



1st April 2021

FAO Cherished Memories

C/o Andy Hollings
Pearce & Pearce Architectural Design

By email to: info@pearceandpearce.org.uk

Dear Andy,

DC3303-L2 – Addendum to Noise Impact Assessment – Revisions to Site Layout – Balne Croft Farm, Pollington

Dragonfly Consulting has been instructed to undertake a revised noise impact assessment with respect to the proposed wedding events venue at land belonging to Balne Croft Farm, Pollington ('The Site'), following alterations to the proposed site layout subsequent to submission of the original assessment (ref. DC3303-R1v3, issued 7th May 2020).

Due to non-acoustic factors that have arisen in further discussions following approval of the planning application, it is understood that the marquee is to be rotated and repositioned approximately 35m nearer to the south-eastern corner of the site.

Further to this, it is understood that the proposed barrier along the western boundary of the site is required to be relocated due to concerns surrounding fire risk and structural integrity; as such, a revision to the barrier position and layout is proposed to comply with the requirement of a separation distance three times the barrier height from any nearby structures. Adjustments to the construction methodology for the purposes of structural rigidity have resulted in the bale wall shown in Figure 1 overleaf:

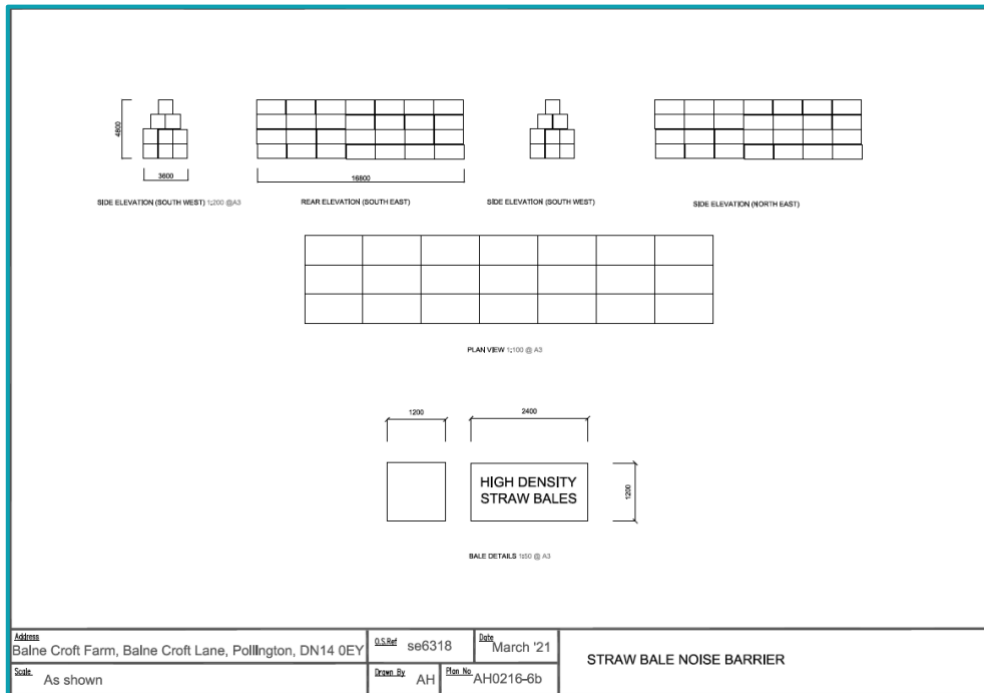
www.dragonfly-consulting.com

Tel: 01904 898368 | E-mail: info@dragonfly-consulting.com

© Dragonfly Acoustics Ltd. - Company No. 6453657 | VAT No. 933019052 | 4 Bramley's Barn, The Menagerie, Esrick, York, YO19 6ET

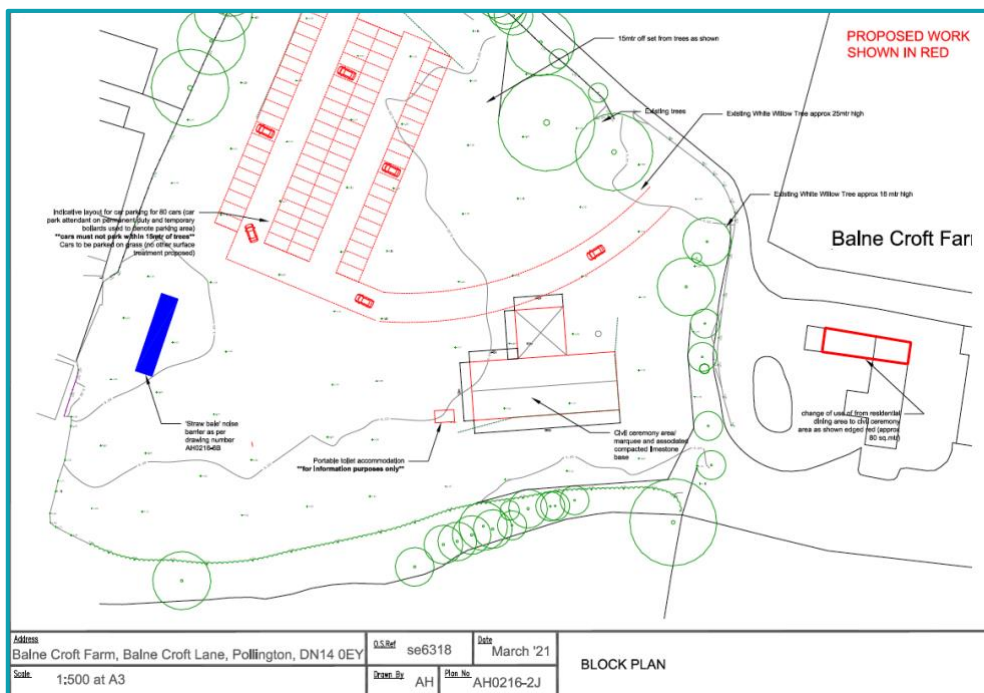


Figure 1
Revised Barrier Dimensions



A revised site layout has been provided by Pearce & Pearce Architectural Design and is replicated in Figure 2 below:

Figure 2
Revised Site Layout



An updated series of calculations has been undertaken to determine whether incorporating these changes in layout will have a significant impact upon the outcomes of the original noise impact assessment, the most pertinent of which relates to the maximum permissible limits set for music noise.

Guidance and Assessment Criteria

Based on guidance drawn from the criteria and values detailed in the *IOA Good Practice Guide on the Control of Noise from Places of Entertainment* and with reference to the impact scale held within the *IEMA Guidelines for Environmental Noise Impact Assessment*, it was determined that the following requirements would be appropriate in the context of this site:

- For the total noise level including music noise (EN) to not exceed the representative ambient level without music noise (WEN) by more than 3dB, the predicted music noise level incident upon the NSR must not exceed the representative ambient level at that location during the daytime (0700-2300);
- For the total noise level including music noise (EN) to not exceed the representative ambient level without music noise (WEN), the predicted music noise level incident upon the NSR must be no greater than 10dB below the representative ambient level at that location during the night-time (2300-0700).

With respect to the measured ambient noise levels on-site, this translates to the following criteria:

Table 1
Adopted Criteria for Entertainment Noise

Period	Frequency Weighting	Representative Measured Level, dB	Adopted Criteria, dB
Daytime (<2300h)	A-weighted	40	43
	C-weighted	53	56
Night-Time (2300h-0000h)	A-weighted	36	26
	C-weighted	53	43

Creation of Noise Model

Data Sources

Modelling calculations were undertaken based on the spatial settings and data sources identified below:

- Site Plans – Provided by Pearce & Pearce Architectural Design (Block Plan – ref. AH0216-2H, issued February 2021);
- Ground Heights – Environment Agency Open Data LiDAR Digital Terrain Model (2.0m resolution);
- Reflections – 1st-order reflections have been accounted for within the noise model;
- Ground Absorption – Assumed to be soft ground on site.

Source Noise Assumptions

For the purposes of the noise propagation model and identifying a baseline with which to determine a maximum permissible level, the following internal noise levels were utilised:

Table 2
Source Music Noise Data

	Frequency (Hz)										L _{Aeq}	L _{Ceq}
	31.5	63	125	250	500	1000	2000	4000	8000			
'MOJO' PA System Levels, L _{eq}	86.8	97.1	99.1	95.3	94.2	92.0	87.9	87.8	84.7	97.1	103.2	

These noise levels are taken from archive data previously measured by Dragonfly Consulting within 'MOJO Bar' in Nottingham in September 2017. Mojo Bar is a large town centre bar, with a music driven customer offer and operates at music noise levels Dragonfly Consulting would consider are at the top end of the range of music noise levels a public house operator might utilise.

It is considered that the noise levels measured were taken from typical use of the sound system associated with the bar and that they are representative of the typical spectrum of music levels associated with this development; however, they are not considered representative of the combined noise level associated with this development, which is expected to be quieter than the conditions in which these measurements were taken.

It has been assumed that the fabric of the marquee would provide a negligible effect on the noise levels breaking out from the venue and, as such, no transmission loss has been included for the structure. The noise source has been created in the model as an area source, covering the floorplan of the proposed marquee. A receiver location was placed in the centre of the marquee area to calibrate the output data to that shown in Table 2 as a representative measurement position within the marquee itself.

Utilising the reference location within the marquee and with respect to the alterations in site layout, an internal noise limit was identified by adjusting the output of the noise source such that it did not exceed the relevant criteria shown in Table 1.

Noise Sensitive Receptors

For the purposes of this assessment, the nearest Noise Sensitive Receptors (NSRs) have been identified as follows:

- NSR1 – Residential property approximately 40m from the western site boundary;
- NSR2 – Residential property approximately 260m from the northern site boundary, on the opposite bank of New Fleet Drain South.

As the previous assessment identified the 1st floor façade of each of these properties (4m AGL) to be the most exposed to noise from the proposed use of The Site, these locations have been referred to in this document hereafter.

Assessment

The results of the assessment are as shown:

Table 3
Assessment Results

Period	NSR	Level from Music at Reference Location, dB(A) / dB(C)	Level from Music at NSR, dB(A) / dB(C)
Daytime	NSR1	86.2 / 92.8	41.4 / 56.0
	NSR2		41.8 / 48.6
Night-Time	NSR1	70.4 / 77.0	25.6 / 40.2
	NSR2		26.0 / 32.8

Summary Conclusions

It should be noted that, in order to comply with the agreed criteria, the maximum permissible internal noise levels have not reduced substantially when compared against the previous assessment.

It is considered that, to operate at the levels identified within the previous assessment, the proposed relocation of the marquee and barrier would not generate any greater (adverse) effect upon the NSRs.

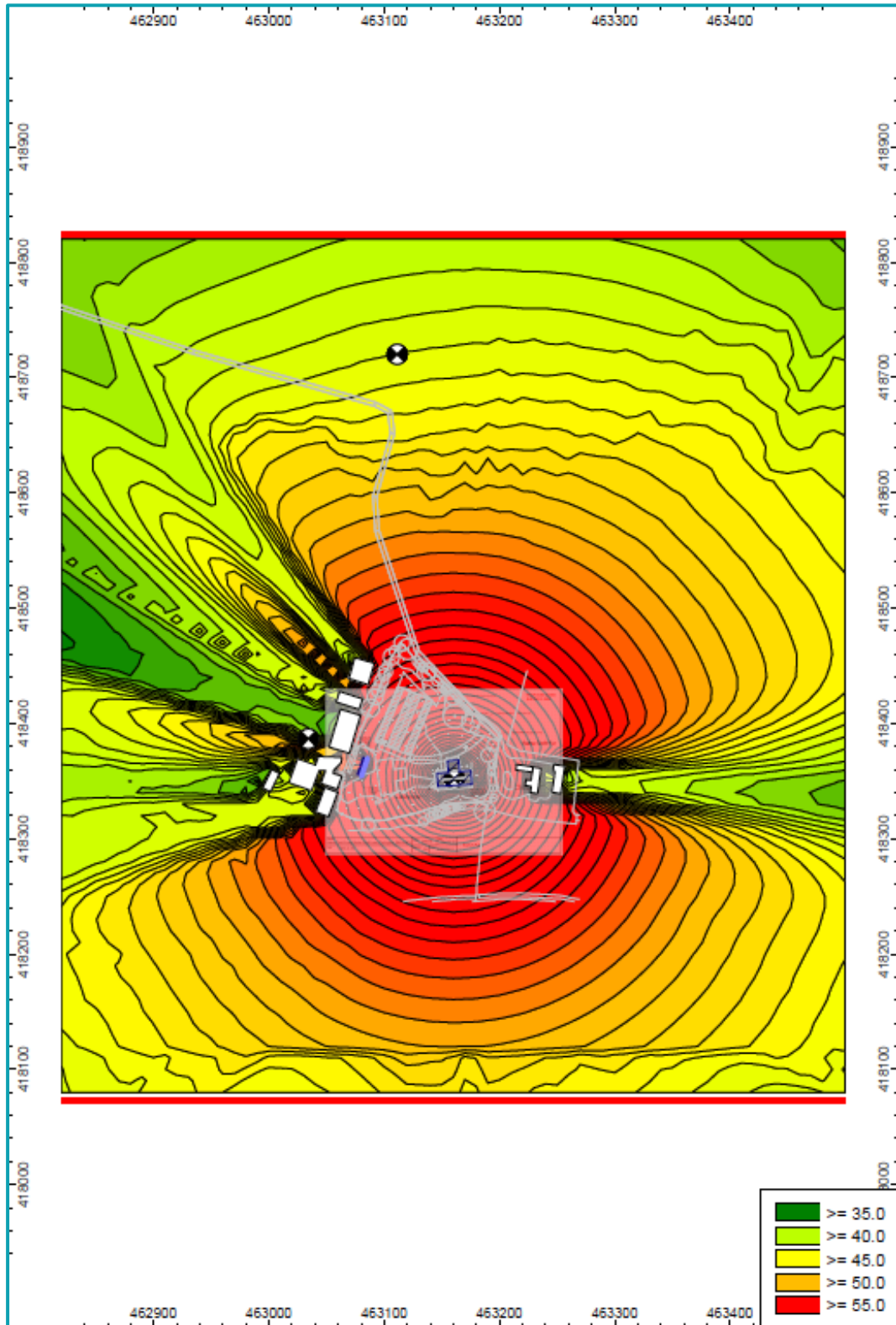
I trust the above is suitable. If you have any further queries or require further information, please do not hesitate to contact me.



Daniel Vallis BSc (Hons), DipANC MIOA MIEnvSc
Senior Acoustic Consultant
For and on behalf of
Dragonfly Consulting

Appendix A – Noise Contour Maps

Figure A-1
Noise Contour Map – Daytime, dB(A)



Appendix A – Noise Contour Maps

Figure A-2
Noise Contour Map – Night-Time, dB(A)

