



REPORT

NOISE IMPACT ASSESSMENT: PROPOSED SKATE RAMP

SITE ADDRESS

PLAYPARK, FERNIE CLOSE PARK, NEWBOROUGH, PETERBOROUGH
CAMBRIDGESHIRE PE6 7RH



REFERENCE

HA/AE725/V1

HEALTHY ABODE ACOUSTICS
BUILDING ACOUSTICIANS & ENVIRONMENTAL NOISE CONSULTANTS

Our Ref HA/AE725/V1

Site Address Playpark, Fernie Close Park, Newborough, Peterborough, Cambridgeshire PE6
7RH

For Newborough & Borough Fen Parish Council

Client Address 5 Blenheim road, Ramsey, Cambridgeshire PE26 1AL

Date of Report 21 November 2022

Author Miss Josie Nixon MSc BA (Hons) MIOA

Checked by Mr Stuart J G Nixon MSc BSc (Hons) MIOA MCIEH



Healthy Abode Ltd

Company No. 07429355 (England & Wales)

Office Address: Healthy Abode, Office F9, Allen House Business Centre, The Maltings, Station Road, Sawbridgeworth, Essex CM21 9JX

Registered Business Address: Abacus House. 68a North Street, Romford, London, RM1 1DA

E-mail: info@HA-acoustics.co.uk

Website: www.HA-acoustics.co.uk

Telephone: (Chelmsford) 01245 206 250

This report has been prepared by Healthy Abode Limited t/a HA Acoustics with all reasonable expertise, care and diligence. The survey and report has been undertaken in accordance with accepted acoustic consultancy principles, it takes account of the services and terms and conditions agreed verbally and in writing between HA Acoustics and our client. Any information provided by third parties and referenced is considered to have undergone suitably thorough third-party checks to ensure accuracy. We can accept no liability for errors with a third-party data. This report is confidential to our client and therefore HA Acoustics accepts no responsibility whatsoever to third parties unless formally agreed in writing by HA Acoustics. Any such party relies upon the report at their own risk.

EXECUTIVE SUMMARY

- The Clerk of Newborough & Borough Fen Parish Council, Ms Irene Healiss, instructed Healthy Abode Ltd t/a as HA Acoustics to undertake a noise impact assessment for the proposed installation of a Skate Ramp at Playpark, Fernie Close Park, Newborough, Peterborough, Cambridgeshire PE6 7RH.
- HA Acoustics has undertaken an environmental noise survey at the site in order to determine prevailing background noise levels that are representative of the nearest noise sensitive receptors (NSR). The nearest NSR to the proposed skate ramp is the side façade of a residential property located adjacent to the site at approximately 31 metres from the proposed skate ramp.
- A baseline noise survey and assessment has been undertaken in line with the guidance contained in BS 4142: 2014 +A1: 2019, measurements being taken over continuous 15-minute periods.
- The unattended survey was conducted on Tuesday 01st November 2022 – Thursday 3rd November 2022, at a fixed monitoring point, located close to the NSR.
- The typical background noise level has been calculated at 46dB $L_{A90,Daytime}$. The noise criteria has been set level with the background at 46dB $L_{Ar,Tr}$ in line with the local authority's requirements
- Noise calculations of the proposed plant have been undertaken using all available details and plans provided by the client and obtaining manufacturers' specifications. The resultant sound pressure level has been calculated at: **49-54dBA at NSR1, 49dBA at NSR2 and 49-52dBA at NSR3.**
- In accordance with NPPF: 2021, the noise impact of the skate ramps in operation, is considered to be a **'LOAEL– SOAEL'** at the NSR's.
- Should the predicted noise level from the skate park require mitigation, then a 2m acoustic barrier has been specified. The impact of the proposed skate ramp with mitigation has also been assessed to the nearest NSR's as **'NOEL – LOAEL'** at the NSR's.

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1. INTRODUCTION

- 1.1. The Clerk of Newborough & Borough Fen Parish Council, Ms Irene Healiss, instructed Healthy Abode Ltd t/a HA Acoustics to undertake a noise impact assessment at Playpark, Fernie Close Park, Newborough, Peterborough, Cambridgeshire PE6 7RH for submission as part of documentation to be provided to the Local Authority Peterborough City Council.
- 1.2. Playpark, Fernie Close Park, Newborough, is proposing to install a skate ramp within the recreational play park, , the noise from which could have the potential to affect existing noise sensitive properties nearby.
- 1.3. The purposes of this report are:
 - 1.3.1. To determine prevailing environmental noise levels affecting surrounding properties due to nearby noise sources (e.g. road traffic, commercial plant etc.);
 - 1.3.2. To determine the potential impact of the noise emissions from the nearby Neighbourhood Equipped Areas for Play (NEAP) in accordance with the requirements of the NPPF (2012, 2019), and
 - 1.3.3. To undertake an assessment to demonstrate compliance with the Local Authority noise requirements.

2. SITE DESCRIPTION

- 2.1. Playpark, Fernie Close Park, Newborough, Peterborough, Cambridgeshire PE6 7RH (hereafter referred to as 'the site') is a community recreational play park, comprising of a football pitch, basketball hoop and children's play area (swings, slides, roundabouts, etc).
- 2.2. The site is located in the village of Newborough. Residential premises border the play park to the north and southwest. Situated to the east and south are agricultural pastoral fields. Newborough C of E Primary School is located adjacent to the north-west, with the schools playing fields bordering the playpark to the west of the site.
- 2.3. The nearest noise sensitive receptor (NSR) located to the proposed plant location is noted to be the side façade of a residential property located adjacent to the north of the site at approximately 31 metres from the proposed skate ramp. The external amenity for NSR1 is situated at a distance of 25m. NSR2 is located to the north-west of the proposed skate ramp location. The rear façade of NSR2 is located approximately 50m from the proposed location and the boundary for NSR2 external amenity, is approximately 38m from the proposed skate ramp location. It can be confidently assumed that if the noise impact assessment indicates that the specific sound source has a low impact at this premises then it can be safely assumed it will be met at other properties of equal distance and/or those further away.
- 2.4. At the time of installation and collection of the monitoring equipment, the dominant noise sources emanated from general residential activity noise, distant road traffic noise and occasional overhead aircraft. These noise sources are considered normal to the site location. No significant abnormal noise sources were identifiable. It is considered that the measured noise levels are reasonable given the location of the measurement position.

3. ENVIRONMENTAL NOISE SURVEY METHODOLOGY

3.1. An unmanned environmental noise survey was undertaken at a single measurement location at the centre of the north site boundary. The survey was undertaken between 12:15 hours on Tuesday 1st November 2022 and 11:15 hours on Thursday 3rd November 2022.

3.2. The sound level meter (SLM) was mounted approximately 2 metres above ground level and positioned in ‘free-field’ conditions. The position is considered to be representative of background noise levels at the nearest identified NSR’s and chosen to ensure safety of equipment. The monitoring position is identified in Appendix A.

3.3. The equipment used for the noise survey is summarised in Table 3.1.

Equipment	Description	Quantity	Serial Number
Svantek 977	Class 1 automated logging sound level meter	1	69506
ACO Pacific 7052E	Class 1 ½” microphone	1	68191
Larson Davis CAL200	Class 1 Calibrator	1	20159

Table 3.1 Description of Equipment used for Noise Survey

3.4. Ambient, background and maximum noise levels (L_{Aeq} , L_{A10} , L_{A90} and L_{AmaxF} respectively) were measured throughout the noise survey in consecutive 15-minute periods.

3.5. The noise survey and measurements were conducted, wherever possible, in accordance with BS7445-1:2003 ‘*Description and measurement of environmental noise. Guide to quantities and procedures*’. Measurements were made generally in accordance with ISO 1996-2:2007 ‘*Acoustics – Description, measurement and assessment of environmental noise – Part 2: Determination of environmental noise levels*’.

3.6. The noise monitoring equipment was calibrated before and after the noise survey period. No significant drift was recorded. Equipment calibration certificates can be provided upon request.

3.7. Weather conditions were noted to be:

3.7.1. during installation - mild (approximately 15° Celsius), dry, with clear to cloudy skies (approximately 40-50% cloud cover) and a light wind (<5m/s).

3.7.2. during collection - mild (approximately 11° Celsius), wet due to light precipitation, with cloudy skies (approximately 90-100% cloud cover) and a light wind (<5m/s).

3.7.3. throughout the entire noise survey period - mild (approximately 7-14° Celsius), generally dry (with light precipitation on Thursday 3rd November in the morning), with cloudy skies (approximately 40-100% cloud cover) and a light wind (<5m/s).

3.8. These weather conditions were checked against and confirmed by the use of the Met Office mobile application available on smart phone technology. These conditions were maintained throughout the whole survey period and are considered reasonable for undertaking environmental noise measurements.

4. EXTERNAL NOISE EMISSION CRITERIA

4.1. Local Authority Criteria

4.2. The proposed site lies within the jurisdiction of the Local Authority, Peterborough City Council. An acoustic report is required to support a planning application as provided below:

Aneeqa Malik

From: Amanda OToole
Sent: 25 July 2022 16:13
To: Molly Hood; Ping Control Enquiries
Subject: 22/00463/FUL | Construction of a Skate Ramp | Open Space Fernie Close Newborough Peterborough,

Good afternoon

22/00463/FUL | Construction of a Skate Ramp | Open Space Fernie Close Newborough Peterborough

Thank you for consulting the Pollution Team on the above-mentioned planning application.

Following consideration of the application and associated documents submitted by the developer, this department objects to this proposal.

Noise Impact

This objection is based on the proximity of the proposed skate park to local residents (33km from property boundary) and the absence of a noise impact assessment for this development.

The guide below provides good practice for such facilities.

Get Your Skates On! – A guide to developing BMX and Skate Parks in your area (Produced in 2005).

“It is good practice that facilities are located no less than 100m from the nearest residential property and 30m from any property boundary (although this can vary slightly depending on the site and any neighbours). You should also ensure that noise from the facility does not exceed 55 decibels to avoid causing a nuisance to local residents. (page 11)

Kind regards

Amanda O'Toole
Senior Environmental and Pollution Control Officer

4.3. The recreational area is not flood lit and it is understood that there are no plans to light the skate ramp. It is thus assumed that the skate ramp could only be utilised anytime during daytime (07:00-23:00) hours. The noise criteria will therefore be set level with the typical background daytime levels. In this case the criteria to be met is a maximum noise emission level of 46 dB L_{A90} measured at the NSR.

4.4. National Planning Policy Framework (2021)

4.5. In March 2012, the National Planning Policy Framework (NPPF) came into force and was revised in 2019 and 2021. This document replaces a great many planning guidance documents, which previously informed the planning system in England.

4.6. The NPPF (2021) sets out the Government's economic, environmental and social planning policies for England and these policies articulate the Government's vision of sustainable development.

4.7. The Noise Policy Statement for England (NPSE) published 2010 applies to *‘all forms of noise, including environmental noise, neighbour noise and neighbourhood noise’*.

4.8. **Paragraph 185 of the NPPF (2021) considers noise, stating:**

“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; and*
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”*

4.9. National Planning Policy is guided by the NPPF. With regard to noise, the terms ‘significant adverse impact’ and ‘other adverse impacts’ are defined in the explanatory notes of the ‘Noise Policy Statement for England’ (NPSE). These state that there are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organisation. They are:

- ‘NOEL – No Observed Effect Level, this is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise, and
- LOAEL – Lowest Observed Adverse Effect Level. This is the level above which adverse effects on health and quality of life can be detected.

4.10. Extending these concepts for the purpose of this NPSE leads to the concept of SOAEL - significant observed adverse effect level. This is the level above which significant adverse effects on health and quality of life occur’. However, no specific noise limits for LOAEL and SOAEL have been defined. Therefore, guidance from other acoustic standards must be employed to determine suitable levels within the overall principal of the National Planning Policy Framework; such as BS 8233:2014.

4.11. **BS 8233: 2014**

4.12. Local Authorities usually stipulate internal noise criteria for new build residential uses based on British Standard 8233:2014 'Guidance on Sound Insulation and Noise Reduction for Buildings'.

4.13. BS 8233:2014 provides references and guideline values for desirable indoor ambient noise levels for dwellings as shown in Table 4.1 below.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	—
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	—
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

Table 4.1 BS 8233: 2014 Desirable Internal Ambient Noise Levels for Dwellings

4.14. The table is noted to apply to external noise as it affects the internal acoustic environment from sources without a specific character. The above internal ambient noise levels are therefore considered appropriate within this assessment.

4.15. BS 8233:2014 states that 'for traditional external areas that are used for amenity space, such as gardens and patios, it is desirable that the external noise level does not exceed an upper guideline value of 55dB L_{Aeq} , which would be acceptable in noisier environments. However, it is also recognized that these guideline values are not achievable in all circumstances...in higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces, but should not be prohibited'.

4.16. **BS 4142: 2014 +A1: 2019**

4.17. It is not suitable to use British Standard (BS) 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound to consider the impact of noise emanating from a proposed AGP.

4.18. Section 1.3 states,

"The standard is not intended to be applied to the rating and assessment of sound from:

a) recreational activities including all forms of motorsport;

b) music and other entertainment;

- c) shooting grounds;*
- d) construction and demolition;*
- e) domestic animals;*
- f) people;*
- g) public address systems for speech; and*
- h) other sources falling within the scopes of other standards or guidance.”*

4.19. Other Guidance

- 4.20. There is no specific guidance in relation to potential noise emission levels associated with skate ramps. South Gloucestershire Council produced the following guidance in 2005: **‘Get Your Skates On! A Guide to Developing BMX & Skate Parks in your Area (2005)’** by South Gloucestershire Council which acts as a useful resource for skate and bike park developments within its county. The local authority Environmental Health Officer Aneega Malik in their Memo of response, references this guidance. The guidance is also referenced in some other local authorities, along with **SkateBoard GB – Design and Development Guidance for Skateboarding**. Neither documents provide levels associated with the sport, but both offer advice in terms of visual impact and some guidance on considering noise impact.

5. NOISE SURVEY RESULTS

5.1. The ambient and background noise levels at the measurement position as seen in Appendix A are provided below and have been based on an analysis of the monitoring data.

5.2. A summary of the data results is provided in Table 5.1. The time history can be seen in Appendix B (TH1).

	Ambient Noise Level $L_{Aeq, 15min}$	Typical Background Noise Level $L_{A90, 15min}$
Day (07:00 – 23:00)	53 dB	46 dB
Night (23:00 – 07:00)	41 dB	37 dB

Table 5.1 Summary of typical noise measurement data

5.3. These noise levels are considered normal to the site location. No significant abnormal noise sources were identifiable during installation or collection of the equipment. It is considered that the measured noise levels are reasonable given the location of the measurement position.

5.4. It is understood that the proposed skate ramp could be accessed at anytime of day and night, However, due to the nature of activity, it is expected that the skate ramp would only be used during light daytime hours (07:00 – 23:00 hours). Therefore, the predicted noise emission level from the operation of the skate ramp, will be compared to the measured typical daytime background level

6. NOISE IMPACT ASSESSMENT

6.1. Background & Context

6.2. It is proposed to install one (1) skate ramp, (understood to comprise 6 quarter pipes, a hip transfer and a box rail) to the community playpark or Neighbourhood Equipped Areas for Play (NEAP). The proposal is to install the skate ramp to the south-east of the playpark. A plan of the skate ramp can be seen in appendix A (SP1-SP2).

6.3. Calculations have been undertaken to gain the specific noise level of the proposed skate ramp in operation using information provided by the client and from historical data of skate ramps in operation.

6.4. Historical measurements of a competent person continuously skateboarding on a similar skate ramp have been utilised. The measurement includes continuous skateboarding, with tricks and jumps. From this the specific level of the proposed skate ramp in operation can be calculated as seen in Table 6.1.

Proposed Activity	Sound Pressure Level at 1m*
Skateboarding on skate ramp	76 dB

*Historical Measured Data of Similar Skate Ramp in Operation

Table 6.1 Proposed Noise Source

6.5. For this assessment the reference level has been increased, doubling the sound energy, so as to account for two people to be using the skate ramp at the same time.

6.6. Noise Modelling

6.7. Noise modelling has been undertaken to assess the noise impact of skateboarding at the proposed location at the NSR's using the historical measured typical levels, extrapolated for multiple users.

6.8. The noise models can be found in Appendix C and shows the layout of the predicted sound transmission from the skate ramp.

6.9. The noise model takes into account local topography, distance attenuation and screening provision of existing and/or proposed features (e.g. noise barriers/extension of a building).

6.10. The height of adjacent buildings have been estimated through the use of the on-site survey and site photographs and included within the model. The nearby buildings are low level, typically 1-2 storeys. Therefore, noise modelling emission levels are considered representative for each storey.

6.11. The predicted noise emissions from the site have been determined by inputting a noise emission sound power level of 99 dB L_w for the skate ramp. This level takes into account for 2 people to be using the skate ramp for 8 out of 16 hours a day. The sound power level has been inputted as an area source, as shown in Appendix C. This has then been modelled to illustrate the noise level contours over distance and topography effects to the NSR's.

6.12. Noise Impact Assessment

6.13. The impact must be considered within the context of the site and the surrounding acoustic environment.

6.14. The noise contour map shows the effect of noise breaking out from skateboarding without taking into account or modelling noise from any other nearby sources, such as road traffic, bird song, educational and residential activity, which creates the background source.

6.15. The local authority mentions the noise criteria as provided by 'Get Your Skates On! (2005)', which sets a noise criteria level of 55dB(A) at the NSR's. The typical background noise level has been measured at a lower level of 46dB $L_{A90,Daytime}$. In order to provide a robust assessment the background level on the map, has been set to the measured typical background level measured at 46 dB(A).

6.16. With no other noise sources, the noise model predicts the noise levels from skateboarding, with no mitigation at the NSR's to be:

6.16.1. The calculated rating noise level at NSR1 facade is **49-54dB $L_{Aeq, operational hours}$** and **3-9dB above** the typical background noise level (46dB $L_{A90,T}$).

6.16.2. The calculated rating noise level at NSR2 facade is **49dB $L_{Aeq, operational hours}$** and **3dB above** the typical background noise level (46dB $L_{A90,T}$).

6.16.3. The calculated rating noise level at the NSR3 facade is **49-52 dB $L_{Aeq, operational hours}$** and **3-7 dB above** the typical background noise level (46dB $L_{Aeq,T}$).

6.17. The lower the noise level is relative to the measured background level, the less likely it is that the specific sound source will have an adverse impact. The predicted noise impact at NSR1-NSR3 (with no mitigation) is considered to be a '**Low Observed Adverse Effect Level – Significant Observed Adverse Effect Level**'.

6.18. Should noise levels be required to be reduced further then noise mitigation could be included. In appendix C3-C4 the noise model includes acoustic mitigation in the form of a 2m high acoustic barrier. (This could be made of Perspex, so as to allow visual site.

6.19. With no other noise sources, the noise model predicts the noise levels from skateboarding, with mitigation at the NSR's to be:

6.19.1. The calculated rating noise level at NSR1 facade is **43-48dB** $L_{Aeq, operational\ hours}$ and **3dB below to 2dB above** the typical background noise level (46dB $L_{A90,T}$).

6.19.2. The calculated rating noise level at NSR2 facade is **46dB** $L_{Aeq, operational\ hours}$ and **in-line** with the typical background noise level (46dB $L_{A90,T}$).

6.19.3. The calculated rating noise level at the NSR3 facade is **45-48dB** $L_{Aeq, operational\ hours}$ and **1dB below to 2dB above** the typical background noise level (46dB $L_{Aeq,T}$).

6.20. Therefore, the predicted noise impact at NSR1-NSR3, with mitigation is considered to be a '**no observed effect level – Low Observed Adverse Effect Level**'.

6.21. The Impact & Site Context

6.22. The impact must be considered within the context of the site and the surrounding acoustic environment. The following must, therefore, also be taken into consideration when determining the potential impact that may be experienced:

6.22.1. The assessment is undertaken at the most affected existing residential windows. The impact on all other nearby residential windows will be lower due to screening and distance attenuation.

6.22.2. The site is located within a play park, with other comparable uses (play equipment) located in the same vicinity.

6.23. British Standard 8233:2014 'Sound insulation and noise reduction for buildings – Code of Practice' gives recommendations for acceptable internal noise levels in residential properties. Assuming worst case conditions, of the closest window being for a bedroom, BS8233:2014 recommends 30dB(A) as being acceptable internal resting/sleeping conditions during night-time. According to BS8233:2014, the façade of a residential dwelling; with a window partially open for ventilation offers 15 dB attenuation. Therefore, taking into account this reduction for a partially open window the internal noise level, with mitigation and skate ramp in use, would be 28-33dB(A) at NSR1, 31dB(A) at NSR2 and 30-33dB(A) at NSR3, which is lower than the acceptable internal noise level as seen under BS 8233: 2014.

7. UNCERTAINTY

7.1. The levels of uncertainty in the data and calculations are considered to be low given the robust exercise undertaken in noise monitoring and the confidence in the statistical analysis.

7.2. All measurements taken on-site by instrumentation are subject to a margin of uncertainty. This is relatively small, with a sound level meter manufacturer's margin of uncertainty at ± 1.1 dB. It is due to the tolerances associated with the Class 1 sound level meter and calibrator equipment used to measure background.

7.2.1. The meter and calibrator used have a traceable laboratory calibration and were field calibrated before and after the measurements.

7.3. Detailed calculations and resultant noise levels at the residential location are considered to be confidently predicted.

7.4. Uncertainties associated with the noise model using SoundPLAN Essential 5.0 are as follows;

7.4.1. Building heights and building floor heights have been estimated. Receptor positions at buildings have been estimated for ground floor and first floor levels to be best representative of noise sensitive receiver positions.

7.5. Uncertainty in the calculated impact has been reduced by the use of a well-established calculation method.

8. CONCLUSION

- 8.1. A noise assessment has been undertaken at Playpark, Fernie Close Park, Newborough, Peterborough, Cambridgeshire PE6 7RH. The noise survey was undertaken at a fixed monitoring point, representative of the nearest noise sensitive receptor.
- 8.2. Following on-site measurement of pre-existing noise levels, calculations have been made of the predicted noise emission level of the proposed skate ramp at the NSR's. From this assessment, together with information from the client and historical manual measurement of skateboarding, the potential noise impact has been determined.
- 8.3. Noise levels from the skate ramp, with no mitigation, at the NSR's are predicted to be:
- 8.3.1. **49-54 dB $L_{Aeq,Daytime}$** at NSR1,
 - 8.3.2. **49 dB $L_{Aeq,Daytime}$** at NSR2, and
 - 8.3.3. **49-52 dB $L_{Aeq,Daytime}$** at NSR1,
- 8.4. Assessment methodology in line with the NPPF (2012, 2019,2021) and NPSE (2012) shows that the predicted noise level from the skate ramp in operation is predicted to be **3-8 dB above** the typical background of **46 dB $L_{A90, daytime}$** at the NSR. Therefore, in accordance with the NPSE (2012) and NPPF (2012, 2019), noise levels from the proposed skate ramp are predicted to be a '**LOAEL – SOAEL**'.
- 8.5. Should levels need to be reduced further then mitigation in the form of a 2m high acoustic barrier has been specified. Noise levels from the skate ramp, with mitigation, at the NSR's are predicted to be:
- 8.5.1. **43-48 dB $L_{Aeq,Daytime}$** at NSR1,
 - 8.5.2. **46 dB $L_{Aeq,Daytime}$** at NSR2, and
 - 8.5.3. **45-48 dB $L_{Aeq,Daytime}$** at NSR1,
- 8.6. The predicted noise impact at NSR1-NSR3, with mitigation is considered to be a '**NOEL-LOAEL**'.
- 8.7. Considering the results of the noise survey, the illustrative layouts and the calculations, the predicted resultant noise levels from the proposed plant are predicted to meet appropriate and reasonable guidance and the relevant noise criteria. Therefore, an adequate level of protection against noise for occupants of the nearest noise sensitive receptor is afforded; including when factoring in potential uncertainty.

Appendix A – Site Plan (SP1)

Source: Google Earth Imagery



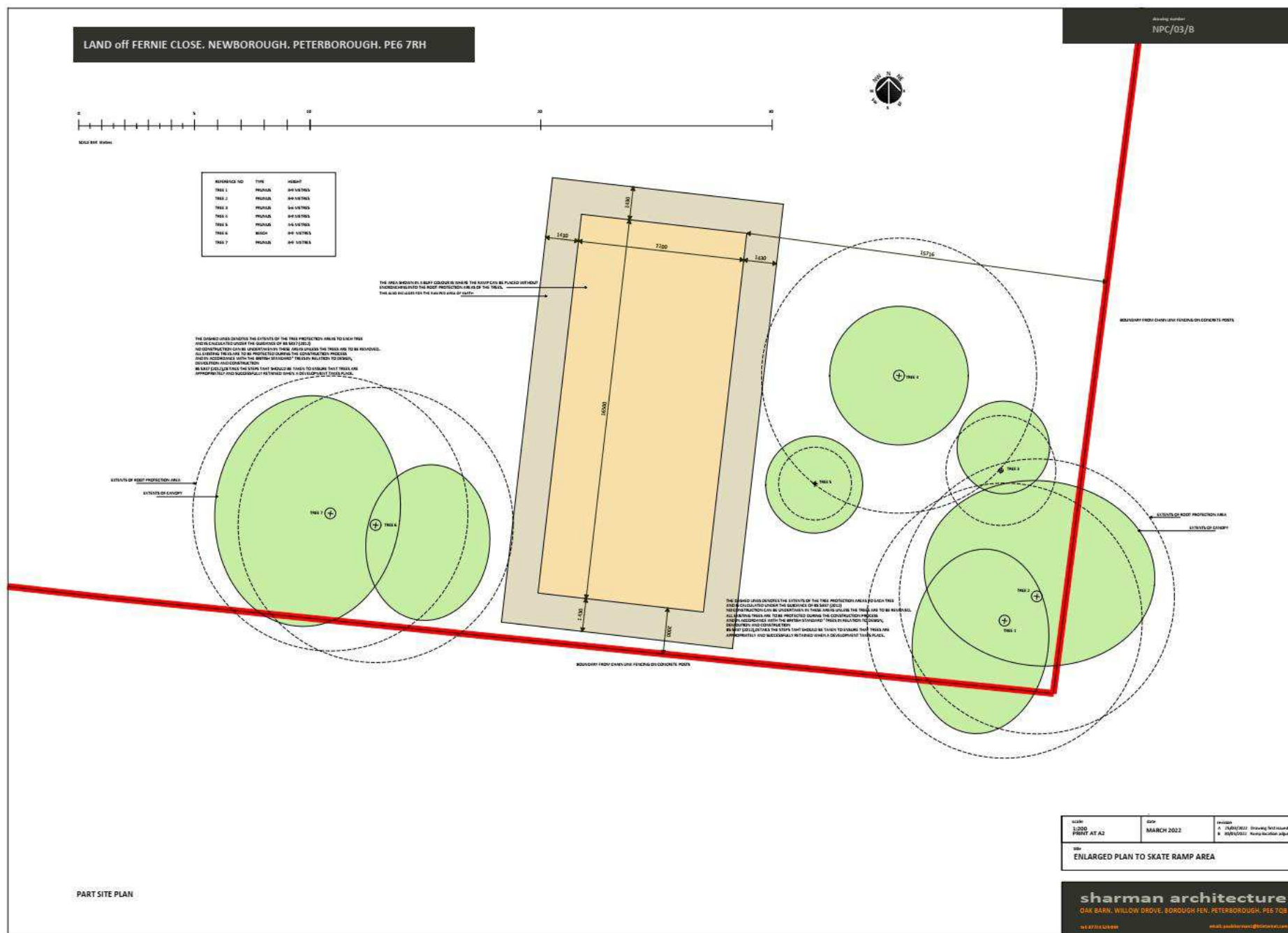
Key

Noise Monitoring Position

Noise Sensitive Receptor

Noise Source

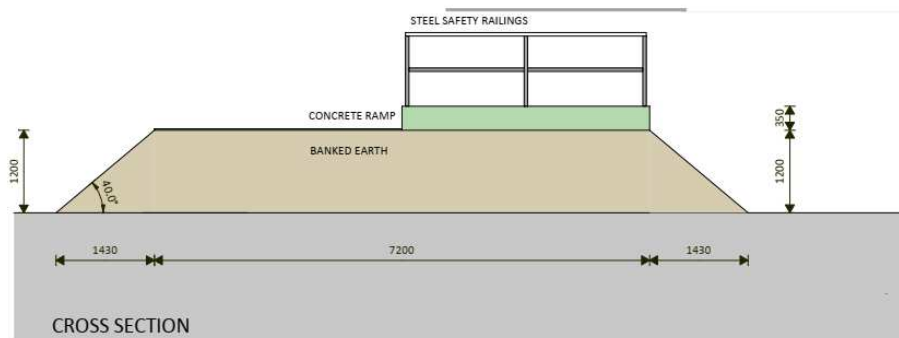
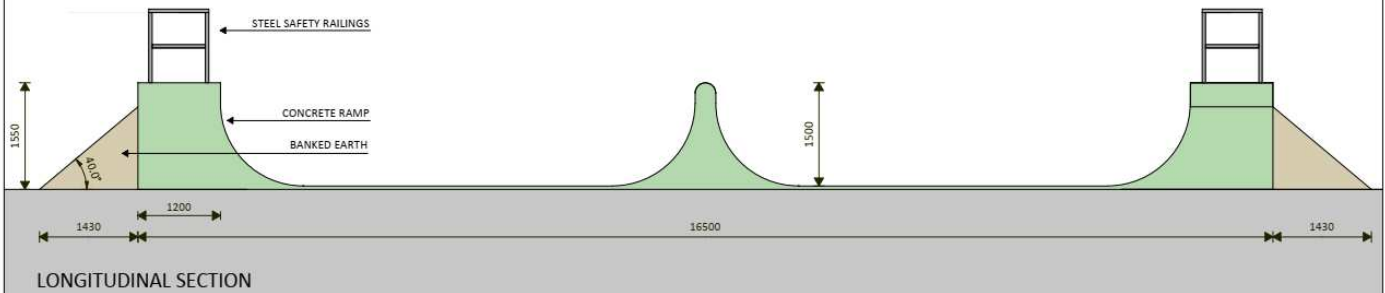
Site Boundary



LAND off FERNIE CLOSE. NEWBOROUGH. PETERBOROUGH. PE6 7RH

drawing number
NPC/04/A

1 Do not scale from the drawings. Dimensions to be checked on site.
2 All drawings are the copyright of sharmar architecture.



scale 1:50 PRINT AT A3	date MARCH 2022	revision A 25/03/2022 Drawing first issued.
title SKATE RAMP SECTIONS.		

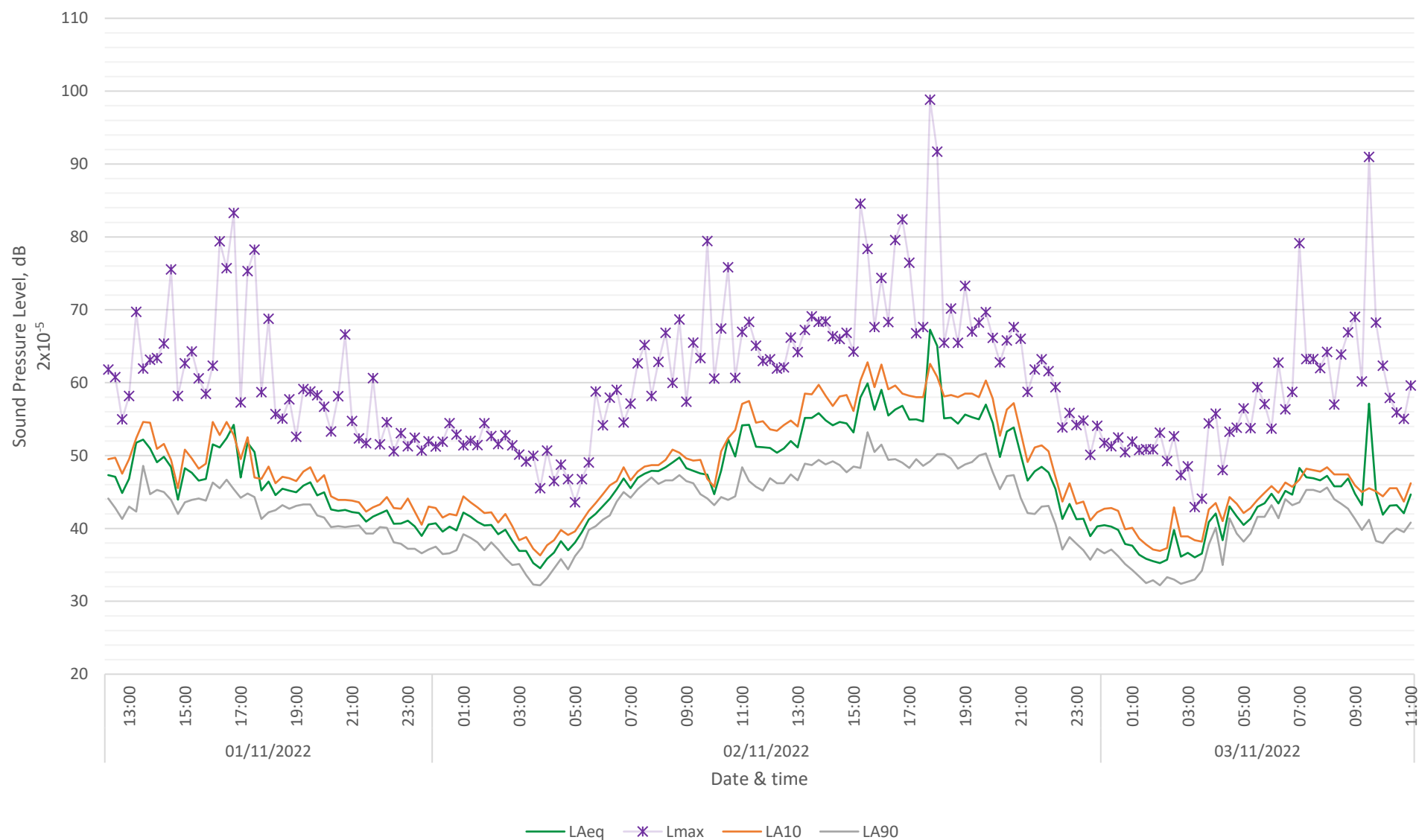
sharmar architecture
OAM BARN, WILLOW DROVE, BOROUGH FEN, PETERBOROUGH, PE6 7QB
tel 07724 116 088 email paul@sharmar2@btinternet.com

LAND ADJACENT TO FERNIE CLOSE. NEWBOROUGH. PETERBOROUGH. PE6 7RH



Appendix B - Time History 1 (TH1)

Playpark, Fernie Close, Newborough
Tuesday 1 November 2022 - Thursday 8 November 2022





AE725
Fernie Close Playpark
Newborough,
Peterborough

Appendix C1
Receiver Points Map

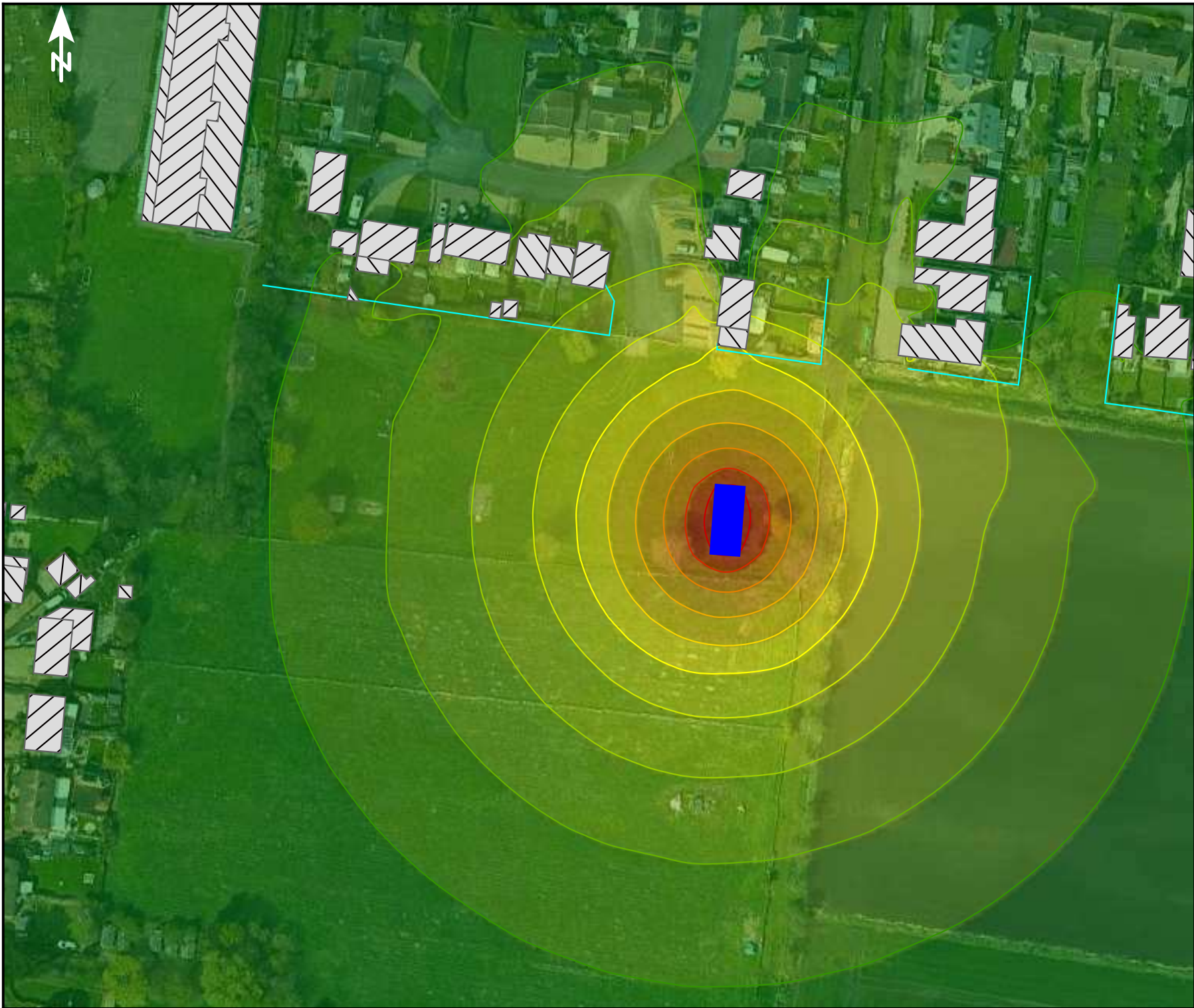
Author: Josie Nixon MIOA

Signs and symbols

- Wall/Fence
- Receiver at building
- Area source

1 : 1450
0 5 10 20 30 40 m





AE725
Fernie Close Playpark
Newborough,
Peterborough

Appendix C2
Noise Map

Author: Josie Nixon MIOA

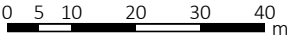
Signs and symbols

- Wall/Fence
- Area source

Levels in dB(A)

	< 46
	46 - 49
	49 - 52
	52 - 55
	55 - 58
	58 - 61
	61 - 64
	64 - 67
	67 - 70
	70 - 73
	73 - 76
	76 - 79
	79 - 82
	>= 82

1 : 1174





AE725
Fernie Close Playpark
Newborough,
Peterborough

Appendix C3
Receiver Points Map
with Mitigation

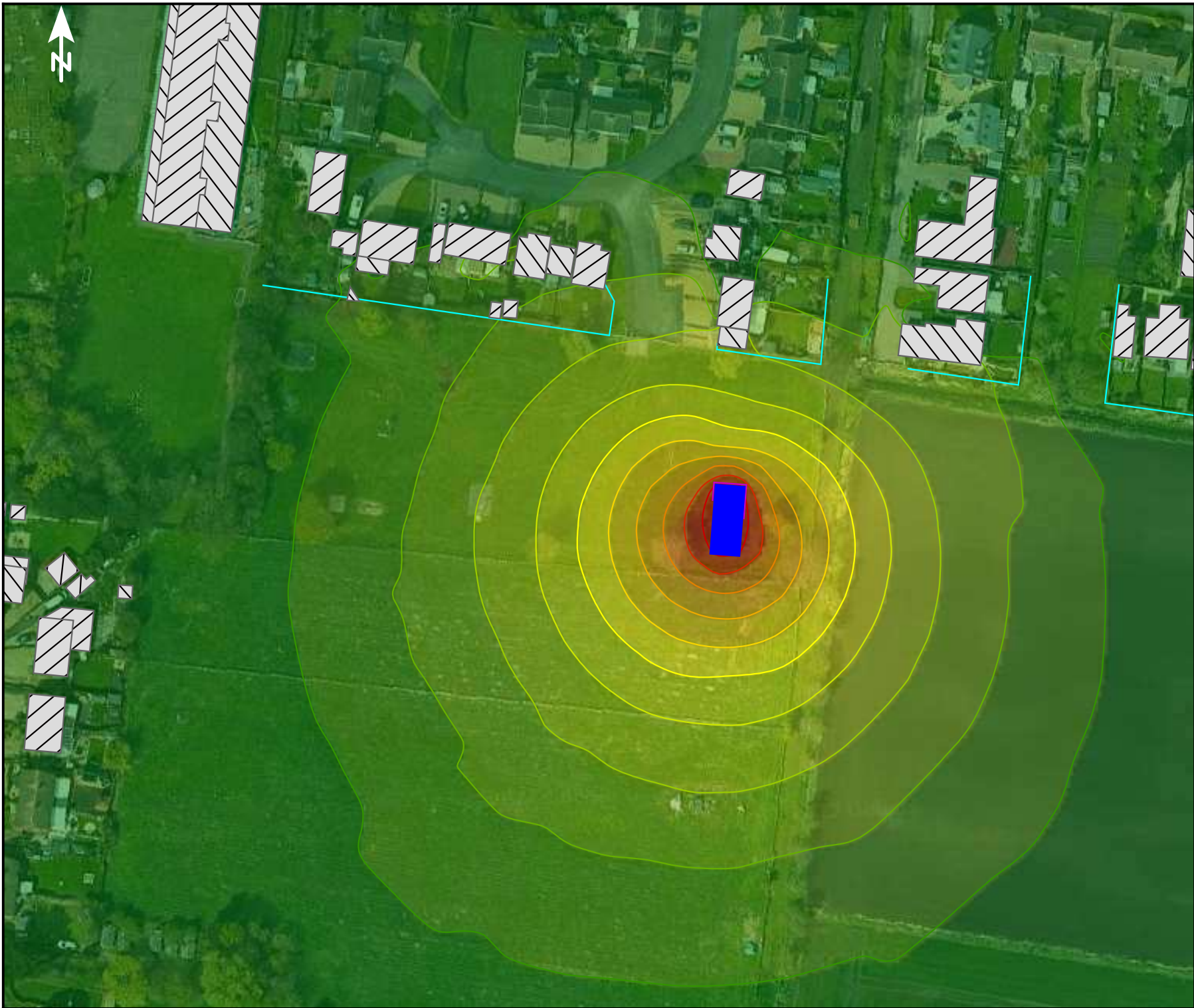
Author: Josie Nixon MIOA

Signs and symbols

- Wall/Fence
- Proposed Mitigation
- Receiver at building
- Area source

1 : 1450
0 5 10 20 30 40 m





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Appendix C4
Noise Map with
Mitigaion

Author: Josie Nixon MIOA

Signs and symbols

- Wall/Fence
- Proposed Mitigation
- Area source

Levels in dB(A)

	< 46
	46 - 49
	49 - 52
	52 - 55
	55 - 58
	58 - 61
	61 - 64
	64 - 67
	67 - 70
	70 - 73
	73 - 76
	76 - 79
	79 - 82
	>= 82

1 : 1174
0 5 10 20 30 40 m





HEALTHY ABODE ACOUSTICS

BUILDING ACOUSTICIANS & ENVIRONMENTAL NOISE CONSULTANTS

PHONE

EAST ANGLIA 01245 206 250
LONDON & NATIONAL 0203 371 980
SOUTH-WEST 01752 426 118

WEB WWW.HA-ACOUSTICS.CO.UK

EMAIL INFO@HA-ACOUSTICS.CO.UK

HEAD OFFICE

HA ACOUSTICS, OFFICE F9, ALLEN HOUSE,
THE MALTINGS, STATION ROAD, SAWBRIDGEWORTH CM21 9JX



10263

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