Our Ref: NIA/1370/25/435/V1.0/Bamforth's Brewery, Holmfirth

25th April 2025

BSB (Holmfirth) Limited
Victoria Court
91 Huddersfield Road
Holmfirth
HD9 3JA

Dear Sir,

NOISE IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A NEW BREWERY FACILITY INCLUDING A BAR AREA, KITCHEN AND FUNCTION ROOM AT LAND ADJACENT TO THE FORMER BAMFORTH'S POSTCARD FACTORY, STATION ROAD, HOLMFIRTH

1.00 INTRODUCTION

1.01 RP Acoustics Limited has been commissioned by BSB (Holmfirth) Limited to carry out a noise impact assessment for the proposed construction of a new brewery facility including a bar area, kitchen and function room at land adjacent to the former Bamforth's postcard factory, Station Road, Holmfirth (hereafter referred to as the application site).

1.02 The objectives of the noise impact assessment were to:

- Establish the background noise levels at the application site
- Establish the noise levels associated with the proposed brewery facility
- Assess the noise impact with reference to noise-related planning guidelines and other relevant standards

1.03 This report sets out the methodology and findings of the noise impact assessment. It has been prepared on behalf of BSB (Holmfirth) Limited 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 BSB (Holmfirth) Limited and RP Acoustics Limited as to the extent to which the findings may be appropriate for their use.

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

2.00 APPLICATION SITE SETTING AND PROPOSED BREWERY FACILITY

2.01 The application site is located in a mixed commercial and residential use setting near Holmfirth town centre. The application site location plan is reproduced in Appendix 2 and the proposed floor plans and elevation are reproduced in Appendix 3 for reference.

2.02 The planning application proposes the construction of a new brewery facility including a bar area, kitchen and function room. The development will also include production areas, storage, staff facilities, visitor areas, associated parking, cycle parking, air source heat pump and refuse storage. For reference:

- The proposed opening hours are 9 am to 11 pm, 7 days a week
- The kitchen is akin to that of a domestic kitchen and is to prepare hot and cold buffets
- Bar at ground floor, function room (60 covers) at first floor with an small outdoor terrace
- Function room to be used for community gatherings with background music only
- Any events requiring live amplified music (such as during the folk and/or food and drink festivals for example) will be applied for under a Temporary Event Notice (limited to a maximum of 15 events per annum)

Continued from page 1

3.00 NOISE SURVEY

3.01 A baseline noise survey was undertaken on Wednesday 23rd April 2025. For the purpose of the assessment the following noise monitoring positions were adopted (as shown in Appendix 4 for reference):

- NMP1 was located at the application site proposed development frontage
- NMP2 was located above the site at the rear of the terraced houses on Back Lane

3.02 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.

3.03 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.

Table 3.1 – Baseline Noise Measurement Data

NMP	Date	Time	L_{Aeq} (dB)	L_{A90} (dB)	L_{A10} (dB)	L_{A1} (dB)	Comments
1	Wednesday 23rd April 2025	1130–1230	60	52	64	70	
	Wednesday 23rd April 2025	1315–1415	61	52	64	71	Station Road traffic dominates
	Wednesday 23rd April 2025	2030–2130	55	42	60	66	Late evening background distant traffic / plant
	Wednesday 23rd April 2025	2215–2315	56	41	60	566	
Ambient noise level dominated by Station Road traffic (60 dB LAeq daytime; 55 dB LAeq evening)							
2	Wednesday 23rd April 2025	1245–1300	53	48	56	61	Station Road traffic dominates
	Wednesday 23rd April 2025	2145–2200	48	41	52	58	Late evening background distant traffic / plant
Late evening background noise level comparable to NMP1 (as expected)							

3.04 The ambient noise levels are consistent with the locale due to traffic on Station Road, whilst the late evening background noise levels are also consistent with the application site setting.

4.00 NOISE LEVELS ASSOCIATED WITH THE PROPOSED BREWERY FACILITY

4.01 The proposed brewery facility is to open from 9 am to 11 pm, 7 days a week. The kitchen is akin to that of a domestic kitchen and is to prepare hot and cold buffets. The bar is located at ground floor with a function room (60 covers) and a small outdoor terrace at first floor. The function room to be used for community gatherings with background music only. Any events requiring live amplified music (such as during the folk and/or food and drink festivals for example) will be applied for under a Temporary Event Notice (limited to a maximum of 15 events per annum).

4.02 In terms of noise associated with the 'day-to-day' use, the following are considered relevant:

- Break out noise from the bar / function room
- Noise associated with the small outdoor terrace
- Noise associated with air source heat pump

4.03 The nearest residential uses are dwelling flats behind the Cornerhouse Café to the south west (fully screened by a retaining wall) and dwelling houses on Back Lane to the south east (elevated well above the application site).

Continued from page 2

Break Out Noise from the Bar / Function Room

4.04 As stated, the bar and function room is to have background music only (any events requiring live amplified music (such as during the folk and/or food and drink festivals for example) will be applied for under a Temporary Event Notice (limited to a maximum of 15 events per annum).

4.05 Based on noise measurements taken inside similar sized bars / function rooms the reverberant internal noise level will be of the order 70 to 75 dB LAeq (primarily patron noise as background music only).

4.06 The brewery is to be glass (double glazing) fronted; access doors will be fitted with self-closers. The sound reduction index of double glazing is circa 30 dB R_w. The break out noise level immediately outside the façade is calculated at 39 dB LAeq (75 – 30 – 6 (internal reverberant to external free field correction)).

4.07 The nearest residential to the glazed frontage is dwelling flats to the rear of the Cornerhouse Café circa 20 metres to the south west, fully screened by a high retaining wall. Distance attenuation is 26 decibels (20*log(20)) whilst screening attenuation is a further 10 decibels.

4.08 The resultant break out noise level from the proposed brewery facility with closed windows is calculated at 3 dB LAeq. In the event that windows are partially open for thermal comfort (wherein the sound reduction reduces from 30 to 15 decibels), the resultant break out noise level is calculated at 18 dB LAeq. This level is very, very significantly below the evening background noise level. It is clear that noise break out from within the proposed brewery facility will be inaudible (circa 23 dB below the late evening background noise level) at the nearest dwelling flats.

Noise Associated with Small Outdoor Terrace

4.09 The nearest residential to the proposed 1st floor outdoor terrace (plans illustrate 8 covers) are those on Back Lane (rear façade with a very small walkway for access / amenity space; note: a small table and chair were observed on the walkway). The rear amenity space is elevated circa 10 metres vertically above and circa 12 metres horizontally from the proposed outdoor terrace (a slant distance of circa 16 metres), however, will be fully screened by the intervening landform (embankment).

4.10 The noise level associated with human voice is 60 decibels at 1 metre. With distance attenuation (20*log(16) = 24 decibels) and screening attenuation (10 decibels)), the resultant noise at the amenity space to the rear of the dwelling houses on Back Lane from a human voice is 26 dB(A). A further 6 decibels is robustly added in the event of multiple simultaneous voices. This level (32 decibels) is both low in absolute terms and circa 9 decibels below the late evening background noise level. It is therefore considered that patrons on the outdoor terrace may be very, very faintly audible at the amenity space to the rear of the dwelling houses on Back Lane (note: Station Road traffic, unloading at the Holmfirth Sorting office was also clearly audible at the rear of dwelling houses on Back Lane at circa 2200 hours).

Noise Associated with Air Source Heat Pump

4.11 The sound power level (SWL) of a commercial air source heat pump is typically up to 63 dB L_{WA}. The resultant noise level (SPL) at the nearest residential use (Back Lane, fully screened) is calculated as follows:

SPL	=	SWL – 20*log(distance) – 8 – screening
	=	63 – 20*log(25) – 8 – 10 (fully screened)
	=	63 – 28 – 8 – 10
	=	17 decibels
	=	24 decibels below late evening background noise level i.e. inaudible

Continued from page 3

5.00 GOVERNMENT POLICY AND ASSESSMENT OF NOISE IMPACT ASSOCIATED WITH PROPOSED BREWERY FACILITY

National Planning Policy Framework

5.01 The National Planning Policy Framework (NPPF), which was revised in July 2021, states in Paragraph 174 that '*Planning policies and decisions should contribute to and enhance the natural and local environment by: … e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or **noise pollution** or land instability.'*

National Planning Policy Framework: Planning Practice Guidance on Noise

5.02 The National Planning Policy Framework Planning Practice Guidance on Noise (NPPF-PPGN) states that 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 particular situation. These factors include: the source and the absolute level of noise; the content of the noise; and the general character of the noise. The NPPF-PPGN presents a noise exposure hierarchy, which relates the NOAEL, LOAEL and SOAEL to the subjective perception of noise and examples of outcomes (see table below).

Table 5.1 – Summary of Noise Exposure Hierarchy

Perception	Examples of Outcomes	Increasing Effect Level	Action
No Observed Adverse Effect Level (NOAEL)			
Not Noticeable	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 Level (LOAEL)			
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; where there is no alternative ventilation, having to close windows for some of the time because of the noise. 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 (SOAEL)			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. 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 Adverse 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, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

5.03 In accordance with the NPPF–PPGN, at the surrounding residential uses, the noise associated with the proposed brewery facility (the small outdoor terrace at first floor level) is at the No Observed Adverse Effect Level (NOAEL) given that its noise can be heard, but does not cause any change in behaviour or attitude and only slightly affects the acoustic character of the area but not such that there is a perceived change in the quality of life. Accordingly no specific mitigation measures are required.

Continued from page 4

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.

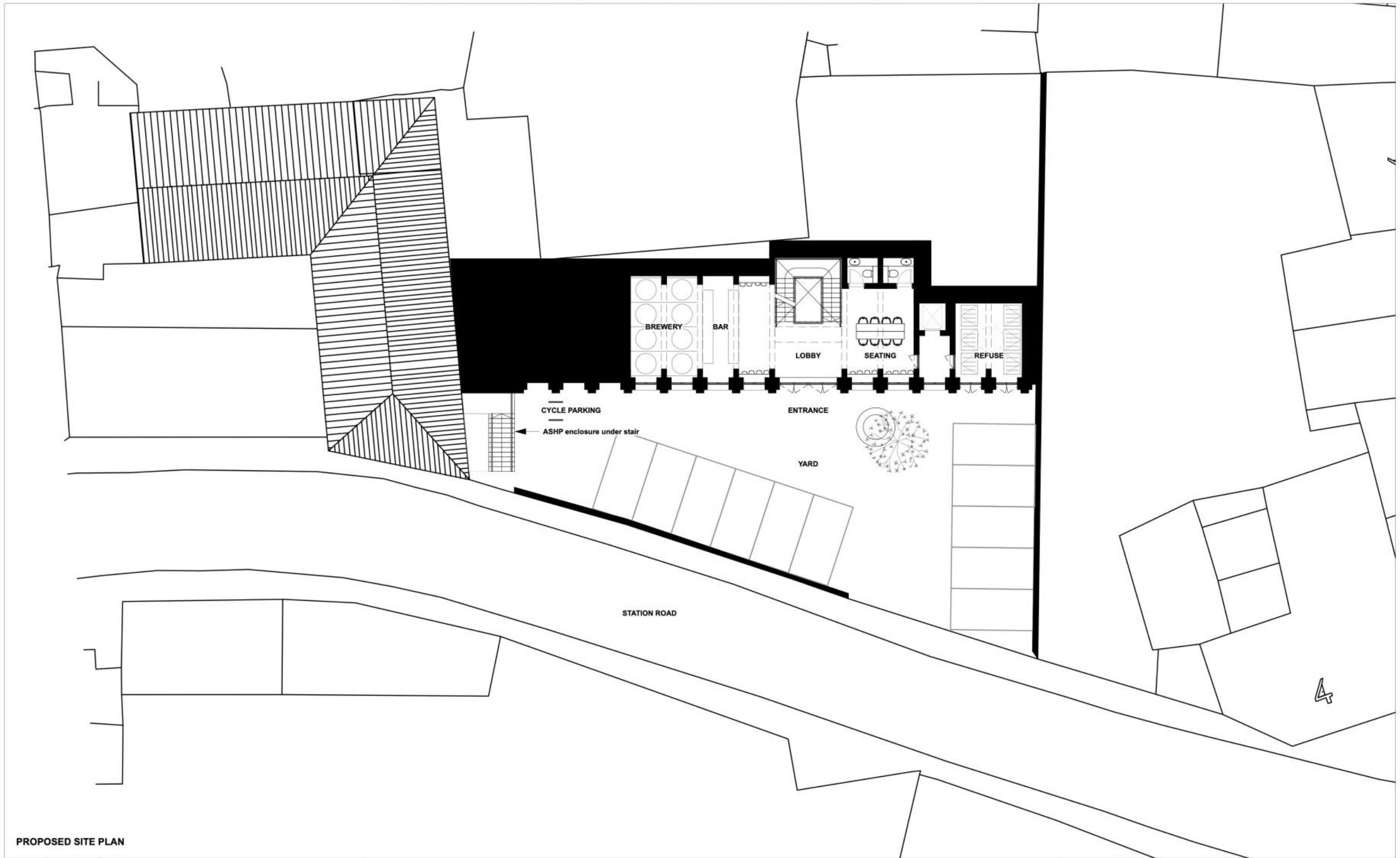
$L_{AF\ max}$

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



PROPOSED SITE PLAN

Revision	Date	Description
-	10.04.2025	Issued for Planning

Notes

- Do not scale from this drawing. Use figured dimensions only.
- Check drawing on receipt and immediately report any discrepancies to the Architect.
- Armitage Design Studio does not accept responsibility or liability for any use of this drawing by parties other than the party for whom it was prepared or for purposes other than those for which it was prepared.
- This is not a construction drawing, it is unsuitable for the purpose of construction and must on no account be used as such.
- The recipient should report any drawing errors, omissions or discrepancies to the architect. This drawing remains the copyright of Armitage Design Studio and shall not be re-used without their written permission.
- All structural elements are to be designed by the Structural Engineer. Any indication of structural elements in these drawings is purely indicative.
- All mechanical and electrical elements are to be designed by the Mechanical and Electrical Engineer. Any indication of mechanical or electrical installations in these drawings is purely indicative.

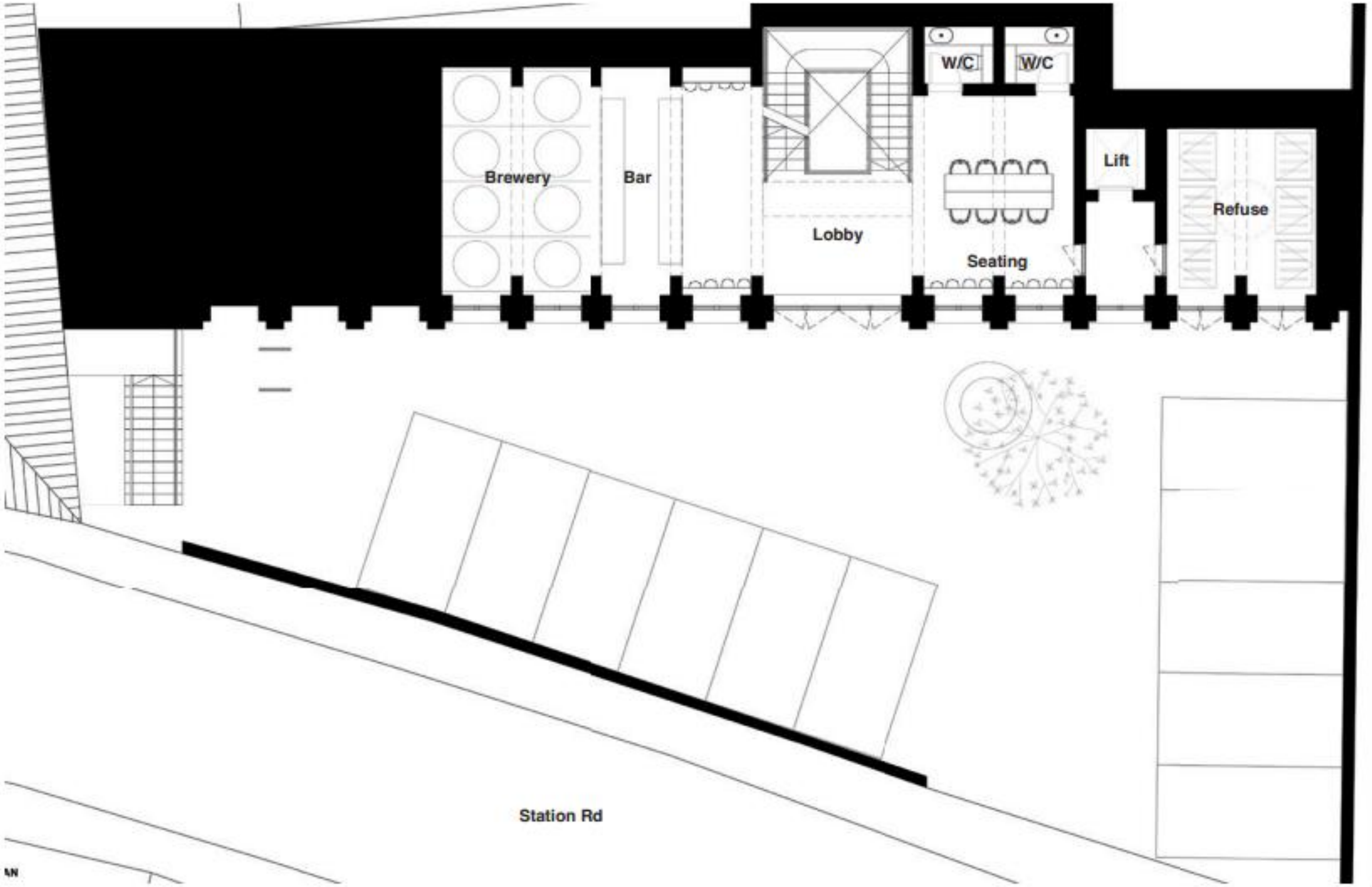
N

0 1 10m

ARMITAGE DESIGN STUDIO

JOB:	Bamforth's Brewery
CLIENT:	Sam Carr
SCALE:	1.100 @ A3
DATE FIRST ISSUED:	10.04.2025
DRAWING:	Proposed Site Plan
REFERENCE:	0001-PL-099
REVISION:	-
STATUS:	PLANNING

APPENDIX 3
PROPOSED FLOOR PLANS AND ELEVATION



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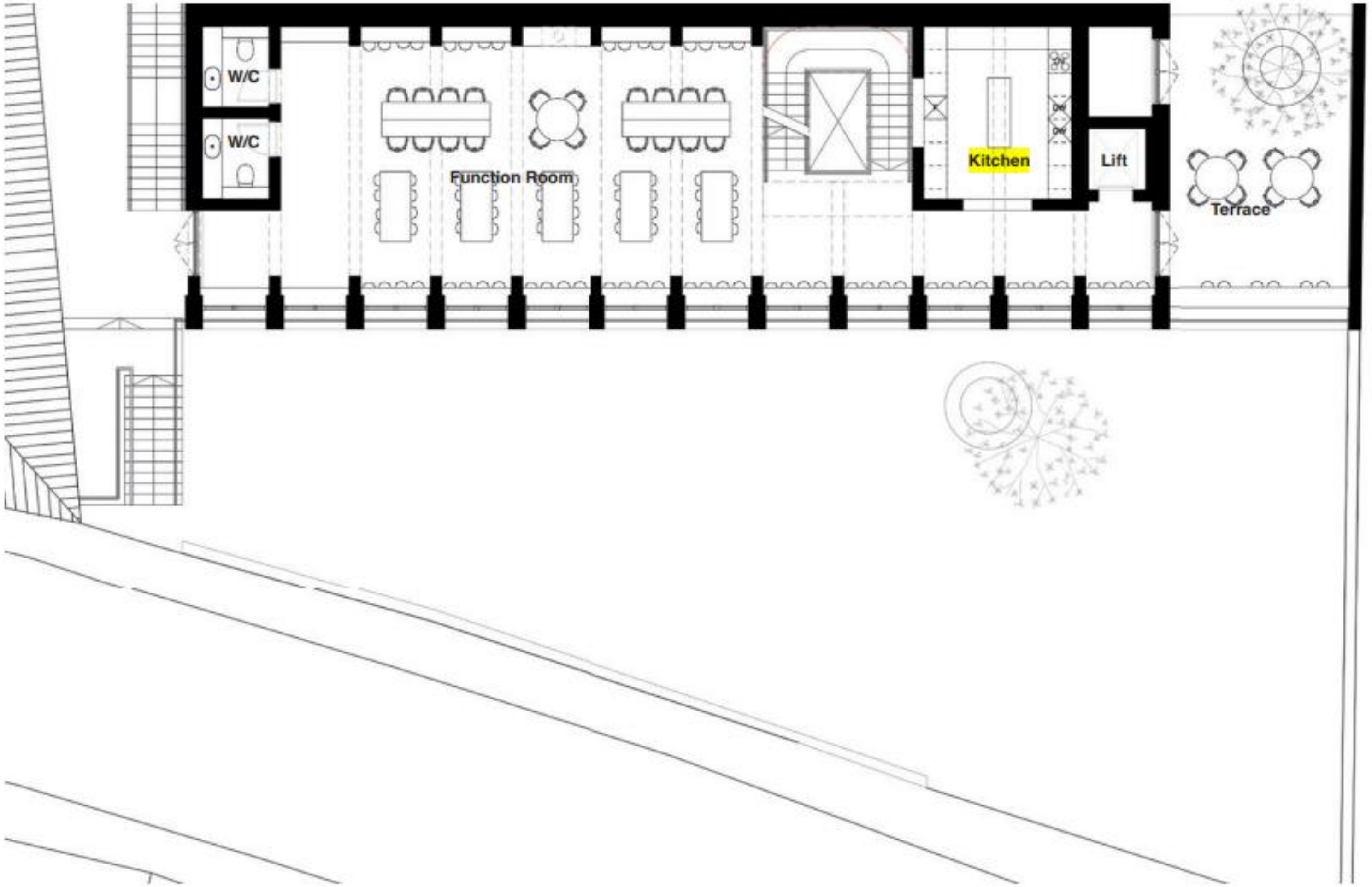
PROPOSED FLOOR PLANS AND ELEVATION



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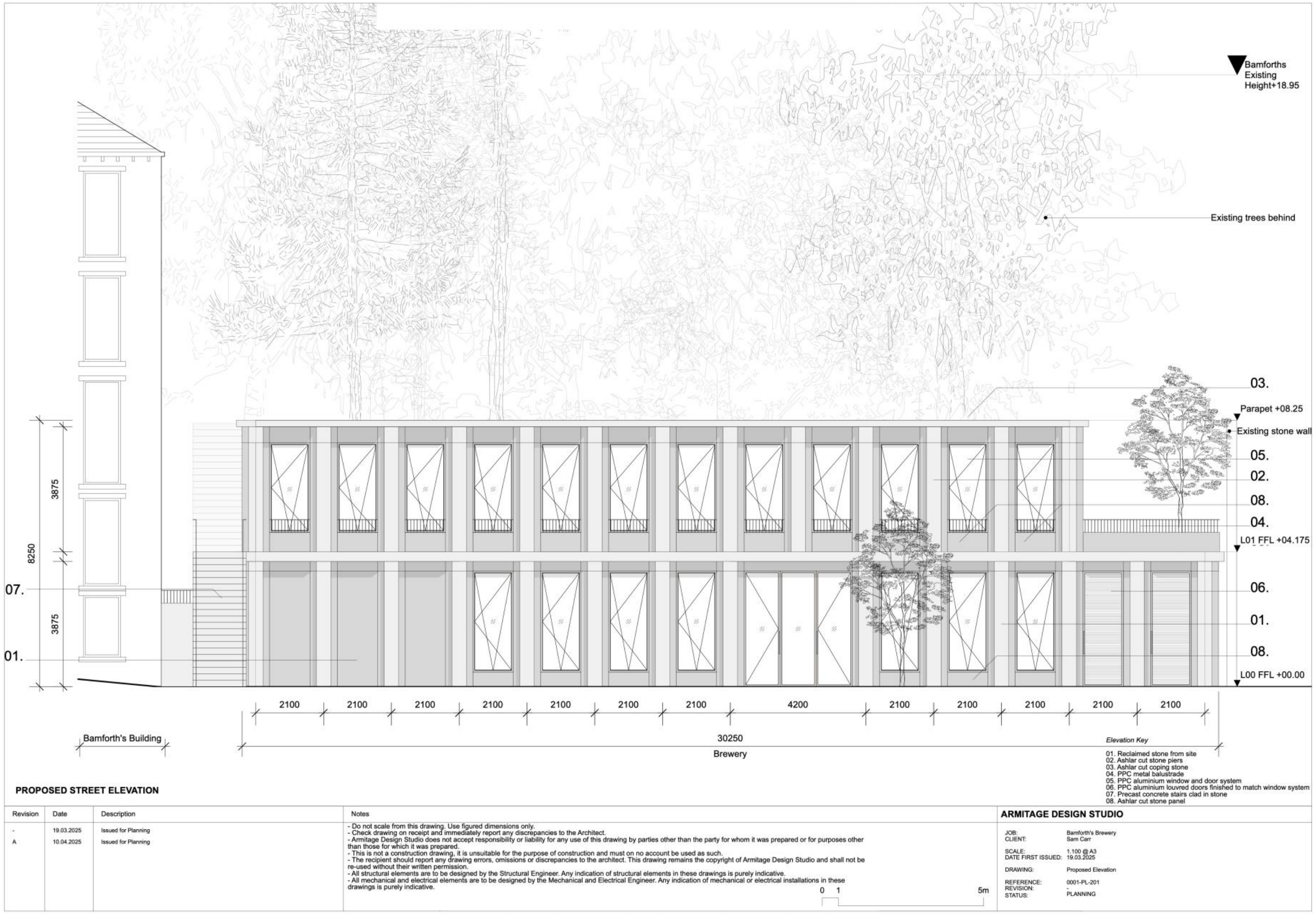
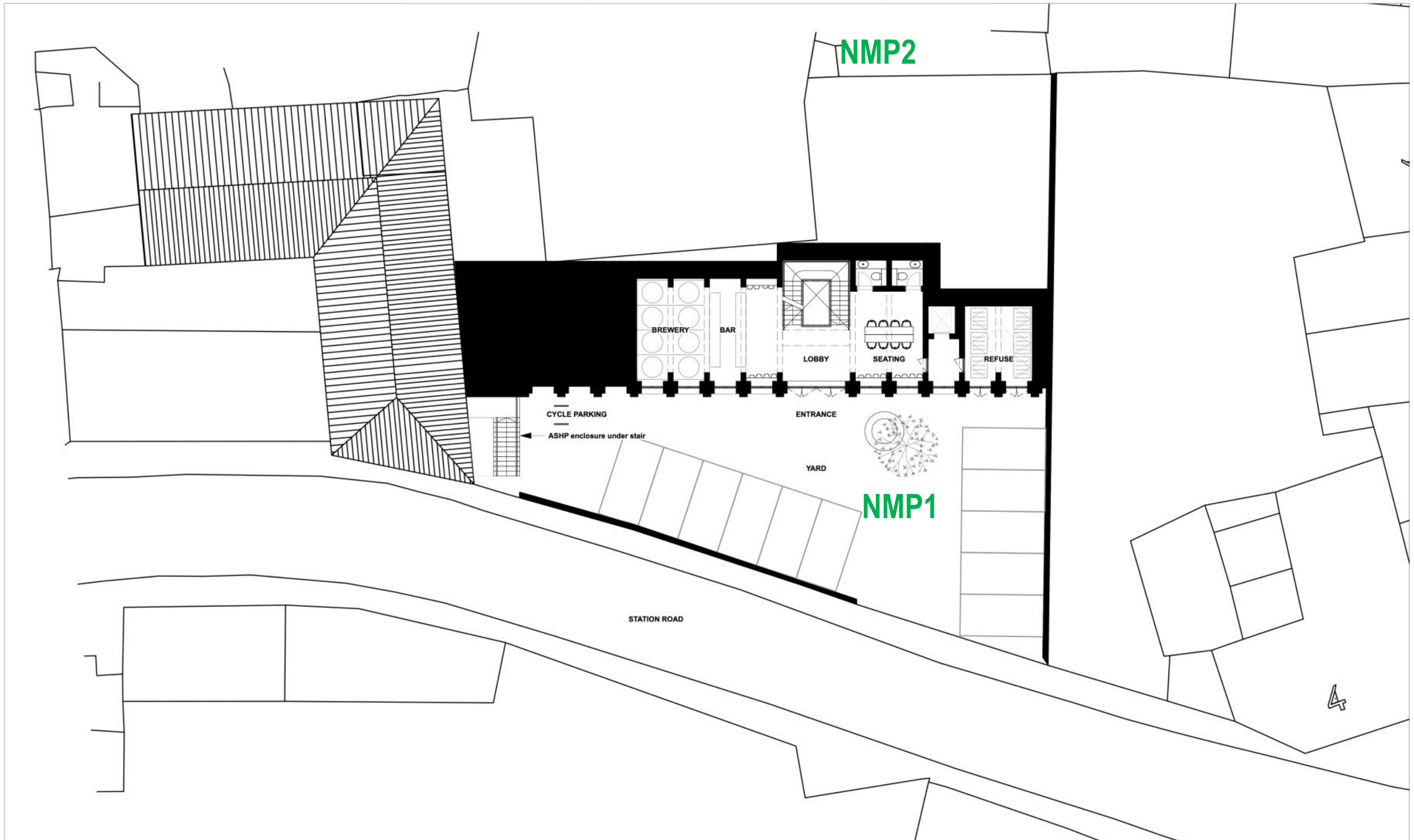
PROPOSED FLOOR PLANS AND ELEVATION



APPENDIX 4
NOISE MONITORING POSITIONS



PROPOSED SITE PLAN

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REFERENCE:	0001-PL-099
REVISION:	-
STATUS:	PLANNING

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-CM6 1HD
Phone 01371 871030

0789
CALIBRATION

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*

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