REPORT TITLE:

Proposed New Dog Boarding Kennels and Cattery, Salthouse Farm, Werrington

CLIENT DETAILS:

Mr L Brunton

DATE:

17th November 2016

REPORT REFERENCE:

PC-16-0223-RP1 Rev A

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1. Introduction

A proposal has been made by Mr L Brunton of Salthouse Farm, Salters Lane, Werrington, ST9 0AD, to convert existing farm buildings on the site to provide facilities for Dog Boarding Kennels and a Cattery.

The Local Planning Authority Pollution Officer (Environmental Health) of the Staffordshire Moorlands District Council / High Peak Borough Council has asked that an assessment of noise from the proposed new kennels be carried out and an acoustic report submitted to support the application.

'The primary concern for Environmental Health would be noise. The applicant should submit a noise assessment in support of this application in consideration of the nearest residential properties. It would be expected that the assessment where required includes noise mitigation measures.'

In order to complete the assessment, a noise survey was carried out at the Salthouse Farm site over a 24-hour period in September 2016.

Research into the expected noise levels associated with dog boarding kennels was also carried out using data from similar projects across the UK.

This report gives details of the noise survey and assessment and provides information on the predicted noise impact of the proposed new dog boarding kennels on nearby noise sensitive receptors together with proposed noise control and mitigation schemes to ensure that no adverse impact occurs at nearby noise sensitive premises from dogs boarded in the kennels.

The Cattery will cater for up to 16 cats. It is not expected that there will be any significant noise from this part of the facility and no further noise control schemes are therefore considered necessary for the Cattery.

2. Site location, nearby noise sensitive receptors and existing noise environment

Salthouse Farm lies in a rural area surrounded by agricultural land with no close neighbours. There are a number of barns and other outbuildings on the premises, two of which are to be converted to the Dog Boarding Kennels and the Cattery. These are shown on the site plan in the appendix.

Salthouse Farm is bounded to the east by Salters Lane, which carries a light traffic flow during the daytime. Agricultural land otherwise surrounds the site.

On-site observations indicate that the site is generally quiet during daytime hours with no significant noise sources noted during the site visit.

The closest noise sensitive neighbours are the residential properties lying to the north and north-east of Salthouse Farm at distances of approximately 225 metres and 280 metres respectively with other properties to the south and south-east at distances of over 300 metres from the location of the proposed new kennels.

The boundary between the Salthouse Farm property and the closest noise sensitive property to the north is approximately 120 metres from the kennels building. Noise impacts have been assessed to this boundary.

3. Noise Survey

In order to identify the existing noise climate in the area of Salthouse Farm, an environmental noise survey was carried out over a 24-hour period between 13:00 hours on Tuesday 27th September 2016 and 16:00 Hours on Wednesday 28th September 2016.

Noise levels, dB L_{Aeq}, (average), dB $L_{Amax,F}$ (maximum) and dB L_{A90} (background) were recorded at 15-minute sampling periods in accordance with BS7445:-1 2003 *'Description and measurement of environmental noise'*.

Measurements were taken using a Norsonic NOR-140 Class 1 Sound Level Meter set up in free-field conditions with the microphone mounted on a tripod at a height of 1.5 metres above ground level at the northern boundary of the property at a distance of 120 metres from the location of the proposed new kennels and 70 metres from the Salters Lane carriageway, This position was considered representative of the location of the closest noise sensitive receptor to the north of Salthouse Farm.

The measurement position is shown on Figure 1 below together with the location of the proposed new kennels and nearby noise sensitive receptors.

Weather conditions over the survey period were variable. Daytime conditions were generally warm and mild with wind speeds in the order of 5 mph (2.2m/s). Wind strength increased during the evening to 12mph (5.3m/s). Wind direction was generally north-westerly.

It is therefore considered that the daytime and night-time ambient and background noise levels, dB $L_{Aeq(T)}$ and $L_{A90(T)}$ are representative of the overall noise environment at the site.

A summary of recorded noise levels is given in Table 1 below. Full data are included in the appendix.

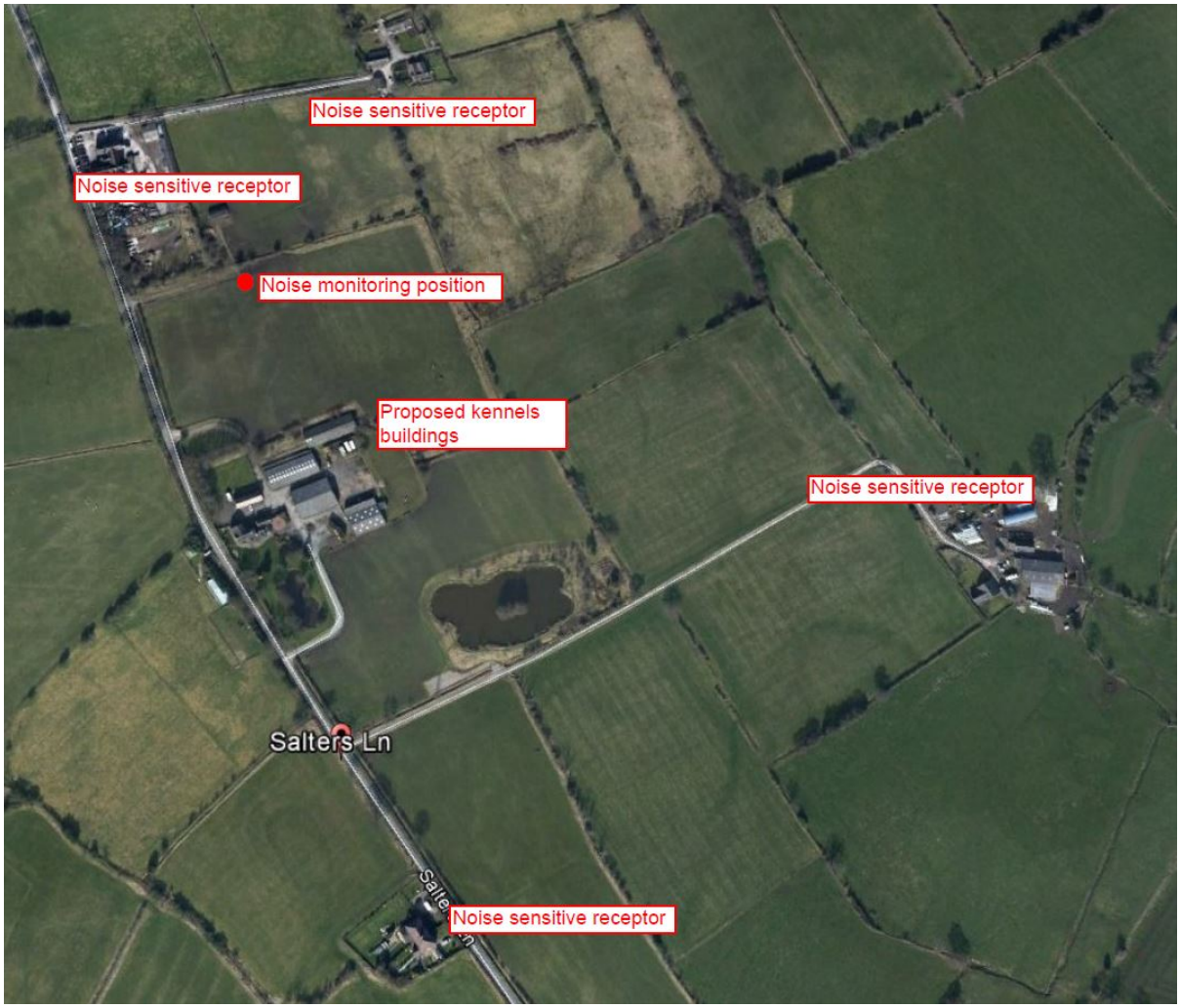
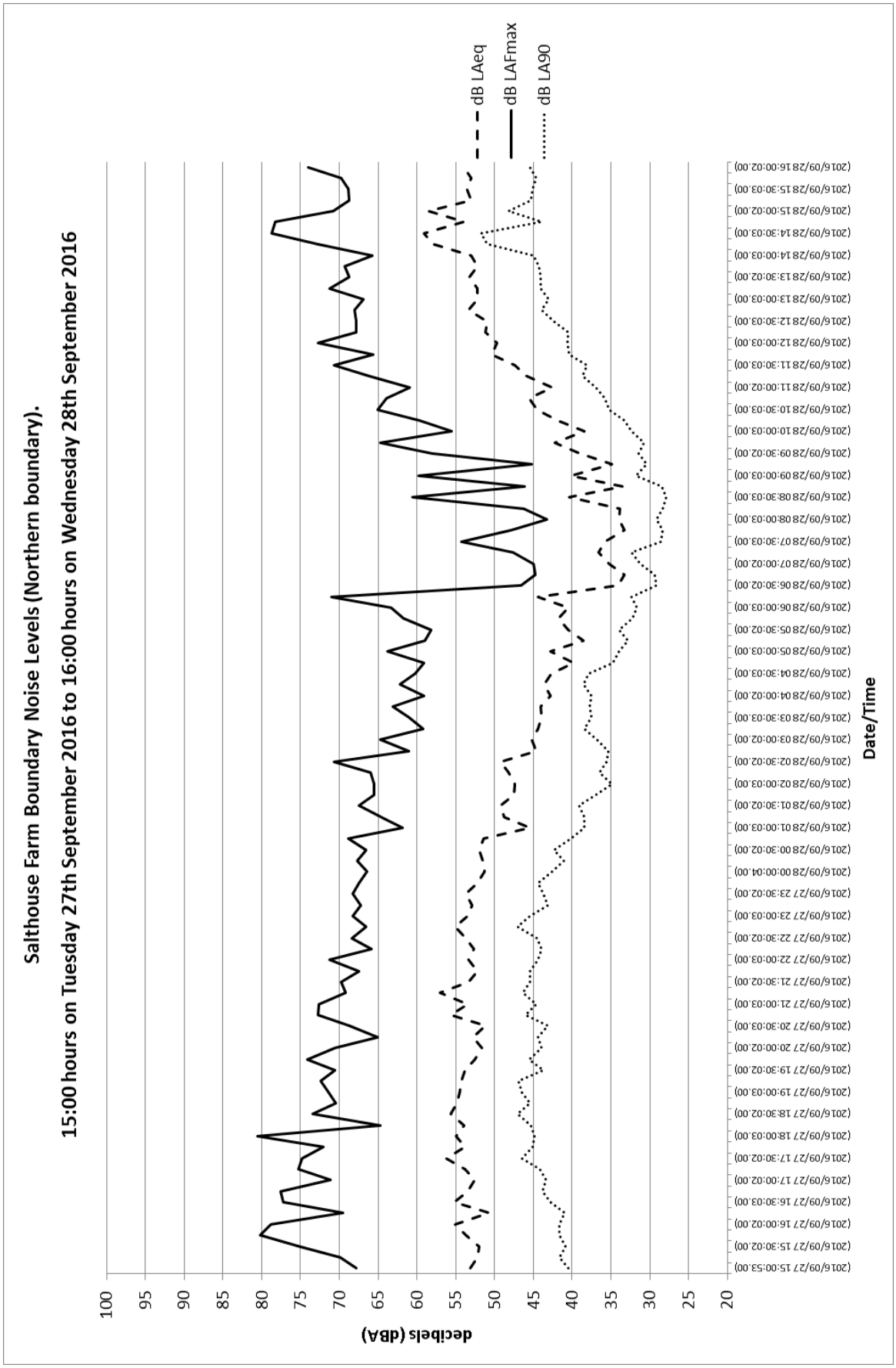


Figure 1. Site layout showing noise monitoring position, location of proposed kennels and closest noise sensitive properties. (Photo courtesy of Imagery@2015, Infoterra Ltd and Bluesky).

Table 1. Noise Survey Summary Results (See also chart below)

Period	dB $L_{Aeq(T)}$ (average)	dB $L_{A90(T)}$ (background)	dB $L_{Amax,F}$ (maximum -typical)
Daytime	53 dB(A)	41 dB(A)	70 dB(A)
Night-time	48 dB(A)	37 dB(A)	65 dB(A)


Salthouse Farm Boundary Noise Levels (Northern boundary).
15:00 hours on Tuesday 27th September 2016 to 16:00 hours on Wednesday 28th September 2016
dB LAeq
dB LAFmax
dB LA90
decibels (dBA)
Date/Time

4. Equipment Details

Sound Level Meter:

- Norsonic NOR-140.
- Serial Number: 1403395.
- Calibration due: November 2016

Calibrator:

- Norsonic NOR-1251
- Serial Number: 32199
- Calibration due: November 2017

5. Assessment of noise from kennels

Dog Boarding Kennels – Construction details

The new kennels will be housed within an existing agricultural building constructed of masonry walls with a corrugated cement fibre roof. The roof over the kennel bed sleeping areas will underlined with a new MF grid acoustic tile ceiling.

New aluminium framed access doors and windows will be installed. These will remain normally closed except for access and egress.

Calculations using INSUL sound insulation predictive software indicate that the wall construction will provide a sound reduction of R_w 51 dB and the roof R_w 27 dB. The roof/ceiling over the sleeping areas will provide a sound reduction of R_w 39 dB.

Sound insulation data for the glazed elements have been taken from the Guardian Glass database for a 6mm glass/12mm airspace/4mm glass configuration with a sound reduction value of R_w 34 dB.

The kennel bed areas will be enclosed within proprietary polypropylene lining boards that will further control noise breakout at night.

Each area of the building has been assessed separately and the composite sound reduction of the whole building shell has been calculated based on the following surface areas:

Daytime:

- Roof = 104m^2 (50% of surface area over day exercise areas facing the closest noise sensitive boundary)
- Wall = 56.4m^2 (north elevation only)
- Glazing = 12.6m^2 (northern elevation only)

Night-time (Kennel bed areas only)

- Roof = 52m^2

The INSUL data sheets and the glass acoustic data sheet are reproduced below.

The composite sound reduction of all elements, taking into account the relative surface areas of the external walls, glazing and roof are shown on the calculation sheets in Section 6 below.

Note that for assessment purposes the kennel bed area has been ignored for daytime noise break-out as the sound insulation of the roof/ceiling over the kennel bed area will be more than 10 dB better than the roof over the day exercise areas of the kennels and any noise from the kennel bed areas will therefore have no significant effect on the overall noise break-out from the roof.

For calculation of night-time noise break-out, only the roof over the kennel bed areas has been considered as the dogs will remain in these areas at night.

Calculation sheet for existing walls

Sound Insulation Prediction (v7.0.13)

- Key No. 1558

Margin of error is generally within Rw +/- 3 dB

Job Name:Salthouse Farm

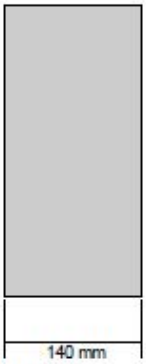
Job No.:16-233 Page No.:

Date: 4 Oct 16 Initials:CW

File Name: insul walls.ixl

Notes:

Existing masonry walls



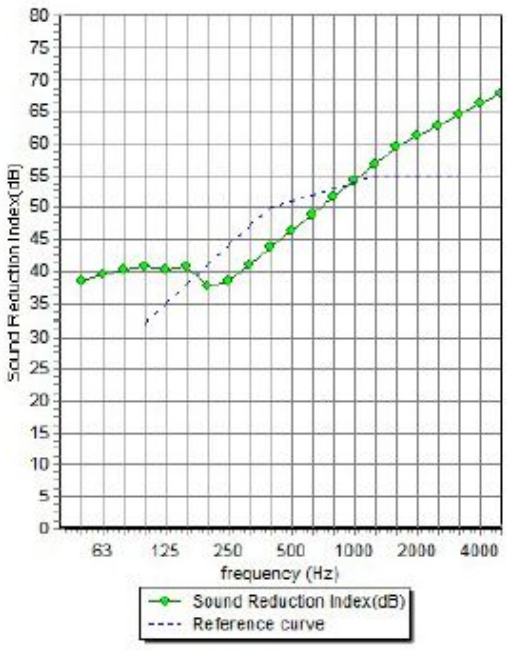
Rw	51 dB
C	-1 dB
C_{tr}	-4 dB

System description

Panel 1 Outer layer: 1 x 140.0 mm mm Concrete Block- (m=263.2 kg/m2, fc=220 Hz, Damping=0.01) Profile

frequency (Hz)	R(dB)	R(dB)
50	39	
63	39	39
80	40	
100	41	
125	40	41
160	41	
200	38	
250	39	39
315	41	
400	44	
500	46	46
630	49	
800	52	
1000	54	54
1250	57	
1600	60	
2000	61	61
2500	63	
3150	65	
4000	66	66
5000	68	

Panel Size 2.7x4 m



Calculation sheet for existing roof construction

Sound Insulation Prediction (v7.0.13)

- Key No. 1558

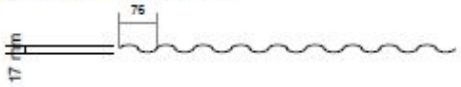
Margin of error is generally within Rw +/- 3 dB

Job Name:Salthouse Farm

Job No.:160223 Page No.:

Date: 14 Nov 16 Initials:CW

File Name: insul basic roof.ixl



Notes:

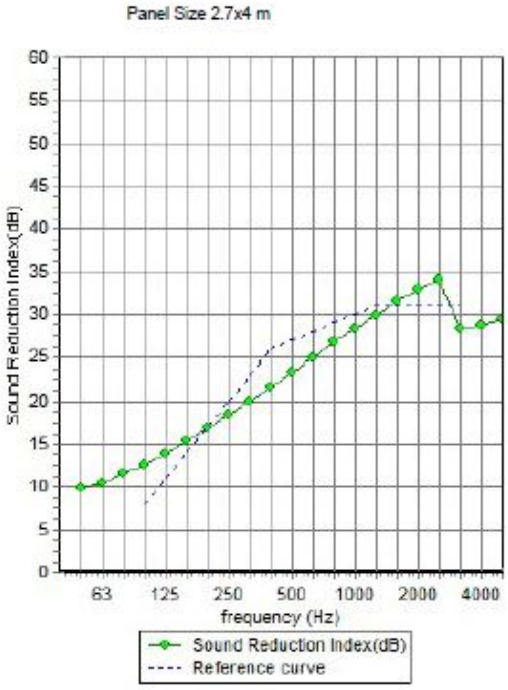
Corrugated roof over day exercise areas

Rw	27 dB
C	-1 dB
C_{tr}	-4 dB

System description

Panel 1 Outer layer: 1 x 6.0 mm RCM CemBoard (cement particle board)- (m=7.7 kg/m2, fc1=3852 Hz, fc2=6276 Hz, Damping=0.01) Profile

frequency (Hz)	R(dB)	R(dB)
50	10	
63	11	11
80	12	
100	13	
125	14	14
160	15	
200	17	
250	18	18
315	20	
400	22	
500	23	23
630	25	
800	27	
1000	28	28
1250	30	
1600	32	
2000	33	33
2500	34	
3150	28	
4000	29	29
5000	29	



Calculation sheet for kennel bed area roof construction

Sound Insulation Prediction (v7.0.13)

- Key No. 1558

Margin of error is generally within Rw +/- 3 dB

Job Name:Salthouse Farm

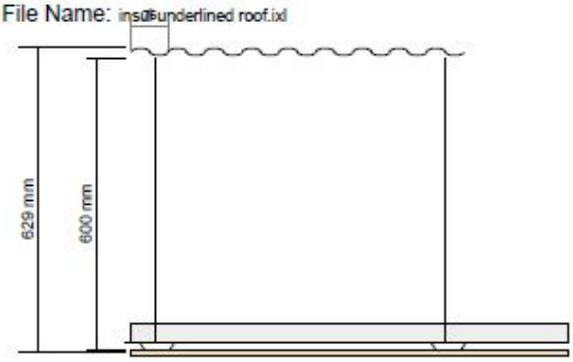
Job No.:160223 Page No.:

Date: 14 Nov 16 Initials:CW

File Name: insul underlined roof.ixl

Notes:

Corrugated roof over sleeping areas



Rw	39 dB
C	-2 dB
C_{tr}	-8 dB

System description

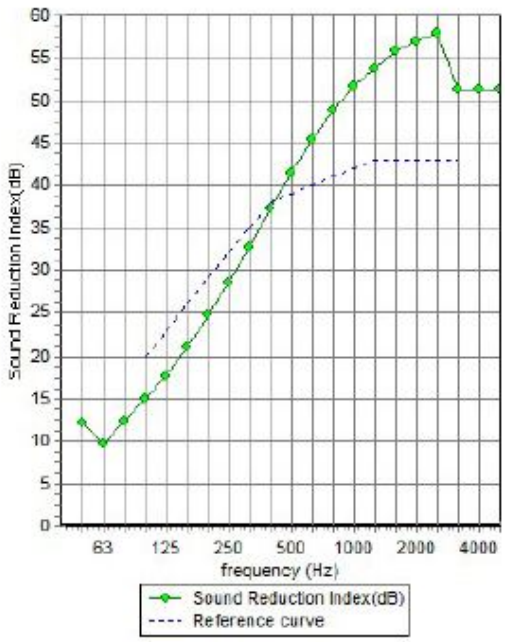
Panel 1 Outer layer: 1 x 6.0 mm RCM CemBoard (cement particle board)- (m=7.7 kg/m2, fc1=3852 Hz, fc2=6276 Hz, Damping=0.01) Profile

Cavity: Suspended light steel grid @ 600 mm
Panel 2 Inner layer: 1 x 12.5 mm SoftBoard- (m=4.0 kg/m2, fc=4150 Hz, Damping=0.02) Profile

Mass-air-mass resonant frequency =48 Hz

frequency (Hz)	R(dB)	R(dB)
50	12	
63	10	11
80	12	
100	15	
125	18	17
160	21	
200	25	
250	28	27
315	33	
400	37	
500	41	40
630	45	
800	49	
1000	52	51
1250	54	
1600	56	
2000	57	57
2500	58	
3150	51	
4000	51	51
5000	51	

Panel Size 2.7x4 m



GUARDIAN
Glass • Automotive • Building Products

Acoustic Performance

Guardian Float Glass

The acoustic performance data within this document is determined by calculation, based on factors derived from certified data. Due to inherent variations in acoustic performance when testing in accordance with EN ISO 140-3, some variation in the calculated performance can also be expected. As such, the weighted performance, Rw, and adaptation terms, C and Ctr, should typically be considered to be accurate within ±2 dB. However, wider deviations can occur.

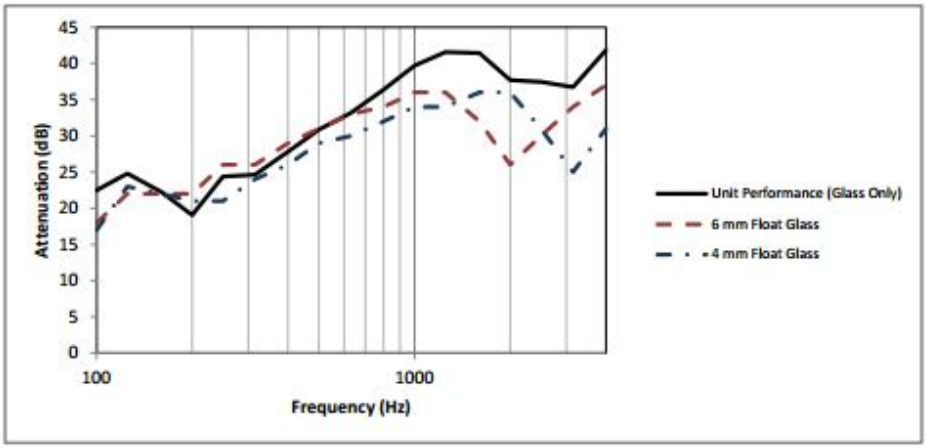
6 mm Float Glass

(6-24 mm Cavity)

4 mm Float Glass

Sound Reduction Indices - dB

Frequency - Hertz						$R_w(C;C_{tr})$	R_w	$R_w + C$	$R_w + C_{tr}$
125	250	500	1000	2000	4000				
25	**24**	**31**	**40**	**38**	**42**	**34(-1;-4)**	**34**	**33**	**30**



5.2 Noise from Barking Dogs

It is understood that up to 48 dogs may be boarded at any one time. During the daytime, 07:00 to 19:00, the dogs will have access to the individual kennel runs although these will be fully enclosed within the main building. At night the dogs will be kept in their kennel spaces.

It is reasonable to assume that the majority of the dogs would be in their individual kennel bed areas and most would be expected to remain in a relatively quiet state with perhaps 25% (12 dogs) barking simultaneously at any given moment when disturbed.

Personal observations in typical dog boarding kennels indicate that rarely would all dogs be barking simultaneously and for the purposes of this assessment it is assumed that up to 12 dogs may bark simultaneously.

Acoustic addition of 12 dogs barking would result in a correction of +11 dB when compared to a single dog barking, assuming that all dogs bark at the same noise level in a worst case scenario.

Noise assessments of dog boarding kennels have been carried out across the UK and a summary of their findings is given below. These are based on measurements taken within enclosed kennels buildings in a reverberant noise environment. Only the maxima of barking noise has been used to assess the potential noise impact, the average noise levels from dogs barking over any given period would have little bearing on annoyance factors.

- Dog barking measured at 4 metres: 75 to 80 dB $L_{Aeq(T)}$, 92 to 95 dB $L_{Amax,F}$
- Dog barking at 1 metre: 100 to 108 dB $L_{Amax,F}$

The following frequency data have been used for this assessment, taken from measurements in typical kennels:

Frequency	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
dB	48	50	68	86	90	92	70	62

6. Noise Impact Assessment

With a typical maximum barking noise for a single dog of 95 dB $L_{Amax,F}$ when measured at a distance of 4 metres, plus an addition of +11 dB for twelve dogs barking simultaneously, the resultant maximum reverberant sound pressure level for a worst case scenario would be 106 dB $L_{Amax,F}$ within the kennels building.

Noise propagation to the closest noise sensitive premises has been calculated taking into account the distance between the kennels building and the closest noise sensitive boundary and the sound reduction of the kennels building shell using the following spreadsheets.

Additionally, an assessment has been carried out to predict the noise at the closest residential façade, some 220 metres from the kennels.

These locations are shown on the site plan in Figure 1.

Noise breakout and propagation calculation sheet for daytime at closest noise sensitive boundary

Sound transmission by percentage view of different building elements

Project:	Salthouse Farm - Daytime	Date:	17-Nov-16

Building elements & Areas		Total M^2
Masonry Wall	33%	56.40
Roof	60%	104.00
Windows	7%	12.60
Doors	0%	0.00
	Total	173.00

Distance To Receiver Point (m)	120

Building Length	31
Slow Decay?	No

	Total M2
10 log (s) corrections	22

	63	125	250	500	1K	2K	4K	8K	dBA
Source Lp (10 dogs)	59	61	79	97	101	103	81	73	106.1

Building Element Sound Reduction Indices								
Masonry Wall	39	41	39	46	54	61	66	68
Roof	11	14	18	23	28	33	29	32
Windows	22	25	24	31	40	38	42	44
Doors	0	0	0	0	0	0	0	0
Composite SRI	13.2	16.2	20.1	25.1	30.2	35.0	31.2	34.2
10 log S (Total)	22	22	22	22	22	22	22	22
Distance Loss	42	42	42	42	42	42	42	42
Factor	-14	-14	-14	-14	-14	-14	-14	-14
Directivity	3	3	3	3	3	3	3	3
Resultant	**16**	**15**	**29**	**42**	**41**	**38**	**20**	**9**

A' Weighted Receiver Level	44.3

Notes	
Constructions Used	
Wall	Masonry
Roof	Corrugated cement fibre

Noise breakout and propagation calculation sheet for night-time at façade of closest noise sensitive property

Sound transmission by percentage view of different building elements

Project:	Salthouse Farm - Night-time	Date:	17-Nov-16

Building elements & Areas		Total M^2
Masonry Wall	0%	0.00
Roof	100%	52.00
Windows	0%	0.00
Doors	0%	0.00
	Total	52.00

Distance To Receiver Point (m)	220

Building Length	31
Slow Decay?	No

	Total M2
10 log (s) corrections	17

	63	125	250	500	1K	2K	4K	8K	dBA
Source Lp (10 dogs)	59	61	79	97	101	103	81	73	106.1

Building Element Sound Reduction Indices								
Masonry Wall	39	41	39	46	54	61	66	68
Roof	11	17	27	40	51	57	51	55
Windows	22	25	24	31	40	38	42	44
Doors	0	0	0	0	0	0	0	0
Composite SRI	11.0	17.0	27.0	40.0	51.0	57.0	51.0	55.0
10 log S (Total)	17	17	17	17	17	17	17	17
Distance Loss	47	47	47	47	47	47	47	47
Factor	-14	-14	-14	-14	-14	-14	-14	-14
Directivity	3	3	3	3	3	3	3	3
Resultant	**7**	**3**	**11**	**16**	**9**	**5**	**-11**	**-23**

A' Weighted Receiver Level	15.6

Notes	
Constructions Used	
Wall	N/A
Roof	Corrugated cement fibre with
	suspended ceiling below

It will be seen from the noise breakout and propagation calculation sheets above that the predicted noise impact at the closest noise sensitive boundary during the daytime is 44.3 dB $L_{Amax,F}$ and 15.6 dB $L_{Amax,F}$ at the closest noise sensitive façade at night when the dogs are in their bed areas.

There will be additional attenuation due to noise transmission over the soft ground cover between the kennels building and the boundary.

Taking an average transmission height of 3.5 metres (centre-line of roof), the predicted additional sound reduction due to ground absorption would be -3.7 dB using the following equation from International Standard ISO 9613-2:1996:

$$A_{gr} = 4.8-(2^{h}_{m}/d)[17+(300/d)]\ dB$$

Where:

- A_{gr} is the ground attenuation
- $^{h}_{m}$ is the average height of noise propagation
- d is the distance over soft ground

$$4.8-(2*3.5/120)*(17+(300/120)) = 3.7\ dB$$

The corrected noise impact at the closest (northern) boundary at 120 metres from the kennels is therefore 40.6 dB $L_{Amax,F}$, (44.3 dB – 3.7 dB). Façade levels at 220 metres from the kennels will be approximately 1 dB less.

This is 12 dB(A) below the daytime ambient noise level and no higher than the daytime background noise level.

At night, when the dogs are housed in their bed areas, noise breakout, when assessed at the closest noise sensitive facade, assuming the same number of dogs bark, will be no higher than 12 dB $L_{Amax,F}$. (15.6 dB $L_{Amax,F}$ at the boundary, less ground absorption at 3.7 dB) This is some 25 dB(A) below the night-time background noise level.

Internal noise levels in the closest properties at night, allowing a sound reduction of -12 to -18 dB for a partially open window[(1)] are expected to be inaudible.

[(1)] Source: Building Performance Centre of Napier University – NANR116: Open/Closed Windows. Sound insulation through ventilated domestic windows. 2007.

7. Conclusions

An assessment of the expected noise impact from the proposed new Dog Boarding Kennels at Salthouse Farm, Werrington, indicates that maximum noise levels during the daytime, from dogs barking, when measured at the closest noise sensitive boundary will be 41 dB $L_{Amax,F}$. This is 12 dB(A) below the daytime ambient noise level and no higher than the daytime background noise level recorded at the boundary.

Any noise breakout during the night-time will be significantly lower as the dogs will be kept in their bed areas which will have additional sound insulation in the form of a suspended ceiling. The predicted worst case night-time noise impact at the closest noise sensitive facade is 12 dB $L_{Amax,F}$. This is 25 dB(A) below the night-time background noise level at the boundary and 16 dB(A) below the lowest 15-minute background noise level recorded during the night.

No significant adverse noise impact is therefore expected from the proposed new kennels.

Appendix 1 – Noise Survey Data

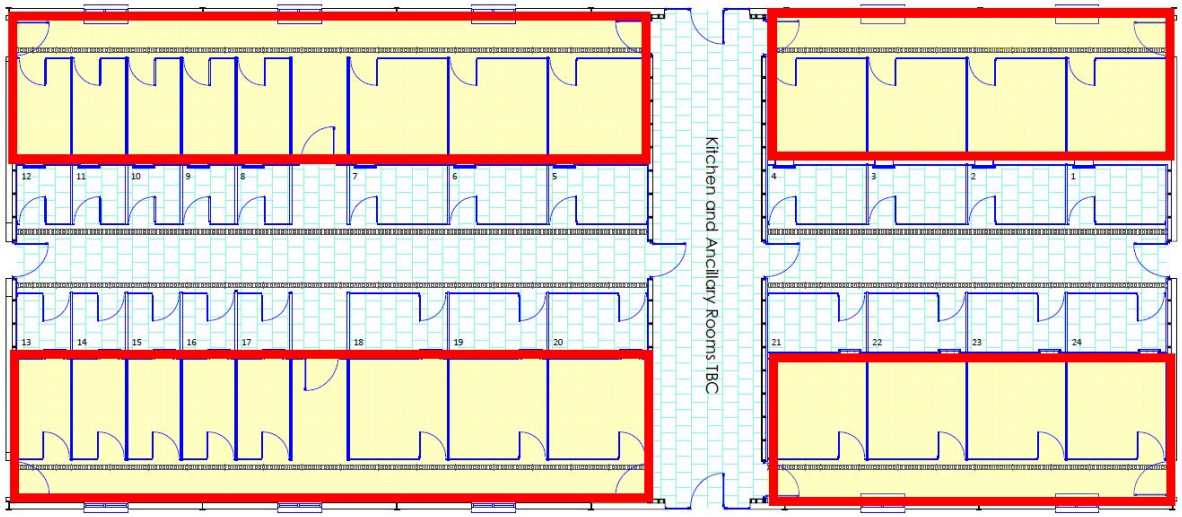
Date	dB LAeq	dB LAFmax	dB LA90
(2016/09/27 15:00:53.00)	53.1	67.8	40.5
(2016/09/27 15:15:02.00)	52.2	69.9	41.6
(2016/09/27 15:30:02.00)	52.0	75.0	40.9
(2016/09/27 15:45:02.00)	53.7	80.2	41.6
(2016/09/27 16:00:02.00)	55.0	78.8	41.6
(2016/09/27 16:15:02.00)	50.7	69.6	41.0
(2016/09/27 16:30:03.00)	55.3	77.2	42.8
(2016/09/27 16:45:02.00)	53.5	77.5	43.8
(2016/09/27 17:00:02.00)	52.6	71.1	43.4
(2016/09/27 17:15:03.00)	53.8	75.3	44.2
(2016/09/27 17:30:02.00)	56.3	74.8	46.5
(2016/09/27 17:45:02.00)	53.8	72.1	45.1
(2016/09/27 18:00:03.00)	55.0	80.6	44.9
(2016/09/27 18:15:03.00)	54.0	64.8	45.3
(2016/09/27 18:30:02.00)	55.7	73.5	47.0
(2016/09/27 18:45:03.00)	54.9	70.4	45.5
(2016/09/27 19:00:03.00)	54.5	71.4	46.5
(2016/09/27 19:15:02.00)	54.3	72.4	46.9
(2016/09/27 19:30:02.00)	53.8	70.5	43.7
(2016/09/27 19:45:03.00)	52.5	74.2	45.6
(2016/09/27 20:00:02.00)	51.6	70.6	43.9
(2016/09/27 20:15:03.00)	52.8	65.1	44.4
(2016/09/27 20:30:03.00)	51.2	68.8	43.2
(2016/09/27 20:45:02.00)	55.7	72.8	46.0
(2016/09/27 21:00:03.00)	53.5	72.6	44.6
(2016/09/27 21:15:03.00)	57.0	69.2	46.4
(2016/09/27 21:30:02.00)	53.4	69.7	45.5
(2016/09/27 21:45:02.00)	52.2	67.5	45.4
(2016/09/27 22:00:03.00)	53.3	71.3	44.4
(2016/09/27 22:15:03.00)	52.7	65.9	44.0
(2016/09/27 22:30:02.00)	53.7	68.4	44.5
(2016/09/27 22:45:03.00)	55.0	66.5	47.0
(2016/09/27 23:00:03.00)	53.5	68.3	45.4
(2016/09/27 23:15:02.00)	52.9	67.3	43.2
(2016/09/27 23:30:02.00)	53.8	68.3	43.7
(2016/09/27 23:45:03.00)	52.2	67.4	44.4
(2016/09/28 00:00:04.00)	51.3	66.5	42.6
(2016/09/28 00:15:03.00)	51.6	67.7	41.1
(2016/09/28 00:30:02.00)	52.0	66.6	42.3
(2016/09/28 00:45:02.00)	51.4	68.8	40.2
(2016/09/28 01:00:03.00)	45.4	61.8	38.5

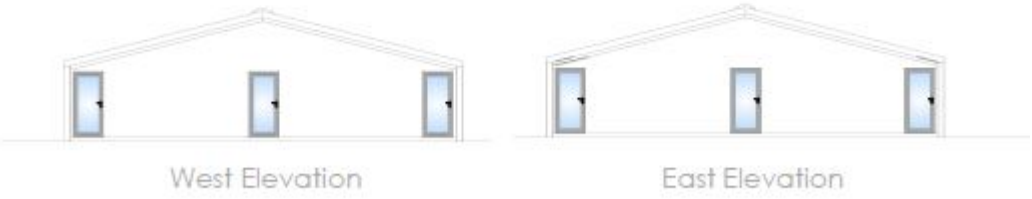
(2016/09/28 01:15:03.00)	48.8	64.6	38.5
(2016/09/28 01:30:02.00)	49.2	67.5	39.1
(2016/09/28 01:45:02.00)	47.5	65.6	37.0
(2016/09/28 02:00:03.00)	47.4	65.5	34.9
(2016/09/28 02:15:02.00)	48.2	65.9	36.5
(2016/09/28 02:30:02.00)	49.3	70.6	35.6
(2016/09/28 02:45:03.00)	44.7	61.1	35.3
(2016/09/28 03:00:02.00)	45.2	64.8	36.8
(2016/09/28 03:15:02.00)	44.4	59.2	38.5
(2016/09/28 03:30:03.00)	43.9	61.1	37.5
(2016/09/28 03:45:02.00)	44.1	63.2	37.7
(2016/09/28 04:00:02.00)	42.8	59.1	37.5
(2016/09/28 04:15:03.00)	43.6	62.2	38.6
(2016/09/28 04:30:03.00)	42.7	60.2	37.9
(2016/09/28 04:45:02.00)	39.8	59.1	34.8
(2016/09/28 05:00:03.00)	42.8	63.8	34.0
(2016/09/28 05:15:03.00)	38.6	59.0	32.8
(2016/09/28 05:30:02.00)	40.5	58.2	34.0
(2016/09/28 05:45:02.00)	41.8	61.7	32.3
(2016/09/28 06:00:03.00)	40.5	63.4	31.7
(2016/09/28 06:15:02.00)	44.5	71.1	32.4
(2016/09/28 06:30:02.00)	34.1	46.6	29.1
(2016/09/28 06:45:03.00)	33.3	44.8	29.4
(2016/09/28 07:00:02.00)	35.2	44.9	31.2
(2016/09/28 07:15:02.00)	36.6	47.7	32.4
(2016/09/28 07:30:03.00)	35.8	54.3	28.6
(2016/09/28 07:45:02.00)	33.2	47.8	28.3
(2016/09/28 08:00:03.00)	33.9	43.2	29.2
(2016/09/28 08:15:03.00)	33.9	46.2	28.4
(2016/09/28 08:30:03.00)	40.4	60.6	27.9
(2016/09/28 08:45:02.00)	33.6	46.2	28.5
(2016/09/28 09:00:03.00)	40.2	59.7	31.8
(2016/09/28 09:15:03.00)	34.9	45.2	30.4
(2016/09/28 09:30:02.00)	39.0	58.1	31.4
(2016/09/28 09:45:02.00)	42.3	64.8	30.7
(2016/09/28 10:00:03.00)	38.4	55.5	32.4
(2016/09/28 10:15:02.00)	41.9	59.7	33.3
(2016/09/28 10:30:03.00)	44.6	65.1	35.2
(2016/09/28 10:45:03.00)	45.5	63.9	35.8
(2016/09/28 11:00:02.00)	42.6	61.0	37.0
(2016/09/28 11:15:03.00)	45.9	66.3	38.7
(2016/09/28 11:30:03.00)	47.4	70.7	38.1

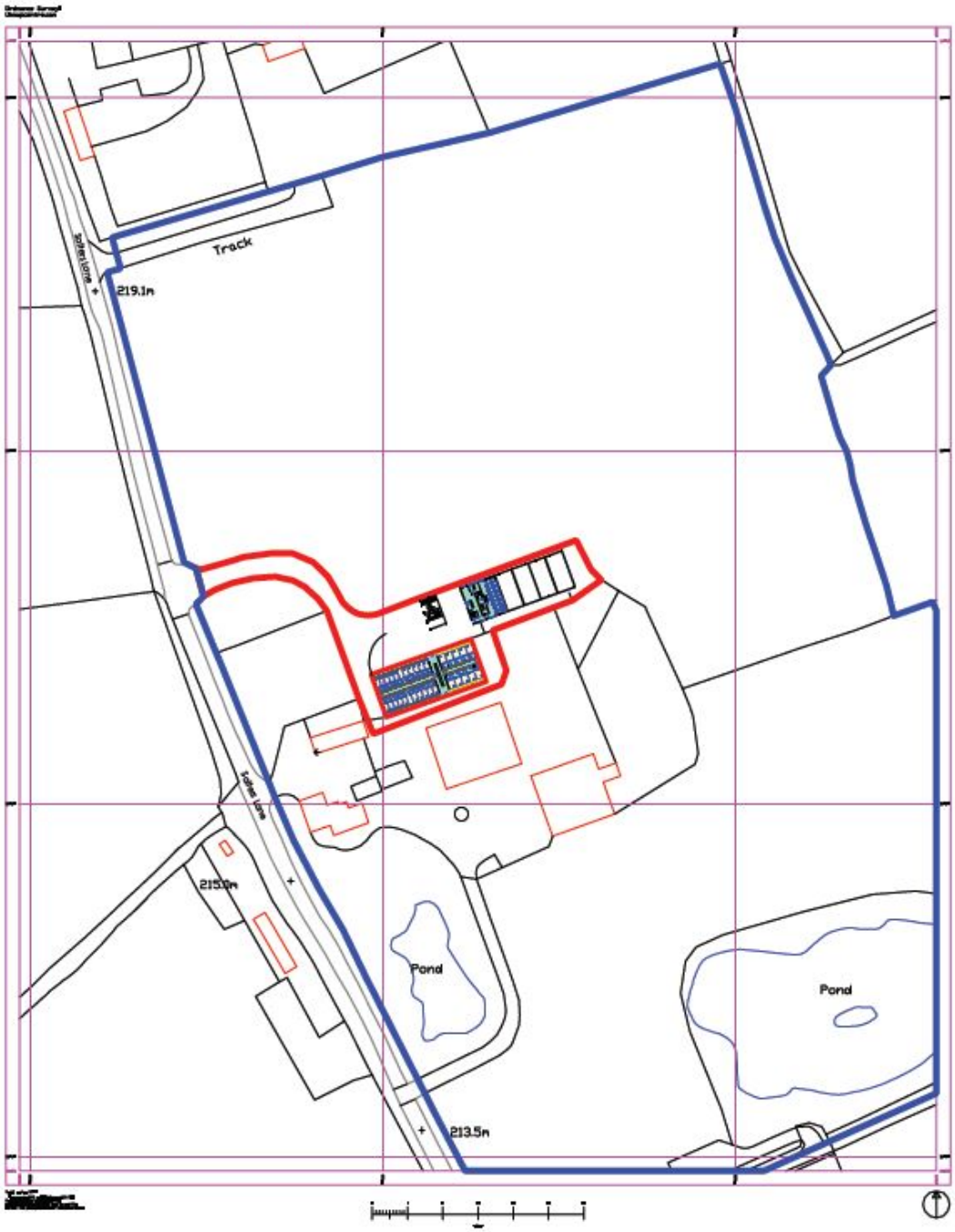
(2016/09/28 11:45:02.00)	50.4	65.7	40.4
(2016/09/28 12:00:03.00)	49.7	72.8	40.6
(2016/09/28 12:15:03.00)	51.2	67.8	40.5
(2016/09/28 12:30:03.00)	50.9	67.8	42.3
(2016/09/28 12:45:03.00)	53.4	68.1	43.9
(2016/09/28 13:00:03.00)	52.2	66.9	43.0
(2016/09/28 13:15:03.00)	52.2	71.2	44.1
(2016/09/28 13:30:02.00)	53.3	68.8	44.1
(2016/09/28 13:45:03.00)	52.2	69.4	44.3
(2016/09/28 14:00:03.00)	53.0	65.7	45.0
(2016/09/28 14:15:02.00)	57.9	72.9	50.9
(2016/09/28 14:30:03.00)	59.1	78.7	51.7
(2016/09/28 14:45:03.00)	54.0	78.3	43.9
(2016/09/28 15:00:02.00)	58.5	70.8	48.2
(2016/09/28 15:15:03.00)	53.0	68.7	45.3
(2016/09/28 15:30:03.00)	53.6	68.9	45.1
(2016/09/28 15:45:02.00)	53.0	69.8	44.6
(2016/09/28 16:00:02.00)	54.0	74.0	45.5

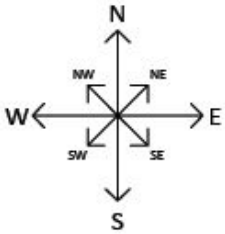
Appendix 2 - Dog Kennels Plan and Elevations

(Daytime exercise areas outlined in red)









Location Plan @ 1:1250