

NOISE IMPACT ASSESSMENT

Site:	The Field – Birch Business Park
References:	51-690-R1
Date:	31 July 2025
Client:	Yeagate Ltd





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QUALITY ASSURANCE

Report references

51-690-R1

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EXECUTIVE SUMMARY

Site Address	Whittle Ln, Heywood OL10 2SX
Grid Reference	E 384252, N 408658
Proposed Development	Proposed commercial development comprising 2 no. commercial warehouses with associated service yard, car parks and access.
Surveys Completed	E3P has undertaken a full unattended weekday-weekend background noise measurement in a position representative of the nearest residential receptors.
Assessments Completed	A 3D noise model has been constructed to assess commercial noise impact upon nearby receptors. Proposed commercial noise is assessed in accordance with BS4142:2014+A1:2019.
Conclusions and Discussions	This assessment has shown that no adverse impact is predicted day or night at existing receptors due to proposed commercial sound.



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1. INTRODUCTION

1.1. BACKGROUND

E3P were commissioned by Yeargate Ltd to undertake a Noise Impact Assessment for a proposed commercial development at a site on land off Birch Business Park, Heywood OL10 2SX, to be referred to hereafter as 'the Site'.

This assessment looks to determine the key noise sources in the immediate vicinity of the Site and to assess their impact, if any, upon proposed residential receptors and to specify mitigation measures, where required.

1.2. REPORT OBJECTIVES

The objectives of this report are as follows:

- ✦ Establish and measure the existing sound levels across the site, day and night.
- ✦ Consider the potential sources of sound impacting the site and to measure source sound levels of all applicable sources.
- ✦ Assess the impact of commercial sound upon the proposed development in accordance with BS 4142.
- ✦ Provide advice on mitigation measures, where required.

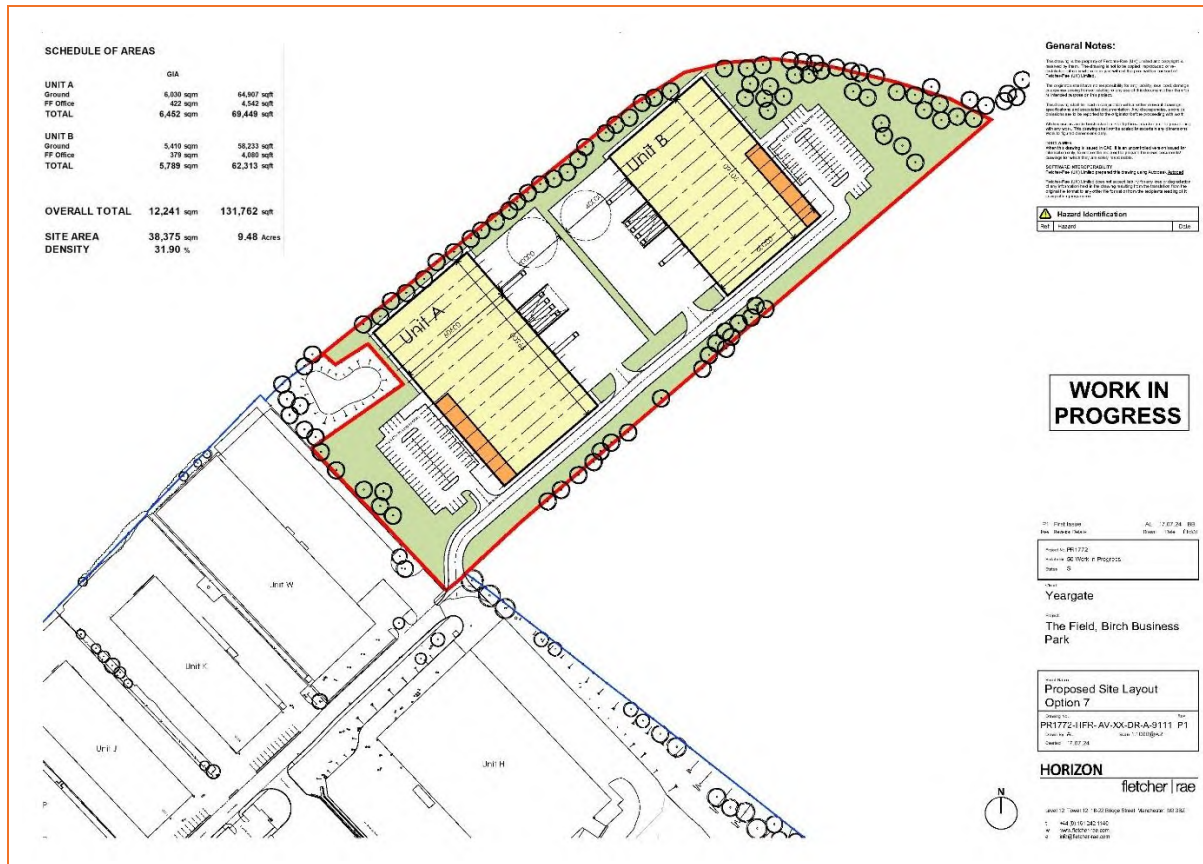
1.3. PROPOSED DEVELOPMENT

Yeargate Ltd propose to construct two commercial warehouses with associated service yards, car parking and access.

A snapshot of the proposed development layout is indicated in Figure 1.



Figure 1 Snapshot of the Proposed Development





2. ASSESSMENT METHODOLOGY

2.1. NATIONAL PLANNING POLICY FRAMEWORK (2024)

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:

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

2.2. NATIONAL PLANNING PRACTICE GUIDANCE

Noise needs to be considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment. When preparing local or neighbourhood plans, or taking decisions about new development, there may also be opportunities to consider improvements to the acoustic environment.

Local planning authorities' plan-making and decision-making should take account of the acoustic environment and in doing so consider:

- ✿ Whether or not a significant adverse effect is occurring or is likely to occur.
- ✿ Whether or not an adverse effect is occurring or is likely to occur.
- ✿ Whether or not a good standard of amenity can be achieved.

In line with the explanatory note of the NPSE, this would include identifying whether the overall effect of the noise exposure (including the impact during the construction phase, where applicable) is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.

The “observed effect levels” are as follows:

- ✿ Significant observed adverse effect level: This is the level of noise exposure above which significant adverse effects on health and quality of life occur.
- ✿ Lowest observed adverse effect level: This is the level of noise exposure above which adverse effects on health and quality of life can be detected.
- ✿ No observed effect level: This is the level of noise exposure below which no effect at all on health or quality of life can be detected.

Table 2.1 summarises the noise exposure hierarchy, based on the likely average response.



Table 2.1 Noise Exposure Hierarchy

PERCEPTION	EXAMPLES OF OUTCOMES	INCREASING EFFECT LEVEL	ACTION
Not Applicable	No effect	No observed effect	No specific measures required.
Noticeable and Not Intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No observed adverse effect	No specific measures required
Lowest Observed Adverse Effect			
Noticeable and Intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television, speaking more loudly, or having to close windows for some of the time because of the noise where there is no alternative ventilation. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed adverse effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and Disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion, having to keep windows closed most of the time because of the noise where there is no alternative ventilation. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant observed effect	Avoid
Noticeable and Very Disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening, loss of appetite, significant/medically definable harm (auditory and non-auditory).	Unacceptable adverse effect	Prevent

The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any situation. These factors include the following:



- ✿ The source and absolute level of the noise together with the time of day it occurs. Some types and level of noise will cause a greater adverse effect at night than if they occurred during the day. The adverse effect can also be greater simply because there is less background noise at night.
- ✿ For non-continuous sources of noise, the number of noise events, and the frequency and pattern of occurrence of the noise can be important.
- ✿ The spectral content of the noise and the general character of the noise. The local topology and topography should also be considered along with the existing and, where appropriate, the planned character of the area.

More specific factors to consider when relevant:

- ✿ Where applicable, the cumulative impacts of more than one source should be considered along with the extent to which the source of noise is intermittent and of limited duration.
- ✿ Consideration should also be given to whether adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time. In both cases, a suitable alternative means of ventilation is likely to be necessary.
- ✿ If external amenity spaces are an intrinsic part of the overall design, then the acoustic environment of those spaces should be considered so that they can be enjoyed as intended.

2.3. 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

Figure 2 below shown the noise measurement position.

Figure 2 Noise Measurement Positions



3.1. UNATTENDED BACKGROUND AND AMBIENT SOUND SURVEY

E3P has conducted a full weekday-weekend Background Sound Survey in order to quantify the existing levels of background sound at a position considered representative of the closest associated and non-associated receptors at Moss Hall Farm and on Dr Fold Lane.

🕒 10:00 Friday 25th July to 10:00 Monday 28th July

The following noise measurement position was chosen for the Background and Ambient Sound Survey:

- 📍 Noise Measurement Position 1 (NMP1): Located on the south eastern boundary of the site. The microphone of the sound level meter was attached to a tripod and located in free-field conditions at a height of 1.75m above ground level. Sound sources here consisted of commercial noise from the nearby industrial site, and are representative of noise at existing receptors due to being installed at an equal distance from current commercial activity.

Table 3.1 details the range and median of the measured background sound levels. The daytime levels correspond to the $L_{A90,1hr}$ and the night-time levels to the $L_{A90,15mins}$.



Table 3.1 Range and Median Measured Background and Ambient Sound Pressure Levels

DATE	ASSESSMENT PERIOD	RANGE OF MEASURED BACKGROUND SOUND LEVELS, $L_{A90,T}$ (dB)	MEDIAN MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)
Friday 25 th July	Daytime	31.5-39.3	37.8
	Night-time	29.1-34.1	30.4
Saturday 26 th July	Daytime	32.5-40.3	36.7
	Night-time	31.6-34.9	33.2
Sunday 27 th July	Daytime	39.0-36.5	37.0
	Night-time	32.2-37.4	34.0

The lowest median background sound levels during daytime and night-time periods were noted to be 36.7 dB and 30.4 dB respectively.

3.2. COMMERCIAL SOUND MEASUREMENTS

Given that the site is currently unused, commercial measurements cannot be undertaken as there is no activity at this site to capture.

E3P have relied upon previously measured data of similar activity to the proposed to inform the assessment seen in table 3.2.

Table 3.2 Source Noise Levels

SOURCE	SOUND POWER LEVEL, L_{WA} (dB)	SOURCE HEIGHT (m)
HGV movement	80	2
Forklift including horn	95	1
HGV unloading/loading	75	1.5

During the survey, conditions remained dry and wind speeds rarely exceeded 5 m/s. The equipment outlined in Table 3.3 was used for the noise survey.

Table 3.3 Noise Measurement Equipment and Calibration Dates

MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER/ TYPE	SERIAL NR	CALIBRATION DUE DATE
NMP1	Sound Level Meter	Optimus Green CR:171A	G303884	19/09/2025
	Pre-amplifier	MV:200F	12731F	
	Microphone	MK:224	215899D	
	Calibrator	CR:515	99403	19/09/2025

The sound level meter was field calibrated before and after measurements with no significant drift witnessed





4. COMMERCIAL NOISE IMPACT ASSESSMENT

For the purposes of this assessment, E3P has used noise modelling software, CadnaA 2025 MR1, to determine the impact of noise from the proposed site.

The following inputs have been included in the model:

- ✦ PR1772-HFR-AV-XX-DR-A-9111-P1_Proposed Site Layout Option 7– Dated 17/07/2024.
- ✦ Sources relating to proposed commercial activity are input as moving point sources and point sources calibrated to the sound levels noted in table 3.2. Four HGVs arriving, moving and being unloaded along with two FLT's operating simultaneously are modelled to inform a worst-case assessment.
- ✦ Car park activity for both proposed parking areas have been input as parking lots with approximately 20 movements per hour for the day and 13 movements per hour for the night for the larger car park. The smaller car park has been input with 17 movements per hour in the day and 11 movements per hour for the night.
- ✦ Both daytime and night-time periods are assessed as it is assumed the site will have opportunity to be operational during these periods.
- ✦ Site elevations have been taken as existing by way of a 2 m grid Digital Terrain Model (DTM) which contains public sector information licensed under the Open Government License v3.0.
- ✦ Existing buildings are included.
- ✦ A reflection order of 2 has been used in all calculations.
- ✦ Noise levels generated using ISO 9613-2:2024 "Acoustics – Attenuation of sound during propagation outdoors" as incorporated into CadnaA software.

Figures 3 and 4 determine the specific noise levels across the site during the daytime and night-time periods, respectively, due to proposed site activity.

For the BS 4142:2014 assessments, penalties are applied to the specific sound level to provide the rating level. These penalties relate to the acoustic features of the sound source. Accordingly, the following objective and subjective features have been accounted for in the assessment, in accordance with the subjective method detailed in BS 4142:2014, for the sources.

Table 4.1 Acoustic Features

ACOUSTIC FEATURE	APPLICABLE	ATTRIBUTABLE PENALTY	COMMENT
Tonality	No	-	No tonality detected
Intermittency	Yes	+3	Movements of HGVs and FLT's are likely to be intermittent.
Impulsivity	No	-	No impulsive sounds
Other	No	-	Intermittency applied



4.1. DAYTIME ASSESSMENT -07:00-23:00

Figure 3 should be used to view the specific noise level at the worst affected receptors. The grid is calculated at 1.5m to show garden noise levels.

Table 4.2 Calculation of Rating Level and Comparison with Background Sound Level - Daytime

RECEPTOR	CALCULATED SPECIFIC NOISE LEVEL, $L_{Aeq,T}$ (dB)	CALCULATED RATING LEVEL, L_{Ar} (dB)	BACKGROUND SOUND LEVEL, $L_{A90,1HR}$ (dB)	DIFFERENCE +/- (dB)
Receptor on Dr Fold Lane	24	27	37	-10
Moss Hall Farm	29	32	37	-5
Moss Hall Road	20	23	37	-14

The assessment has determined that the predicted rating level from commercial activity would fall below the background sound level during the daytime period.

As such, no mitigation measures are required.

4.2. NIGHT-TIME ASSESSMENT- 23:00-07:00

Figure 4 should be used to view the night-time specific noise level at the receptors at first floor height.

Table 4.3 Calculation of Rating Level and Comparison with Background Sound Level – Night-time

RECEPTOR	CALCULATED SPECIFIC NOISE LEVEL, $L_{Aeq,T}$ (dB)	CALCULATED RATING LEVEL, L_{Ar} (dB)	BACKGROUND SOUND LEVEL, $L_{A90,15MIN}$ (dB)	DIFFERENCE +/- (dB)
Receptor on Dr Fold Lane	24	27	30	-3
Moss Hall Farm	29	32	30	+2
Moss Hall Road	20	23	30	-7

The assessment has determined that the predicted rating level from commercial activity would exceed the background sound level at once receptor during the night-time period by 2 dB.

However for the night-time period, given that residents would be inside and sleeping it is more prudent to assess internal noise levels in bedrooms. The highest façade specific noise level in the night-time period due to commercial sound is 28 dB . Internal noise levels are predicted to fall well below the internal night-time criteria of 30 dB even with windows open.

Given this, no adverse impact is predicted at existing receptors due to the proposed development.

As such, no mitigation measures are required at night-time due to commercial sound.



5. CONCLUSIONS AND DISCUSSION

E3P were commissioned to undertake a Noise Impact Assessment for the proposed commercial development at The Field, Birch Business Park.

This assessment looked to determine the key noise sources proposed at the development site and to assess their impact, if any, upon the nearest noise-sensitive receptors and to recommend mitigation measures, where necessary.

E3P have undertaken a full weekday-weekend unattended background sound measurements to determine current noise levels across site.

E3P have undertaken 3D noise modelling to assess commercial activity associated with the proposed development in accordance with BS 4142:2014.

The BS 4142 assessment of the proposed commercial activity determined the nearest noise sensitive receptors would not experience adverse impact during the daytime or night-time period due to the proposed development.

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 Data for NMP3

MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVEL (dB)	
	L _{Aeg,T}	L _{A90,T}
25/07/2025 10:00	45.0	38.5
25/07/2025 11:00	43.4	39.3
25/07/2025 12:00	43.5	38.7
25/07/2025 13:00	43.2	38.9
25/07/2025 14:00	42.5	35.8
25/07/2025 15:00	42.3	35.5
25/07/2025 16:00	61.1	37.2
25/07/2025 17:00	44.4	37.8
25/07/2025 18:00	43.4	38.2
25/07/2025 19:00	44.8	38.7
25/07/2025 20:00	38.5	32.4
25/07/2025 21:00	37.5	31.5
25/07/2025 22:00	41.2	33.8
25/07/2025 23:00	40.4	34.1
26/07/2025 00:00	39.5	31.8
26/07/2025 01:00	37.7	30.9
26/07/2025 02:00	34.9	30.3
26/07/2025 03:00	31.2	30.0
26/07/2025 04:00	35.0	30.5
26/07/2025 05:00	43.5	29.5
26/07/2025 06:00	44.6	29.1
26/07/2025 07:00	44.9	34.0
26/07/2025 08:00	42.0	33.1
26/07/2025 09:00	44.3	33.8
26/07/2025 10:00	38.7	35.4
26/07/2025 11:00	43.4	36.7
26/07/2025 12:00	43.7	36.6
26/07/2025 13:00	44.3	37.3
26/07/2025 14:00	46.3	38.3
26/07/2025 15:00	46.5	40.3
26/07/2025 16:00	43.8	38.3
26/07/2025 17:00	44.6	38.2
26/07/2025 18:00	41.9	37.4
26/07/2025 19:00	43.8	37.9



MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVEL (dB)	
	L _{Aeg,T}	L _{A90,T}
26/07/2025 20:00	38.9	33.5
26/07/2025 21:00	36.7	32.6
26/07/2025 22:00	35.0	32.5
26/07/2025 23:00	39.1	33.3
27/07/2025 00:00	39.0	33.9
27/07/2025 01:00	35.6	32.4
27/07/2025 02:00	40.2	32.6
27/07/2025 03:00	39.6	34.9
27/07/2025 04:00	39.0	33.6
27/07/2025 05:00	46.0	31.6
27/07/2025 06:00	41.5	33.1
27/07/2025 07:00	42.0	30.6
27/07/2025 08:00	42.2	31.6
27/07/2025 09:00	41.3	34.7
27/07/2025 10:00	43.2	37.7
27/07/2025 11:00	42.8	36.5
27/07/2025 12:00	44.2	37.5
27/07/2025 13:00	44.6	38.0
27/07/2025 14:00	50.0	39.0
27/07/2025 15:00	46.7	39.0
27/07/2025 16:00	44.1	37.7
27/07/2025 17:00	44.7	37.8
27/07/2025 18:00	44.6	37.4
27/07/2025 19:00	43.6	36.1
27/07/2025 20:00	39.9	35.1
27/07/2025 21:00	39.5	34.3
27/07/2025 22:00	40.3	34.6
27/07/2025 23:00	36.2	34.1
28/07/2025 00:00	37.8	33.2
28/07/2025 01:00	35.0	32.2
28/07/2025 02:00	35.4	32.7
28/07/2025 03:00	36.4	33.9
28/07/2025 04:00	40.0	35.2
28/07/2025 05:00	47.0	36.0
28/07/2025 06:00	41.3	37.4

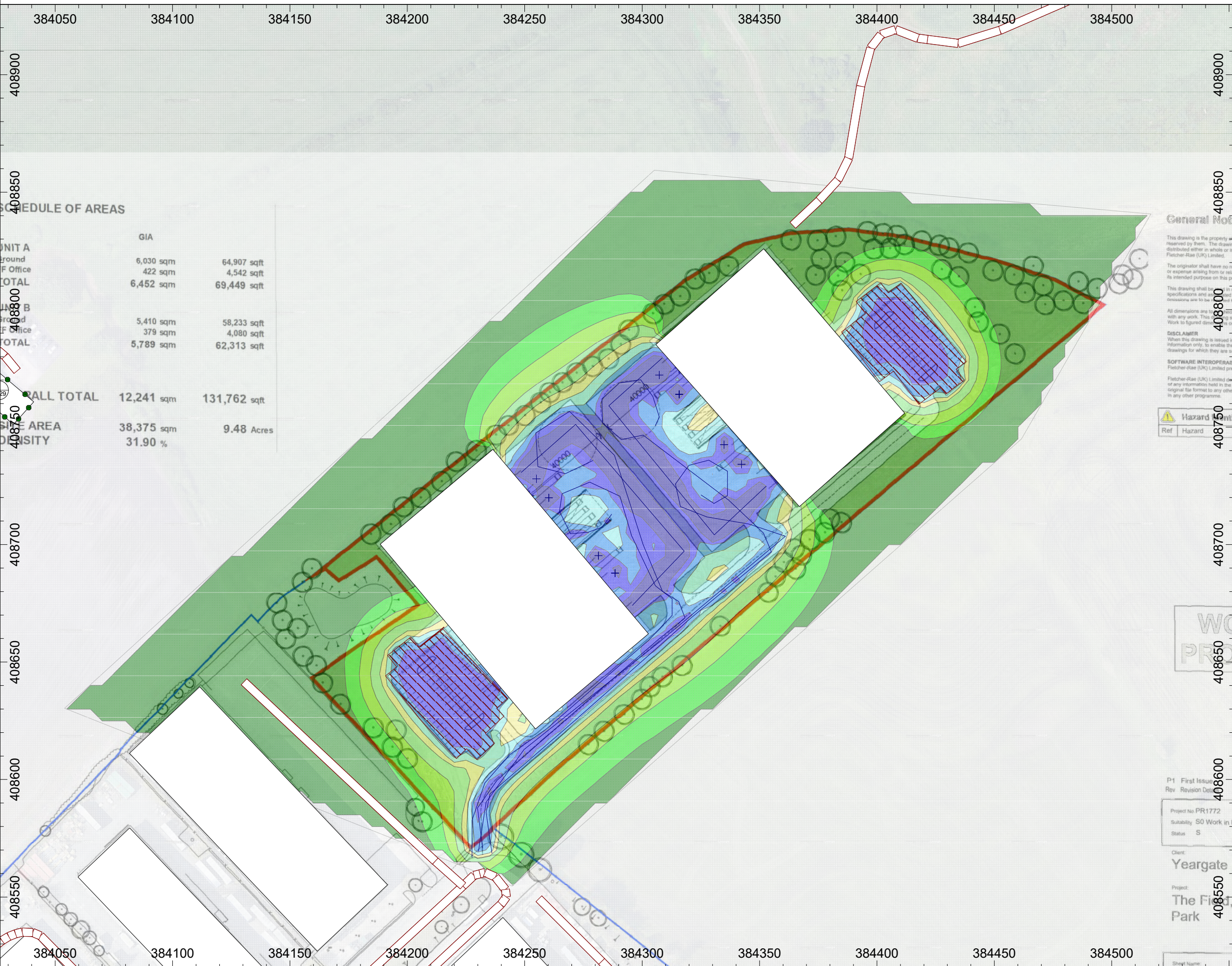


MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVEL (dB)	
	$L_{Aeg,T}$	$L_{A90,T}$
28/07/2025 07:00	48.6	37.0
28/07/2025 08:00	42.4	36.5
28/07/2025 09:00	45.0	38.5

Appendix IV: Figures



Figure 3 - Daytime Grid Noise Map (BS 4142) - Calculation at 1.5 m above ground level



Project:
The Field,
Birch Business Park

Project-No:
51-690

Client:
WSP Ltd

**Daytime Specific Noise Level,
LAeq,T (dB)**

- ... ≤ 38
- 38 < ... ≤ 40
- 40 < ... ≤ 42
- 42 < ... ≤ 45
- 45 < ... ≤ 48
- 48 < ... ≤ 50
- 50 < ... ≤ 52
- 52 < ... ≤ 55
- 55 < ...

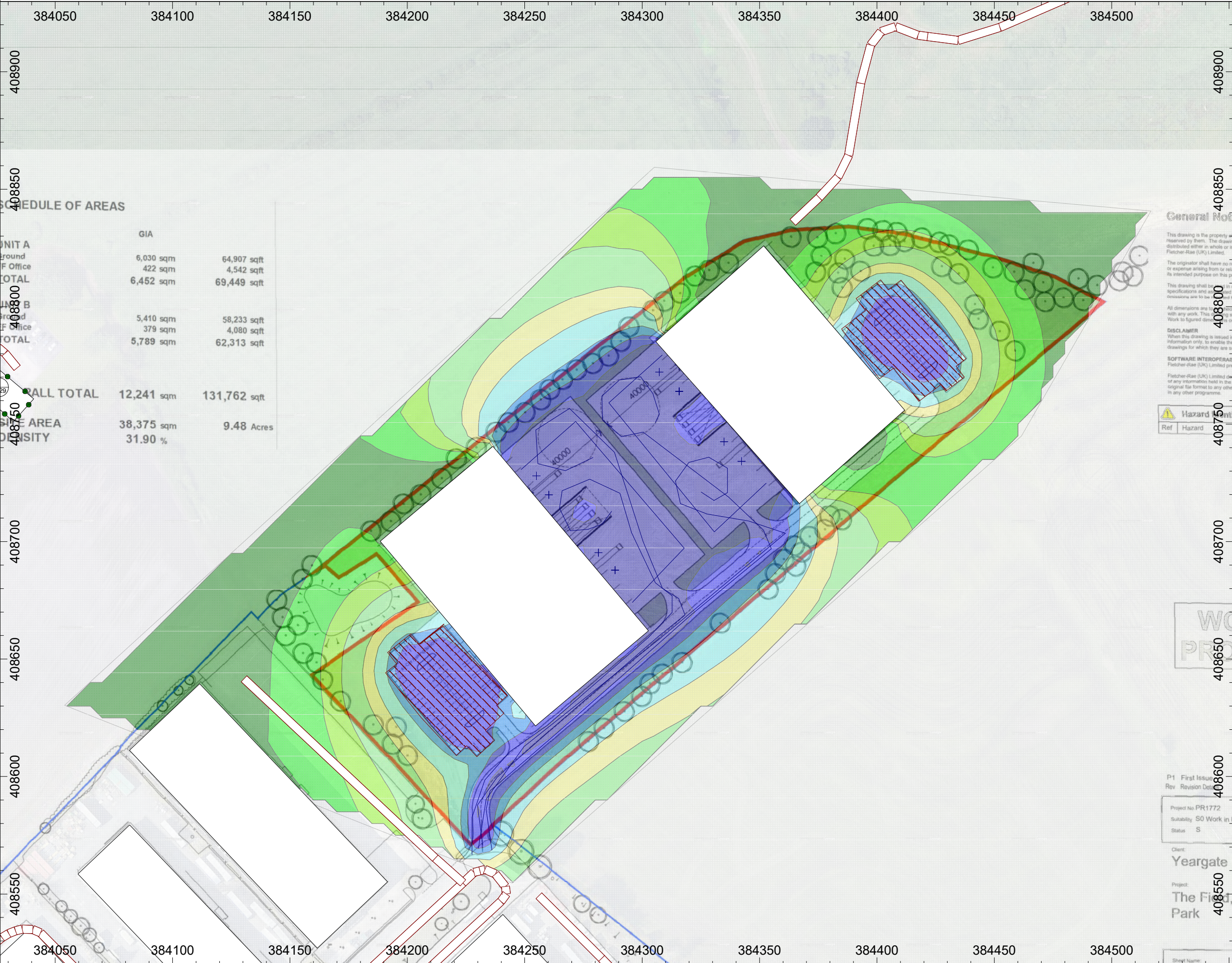
Noise Map Objects

- + Point Source
- Line Source
- ▭ Road
- ▧ Crossing
- ▨ Parking Lot
- ▭ Building
- ⊕ Building Evaluation
- ▭ Calculation Area



Project Engineer: Melissa Bailey
Date: 31/07/2025

Figure 4 - Night-time Grid Noise Map (BS 4142) - Calculation at 4 m above ground level



Project:
The Field,
Birch Business Park

Project-No:
51-690

Client:
WSP Ltd

**Night-time Specific Noise Level
LAeq,T (dB)**

...	<= 32
32 < ...	<= 35
35 < ...	<= 38
38 < ...	<= 40
40 < ...	<= 42
42 < ...	<= 45
45 < ...	<= 48
48 < ...	<= 50
50 < ...	

Noise Map Objects

- + Point Source
- Line Source
- ▭ Road
- ▧ Crossing
- ▨ Parking Lot
- ▭ Building
- ⊕ Building Evaluation
- ▭ Calculation Area

e3p

Project Engineer: Melissa Bailey
Date: 31/07/2025