

NOISE IMPACT ASSESSMENT

Site:	Port Sutton Bridge
References:	51-933-R1
Date:	24 June 2026
Client:	Shred and Recycle





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QUALITY ASSURANCE

Report references

51-856-R1

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EXECUTIVE SUMMARY

Site Address	Port Sutton Bridge, Petts Lane, Sutton Bridge, Spalding PE12 9QR
Grid Reference	E 548300, N 322116
Proposed Development	Bespoke permit application for Astroturf recycling.
Surveys Completed	E3P has undertaken a full weekday and weekend background sound survey in a position considered representative of the closest noise sensitive receptors to the site.
Assessments Completed	A 3D noise model has been constructed to assess to commercial noise impact at existing receptors. Commercial noise is assessed in accordance with BS 4142:2014+A1:2019.
Mitigation Recommended	The assessment of the proposed operations found that the impact had the potential for adverse effect at receptors to the north and west and, as such, it is required that roller shutters remain closed, except for access. With this in place, there is no exceedance of the typical background sound level at the receptors and specific sound levels are low.
Conclusions and Discussions	The operation of the site has the potential for adverse impact at receptors assuming a worst-case assessment. As such, mitigation measures are proposed to ensure no adverse impact at the receptors.



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1. INTRODUCTION

1.1. BACKGROUND

E3P was commissioned by Shred and Recycle to undertake a Noise Impact Assessment to support an Environmental Permit (EP) application for their proposed Astroturf Recycling site at Port Sutton Bridge in Spalding, to be referred to as 'the Site'.

The report has been produced by Lee Faulkner, Associate Director at E3P, and full member of the Institute of Acoustics (MIOA).

The purpose of this document is to accompany an Environmental Permit (EP) application.

1.2. DESCRIPTION OF WORKS AND SOURCES OF NOISE

The EP is required for the proposed recycling operations involving the storage (keeping) prior to removal, and treatment (all types of handling/processing) of waste. Proposed processes which can be carried out on site will include the following:

- ✦ Shredding and storage.
- ✦ Bailing and storage.
- ✦ Separation of sand and rubber.
- ✦ Astroturf roll storage.
- ✦ Screening of material.
- ✦ Movement of and Sorting of Material.

It is assumed that the waste site will typically be open during the following hours for all waste operations, i.e. depositing, sorting, moving, storing and removing waste:

- ✦ Monday to Friday - 07:00 – 17:00.
- ✦ Saturday - 07:00 – 13:00.
- ✦ Sundays, Bank/Public holidays - Closed.

1.3. REPORT OBJECTIVES

The objectives of this report are as follows:

- ✦ Establish the existing sound levels at the nearest noise sensitive receptors.
- ✦ Consider the existing and potential sources of sound and to measure source sound levels of all applicable sources.
- ✦ Assess the impact of commercial sound in accordance with BS 4142 with consideration to the existing and proposed scenario.
- ✦ Provide advice on mitigation measures, where required.



2. ASSESSMENT METHODOLOGY

2.1. ENVIRONMENT AGENCY (2022) NOISE AND VIBRATION MANAGEMENT: ENVIRONMENTAL PERMITS

Environmental permits have conditions that require operators to control pollution – this includes controlling noise and vibration. E3P note that the following are required competencies and standards required in relation to Noise Assessments submitted as part of an Environmental Permit Application:

Noise impact assessments should be carried out to an appropriate standard and by competent personnel, for example, holders of either an Institute of Acoustics:

Diploma in Acoustics and Noise Control

Certificate of Competence in Environmental Noise Measurement, with relevant experience

Monitoring noise in the environment is a specialist field. Monitoring should be carried out by a qualified acoustician who can demonstrate competency in environmental work rather than, for example, occupational health and safety work.

You must use 'BS 4142: Methods for rating and assessing industrial and commercial sound' to quantify the level of environmental noise impact from industrial processes.

In rare circumstances, other methods may also be appropriate, for example, NANR45 for assessing existing low frequency sound inside a residential property.

If you want to assess impact using another method, you should discuss and agree this with your regulator before you start the assessment.

Where vibration is an issue, you should contact your regulator for specific advice.

E3P note from the above and the guidance that the EA require a BS 4142 assessment to be conducted.

2.2. BRITISH STANDARD BS 4142:2014+A1: 2019 – METHODS FOR RATING AND ASSESSING INDUSTRIAL AND COMMERCIAL SOUND

This standard describes methods for rating and assessing sound of an industrial or commercial nature which includes:

- ✦ Sound from industrial and manufacturing processes.
- ✦ Sound from fixed installations which comprise mechanical and electrical plant and equipment.
- ✦ Sound from the loading and unloading of goods and materials at industrial and / or commercial premises; and
- ✦ Sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from processes or premises, such as that from forklift trucks, or that from train or ship movements on or around an industrial or commercial Site.

The procedure detailed in the standard compares the measured or predicted specific noise level from any of the above with the background sound level at a residential dwelling. The measured background sound level at a receptor should be reliable and should not necessarily ascertain a lowest measured background sound level, but rather to quantify what is typical.



The specific noise level also acknowledges the reference time intervals depending upon whether the noise source operates during daytime (1-hour) or night-time (15-minute) periods.

There are several 'penalties' which can be attributed to the specific sound level depending upon the 'acoustic features' of the sound level under investigation as follows:

TONALITY

- ✦ +2 dB: where the tonality is just perceptible.
- ✦ +4 dB: where the tonality is clearly perceptible; and
- ✦ +6 dB: where the tonality is highly perceptible.

IMPULSIVITY

- ✦ +3 dB: where the impulsivity is just perceptible.
- ✦ +6 dB: where the impulsivity is clearly perceptible; and
- ✦ +9 dB: where the impulsivity is highly perceptible.

INTERMITTENCY

- ✦ +3dB: where the intermittency is readily distinctive against the acoustic environment.

In addition to the above, there is a penalty for 'other sound characteristics' of +3 dB where a sound exhibits characteristics that are neither tonal nor impulsive, though are readily distinctive against the acoustic environment. BS 4142 goes on to state that the rating level is equal to the specific sound level if there are no such features present or expected to be present.

Assessment of the rating level relative to the background sound level can yield the following commentary:

- ✦ Typically, the greater this difference (between the rating level and the background sound level), the greater the magnitude of impact.
- ✦ A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.
- ✦ A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context; and
- ✦ The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact.

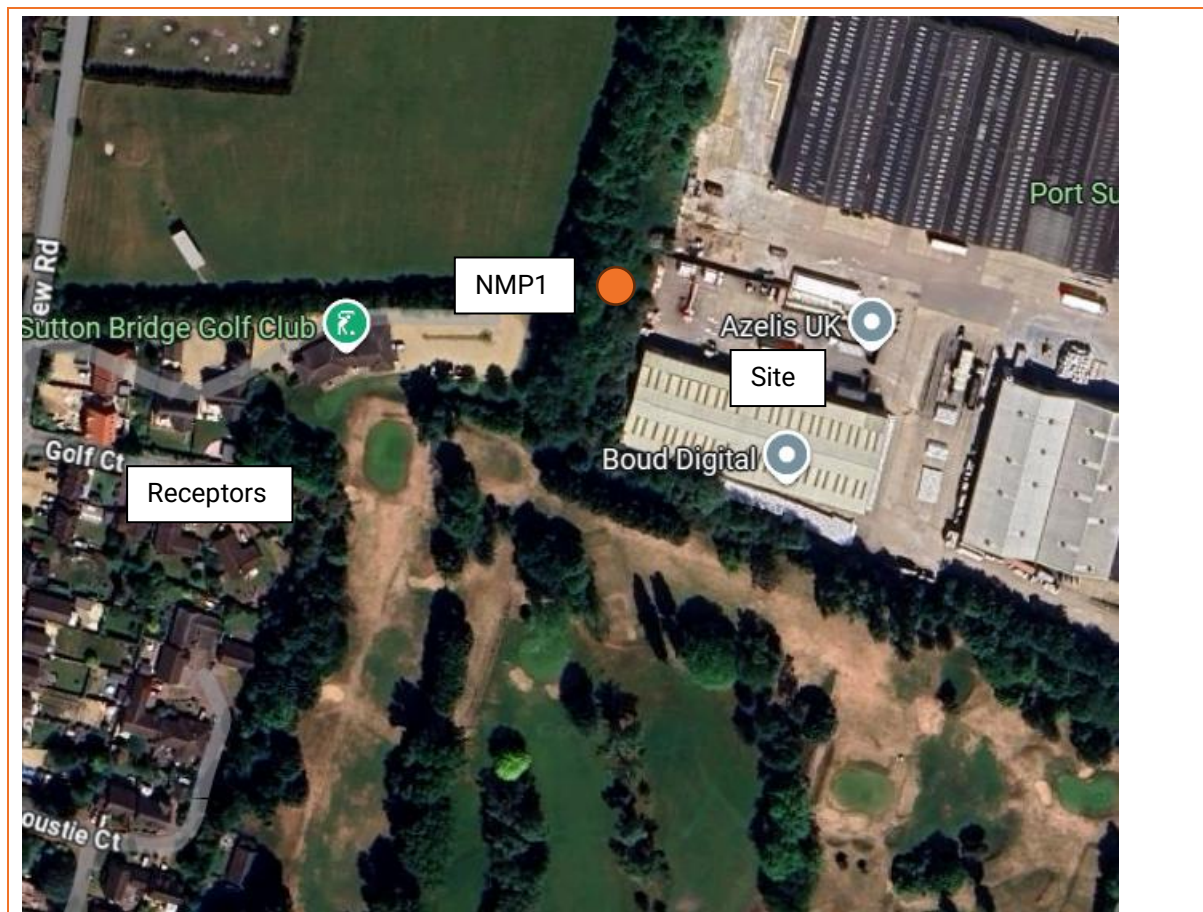


3. SURVEY RESULTS

E3P have undertaken a full weekday and weekend background and ambient sound survey in a position considered representative of the closest residential receptors to the site to the west.

The Noise Measurement Position is shown in Figure 1.

Figure 1 Noise Measurement Position



3.1. BACKGROUND AND AMBIENT SOUND SURVEY

A 3 day survey was conducting at the site in a position considered representative of the surrounding receptors. The survey was conducted during the following periods:

- 📅 14:00 Friday 16th January to 15:00 Monday 19th January 2026.

The following Noise Measurement Position was used for the survey:

- 📍 Noise Measurement Position 1 (NMP1): Located on the western boundary of the site adjacent to the Sutton Bridge Golf Course and approximately 135 m from the nearest receptor. The microphone of the sound level meter was attached to a tripod at a height of 1.5 m above ground level in free-field conditions. Sound sources consisted of commercial sound from neighbouring premises and occasional sound from the golf course.



The results of the unattended long-term monitoring are summarised in Table 3.1 for the daytime with hourly values shown in Appendix III.

Table 3.1 Daytime Background Monitoring Results

DATE	MEASUREMENT PERIOD	RANGE OF MEASURED BACKGROUND SOUND LEVELS, $L_{A90,1HR}$ (dB)	MEDIAN MEASURED BACKGROUND SOUND LEVEL, $L_{A90,1HR}$ (dB)
Friday 16th January	14:00-17:00	45.9-48.8	48
Saturday 17th January	07:00-17:00	41.6-44.9	44
Monday 19th January	07:00-15:00	49.6-51.2	51

Due to the inclusion of existing commercial sound from neighbouring premises and that the receptors are further from the sound sources, the lowest measured background sound level is used in the assessment. Specifically, 42 dB is applied to the assessment.

Weather conditions were monitored throughout the survey via forecasts and observations on site before and after the survey. Conditions were conducive to the measurement of environmental noise for the duration. The equipment outlined in Table 3.2 was used for the noise survey.

Table 3.2 Noise Measurement Equipment

MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER AND TYPE NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
NMP1	Sound Level Meter	01dB Fusion	14616	10th July 2026
	Pre-amplifier	01dB Pre22	20951	
	Microphone	GRAS 40CD	494264	
	Calibrator	Cirrus CR515	99206	5th August 2026

The sound level meter was field calibrated before and after each survey with no significant drift witnessed.



4. BS 4142 NOISE ASSESSMENT

This section considers the likely rating levels from the operations in accordance with BS 4142 and advice given in the Noise and Vibration Management guidance from the EA.

For the purposes of the assessments, E3P has used noise modelling software, CadnaA 2025 MR2, to determine the impact of noise from the sound sources associated with the development.

For the BS 4142:2014+A1:2019 assessment, penalties are applied to the specific sound level to provide the rating level. These penalties relate to the acoustic features of the sound source. Given the existing sound sources at surrounding premises, it is considered that no new intermittent operations would be introduced but there is potential for tonal elements from the plant items. As such, a +2 dB correction is applied. However, as the sound sources are likely to be discernible at the receptors, it is considered more prudent to apply a +3 dB correction for 'other'.

The following inputs have been included in the model:

- ✳ Ground elevations around the site have been taken as existing by way of a 1 m grid Digital Terrain Model (DTM) which contains public sector information licensed under the Open Government License v3.0.
- ✳ Existing buildings have been included in the model and assumed to have a structured façade for dwellings and flat hard walls for other buildings. Heights are taken from LIDAR data.
- ✳ A reflection order of two has been used in all calculations.
- ✳ Ground absorption is set at 0.75.
- ✳ Noise levels generated using ISO 9613-2:2024 "Acoustics – Attenuation of sound during propagation outdoors" as incorporated into CadnaA software.

As no operational plant was available for measurement at the site, E3P have used library source data for similar sites for each proposed plant item/process which are outlined below:

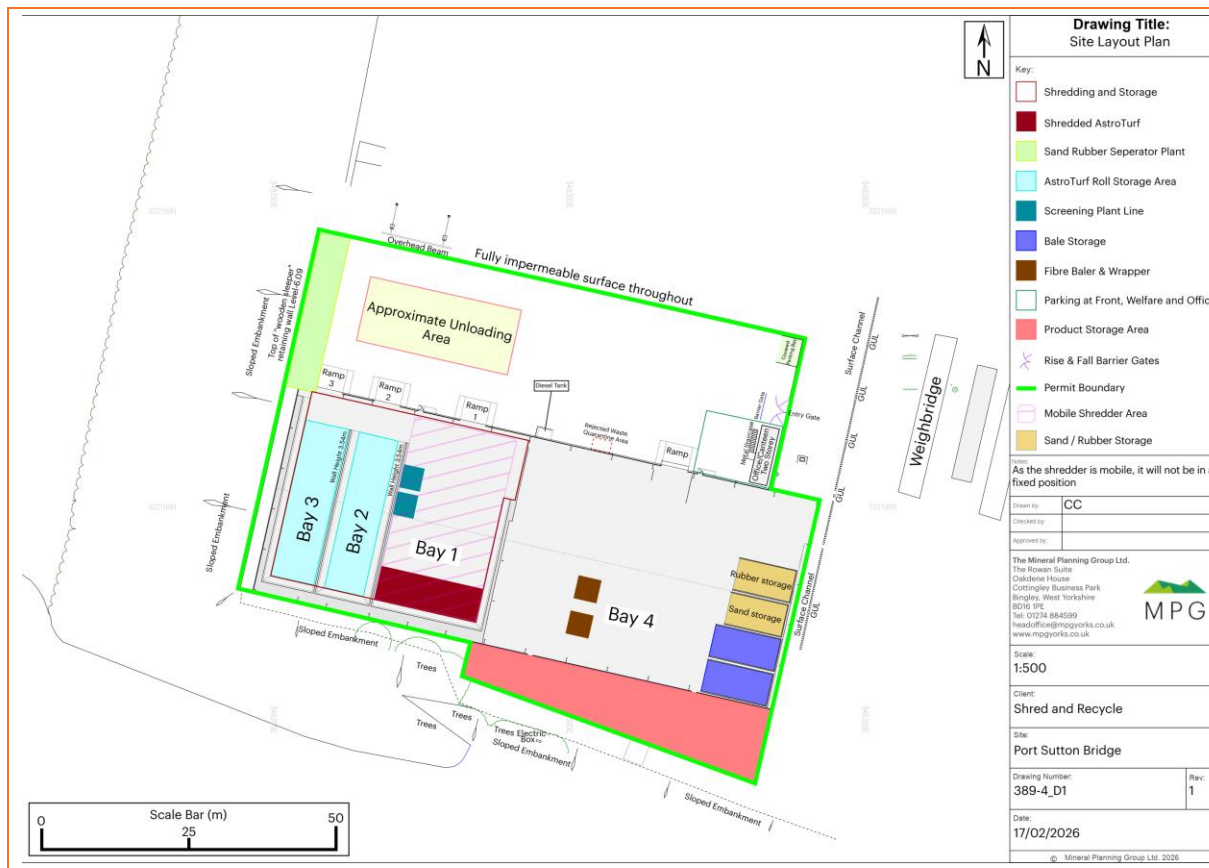
- ✳ Mobile Shredder Feeding Plant (Internal) – sound power level of 105 dB(A) assumed based on available online information at a height of 2 m.
- ✳ Sand Separation Plant – sound power level of 100 dB(A) assumed based on available online information at a height of 3 m.
- ✳ Baler (Internal) - sound power level of 93 dB(A) assumed based on previous experience and available online information at a height of 2 m.
- ✳ Sand cleaner (Internal) - sound power level of 93 dB(A) assumed based on previous experience and available online information at a height of 2 m.
- ✳ Screening plant (Internal) - loaded with bulldozer input as a point source at a height of 2 m with a sound power level of 92.9 dB.
- ✳ Loading shovel moving material outside input as moving point source at a height of 2 m with a sound power level of 93.8 dB. A total number of 30 movements in an hour is assumed to inform a worst-case assessment at a speed of 10 km/h.

All plant labelled Internal above is considered below on the internal to external aspects and sound power levels of each façade/roof.

It is noted that HGV movements would be minimal with up to five movements per day. As such, these are not assessed as are not considered typical. Furthermore, the resultant sound level from these minimal movements would be inconsequential to the overall noise level.

Figure 2 below details the site layout.

Figure 2 Site Layout



From the above, internal to external break-out calculations are undertaken based on a sound reduction of 31 dB for a single skin industrial building. No sound attenuation is applied to the northern façade as roller shutters are assumed to be open to inform a worst-case assessment.

The calculated sound power levels are as follows:

- ✳ Northern façade – 103.6 dB(A) for roller shutter openings and 72.6 dB(A) for the remainder.
- ✳ Eastern façade – 75.1 dB(A).
- ✳ Southern façade – 72 dB(A).
- ✳ Western façade – 67.4 dB(A).
- ✳ Roof – 82.9 dB(A).

4.1. WORST-CASE WEEKDAY AND WEEKEND OPERATIONS

Figure 3 details the resultant Grid Noise Map with levels calculated at 1.5 m height and façade levels showing maximum façade value.

Table 4.1 details the results of the BS 4142 for a selection of receptors and based on worst-case levels per group of receptors. Receptors are shown on Figure 3.



Table 4.1 Daytime BS 4142 Assessment

RECEPTOR	PREDICTED SPECIFIC SOUND LEVEL, $L_{Aeq,1hr}$ (dB)	ACOUSTIC FEATURE CORRECTION (dB)	PREDICTED RATING LEVEL, L_{Ar} (dB)	BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)	DIFFERENCE, +/- (dB)
New Road north west	48	+3	51	42	+9
Golf Court	44	+3	50	42	+8
New Road South west	43	+3	46	42	+4
Garners Lane	31	+3	34	42	-8
Petts Lane	42	+3	45	42	+3

The assessment has determined an exceedance of up to 9 dB exceedance at the closest residential receptors. This is considered a potential adverse impact after consideration of context and uncertainty.

Context is considered below.

4.2. CONTEXT AND UNCERTAINTY

In order to determine the final outcome of the assessment, the context must be considered, in accordance with BS 4142:2014+A1:2019, Section 11. The factors to be considered are discussed below:

4.2.1. BASELINE CONDITIONS

Uncertainty in the assessment was controlled via the following precautions/procedures:

- ✳ Both the sound level meter and calibrator are UKAS calibrated and the meter was field-calibrated both before and after the measurements.
- ✳ The measurement locations are considered representative of the existing noise climate outside the nearest residential dwellings to the proposed development.
- ✳ Background monitoring was undertaken during favourable weather conditions (e.g. dry and under 5m/s wind speed).

4.2.2. THE ABSOLUTE LEVEL OF THE SOUND

The worst-case absolute noise level at the façade of the most affected receptor is 48 dB $L_{Aeq,1hr}$. Assuming 10 dB for attenuation provided by an open window, this would result in the internal noise level of 38 dB, 3 dB above the internal noise criterion for daytime resting.

As such, this suggests an adverse impact at the receptors in addition to the BS 4142 assessment. However, external noise levels at the receptors are at least 2 dB below the 50 dB criterion for garden areas. At other receptors, specific noise levels would be considered low.



4.2.3. THE CHARACTER AND LEVEL OF THE SOUND

The existing sound climate, whilst the site is not operational the existing sound sources are existing commercial sound, road traffic and birdsong, along with local sources. As such, the operational sound sources would be noticeable over the existing sound climate.

Accordingly, the assessment and AFC applied are considered robust and accurate.

4.2.4. THE SENSITIVITY OF THE RECEPTOR AND EXISTING DESIGN MEASURES

The receptors are residential, permanent and are therefore considered to be highly sensitive. Given that details of the existing receptors are not known, it is assumed that no design measures are incorporated, i.e. open windows relied upon. Based on the absolute noise levels at the façade, the internal noise levels would fall comfortably below the BS 8233:2014 criteria during the day and be considered low impact.

Given the contextual factors discussed above in accordance with BS 4142:2014+A1:2019, it is concluded that the sound sources have the potential for adverse impact at the receptors to the north and west only with a low impact considered at those to the east.

As such, mitigation measures are recommended to reduce noise levels for the dwelling to the north west and west.



5. MITIGATION

Due to the potential for industrial sound to result in up to +9 dB exceedance of the background sound level at existing receptors to the west, mitigation measures are recommended.

Upon review of the noise levels at each receptor, it was found that the dominant sound source at receptors to the south west, west and north west was due to noise break-out from the northern façade, i.e. open roller shutters.

As such, an additional grid noise map has been run with roller shutters closed and a conservative correction of -10 dB applied to this façade vertical area source for each roller shutter.

Figure 4 details the resultant grid noise map with roller shutters closed, except for access. It is considered that roller shutters would attenuate at least 15 dB and so a 10 dB correction allows for occasional openings for access. Table 5.1 details the BS 4142 assessment with the barrier in place:

Table 5.1 Daytime BS 4142 Assessment with Mitigation

RECEPTOR	PREDICTED SPECIFIC SOUND LEVEL, $L_{Aeq,1hr}$ (dB)	ACOUSTIC FEATURE CORRECTION (dB)	PREDICTED RATING LEVEL, L_{Ar} (dB)	BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)	DIFFERENCE, +/- (dB)
New Road north west	39	+3	42	42	0
Golf Court	39	+3	42	42	0
New Road South west	38	+3	41	42	-1
Garners Lane	29	+3	32	42	-10
Petts Lane	36	+3	39	42	-3

With roller shutters closed except for access, there is no exceedance of the background sound level at the worst-case receptors. Furthermore, considering the specific sound levels and context, this assessment outcome is not considered adverse.

As such, no adverse impact is predicted with mitigation measures in place.

END OF REPORT

Appendix I: Limitations





GENERAL

1. This report and any associated works (together comprising the "Services") were compiled and carried out by E3P for the client (as present in Section 1) under the E3P "Terms of Business" or with those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed and outlined in the body of the report.
2. Unless explicitly agreed otherwise, in writing, this report has been prepared under E3P Standard Terms and Business as included within our proposal to the Client.
3. Project-specific appointment documents may be agreed upon at our discretion and a charge may be levied for both the time to review and finalise appointment documents and also for associated changes to the appointment terms. E3P reserves the right to amend the fee should any changes to the appointment terms create an increased risk to E3P.
4. The report needs to be considered in light of the proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

NOISE AND VIBRATION IMPACT ASSESSMENTS

5. Where a noise or vibration survey is required to inform an assessment, E3P will endeavour to ensure that all noise and vibration measurements taken are robust, representative and reliable in order to inform an accurate assessment.
6. Where mitigation measures are specified in this report, it should be noted that these measures are relative to a specific sound or vibration source, both in terms of the measured sound pressure and vibration level and the character of the sound source. Where either the sound pressure level or the character of the sound varies following completion of the sound survey, E3P cannot be held responsible for any subsequent variations in the proposed mitigation performance.
7. The works undertaken to prepare this report comprised a study of available and easily documented information from a variety of sources (including the Client), together with (where appropriate) a brief walkover inspection of the Site and correspondence with relevant authorities and other interested parties. Due to the short timescales associated with these projects responses may not have been received from all parties. E3P cannot be held responsible for any disclosures that are provided post-production of our report and will not automatically update our report.
8. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, E3P reserves the right to review such information and, if warranted, to modify the opinions accordingly.
9. E3P does not warrant work/data undertaken/provided by others.

Appendix II: Glossary





NOISE

Noise is defined as unwanted sound. Human ears are able to respond to sound in the frequency range 20 Hz (deep bass) to 20,000 Hz (high treble) and over the audible range of 0 dB (the threshold of perception) to 140 dB (the threshold of pain). The ear does not respond equally to different frequencies of the same magnitude but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting mechanism is used. This reduces the importance of lower and higher frequencies, in a similar manner to the human ear.

Furthermore, the perception of noise may be determined by a number of other factors, which may not necessarily be acoustic. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period of time. In some cases, the time of day and other acoustic features such as tonality or impulsiveness may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all of these factors when assessing the significance of a noise source. The most widely used weighting mechanism that best corresponds to the response of the human ear is the "A"-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or LAeq, LA90 etc., according to the parameter being measured.

The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective but, as a general guide, a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions. An indication of the range of sound levels commonly found in the environment is given in the following table.

Table A Typical Sound Pressure Levels

SOUND PRESSURE LEVEL	LOCATIONS/EXAMPLE
0	Threshold of hearing
20-30	Quiet bedroom at night
30-40	Living room during the day
40-50	Typical office
50-60	Inside a car
60-70	Typical high street
70-90	Inside a factory
100-110	Burglar alarm at 1 m away
110-130	Jet aircraft on take off
140	Threshold of pain



ACOUSTIC TERMINOLOGY

Table B Terminology

DESCRIPTOR	EXPLANATION
dB (decibel)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2E-05 Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. "A" weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
LAeq, T	LAeq is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A-weighted fluctuating sound measured over that period.
LAmx	LAmx is the maximum A-weighted sound pressure level recorded over the period stated. LAmx is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall Leq noise level but will still affect the noise environment. Unless described otherwise, it is measured using the "fast" sound level meter response.
L10 and L90	If a non-steady noise is to be described, it is necessary to know both its level and the degree of fluctuation. The Ln indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L10 is the level exceeded for 10% of the time and as such can be regarded as the "average maximum level". Similarly, L90 is the "average minimum level" and is often used to describe the background noise. It is common practice to use the L10 index to describe traffic noise.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally, as measured outside and away from buildings.
Fast	A time weighting used in the root-mean-square section of a sound level meter with a 125-millisecond time constant.
Slow	A time weighting used in the root-mean-square section of a sound level meter with a 1000-millisecond time constant.
dB (decibel)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2E-05 Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. "A" weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.

Appendix III: Measured Sound Pressure Levels





Table A.1 Hourly Measured Ambient and Background Sound Levels

MEASUREMENT START TIME	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,1hr}$ (dB)	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)
16/01/2026 14:00	51.8	45.9
16/01/2026 15:00	51.2	48.4
16/01/2026 16:00	52.8	48.8
16/01/2026 17:00	53.6	48.5
16/01/2026 18:00	55.5	50.8
16/01/2026 19:00	54.7	49.3
16/01/2026 20:00	54.1	49.0
16/01/2026 21:00	53.8	44.4
16/01/2026 22:00	44.2	40.7
16/01/2026 23:00	41.5	38.6
17/01/2026 00:00	41.2	38.0
17/01/2026 01:00	40.5	37.3
17/01/2026 02:00	41.0	38.2
17/01/2026 03:00	42.3	39.4
17/01/2026 04:00	41.2	37.9
17/01/2026 05:00	42.1	38.8
17/01/2026 06:00	44.1	40.8
17/01/2026 07:00	48.1	41.6
17/01/2026 08:00	52.3	44.1
17/01/2026 09:00	53.2	44.9
17/01/2026 10:00	49.6	43.9
17/01/2026 11:00	51.2	43.1
17/01/2026 12:00	50.2	42.7
17/01/2026 13:00	45.6	41.5
17/01/2026 14:00	46.6	40.9
17/01/2026 15:00	45.2	41.3
17/01/2026 16:00	48.9	42.8
17/01/2026 17:00	44.8	42.6
17/01/2026 18:00	44.4	41.6
17/01/2026 19:00	43.3	39.3
17/01/2026 20:00	42.9	36.2
17/01/2026 21:00	39.6	34.0
17/01/2026 22:00	32.2	27.2
17/01/2026 23:00	31.6	26.9



MEASUREMENT START TIME	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,1hr}$ (dB)	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)
18/01/2026 00:00	34.3	29.0
18/01/2026 01:00	35.8	32.7
18/01/2026 02:00	30.5	21.8
18/01/2026 03:00	29.7	20.8
18/01/2026 04:00	33.0	23.3
18/01/2026 05:00	36.3	28.1
18/01/2026 06:00	42.6	34.6
18/01/2026 07:00	47.4	37.8
18/01/2026 08:00	50.5	39.8
18/01/2026 09:00	48.1	41.1
18/01/2026 10:00	48.2	42.0
18/01/2026 11:00	50.2	42.2
18/01/2026 12:00	45.9	40.4
18/01/2026 13:00	47.0	41.9
18/01/2026 14:00	46.5	42.9
18/01/2026 15:00	47.1	45.0
18/01/2026 16:00	48.9	44.7
18/01/2026 17:00	45.6	43.2
18/01/2026 18:00	46.0	43.2
18/01/2026 19:00	45.0	42.7
18/01/2026 20:00	45.6	42.5
18/01/2026 21:00	43.4	39.1
18/01/2026 22:00	40.1	35.9
18/01/2026 23:00	38.3	33.8
19/01/2026 00:00	37.1	33.6
19/01/2026 01:00	37.4	34.3
19/01/2026 02:00	38.2	34.0
19/01/2026 03:00	50.4	40.3
19/01/2026 04:00	47.8	42.5
19/01/2026 05:00	49.2	46.3
19/01/2026 06:00	52.5	49.6
19/01/2026 07:00	57.1	51.1
19/01/2026 08:00	53.4	50.9
19/01/2026 09:00	53.3	49.9
19/01/2026 10:00	58.5	49.8

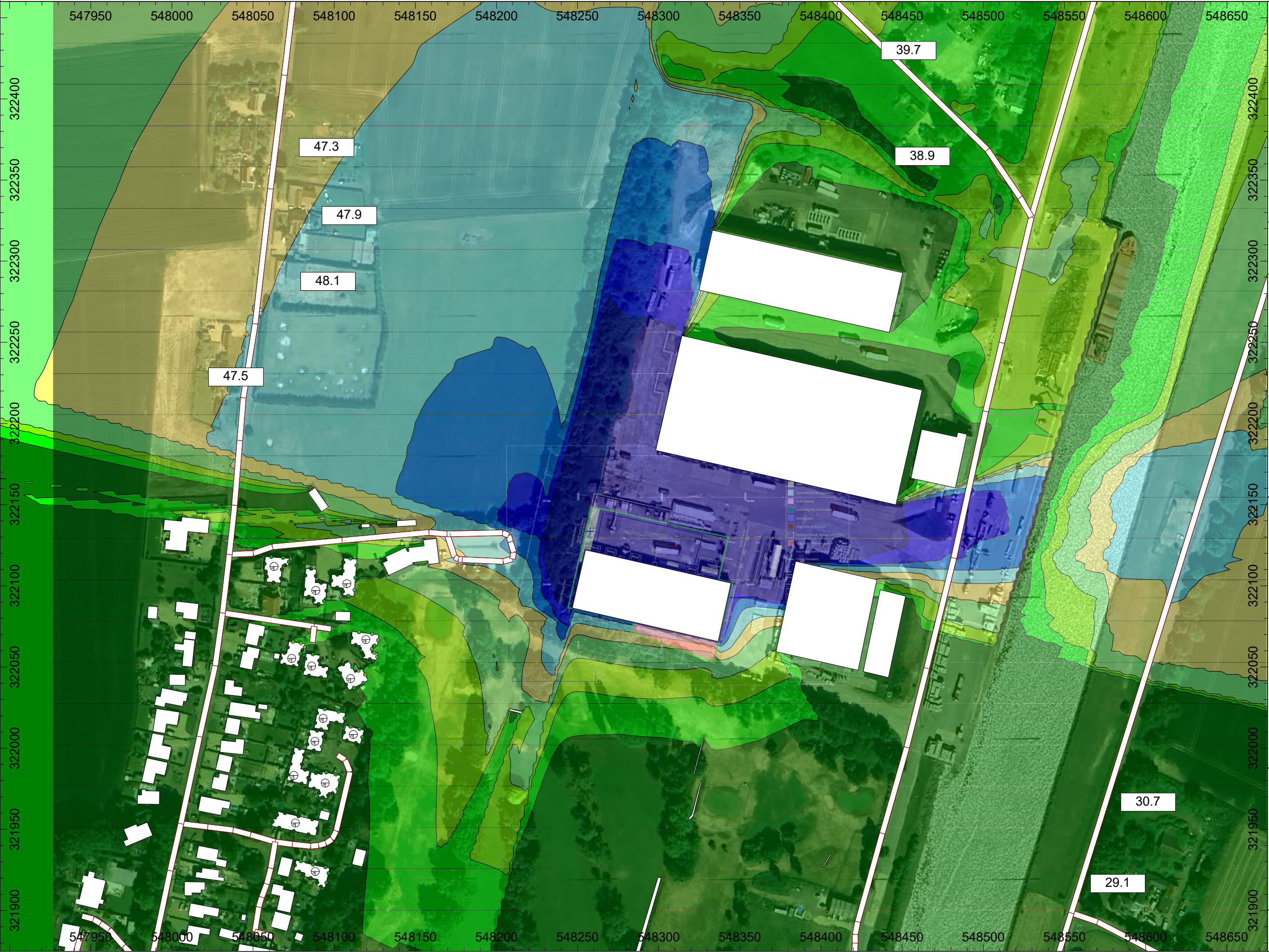


MEASUREMENT START TIME	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,1hr}$ (dB)	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)
19/01/2026 11:00	54.4	50.3
19/01/2026 12:00	56.3	51.2
19/01/2026 13:00	54.9	50.6
19/01/2026 14:00	60.7	49.6

Appendix IV: Figures



Figure 3 - Daytime with Roller Shutters Open Grid Noise Map - Calculation at 1.5 m above ground level



Project:
Port Sutton Bridge

Project-No:
51-856

Client:
Shred and Recycle

Predicted Noise Level, LAeq,T (dB)

...	<= 38
38 < ...	<= 40
40 < ...	<= 42
42 < ...	<= 45
45 < ...	<= 48
48 < ...	<= 50
50 < ...	<= 52
52 < ...	<= 55
55 < ...	

Noise Map Objects

- + Point Source
- Line Source
- ▨ Area Source
- vert. Area Source
- ▭ Road
- ⊗ Crossing
- ▭ Building
- ▭ Barrier
- ⊕ Building Evaluation
- ▭ Calculation Area

e3p

Project Engineer: L Faulkner
Date: 06/02/2026

