter as 'the Site'.

This assessment looks to determine the key noise sources in the immediate vicinity of the Site and to assess their impact, if any, upon proposed residential receptors and to specify mitigation measures, where required.

1.2. REPORT OBJECTIVES

The objectives of this report are as follows:

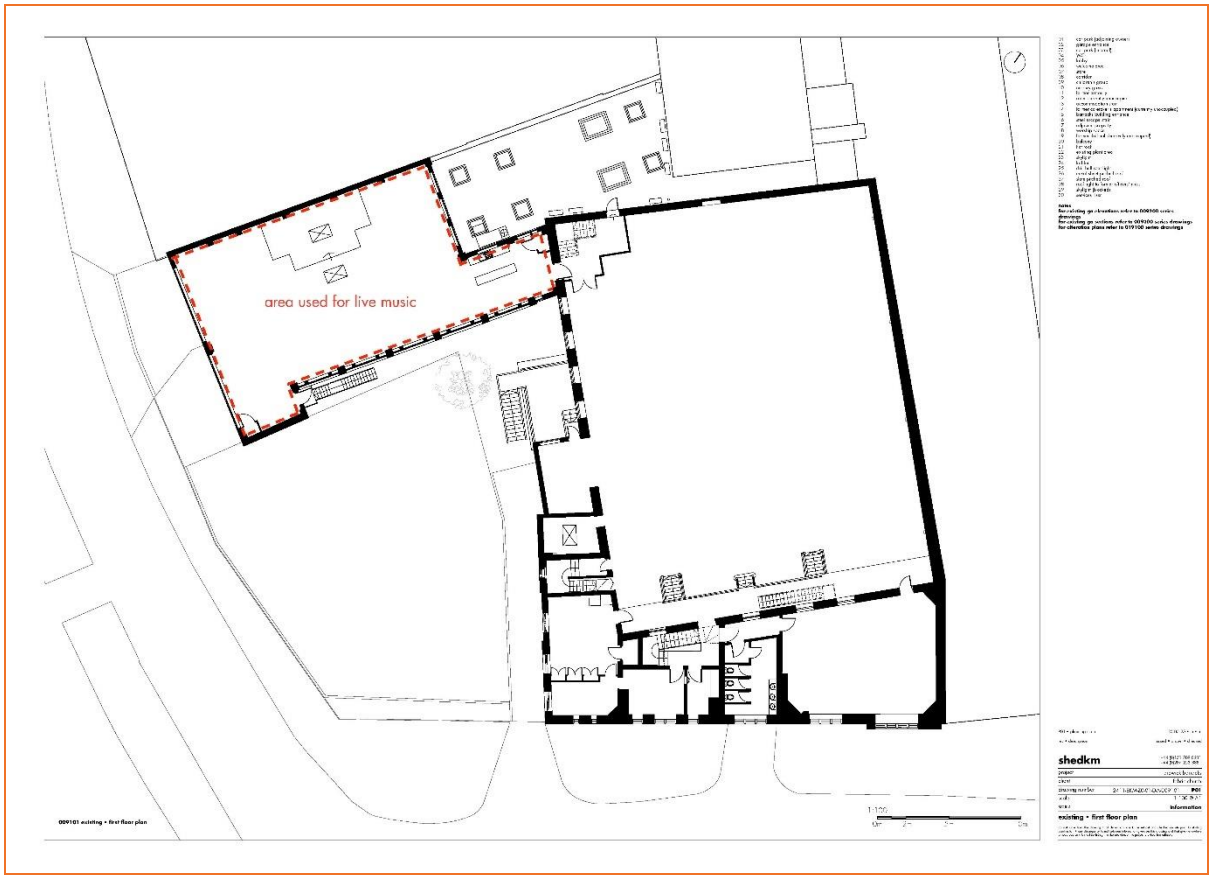
- Establish and measure the existing sound levels across the site, day and night.
- Consider the potential sources of sound impacting the site and to measure source sound levels of all applicable sources.
- Assess proposed fixed plant in accordance with BS 4142.
- Assess noise levels from proposed live music at the nearest existing façade in accordance with MCC criteria given for Music Noise break-out.
- Provide advice on mitigation measures, where required.

1.3. PROPOSED DEVELOPMENT

The client intends to develop a Church premises with associated fixed plant and a proposed live music events space.

A snapshot of the proposed development layout is indicated in Figure 1.

Figure 1 **Illustrative Masterplan**



2. ASSESSMENT METHODOLOGY

2.1. NATIONAL PLANNING POLICY FRAMEWORK (2024)

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:

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

2.2. NATIONAL PLANNING PRACTICE GUIDANCE

Noise needs to be considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment. When preparing local or neighbourhood plans, or taking decisions about new development, there may also be opportunities to consider improvements to the acoustic environment.

Local planning authorities' plan-making and decision-making should take account of the acoustic environment and in doing so consider:

- Whether or not a significant adverse effect is occurring or is likely to occur.
- Whether or not an adverse effect is occurring or is likely to occur.
- Whether or not a good standard of amenity can be achieved.

In line with the explanatory note of the NPSE, this would include identifying whether the overall effect of the noise exposure (including the impact during the construction phase, where applicable) is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.

The "observed effect levels" are as follows:

- Significant observed adverse effect level: This is the level of noise exposure above which significant adverse effects on health and quality of life occur.
- Lowest observed adverse effect level: This is the level of noise exposure above which adverse effects on health and quality of life can be detected.
- No observed effect level: This is the level of noise exposure below which no effect at all on health or quality of life can be detected.

Table 2.1 summarises the noise exposure hierarchy, based on the likely average response.

Table 2.1 Noise Exposure Hierarchy

PERCEPTION	EXAMPLES OF OUTCOMES	INCREASING EFFECT LEVEL	ACTION
Not Applicable	No effect	No observed effect	No specific measures required.
Noticeable and Not Intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No observed adverse effect	No specific measures required
Lowest Observed Adverse Effect			
Noticeable and Intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television, speaking more loudly, or having to close windows for some of the time because of the noise where there is no alternative ventilation. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed adverse effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and Disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion, having to keep windows closed most of the time because of the noise where there is no alternative ventilation. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant observed effect	Avoid
Noticeable and Very Disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening, loss of appetite, significant/medically definable harm (auditory and non-auditory).	Unacceptable adverse effect	Prevent

The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any situation. These factors include the following:

- The source and absolute level of the noise together with the time of day it occurs. Some types and level of noise will cause a greater adverse effect at night than if they occurred during the day. The adverse effect can also be greater simply because there is less background noise at night.
- For non-continuous sources of noise, the number of noise events, and the frequency and pattern of occurrence of the noise can be important.
- The spectral content of the noise and the general character of the noise. The local topology and topography should also be considered along with the existing and, where appropriate, the planned character of the area.

More specific factors to consider when relevant:

- Where applicable, the cumulative impacts of more than one source should be considered along with the extent to which the source of noise is intermittent and of limited duration.
- Consideration should also be given to whether adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time. In both cases, a suitable alternative means of ventilation is likely to be necessary.
- If external amenity spaces are an intrinsic part of the overall design, then the acoustic environment of those spaces should be considered so that they can be enjoyed as intended.

2.3. BRITISH STANDARD BS 4142:2014+A1: 2019 – METHODS FOR RATING AND ASSESSING INDUSTRIAL AND COMMERCIAL SOUND

This standard describes methods for rating and assessing sound of an industrial or commercial nature which includes:

- Sound from industrial and manufacturing processes.
- Sound from fixed installations which comprise mechanical and electrical plant and equipment.
- Sound from the loading and unloading of goods and materials at industrial and / or commercial premises; and
- Sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from processes or premises, such as that from forklift trucks, or that from train or ship movements on or around an industrial or commercial Site.

The procedure detailed in the standard compares the measured or predicted specific noise level from any of the above with the background sound level at a residential dwelling. The measured background sound level at a receptor should be reliable and should not necessarily ascertain a lowest measured background sound level, but rather to quantify what is typical.

The specific noise level also acknowledges the reference time intervals depending upon whether the noise source operates during daytime (1-hour) or night-time (15-minute) periods.

There are several ‘penalties’ which can be attributed to the specific sound level depending upon the ‘acoustic features’ of the sound level under investigation as follows:

TONALITY

- +2 dB: where the tonality is just perceptible.
- +4 dB: where the tonality is clearly perceptible; and
- +6 dB: where the tonality is highly perceptible.

IMPULSIVITY

- +3 dB: where the impulsivity is just perceptible.
- +6 dB: where the impulsivity is clearly perceptible; and
- +9 dB: where the impulsivity is highly perceptible.

INTERMITTENCY

- +3dB: where the intermittency is readily distinctive against the acoustic environment.

In addition to the above, there is a penalty for 'other sound characteristics' of +3 dB where a sound exhibits characteristics that are neither tonal nor impulsive, though are readily distinctive against the acoustic environment. BS 4142 goes on to state that the rating level is equal to the specific sound level if there are no such features present or expected to be present.

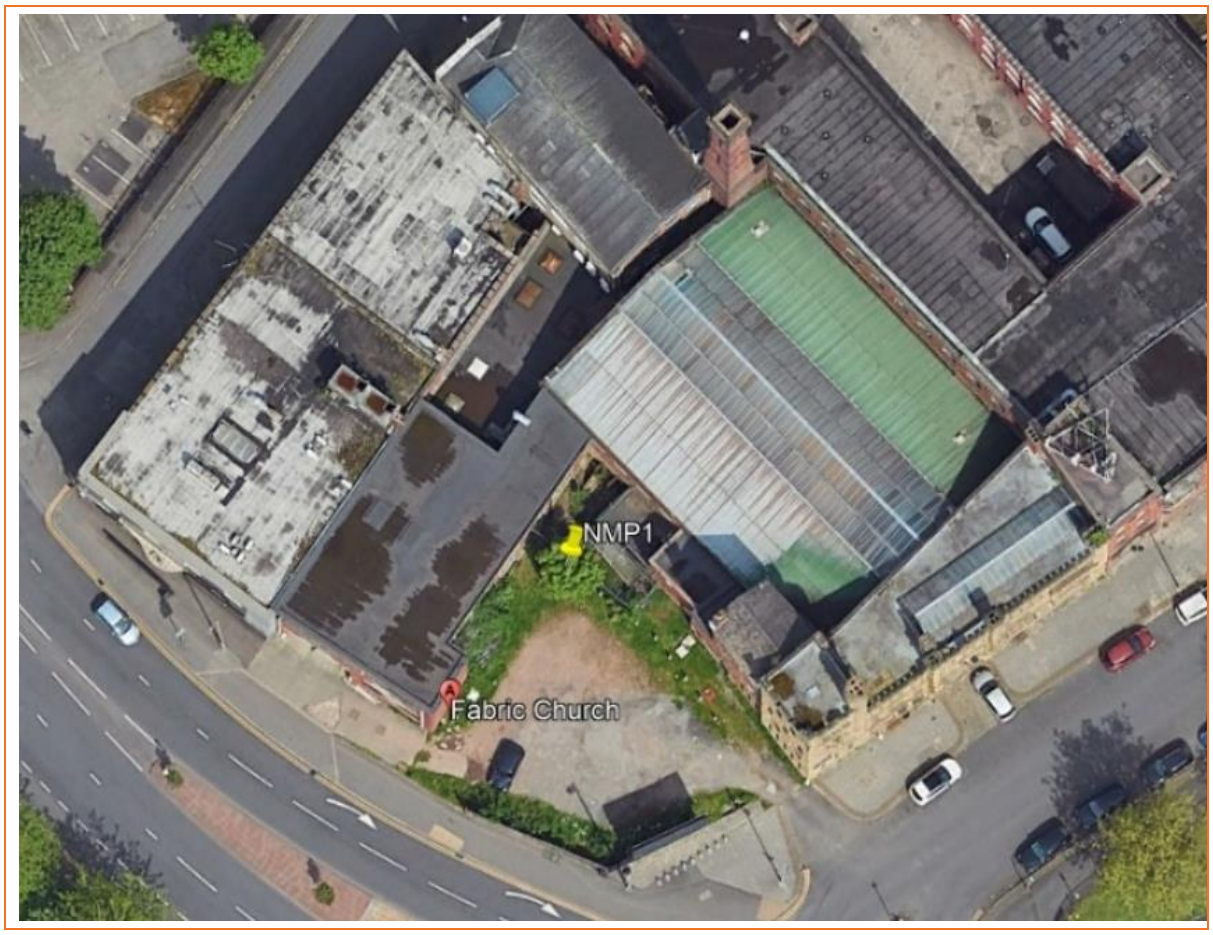
Assessment of the rating level relative to the background sound level can yield the following commentary:

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

3. SURVEY RESULTS

The following Noise Measurement Position was used:

Figure 2 Noise Measurement Position



3.1. UNATTENDED BACKGROUND AND AMBIENT SOUND SURVEY

E3P carried out an unattended background and ambient noise survey over a full week period.

The survey was carried out over the following time periods:

- 11:00 Thursday 13th November to 11:00 Monday 17th November 2025.

The following noise measurement position was chosen for the Ambient Noise Survey:

- Noise Measurement Position 1 (NMP 1): Located on the eastern boundary of site, representative of noise levels at existing receptors. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. The sound climate was dominated by road traffic noise.

A summary of the measured sound pressure levels from the Ambient and Background Noise Survey are presented in Table 3.1.

Table 3.1 Measured Ambient and Background Sound Levels

DATE	ASSESSMENT PERIOD	RANGE OF MEASURED BACKGROUND SOUND LEVELS, $L_{A90,T}$ (dB)	MEDIAN MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)
13/11/2025	Daytime	49.7-51.4	50.9
	Night-time	48.8-52.3	49.4
14/11/2025	Daytime	52.4-53.5	53.0
	Night-time	49.0-52.4	50.2
15/11/2025	Daytime	50.3-51.5	51.0
	Night-time	49.0-50.9	50.2
16/11/2025	Daytime	49.7-56.7	51.1
	Night-time	48.6-52.7	49.9
17/11/2025	Daytime	51.1-51.7	51.5

In line with the Manchester City Council Planning and Noise Technical Guidance Note, Appendix A was reviewed for setting appropriate background noise levels. Using the Appendix A methodology, the resulting background levels were calculated as approximately 51 dB L_{A90} (daytime) and 49 dB L_{A90} (night-time).

Weather conditions were conducive to the measurement of environmental noise throughout.

The equipment outlined in Table 3.2 was used for the noise survey.

Table 3.2 Noise Measurement Equipment and Calibration Dates

MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER AND TYPE NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE AT TIME OF SURVEY
NMP 1	Sound Level Meter	Fusion	14226	7th December 2025
	Pre-amplifier	Pre22	20951	
	Microphone	40CD	494264	
	Calibrator	CR 515	99206	13th August 2026

4. NOISE IMPACT ASSESSMENT

For the purposes of this assessment, E3P have has undertaken a BS 4142:2014+A1:2019 assessment to determine the impact of fixed plant noise from the rooftop plant area on existing receptors and to satisfy condition 11 given by Manchester City Council which states:

Any externally mounted ancillary plant, equipment and servicing shall be selected and/or acoustically treated in accordance with a scheme designed so as to achieve a rating level of 5dB (L_{Aeq}) below the typical background (L_{A90}) level at the nearest noise sensitive location.

The rooftop plant area can be seen in Figure 1, the illustrative masterplan, shown in Section 1.

E3P has utilised data provided by the client regarding the proposed plant items to inform the hand calculations required for this assessment. Fixed plant is assumed to be working at maximum output to inform a worst-case assessment. The data is summarised in Table 4.1.

Table 4.1 External fixed plant source data

SOURCE	QUANTITY	OPERATIONAL PERIODS	SOUND PRESSURE LEVEL AT 1 m, $L_{Aeq,T}$ (dB)
Samsung AC140RXADKG/EU	5	Daytime and night-time periods assumed possible	54

For the BS 4142:2014 assessment, penalties are applied to the specific sound level to provide the rating level. These penalties relate to the acoustic features of the sound source. Accordingly, the following objective and subjective features have been accounted for in the assessment, in accordance with the subjective method detailed in BS 4142:2014, for the Site as a whole operation.

Table 4.2 Acoustic Features

ACOUSTIC FEATURE	APPLICABLE?	ATTRIBUTABLE PENALTY	COMMENT
Tonality	No	-	No tonality noted
Intermittency	No	-	No intermittency noted
Impulsivity	No	-	No impulsive sounds were noted
Other	No	-	Source not likely readily distinct against sound climate

4.1. DAYTIME ASSESSMENT

To provide a worst-case assessment, the typical measured background sound level of 51 dB has been used. The results of the assessment are summarised in Table 4.3

Table 4.3 Calculation of Rating Level and Comparison with Background Sound Level- Daytime

RECEPTOR	COMBINED SPECIFIC NOISE LEVEL, $L_{Aeq,T}$ (dB)	CALCULATED RATING LEVEL, $L_{A,r}$ (dB)	TYPICAL BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)	DIFFERENCE +/- (dB)
Windows at 2-8 Wadeson Road	21	21	51	-30

The results indicate that rating levels are expected to be well below the background sound level at receptors.

Accordingly, no adverse impact is predicted at the receptors due to the operation of the fixed plant items during daytime periods. This also shows compliance with condition 11.

4.2. NIGHT-TIME ASSESSMENT

To provide a worst-case assessment, the typical measured background sound level of 49 dB has been used. The results of the assessment are summarised in Table 4.4.

Table 4.4 Calculation of Rating Level and Comparison with Background Sound Level- Night-time

RECEPTOR	COMBINED SPECIFIC NOISE LEVEL, $L_{Aeq,T}$ (dB)	CALCULATED RATING LEVEL, $L_{A,r}$ (dB)	TYPICAL BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)	DIFFERENCE +/- (dB)
Windows at 2-8 Wadeson Road	21	21	49	-28

The results indicate that rating levels are expected to be well below the background sound level at receptors.

Accordingly, no adverse impact is predicted at the receptors due to the operation of the fixed plant items during night-time periods. This also shows compliance with condition 11.

5. INTERNAL MUSIC NOISE LIMITS

In order to assess the potential for amplified break-out upon existing receptors and satisfy condition 10 given by Manchester City Council, E3P have drawn upon the advice given in the Manchester City Council Planning & Noise Technical Guidance which notes:

A planning application for a new entertainment venue that is structurally detached from other building uses should demonstrate that music noise from the proposal will not be 'audible' in nearby residential properties, assuming that the residential properties in question have their windows open. The criterion here is:

'Entertainment noise (LAeq,5min) should be controlled to 5dB below the typical background noise level (LA90) in each octave band at the nearest noise sensitive location'

As such, in order to achieve the above criteria, it is necessary to set limits inside the venue based on detailed calculations of break-out. This will require back calculations from the closest habitable room, with the criteria set, through the façade of the venue and resulting in an absolute limit inside that cannot be exceeded should the limits at the receptors be achieved. A distance correction of 10 x Log is applied to inform a worst-case assessment and limit. No correction is applied to the internal to external break-out with doors open.

Table 5.1 and 5.2 details the process of calculating the internal noise limits at the venue, based on achieving the -5 dB below background, calculated in accordance with the Appendix A method from MCC and assuming a 13 dB reduction for open windows.

Table 1.1 Internal Music Noise Limits Daytime

Hz	63	125	250	500	1000	2000	4000
MCC calculated Background sound level, $L_{90,T}$ (dB)	69.4	61.5	58.8	49.9	47.5	42.0	35.5
MCC Criterion (-5 dB)	64.4	56.5	53.8	44.9	42.5	37.0	30.5
Distance to façade of habitable room (m)	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Corrected for distance (m)	102.5	94.6	91.9	88.0	80.6	75.1	68.6
Door/Glazing SRI (dB)	13	13	13	13	13	13	13
Unweighted Limit Inside Venue (dB)	115.5	107.6	104.9	101.0	93.6	88.1	81.6
A-weighted Limit Inside Venue (dB)	89.3	91.4	96.2	97.8	93.6	89.3	82.6

The above A-weighted limit results in an absolute internal daytime level of 102.0 dB as measured at the façade inside.

Table 2.2 Internal Music Noise Limits Night-time

Hz	63	125	250	500	1000	2000	4000

MCC calculated Background sound level, $L_{90,T}$ (dB)	60.3	55.7	54.8	47	44.2	40	33.2
MCC Criterion (-5 dB)	55.3	50.7	49.8	42.0	39.2	35.0	28.2
Distance to façade of habitable room (m)	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Corrected for distance (m)	93.4	88.8	87.9	80.1	77.3	73.1	66.3
Door/Glazing SRI (dB)	13	13	13	13	13	13	13
Unweighted Limit Inside Venue (dB)	106.4	101.8	100.9	93.1	90.3	86.1	79.3
A-weighted Limit Inside Venue (dB)	80.2	85.6	93.1	89.9	90.3	87.3	80.3

The above A-weighted limit results in an absolute internal night-time level of 97.2 dB as measured at the façade inside.

The most important limits are the unweighted frequency limits, and it is extremely important that these are not exceeded inside

6. CONCLUSIONS AND DISCUSSION

E3P was commissioned to undertake a Noise Impact Assessment for proposed plant items and music break-out noise at Fabric Church, Manchester.

E3P has undertaken a full weekday-weekend background sound survey to quantify existing noise levels.

Music noise break-out is assessed in accordance with BS 8233 with absolute levels favoured. A Noise Rating Curve Assessment has been undertaken. Fixed plant noise has been assessed in accordance with BS 4142.

Music limits have been set to ensure compliance with condition 11 set by Manchester City Council.

With mitigation measures in place, this assessment has shown that no adverse impact is predicted day or night at the receptors due to proposed sound sources.

END OF REPORT

Appendix I: Limitations

GENERAL

1. This report and any associated works (together comprising the "Services") were compiled and carried out by E3P for the client (as present in Section 1) under the E3P “Terms of Business” or with those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed and outlined in the body of the report.

2. Unless explicitly agreed otherwise, in writing, this report has been prepared under E3P Standard Terms and Business as included within our proposal to the Client.

3. Project-specific appointment documents may be agreed upon at our discretion and a charge may be levied for both the time to review and finalise appointment documents and also for associated changes to the appointment terms. E3P reserves the right to amend the fee should any changes to the appointment terms create an increased risk to E3P.

4. The report needs to be considered in light of the proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

NOISE AND VIBRATION IMPACT ASSESSMENTS

5. Where a noise or vibration survey is required to inform an assessment, E3P will endeavour to ensure that all noise and vibration measurements taken are robust, representative and reliable in order to inform an accurate assessment.

6. Where mitigation measures are specified in this report, it should be noted that these measures are relative to a specific sound or vibration source, both in terms of the measured sound pressure and vibration level and the character of the sound source. Where either the sound pressure level or the character of the sound varies following completion of the sound survey, E3P cannot be held responsible for any subsequent variations in the proposed mitigation performance.

7. The works undertaken to prepare this report comprised a study of available and easily documented information from a variety of sources (including the Client), together with (where appropriate) a brief walkover inspection of the Site and correspondence with relevant authorities and other interested parties. Due to the short timescales associated with these projects responses may not have been received from all parties. E3P cannot be held responsible for any disclosures that are provided post-production of our report and will not automatically update our report.

8. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, E3P reserves the right to review such information and, if warranted, to modify the opinions accordingly.

9. E3P does not warrant work/data undertaken/provided by others.

Appendix II: Glossary

NOISE

Noise is defined as unwanted sound. Human ears are able to respond to sound in the frequency range 20 Hz (deep bass) to 20,000 Hz (high treble) and over the audible range of 0 dB (the threshold of perception) to 140 dB (the threshold of pain). The ear does not respond equally to different frequencies of the same magnitude but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting mechanism is used. This reduces the importance of lower and higher frequencies, in a similar manner to the human ear.

Furthermore, the perception of noise may be determined by a number of other factors, which may not necessarily be acoustic. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period of time. In some cases, the time of day and other acoustic features such as tonality or impulsiveness may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all of these factors when assessing the significance of a noise source. The most widely used weighting mechanism that best corresponds to the response of the human ear is the “A”-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or LAeq, LA90 etc., according to the parameter being measured.

The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective but, as a general guide, a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions. An indication of the range of sound levels commonly found in the environment is given in the following table.

Table A Typical Sound Pressure Levels

SOUND PRESSURE LEVEL	LOCATIONS/EXAMPLE
0	Threshold of hearing
20-30	Quiet bedroom at night
30-40	Living room during the day
40-50	Typical office
50-60	Inside a car
60-70	Typical high street
70-90	Inside a factory
100-110	Burglar alarm at 1 m away
110-130	Jet aircraft on take off
140	Threshold of pain

ACOUSTIC TERMINOLOGY

Table B Terminology

DESCRIPTOR	EXPLANATION
dB (decibel)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2E-05 Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. “A” weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
LAeq, T	LAeq is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A-weighted fluctuating sound measured over that period.
LAmax	LAmax is the maximum A-weighted sound pressure level recorded over the period stated. LAmax is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall Leq noise level but will still affect the noise environment. Unless described otherwise, it is measured using the “fast” sound level meter response.
L10 and L90	If a non-steady noise is to be described, it is necessary to know both its level and the degree of fluctuation. The Ln indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L10 is the level exceeded for 10% of the time and as such can be regarded as the “average maximum level”. Similarly, L90 is the “average minimum level” and is often used to describe the background noise. It is common practice to use the L10 index to describe traffic noise.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally, as measured outside and away from buildings.
Fast	A time weighting used in the root-mean-square section of a sound level meter with a 125-millisecond time constant.
Slow	A time weighting used in the root-mean-square section of a sound level meter with a 1000-millisecond time constant.
dB (decibel)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2E-05 Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. “A” weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.

Appendix III: Figures