

JANUARY 19, 2024



**BS4142:2014 ASSESSMENT OF
RELOCATION OF TEARS RECOVERY, 45-
47 BRIDGE ROAD, LONG SUTTON,
PE12 9EF**

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1.0 Introduction

- 1.0.1 This report has been commissioned to determine the noise impact of the relocation of Tears Recovery to the 45-47 Bridge Road, Long Sutton site.
- 1.0.2 The assessment has been conducted in line with the BS4142:2014+A1:2019 as this is the introduction of noise of an industrial nature with the potential to impact on residential dwellings.

2.0 Site Details

- 2.0.1 The proposed site is located on Bridge Road, Long Sutton, and is opposite the current site for the HGV parking area.
- 2.0.2 The site is proposed to include the existing service yards and associated buildings, as well as HGV storage area to the rear. The full site plan is shown in figure 5 below.
- 2.0.3 The closest Noise Sensitive Receptors (NSRs) are located on the East boundary of the site. this single property is an assisted living property but will be treated as residential for the purposes of this report.
- 2.0.4 The noise sources were sampled in their existing locations to add into the noise impact model to provide the predicted impact. This included sampling at the existing service yard, existing HGV parking/storage area and the proposed new location for the background noise survey.

2.1 Location of Monitors

- 2.1.1 The noise location was chosen based on the proximity to the closest NSR.

Figure 1 – Background (Unattended)



(Attended)

Figure 2 – Service Yard



Figure 3 – HGV Yard (Attended)

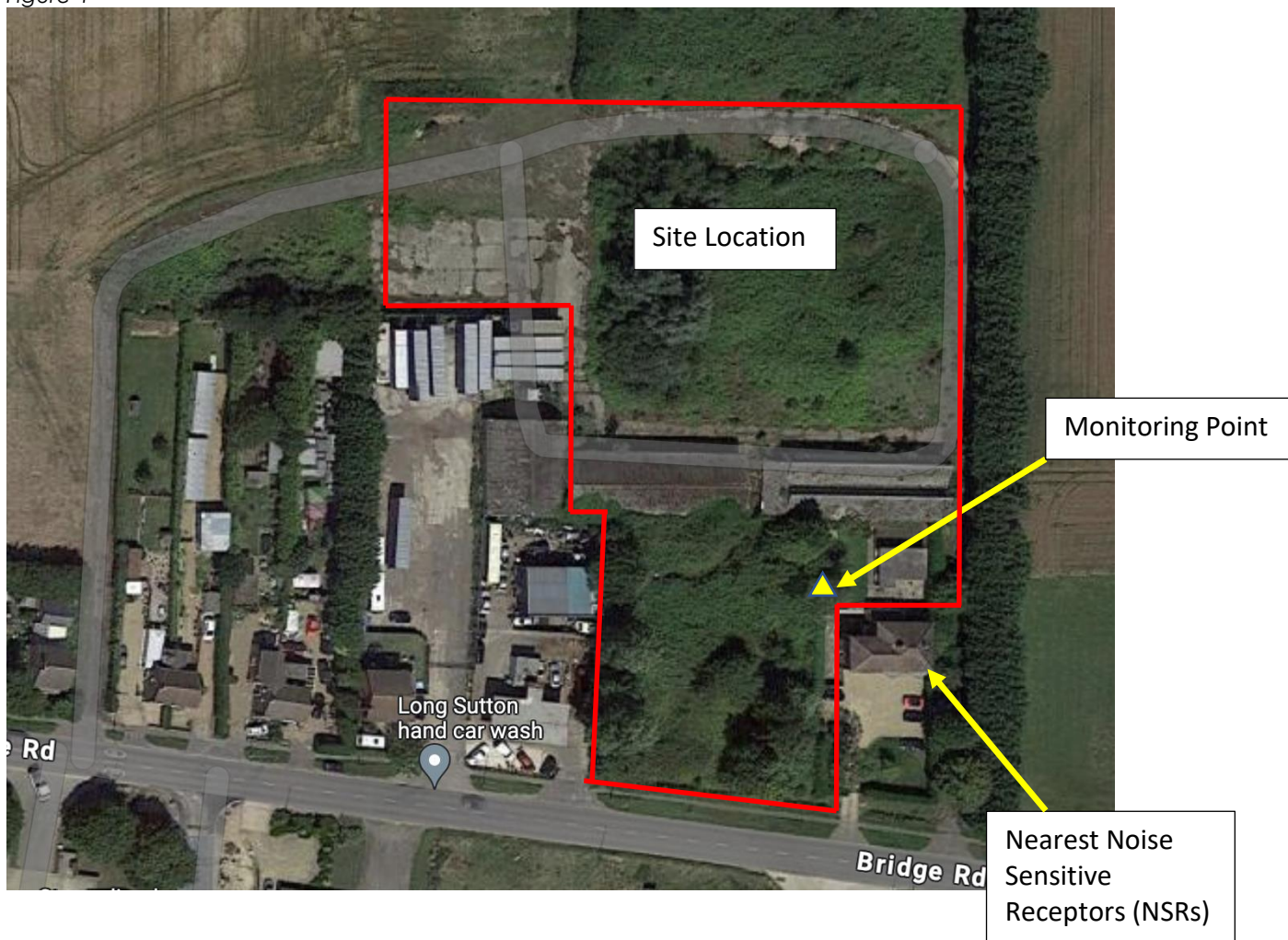


- 2.1.2 Measurements were made in 15 minute periods, on 1 second averaging, to allow for the removal of anomalies and increased accuracy. The data was averaged into L_{Aeq1hr} daytime and $L_{Aeq15min}$ night-time with data also recorded for L_{A90} in both day and night periods for the BS4142:2014 assessment.
- 2.1.3 The monitoring was conducted using 1 x Type 1 NTi XL2 sound level meter with batteries and outdoor microphone protection.
- 2.1.4 All measurements were taken after a field calibration was undertaken to ensure accuracy and repeatability of measurements. Drift was also checked post measurement to validate the measurements taken.

- 2.1.5 Further data such as wind speed, wind direction, rainfall intensity, temperature and cloud cover were all recorded at the beginning and end of the assessment at the monitoring location.
- 2.1.6 Any anomalies (such as noise by the engineer during setup and collection of the kit) were removed from the survey for a true reflection of the ambient levels in the vicinity. This was done by recording audio throughout the survey at each location and listening back through the files during the analysis process to confirm what was recorded manually during the survey.

2.2 Plan Views of Site with Designated Work Areas

Figure 4



3.0 Legislation

3.0.1 The National Planning Policy Framework (NPPF) sets out the Government's economic, environmental and social planning policies for England and "these policies articulate the Government's vision of sustainable development." In respect of noise, Paragraph 174 of the NPPF states the following:

"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...."

Paragraph 185 goes on to mention:

"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:

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

3.0.2 The NPPF reinforces the March 2010 DEFRA publication, "Noise Policy Statement for England" (NPSE), which states three policy aims, as follows:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life;

- and where possible, contribute to the improvement of health and quality of life."

3.0.3 Together, the first two aims require that no significant adverse impact should occur and that, where a noise level which falls between a level which represents the lowest observable adverse effect and a level which represents a significant observed adverse effect, then according to the explanatory notes in the statement:

"... all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life whilst also taking into consideration the guiding principles of sustainable development. This does not mean that such effects cannot occur."

3.1 Local Authority Criteria

3.2 BS4142:2014 +A1 (2019)

- 3.2.1 The City plan also makes reference to the measurement procedure used for BS41421:2014 as the best method.
- 3.2.2 Noise effects on residential properties due to the current operational hours and extended hours have been assessed according to the guidance in BS 4142:2014. This standard primarily provides a numerical method by which to determine the significance of sound of an industrial nature (i.e. the 'specific sound' from the proposed development) at residential sensitive receptors.
- 3.2.3 The specific sound level may then be corrected for the character of the sound (e.g. perceptibility of tones and/or impulses), if appropriate, and it is then termed the 'rating level', whether or not a rating penalty is applied. The 'residual sound' is defined as the ambient sound remaining at the assessment location when the specific sound source is suppressed to such a degree that it does not contribute to the ambient sound.
- 3.2.4 According to BS 4142:2014, the background sound levels adopted for the assessment should be representative of the periods being assessed. The standard recommends that the background sound level should be collected from continuous measurements of normally not less than 15-minute intervals. However, the Standard states that there is no 'single' background sound level that can be

derived from such measurements. It is particularly difficult to determine what is 'representative' of the night-time period because it can be subject to a wide variation in background sound levels between the shoulder night periods.

- 3.2.5 The method chosen for this section of the report is to use the data collected at the nearest NSR for the day and night periods to provide the ambient and background noise levels. The mode $L_{Aeq_1hr(Day)}$ and $L_{Aeq_15min(Night)}$ value will then be used for each time period over the course of the measurement as the most appropriate way of creating a representative value.
- 3.2.6 The specific sound levels have been determined separately in terms of the L_{Aeq_1hr} during the daytime L_{Aeq_15min} during the night-time. Daytime is typically between 07:00 and 23:00 hours and night-time is typically between 23:00 and 07:00 hours, so these periods have been adopted for this assessment.
- 3.2.7 At each of the most likely sensitive receptor locations, the rating level has been determined from the predicted specific sound level. Where it has considered it to be appropriate, a rating penalty has been applied for tonality, impulsivity and/or intermittent specific sounds as described in the commentary to paragraph 9.2 of BS4142:2014. This has been applied with consideration for the main sound sources from site that contribute to the level of specific sound at the receptor location.
- 3.2.8 As per the requirements of the standard, an initial estimate of the impact of the specific sound has been obtained by subtracting the measured background sound level from the rating level of the specific sound. Table 2 provides the initial evaluation of impact following this method.

Table 1

Magnitude	Difference Between rating Level and Background Level	Comments
High	+10dB	Significant Adverse impact Likely
Medium	+5 to +10dB	Adverse impact Likely
Low	0 to +5 dB	Adverse impact unlikely

Negligible	Less than 0dB	Low Chance of Adverse Impact

3.1.9 Following the initial evaluation of impact, the context of the sound has also been considered, which is a key requirement of the Standard. In evaluation of the context, the following factors have been considered:

- the absolute level of the sound;
- the character and level of the residual sound compared to the character and level of the specific sound and
- the sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions.

4.0 Results

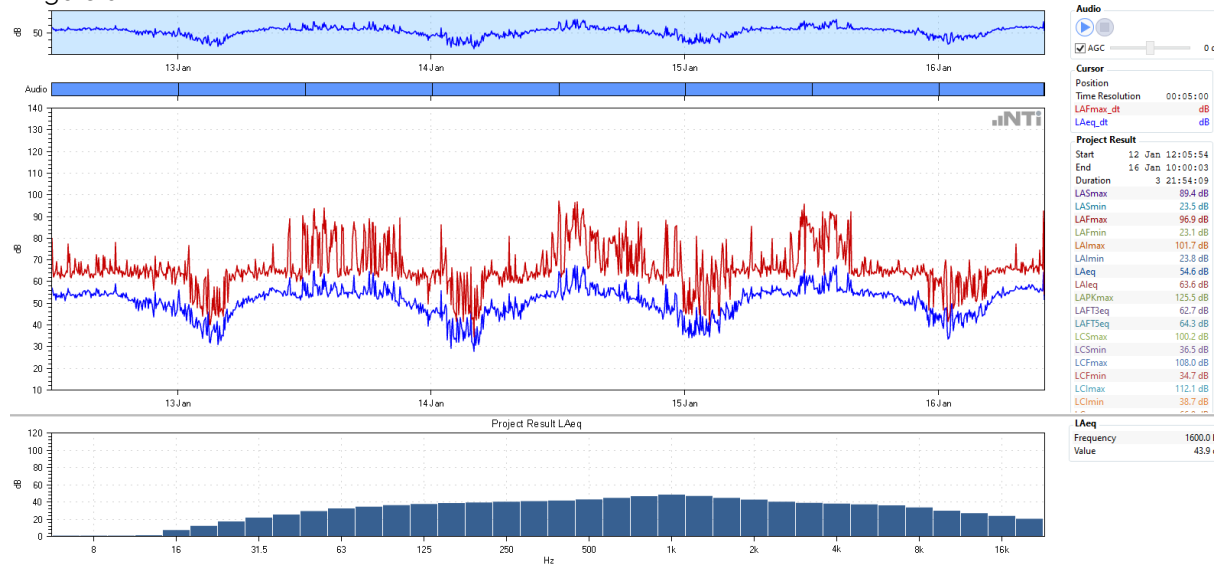
4.1 – Unattended Background Assessment

Table 2

Start Date/Time	L _{Amax} (Mode)	L _{Aeq1hr} (Mode)	L _{Aeq15min} (Mode)	L _{A90}
12.05pm 12/01/24 – 10.00am 16/01/24				

Day (0700-2300)	12.05pm 12/01/24	65.4dBA	54.0dBA		48.0dBA
Night (2300-0700)	23.00pm 12/01/24	66.9dBA		46.5dBA	33.6dBA

Figure 6



Comments

Large amounts of traffic and high background noise

*based on Appendix C

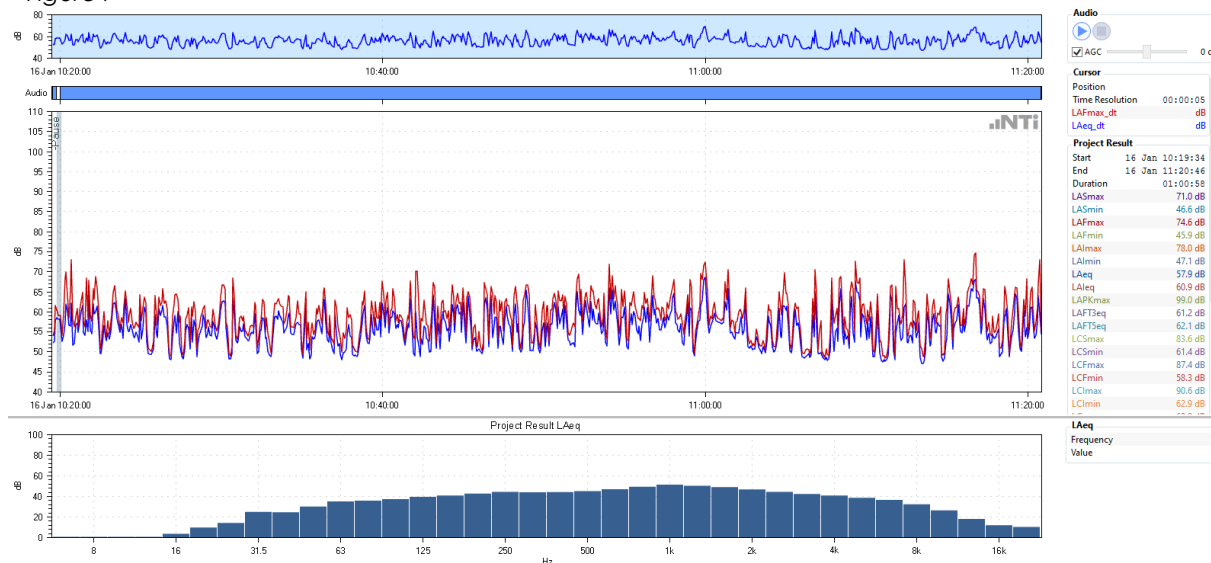
Time	Cloud Cover	Temperature (Celcius)	Presence of fog/snow/ice	Wind Speed (m/s)	Wind Direction
Setup	2	12	No	0.2	NNE
Collection	1	5	No	2.3	NW

4.2 – Attended HGV Yard Assessment

Table 2

	Start Date/Time	L _{Amax} (Mode)	L _{Aeq1hr} (Mode)	L _{Aeq15min} (Mode)	L _{A90}
Day (0700-2300)	10.20am 16/01/24	73dBA	57.4dBA		49.5dBA

Figure 7



Comments

Passing traffic and idling vehicles to the rear of the site.

*based on Appendix C

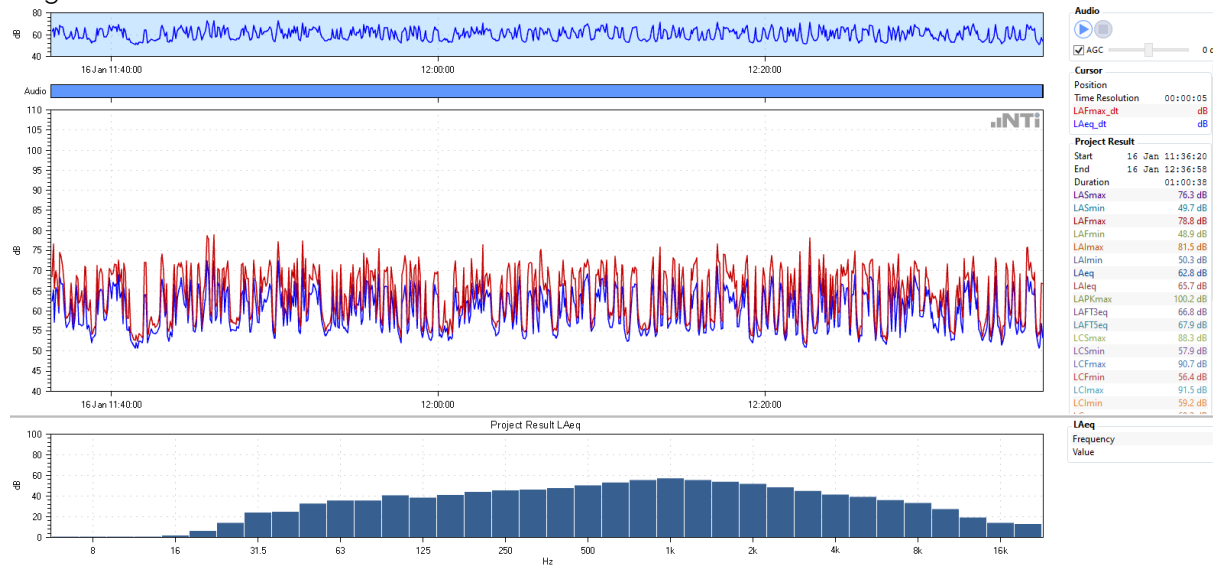
Time	Cloud Cover	Temperature (Celcius)	Presence of fog/snow/ice	Wind Speed (m/s)	Wind Direction
Setup	2	12	No	0.2	NNE

4.3 – Attended Service Yard Assessment

Table 2

	Start Date/Time	L _{Amax} (Mode)	L _{Aeq1hr} (Mode)	L _{Aeq15min} (Mode)	L _{A90}
Day (0700-2300)	11.36am 16/01/24	77.1dBA	62.8dBA	62.6dBA	53.0dBA

Figure 8



Comments

Industrial noise including hand tools, lifting equipment and air-powered tools.

*based on Appendix C

Time	Cloud Cover	Temperature (Celcius)	Presence of fog/snow/ice	Wind Speed (m/s)	Wind Direction
Setup	2	12	No	0.2	NNE

5.0 Analysis of Results

5.1 Calculated Results

- 5.1.1 The specific noise level for the main noise sources that will emanate from the proposed site has been calculated using the CadnaA noise modelling software. This is based on the input data from the measured locations at the existing sites. Table 3 below illustrates the

input data used. The max value has been used for the service area as the impulsive nature of some of the noise sources is seen as a more accurate representation of any likely disturbances/annoyance for surrounding residents in the area.

Table 3

Location	Input SPL Value
HGV Yard	73dBA (L _{Aeq})
Service Area	77dBA (L _{AMax})

5.1.2 As well as the above the HGV vehicles will be assessed based on the passing levels, likely number of vehicles per hour, and the time of day. The CadnaA maps have assessed each source individually as well as providing a combined level assuming all noise sources are operational at the same time, therefore creating the worst-case scenario at the nearest NSR point.

5.1.3 The HGV movements used for the assessment are based on current movement levels. The report has used the full weeks' worth of vehicle movements to produce the output levels in the noise model. This is shown in table 4 below. The highest values have been used to make sure that the worst-case scenario is covered in the assessment. From table 4 a daytime value of 13 has been used, with a value of 2 during the night period.

Table 4 – number of HGV vehicles in & out

		15th	16th	17th	18th	19th	20th	21st
		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7am – 11pm	In			1	1			
	Out	1						
	In & Out	6	9	12	8	10	5	4
11pm – 7am	In					1	1	
	Out			1				1
	In & Out	2						1

5.1.4 Figure 5- below shows the calculated value for the nearest NSR. This is split into each source type and then the overall impact for the day and night values. Appendix E shows the full calculation spec to include barrier attenuation, ground attenuation and reflections.

Figure 5 – HGV Daytime

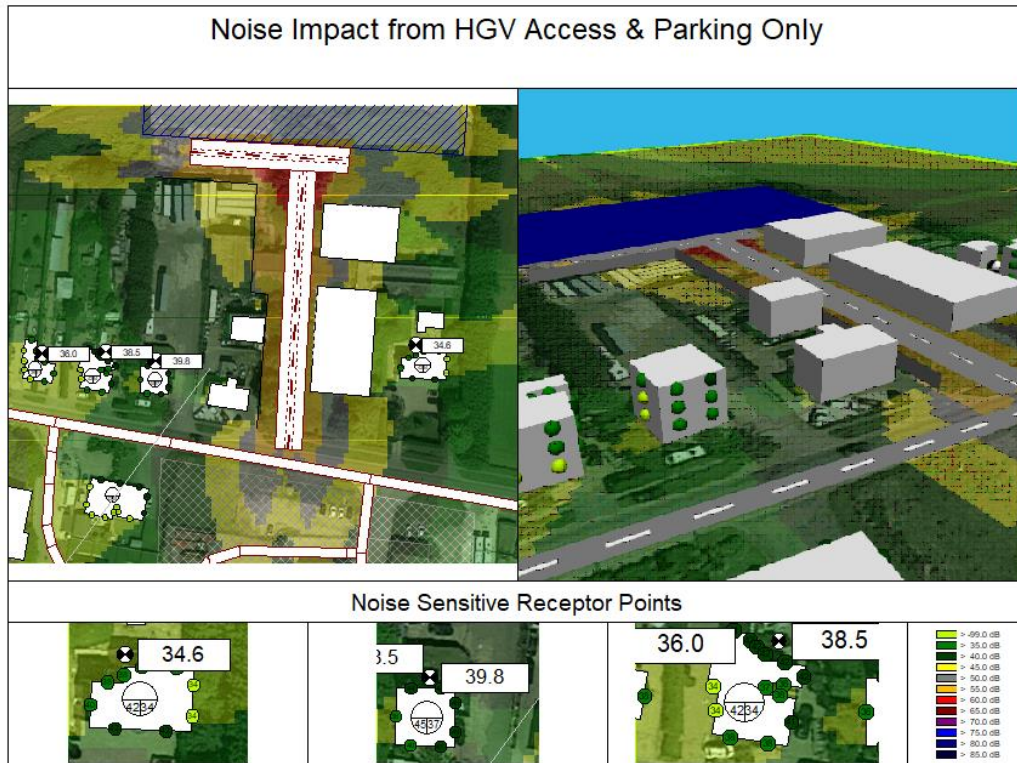


Figure 6 – Light Service Area

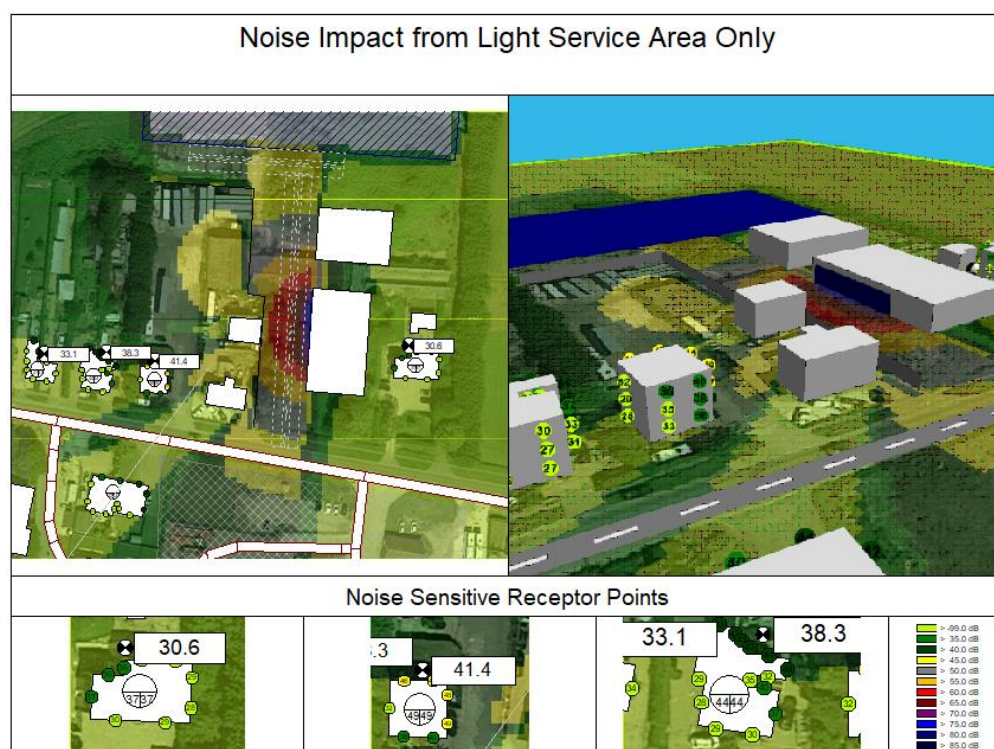


Figure 7 – Heavy Vehicle Service Area

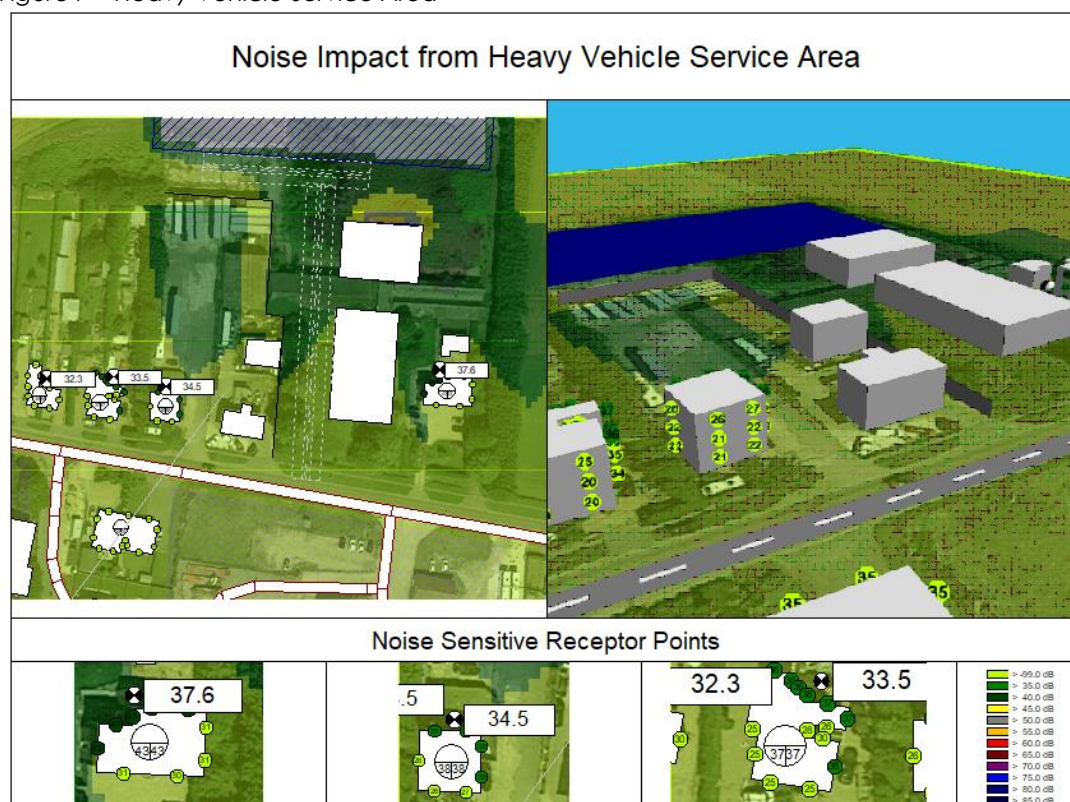


Figure 8 – All Sources - Daytime

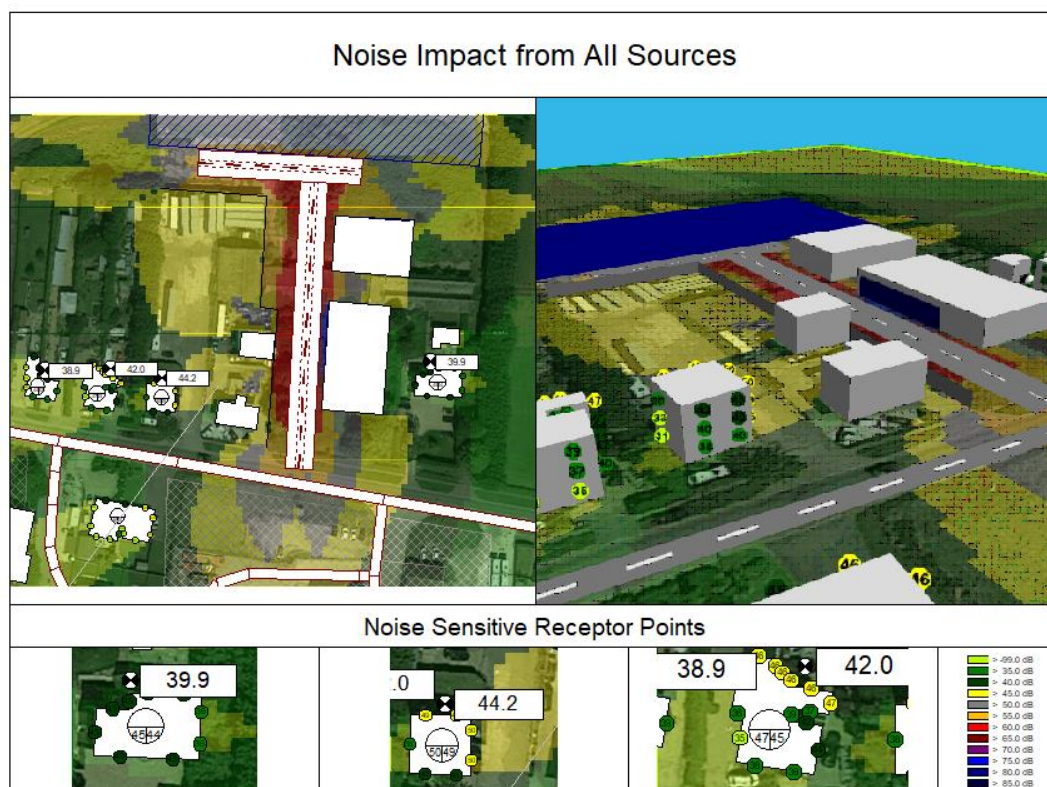
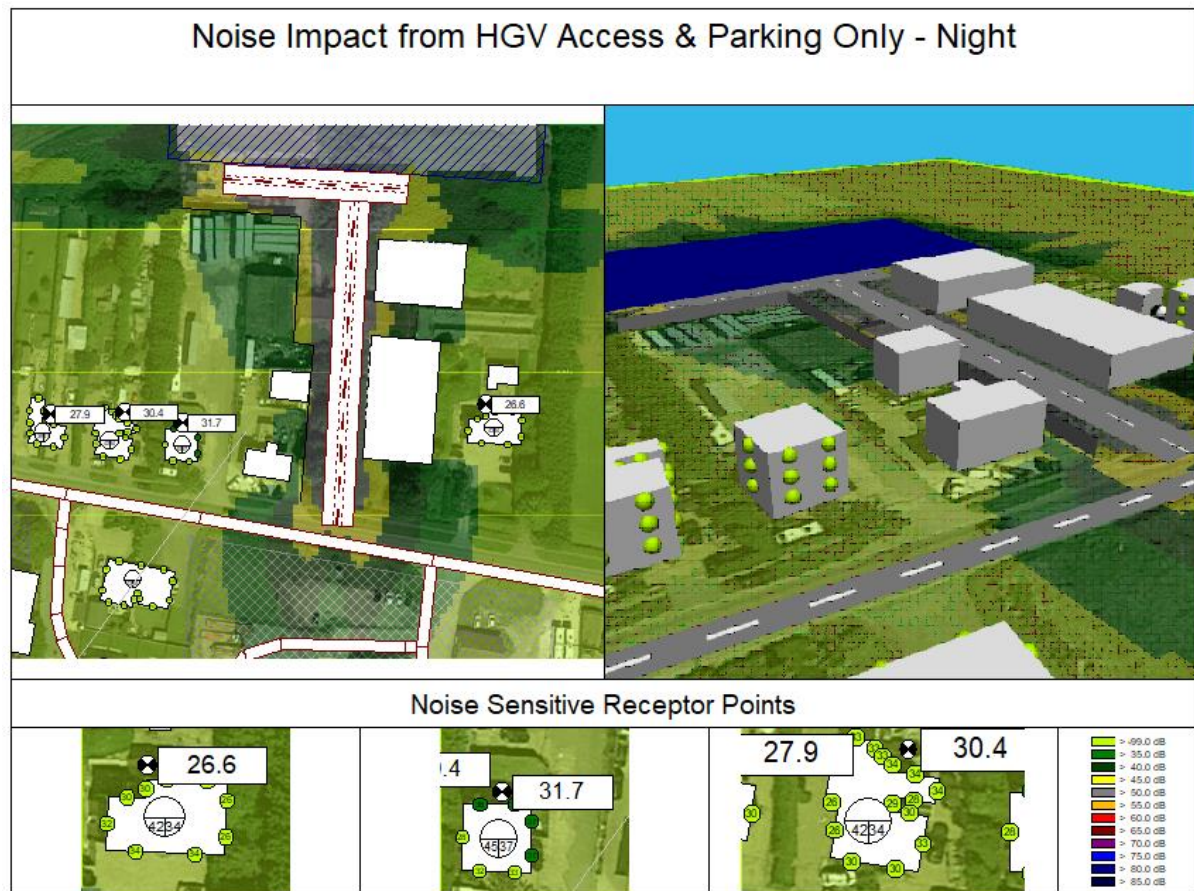


Figure 8 – HGV Night-time

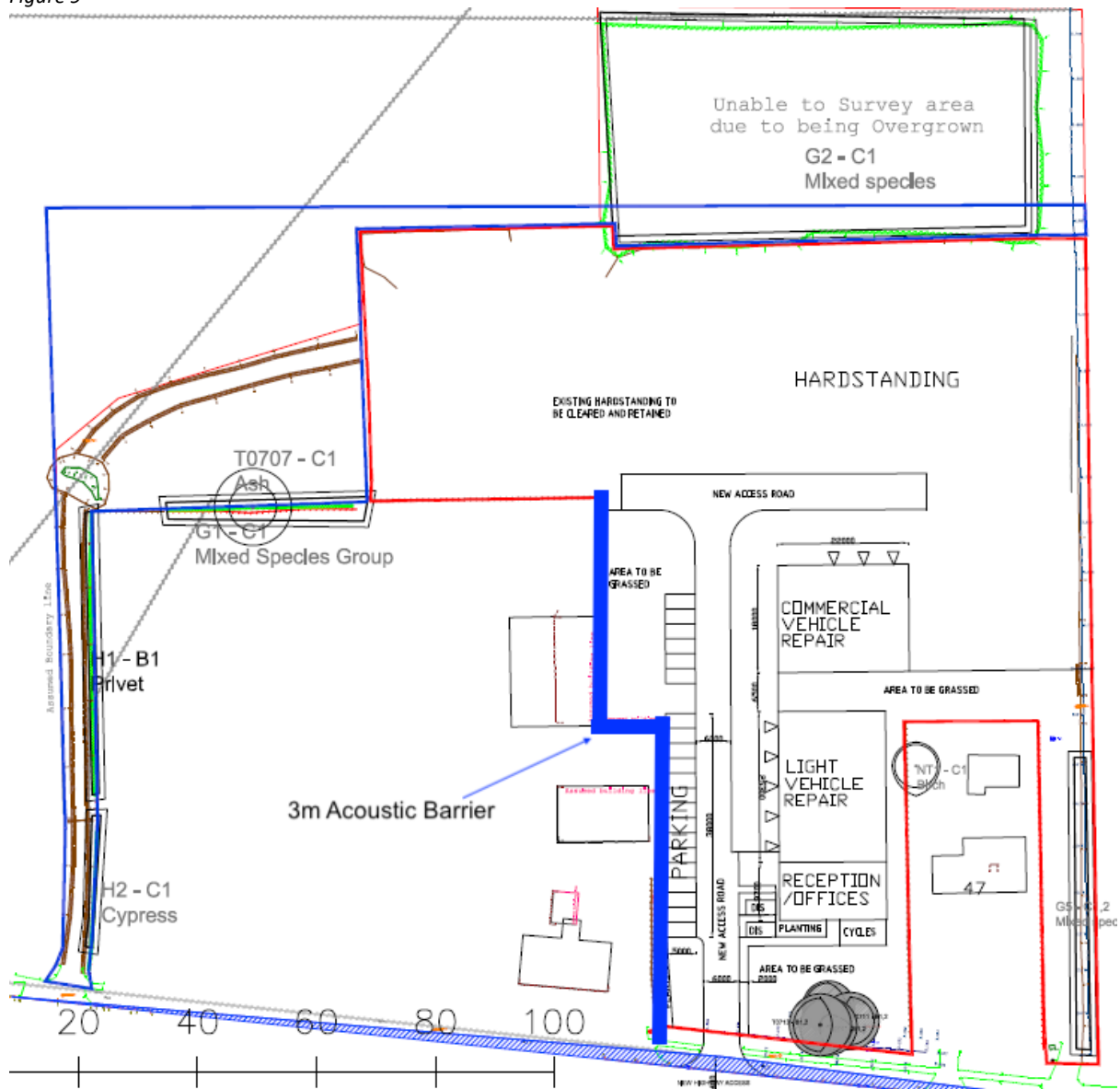


- 5.1.5 With the calculated specific noise level being at a maximum of 44.2dBA at the closest NSR window, and 42dBA at the next; 44dBA has been used in the calculations in table 5 to assess the noise impact of the units for daytime values.
- 5.1.6 Due to the operational hours being limited to 9am-5pm for the light service area and 9am-9pm for the heavy service area; there are only the HGV in/out and the parking area that will be noise sources for the night period of 11pm-7am, in accordance with BS4142:2014+A1:2019. Therefore, the night value has been selected as 31.7dBA, rounded to 32dBA, as the highest noise impact on any of the surrounding residential properties.
- 5.1.7 Both the daytime and night-time figures are based on the 3m acoustic fence being installed on the West boundary of the site. This is illustrated in figure 9 below.

Table 5

Measurement Type	Parameter	Result	Comment
Day			
Ambient sound	L _{Aeq}	54dBA	Measured at NSR- Sources not present
Residual sound level	L _{Aeq1hr}	54dBA	Measured at NSR- Sources not present
Background sound level	L _{A901hr}	48dBA	Measured at NSR- Source not present
Specific Sound Level	L _{Aeq1hr}	44dBA	Modelled
Acoustic Feature Correction	dBA	+3	Possible impulsive noise on occasions
Rating Level	dBA	47dBA	
Difference of Background vs Rating level	dBA	-1dB	
Likelihood of complaints			Low Chance of Adverse Impact
Night			
Ambient sound	L _{Aeq}	47dBA	Measured at NSR- Source not present
Residual sound level	L _{Aeq15mins}	47dBA	Measured at NSR- Source not present
Background sound level	L _{A9015mins}	34dBA	Measured at NSR- Source not present
Specific Sound Level	L _{Aeq15mins}	32dBA	Modelled
Acoustic Feature Correction	dBA	+0	No tonal or impulsive noise
Rating Level	dBA	22dBA	
Difference of Background vs Rating level	dBA	-2dB	
Likelihood of complaints			Low Chance of Adverse Impact

Figure 9



6.0 Conclusion and Further Comments

6.1 Discussion of Levels

- 6.1.1 The specific noise level of the HGV yard, vehicle movement and the service buildings are below the required levels, in accordance with BS4142:2014, for there to be the likelihood of adverse impact on the nearest NSR. As there is a 'low chance of adverse impact' the scheme should not be denied on a noise impact basis.

7.0 Credentials

Name	Title	Credentials
James Flitton BSc AMIOA	Acoustic Consultant	CSCS Professionally Qualified person
		Associate Member Institute of Acoustics
		IOA Diploma in Acoustics & Noise Control
		Affiliate Member of IDE
		Affiliate Member of IOR
Signed		

Appendix A – Acoustic Terminology

Parameter	Description
Ambient Noise Level	The totally encompassing sound in a given situation at a given time, usually composed of a sound from many sources both distant and near ($L_{Aeq,T}$).
Decibel (dB)	A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s_1 and s_2 is given by $20 \log_{10} (s_1/s_2)$. The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is $20\mu\text{Pa}$. The threshold of normal hearing is in the region of 0 dB and 140 dB is the threshold of pain. A change of 1 dB is only perceptible under controlled conditions.
dB(A), L_{Ax}	Decibels measured on a sound level meter incorporating a frequency weighting (A weighting) which differentiates between sounds of different frequency (pitch) in a similar way to the human ear. Measurements in dB(A) broadly agree with people's assessment of loudness. A change of 3 dB(A) is the minimum perceptible under normal conditions, and a change of 10 dB(A) corresponds roughly to halving or doubling the loudness of a sound. The background noise in a living room may be about 30 dB(A); normal conversation about 60 dB(A) at 1 metre; heavy road traffic about 80 dB(A) at 10 metres; the level near a pneumatic drill about 100 dB(A).
Fast Time Weighting	Setting on sound level meter, denoted by a subscript F, that determines the speed at which the instrument responds to changes in the amplitude of any measured signal. The fast time weighting can lead to higher values than the slow time weighting when rapidly changing signals are measured. The average time constant for the fast response setting is 0.125 (1/8) seconds.
Free-field	Sound pressure level measured outside, far away from reflecting surfaces (except the ground), usually taken to mean at least 3.5 metres
Façade	Sound pressure level measured at a distance of 1 metre in front of a large sound reflecting object such as a building façade.
$L_{Aeq,T}$	A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
$L_{max,T}$	A noise level index defined as the maximum noise level recorded during a noise event with a period T. L_{max} is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter response.
$L_{10,T}$	A noise level index. The noise level exceeded for 10% of the time over the period T. L_{10} can be considered to be the "average maximum" noise level. Generally used to describe road traffic noise. $L_{A10,18h}$ is the A-weighted arithmetic average of the 18 hourly $L_{A10,1h}$ values from 06:00-24:00.
$L_{90,T}$	A noise level index. The noise level exceeded for 90% of the time over the period T. Generally used to describe background noise level.

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Appendix B – Survey Instrumentation



Manufacturer Calibration Certificate

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3. All tests are traceable in accordance with ISO/IEC 17025.

This model of sound level meter submitted for periodic testing successfully completed the applicable pattern-evaluation tests given in IEC 61672-2. The pattern approval certificate is available at www.nti-audio.com/XL2.

Sound Level Meter

Manufacturer	NTi Audio		
Type	XL2-TA	S/N	A2A-22077-F0
Firmware	V4.71		
Microphone Model	M2230		
Preamplifier	MA220	S/N	11392
Microphone Capsule	MC230A	S/N	A24696
Performance class	Class 1		
Customer Inventory Nr.			

Customer

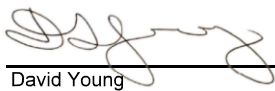
Crimson Remote Services Ltd
7 Hicks Grove
Thoresby Vale
Edwinstowe
Nottinghamshire

Date 07 February 2023

Certificate UK-23-018

Results PASSED
(for detailed report see next pages)

Operator


David Young

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Hertfordshire, SG1 3ES, UK • uk@nti-audio.com



Manufacturer Calibration Certificate

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Sound Level Meter

Manufacturer	NTi Audio		
Type	XL2-TA	S/N	A2A-22077-F0
Firmware	V4.71		
Microphone Model	M2230		
Preamplifier	MA220	S/N	11392
Microphone Capsule	MC230A	S/N	A24696
Performance class	Class 1		
Customer Inventory Nr.			

Customer

Crimson Remote Services Ltd
7 Hicks Grove
Thoresby Vale
Edwinstowe
Nottinghamshire

Date 07 February 2023

Certificate UK-23-018

Results **PASSED**
(for detailed report see next pages)

Operator


David Young

Appendix C – Weather Conditions Chart Used

(Blank Version)

Weather Conditions				
Measurement Location	Date/Time	Description	Beginning of Survey	End of Survey
		Temperature:		
Cloud Cover Symbol Scale in oktas (eighths) 0 Sky completely clear 1 2 3 4 Sky half cloudy 5 6 7 8 Sky completely cloudy (9) Sky obstructed from view		Precipitation:		
		Cloud cover (oktas - see guide)		
		Presence of fog/snow/ice		
		Presence of damp roads/wet ground		
		Wind Speed (m/s)		
		Wind Direction		
		Conditions that may cause temperature inversion (i.e. calm nights with no cloud)		

Appendix D – CadnaA Noise Modelling Calculation Data

Receiver
Name: NSR1
ID:
X: 31308937.41 m
Y: 5851692.11 m
Z: 1.50 m

vert. Area Source, ISO 9613, Name: "Light Vehicle Workshop", ID: "101"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afal	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
1	31308900.71	5851705.90	3.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.9	0.1	2.7	0.0	0.0	21.5	0.0	0.0	20.5
2	31308899.92	5851693.09	3.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.5	0.1	2.7	0.0	0.0	21.8	0.0	0.0	20.7
3	31308900.71	5851705.90	2.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.9	0.1	3.3	0.0	0.0	21.1	0.0	0.0	20.4
4	31308899.92	5851693.09	2.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.5	0.1	3.2	0.0	0.0	21.4	0.0	0.0	20.5
5	31308900.71	5851705.90	4.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.9	0.1	2.7	0.0	0.0	20.3	0.0	0.0	21.7
6	31308899.92	5851693.09	4.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.5	0.1	2.6	0.0	0.0	20.5	0.0	0.0	22.0
7	31308900.71	5851705.90	1.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.9	0.1	6.1	0.0	0.0	18.6	0.0	0.0	20.1
8	31308899.92	5851693.09	1.33	0	DEN	500	73.6	11.1	0.0	3.0	0.0	42.5	0.1	5.9	0.0	0.0	18.9	0.0	0.0	20.4
9	31308900.71	5851705.90	0.43	0	DEN	500	73.6	10.1	0.0	3.0	0.0	42.9	0.1	9.7	0.0	0.0	15.2	0.0	0.0	18.9
10	31308899.92	5851693.09	0.43	0	DEN	500	73.6	10.1	0.0	3.0	0.0	42.5	0.1	9.4	0.0	0.0	15.5	0.0	0.0	19.3

vert. Area Source, ISO 9613, Name: "Heavy Vehicle Workshop", ID: "102"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afal	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
11	31308921.07	5851742.61	3.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	45.5	0.1	3.3	0.0	0.0	11.0	0.0	0.0	30.0
12	31308921.07	5851742.61	2.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	45.5	0.1	4.3	0.0	0.0	11.0	0.0	0.0	29.0
13	31308921.07	5851742.61	1.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	45.5	0.1	8.1	0.0	0.0	8.1	0.0	0.0	28.2
14	31308921.07	5851742.61	4.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	45.5	0.1	3.3	0.0	0.0	10.1	0.0	0.0	31.0
17	31308921.07	5851742.61	5.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	45.5	0.1	3.3	0.0	0.0	8.9	0.0	0.0	32.2
21	31308921.07	5851742.61	0.33	0	DEN	500	74.6	10.8	0.0	3.0	0.0	45.5	0.1	12.0	0.0	0.0	4.9	0.0	0.0	26.0

Area Source, ISO 9613, Name: "HGV Area", ID: ""																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Afal	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
24	31308843.96	5851772.93	0.00	0	DEN	500	42.5	20.5	0.0	0.0	0.0	52.8	0.2	17.4	0.0	0.0	0.9	0.0	0.0	-8.4
26	31308848.92	5851777.61	0.00	0	DEN	500	42.5	22.3	0.0	0.0	0.0	52.8	0.2	17.4	0.0	0.0	1.2	0.0	0.0	-6.7
30	31308856.40	5851788.90	0.00	0	DEN	500	42.5	29.7	0.0	0.0	0.0	53.0	0.2	17.5	0.0	0.0	0.9	0.0	0.0	0.0
32	31308848.90	5851816.14	0.00	0	DEN	500	42.5	18.3	0.0	0.0	0.0	54.7	0.3	18.1	0.0	0.0	0.0	0.0	0.0	-12.1
35	31308856.18	5851804.74	0.00	0	DEN	500	42.5	15.3	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-14.0
37	31308870.97	5851785.75	0.00	0	DEN	500	42.5	15.3	0.0	0.0	0.0	52.2	0.2	17.1	0.0	0.0	1.1	0.0	0.0	-12.7
40	31308889.62	5851784.87	0.00	0	DEN	500	42.5	12.4	0.0	0.0	0.0	52.2	0.2	17.1	0.0	0.0	1.0	0.0	0.0	-15.5
43	31308855.70	5851803.81	0.00	0	DEN	500	42.5	12.4	0.0	0.0	0.0	53.8	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-16.9
47	31308877.44	5851775.35	0.00	0	DEN	500	42.5	15.4	0.0	0.0	0.0	51.2	0.2	16.5	0.0	0.0	2.3	0.0	0.0	-12.3
57	31308920.91	5851788.44	0.00	0	DEN	500	42.5	22.0	0.0	0.0	0.0	48.9	0.2	15.0	0.0	0.0	4.8	0.0	0.0	-4.3
60	31308913.45	5851771.38	0.00	0	DEN	500	42.5	19.0	0.0	0.0	0.0	49.4	0.2	15.4	0.0	0.0	4.8	0.0	0.0	-6.2
64	31308899.72	5851787.35	0.00	0	DEN	500	42.5	19.0	0.0	0.0	0.0	49.5	0.2	15.4	0.0	0.0	5.1	0.0	0.0	-8.7
66	31308877.88	5851788.71	0.00	0	DEN	500	42.5	25.9	0.0	0.0	0.0	52.1	0.2	17.0	0.0	0.0	1.5	0.0	0.0	-2.4
68	31308863.21	5851809.61	0.00	0	DEN	500	42.5	25.9	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-3.5
71	31308906.04	5851778.04	0.00	0	DEN	500	42.5	25.9	0.0	0.0	0.0	50.2	0.2	15.9	0.0	0.0	3.7	0.0	0.0	-1.6
87	31308891.85	5851786.49	0.00	0	DEN	500	42.5	25.9	0.0	0.0	0.0	51.4	0.2	16.6	0.0	0.0	2.3	0.0	0.0	-2.1
91	31308933.20	5851768.68	0.00	0	DEN	500	42.5	21.2	0.0	0.0	0.0	48.7	0.1	14.9	0.0	0.0	0.0	0.0	0.0	0.0
96	31308944.68	5851764.62	0.00	0	DEN	500	42.5	17.6	0.0	0.0	0.0	48.3	0.1	14.6	0.0	0.0	1.6	0.0	0.0	-4.5
100	31308910.81	5851801.43	0.00	0	DEN	500	42.5	29.5	0.0	0.0	0.0	52.0	0.2	17.0	0.0	0.0	1.2	0.0	0.0	1.7
102	31308895.68	5851817.45	0.00	0	DEN	500	42.5	26.5	0.0	0.0	0.0	53.4	0.3	17.6	0.0	0.0	0.1	0.0	0.0	-2.3
104	31308889.14	5851819.19	0.00	0	DEN	500	42.5	26.5	0.0	0.0	0.0	54.2	0.3	17.9	0.0	0.0	0.0	0.0	0.0	-3.3
106	31308936.40	5851796.60	0.00	0	DEN	500	42.5	22.4	0.0	0.0	0.0	51.5	0.2	16.7	0.0	0.0	0.0	0.0	0.0	-3.6
107	31308935.84	5851781.30	0.00	0	DEN	500	42.5	22.4	0.0	0.0	0.0	50.0	0.2	15.8	0.0	0.0	0.0	0.0	0.0	-1.1
109	31308929.91	5851807.69	0.00	0	DEN	500	42.5	26.6	0.0	0.0	0.0	52.3	0.2	17.1	0.0	0.0	0.0	0.0	0.0	-0.5
113	31308947.99	5851786.01	0.00	0	DEN	500	42.5	18.8	0.0	0.0	0.0	50.5	0.2	16.1	0.0	0.0	0.5	0.0	0.0	-6.0
117	31308954.44	5851802.91	0.00	0	DEN	500	42.5	18.8	0.0	0.0	0.0	52.0	0.2	17.0	0.0	0.0	0.1	0.0	0.0	-7.9
121	31308948.02	5851775.62	0.00	0	DEN	500	42.5	21.8	0.0	0.0	0.0	49.5	0.2	15.4	0.0	0.0	1.3	0.0	0.0	-2.0
129	31308946.92	5851804.27	0.00	0	DEN	500	42.5	26.6	0.0	0.0	0.0	52.0	0.2	17.0	0.0	0.0	0.0	0.0	0.0	-0.1
132	31308953.87	5851782.63	0.00	0	DEN	500	42.5	15.7	0.0	0.0	0.0	50.3	0.2	16.0	0.0	0.0	1.2	0.0	0.0	-9.4

Receiver
Name: NSR 2
ID:
X: 31306842.89 m
Y: 5851688.38 m
Z: 1.50 m

vert. Area Source, ISO 9613, Name: "Light Vehicle Workshop", ID: "101"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adi	Aatm	Ag	Afol	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
16	31306900.61	5851704.41	3.33	0	DEN	500	73.6	12.0	0.0	3.0	0.0	46.6	0.1	3.5	0.0	0.0	15.3	0.0	0.0	23.0
19	31306899.83	5851691.60	3.33	0	DEN	500	73.6	9.9	0.0	3.0	0.0	46.1	0.1	3.4	0.0	0.0	1.4	0.0	0.0	35.5
22	31306900.61	5851704.41	2.33	0	DEN	500	73.6	12.0	0.0	3.0	0.0	46.6	0.1	4.3	0.0	0.0	15.6	0.0	0.0	21.9
25	31306899.83	5851691.60	2.33	0	DEN	500	73.6	9.9	0.0	3.0	0.0	46.1	0.1	4.2	0.0	0.0	1.5	0.0	0.0	34.6
29	31306900.61	5851704.41	4.33	0	DEN	500	73.6	12.0	0.0	3.0	0.0	46.6	0.1	3.5	0.0	0.0	10.8	0.0	0.0	27.7
34	31306899.83	5851691.60	4.33	0	DEN	500	73.6	9.9	0.0	3.0	0.0	46.2	0.1	3.4	0.0	0.0	1.0	0.0	0.0	35.8
36	31306900.61	5851704.41	1.33	0	DEN	500	73.6	12.0	0.0	3.0	0.0	46.6	0.1	7.8	0.0	0.0	13.0	0.0	0.0	21.1
39	31306899.83	5851691.60	1.33	0	DEN	500	73.6	9.9	0.0	3.0	0.0	46.1	0.1	7.6	0.0	0.0	0.0	0.0	0.0	32.7
42	31306900.61	5851704.41	0.43	0	DEN	500	73.6	11.0	0.0	3.0	0.0	46.6	0.1	12.5	0.0	0.0	9.0	0.0	0.0	19.4
46	31306899.83	5851691.60	0.43	0	DEN	500	73.6	9.0	0.0	3.0	0.0	46.1	0.1	12.1	0.0	0.0	0.0	0.0	0.0	27.2

vert. Area Source, ISO 9613, Name: "Heavy Vehicle Workshop", ID: "102"																				
Nr.	X (m)	Y (m)	Z (m)	Ref.	DEN	Freq. (Hz)	Lw dB(A)	I/a dB	Optime dB	K0 dB	Di (dB)	Adi (dB)	Aatm (dB)	Ag (dB)	Afol (dB)	Ahaus (dB)	Abar (dB)	Cmet (dB)	RL (dB)	Lr dB(A)
50	31306924.87	5851742.38	3.18	0	DEN	500	74.6	9.9	0.0	3.0	0.0	50.9	0.2	4.4	0.0	0.0	7.5	0.0	0.0	24.4
53	31306916.25	5851742.90	3.18	0	DEN	500	74.6	8.8	0.0	3.0	0.0	50.3	0.2	4.3	0.0	0.0	8.9	0.0	0.0	22.7
56	31306924.87	5851742.38	2.18	0	DEN	500	74.6	9.9	0.0	3.0	0.0	50.9	0.2	5.6	0.0	0.0	7.4	0.0	0.0	23.2
62	31306916.25	5851742.90	2.18	0	DEN	500	74.6	8.8	0.0	3.0	0.0	50.3	0.2	5.5	0.0	0.0	9.0	0.0	0.0	21.4
70	31306924.87	5851742.38	1.18	0	DEN	500	74.6	9.9	0.0	3.0	0.0	50.9	0.2	10.6	0.0	0.0	3.5	0.0	0.0	22.2
73	31306916.25	5851742.90	1.18	0	DEN	500	74.6	8.8	0.0	3.0	0.0	50.3	0.2	10.4	0.0	0.0	5.3	0.0	0.0	20.2
77	31306924.87	5851742.38	4.18	0	DEN	500	74.6	9.9	0.0	3.0	0.0	50.9	0.2	4.3	0.0	0.0	6.3	0.0	0.0	25.7
81	31306916.25	5851742.90	4.18	0	DEN	500	74.6	8.8	0.0	3.0	0.0	50.3	0.2	4.2	0.0	0.0	7.4	0.0	0.0	24.3
84	31306924.87	5851742.38	5.18	0	DEN	500	74.6	9.9	0.0	3.0	0.0	50.9	0.2	4.3	0.0	0.0	4.9	0.0	0.0	27.1
86	31306916.25	5851742.90	5.18	0	DEN	500	74.6	8.8	0.0	3.0	0.0	50.3	0.2	4.2	0.0	0.0	5.6	0.0	0.0	26.1
94	31306924.87	5851742.38	0.33	0	DEN	500	74.6	8.3	0.0	3.0	0.0	50.9	0.2	15.8	0.0	0.0	0.0	0.0	0.0	19.0
99	31306916.25	5851742.90	0.33	0	DEN	500	74.6	7.3	0.0	3.0	0.0	50.3	0.2	15.4	0.0	0.0	1.2	0.0	0.0	17.8

Area Source, ISO 9613, Name: "HGV Area", ID: ""																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Ag	Afol	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)		dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
103	31306840.16	5851783.55	0.00	0	DEN	500	42.5	18.7	0.0	0.0	0.0	50.8	0.2	16.3	0.0	0.0	0.0	0.0	0.0	-5.9
111	31306841.47	5851813.42	0.00	0	DEN	500	42.5	11.9	0.0	0.0	0.0	53.1	0.2	17.5	0.0	0.0	0.0	0.0	0.0	-16.4
115	31306841.64	5851793.44	0.00	0	DEN	500	42.5	11.9	0.0	0.0	0.0	51.6	0.2	16.7	0.0	0.0	0.0	0.0	0.0	-14.1
118	31306841.50	5851783.46	0.00	0	DEN	500	42.5	11.7	0.0	0.0	0.0	50.7	0.2	16.3	0.0	0.0	0.0	0.0	0.0	-12.9
123	31306875.08	5851771.05	0.00	0	DEN	500	42.5	21.9	0.0	0.0	0.0	50.1	0.2	15.9	0.0	0.0	0.0	0.0	0.0	-1.7
126	31306859.89	5851772.01	0.00	0	DEN	500	42.5	21.9	0.0	0.0	0.0	49.8	0.2	15.7	0.0	0.0	0.0	0.0	0.0	-1.2
131	31306867.66	5851779.40	0.00	0	DEN	500	42.5	25.0	0.0	0.0	0.0	51.3	0.2	16.8	0.0	0.0	0.0	0.0	0.0	-0.6
134	31306852.12	5851792.48	0.00	0	DEN	500	42.5	26.6	0.0	0.0	0.0	51.5	0.2	16.7	0.0	0.0	0.0	0.0	0.0	0.6
137	31306851.95	5851812.46	0.00	0	DEN	500	42.5	26.6	0.0	0.0	0.0	53.0	0.2	17.5	0.0	0.0	0.0	0.0	0.0	-1.6
140	31306867.31	5851793.38	0.00	0	DEN	500	42.5	23.6	0.0	0.0	0.0	51.8	0.2	16.9	0.0	0.0	0.0	0.0	0.0	-2.8
146	31306857.29	5851779.46	0.00	0	DEN	500	42.5	23.6	0.0	0.0	0.0	50.5	0.2	16.1	0.0	0.0	0.0	0.0	0.0	-0.6
149	31306862.50	5851794.29	0.00	0	DEN	500	42.5	26.6	0.0	0.0	0.0	52.2	0.2	17.1	0.0	0.0	0.0	0.0	0.0	-0.4
153	31306910.21	5851774.58	0.00	0	DEN	500	42.5	28.8	0.0	0.0	0.0	51.9	0.2	16.9	0.0	0.0	0.0	0.0	0.0	2.3
158	31306936.91	5851766.23	0.00	0	DEN	500	42.5	21.7	0.0	0.0	0.0	52.8	0.2	17.4	0.0	0.0	0.2	0.0	0.0	-6.4
161	31306950.18	5851762.54	0.00	0	DEN	500	42.5	10.1	0.0	0.0	0.0	53.4	0.3	17.6	0.0	0.0	0.9	0.0	0.0	-19.6
166	31306865.35	5851809.47	0.00	0	DEN	500	42.5	25.0	0.0	0.0	0.0	53.3	0.3	17.6	0.0	0.0	0.0	0.0	0.0	-3.6
178	31306864.99	5851821.59	0.00	0	DEN	500	42.5	25.0	0.0	0.0	0.0	53.7	0.3	17.7	0.0	0.0	0.0	0.0	0.0	-4.2
181	31306901.42	5851813.60	0.00	0	DEN	500	42.5	26.0	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-1.5
182	31306926.05	5851804.89	0.00	0	DEN	500	42.5	31.1	0.0	0.0	0.0	54.3	0.3	17.9	0.0	0.0	0.0	0.0	0.0	1.1
187	31306944.16	5851793.44	0.00	0	DEN	500	42.5	27.9	0.0	0.0	0.0	54.4	0.3	18.0	0.0	0.0	0.0	0.0	0.0	-2.2
189	31306948.52	5851777.00	0.00	0	DEN	500	42.5	25.1	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-4.3
190	31306953.04	5851764.62	0.00	0	DEN	500	42.5	12.3	0.0	0.0	0.0	53.6	0.3	17.7	0.0	0.0	0.4	0.0	0.0	-17.2

Receiver
Name: NSR 3
ID:
X: 31308824.72 m
Y: 5851689.70 m
Z: 1.50 m

vert. Area Source, ISO 9613, Name: "Light Vehicle Workshop", ID: "101"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Alol	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
15	31308900.55	5851703.34	3.33	0	DEN	500	73.6	12.5	0.0	3.0	0.0	48.7	0.1	4.0	0.0	0.0	13.9	0.0	0.0	22.4
18	31308899.76	5851690.53	3.33	0	DEN	500	73.6	8.9	0.0	3.0	0.0	48.5	0.1	3.9	0.0	0.0	0.8	0.0	0.0	32.1
20	31308900.55	5851703.34	2.33	0	DEN	500	73.6	12.5	0.0	3.0	0.0	48.7	0.1	4.8	0.0	0.0	14.2	0.0	0.0	21.3
23	31308899.76	5851690.53	2.33	0	DEN	500	73.6	8.9	0.0	3.0	0.0	48.5	0.1	4.8	0.0	0.0	0.8	0.0	0.0	31.5
27	31308900.55	5851703.34	4.33	0	DEN	500	73.6	12.5	0.0	3.0	0.0	48.7	0.1	3.9	0.0	0.0	9.1	0.0	0.0	27.2
31	31308899.76	5851690.53	4.33	0	DEN	500	73.6	8.9	0.0	3.0	0.0	48.5	0.1	3.9	0.0	0.0	0.2	0.0	0.0	32.8
33	31308900.55	5851703.34	1.33	0	DEN	500	73.6	12.5	0.0	3.0	0.0	48.7	0.1	8.8	0.0	0.0	11.3	0.0	0.0	20.2
36	31308899.76	5851690.53	1.33	0	DEN	500	73.6	8.9	0.0	3.0	0.0	48.5	0.1	8.7	0.0	0.0	0.0	0.0	0.0	26.2
41	31308900.55	5851703.34	0.43	0	DEN	500	73.6	11.8	0.0	3.0	0.0	48.7	0.1	14.0	0.0	0.0	8.9	0.0	0.0	18.4
44	31308899.76	5851690.53	0.43	0	DEN	500	73.6	7.9	0.0	3.0	0.0	48.5	0.1	13.9	0.0	0.0	0.0	0.0	0.0	22.0

vert. Area Source, ISO 9613, Name: "Heavy Vehicle Workshop", ID: "102"																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Alol	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
49	31308921.07	5851742.61	3.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	51.8	0.2	4.5	0.0	0.0	7.7	0.0	0.0	25.7
52	31308921.07	5851742.61	2.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	51.8	0.2	5.8	0.0	0.0	7.8	0.0	0.0	24.3
55	31308921.07	5851742.61	1.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	51.8	0.2	11.0	0.0	0.0	3.8	0.0	0.0	23.2
58	31308924.48	5851742.40	4.18	0	DEN	500	74.6	10.2	0.0	3.0	0.0	52.1	0.2	4.5	0.0	0.0	5.9	0.0	0.0	25.2
61	31308915.86	5851742.92	4.18	0	DEN	500	74.6	8.3	0.0	3.0	0.0	51.5	0.2	4.4	0.0	0.0	7.2	0.0	0.0	22.7
63	31308921.07	5851742.61	5.18	0	DEN	500	74.6	12.4	0.0	3.0	0.0	51.8	0.2	4.4	0.0	0.0	4.8	0.0	0.0	28.9
65	31308921.07	5851742.61	0.33	0	DEN	500	74.6	10.8	0.0	3.0	0.0	51.8	0.2	16.3	0.0	0.0	0.0	0.0	0.0	20.1

Area Source, ISO 9613, Name: "HGV Area", ID: ""																				
Nr.	X	Y	Z	Ref.	DEN	Freq.	Lw	I/a	Optime	K0	Di	Adiv	Aatm	Agr	Alol	Ahaus	Abar	Cmet	RL	Lr
	(m)	(m)	(m)			(Hz)	dB(A)	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
72	31308942.24	5851784.59	0.00	0	DEN	500	42.5	19.2	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-10.2
75	31308886.88	5851792.34	0.00	0	DEN	500	42.5	30.4	0.0	0.0	0.0	51.9	0.2	16.9	0.0	0.0	0.0	0.0	0.0	3.9
79	31308884.75	5851778.52	0.00	0	DEN	500	42.5	24.3	0.0	0.0	0.0	51.6	0.2	16.7	0.0	0.0	0.0	0.0	0.0	-1.7
83	31308888.26	5851771.13	0.00	0	DEN	500	42.5	24.3	0.0	0.0	0.0	50.3	0.2	16.0	0.0	0.0	0.0	0.0	0.0	0.4
85	31308905.04	5851773.01	0.00	0	DEN	500	42.5	27.3	0.0	0.0	0.0	52.3	0.2	17.1	0.0	0.0	0.0	0.0	0.0	0.3
88	31308908.85	5851782.41	0.00	0	DEN	500	42.5	21.0	0.0	0.0	0.0	53.0	0.2	17.4	0.0	0.0	0.0	0.0	0.0	-7.1
90	31308884.76	5851800.83	0.00	0	DEN	500	42.5	21.0	0.0	0.0	0.0	53.0	0.2	17.5	0.0	0.0	0.0	0.0	0.0	-7.2
92	31308924.09	5851775.39	0.00	0	DEN	500	42.5	24.0	0.0	0.0	0.0	53.4	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-4.7
95	31308848.33	5851803.96	0.00	0	DEN	500	42.5	25.5	0.0	0.0	0.0	52.3	0.2	17.1	0.0	0.0	0.0	0.0	0.0	-1.7
98	31308844.19	5851776.88	0.00	0	DEN	500	42.5	19.8	0.0	0.0	0.0	50.0	0.2	15.8	0.0	0.0	0.0	0.0	0.0	-3.8
110	31308851.15	5851793.33	0.00	0	DEN	500	42.5	19.8	0.0	0.0	0.0	51.8	0.2	16.7	0.0	0.0	0.0	0.0	0.0	-6.2
112	31308843.53	5851806.81	0.00	0	DEN	500	42.5	16.7	0.0	0.0	0.0	52.5	0.2	17.2	0.0	0.0	0.0	0.0	0.0	-10.7
114	31308840.35	5851788.12	0.00	0	DEN	500	42.5	16.7	0.0	0.0	0.0	51.0	0.2	16.4	0.0	0.0	0.0	0.0	0.0	-8.3
116	31308843.11	5851817.36	0.00	0	DEN	500	42.5	19.7	0.0	0.0	0.0	53.2	0.2	17.5	0.0	0.0	0.0	0.0	0.0	-8.8
120	31308854.09	5851824.62	0.00	0	DEN	500	42.5	19.6	0.0	0.0	0.0	53.8	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-9.7
124	31308906.85	5851803.61	0.00	0	DEN	500	42.5	27.0	0.0	0.0	0.0	53.9	0.3	17.8	0.0	0.0	0.0	0.0	0.0	-2.5
127	31308887.48	5851818.62	0.00	0	DEN	500	42.5	27.0	0.0	0.0	0.0	54.1	0.3	17.9	0.0	0.0	0.0	0.0	0.0	-2.7
130	31308929.75	5851808.98	0.00	0	DEN	500	42.5	30.0	0.0	0.0	0.0	55.0	0.3	18.2	0.0	0.0	0.0	0.0	0.0	-0.9
142	31308870.38	5851816.68	0.00	0	DEN	500	42.5	22.0	0.0	0.0	0.0	53.6	0.3	17.7	0.0	0.0	0.0	0.0	0.0	-7.0
148	31308879.66	5851807.66	0.00	0	DEN	500	42.5	19.0	0.0	0.0	0.0	53.3	0.3	17.6	0.0	0.0	0.0	0.0	0.0	-9.6
151	31308899.84	5851795.66	0.00	0	DEN	500	42.5	19.0	0.0	0.0	0.0	53.3	0.3	17.6	0.0	0.0	0.0	0.0	0.0	-9.6
155	31308943.63	5851790.56	0.00	0	DEN	500	42.5	29.8	0.0	0.0	0.0	54.9	0.3	18.1	0.0	0.0	0.0	0.0	0.0	-1.0
157	31308950.44	5851770.22	0.00	0	DEN	500	42.5	21.1	0.0	0.0	0.0	54.5	0.3	18.0	0.0	0.0	0.0	0.0	0.0	-9.1