

NOISE IMPACT ASSESSMENT

Site:	Unit 3 Stakehill Industrial Estate
References:	51-855-R1
Date:	16 October 2025
Client:	Montgomery Developments Limited





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QUALITY ASSURANCE

Report references

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EXECUTIVE SUMMARY

Site Address	Unit 3 Stakehill Industrial Estate, Bentley Avenue, Middleton M24 2GP
Grid Reference	E 388660, N 408314
Proposed Development	The demolition of existing buildings, erection of an ATF (authorised testing facility) test lane to the side of the existing building, removal of 3 existing bays to provide a larger yard and a link to be provided from their current site to this site.
Surveys Completed	E3P has undertaken a full weekday and weekend background sound survey in a position considered representative of the existing receptors to the immediate north along Bentley Avenue.
Assessments Completed	A 3D noise model has been constructed to assess potential commercial sound associated with the site at existing receptors. Commercial noise is assessed in accordance with BS 4142:2014+A1:2019.
Mitigation Recommended	The assessment determined rating levels to be either below, equal to or marginally above the typical background sound level. However, exceedances of up to 1 dB were not considered significant considering the context of the site and absolute levels of noise. As such, no mitigation measures are recommended beyond the assumptions that the ATF northern shutter would remain closed during testing and all other roller shutters would be closed at night.
Conclusions and Discussions	This assessment has shown that no adverse impact is predicted day or night at the receptors due to commercial sound.



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1. INTRODUCTION

1.1. BACKGROUND

E3P was commissioned by Montgomery Developments Limited to undertake a Noise Impact Assessment for a proposed commercial development at a site off Bentley Avenue, within the Stakehill Industrial Estate, in Middleton, Manchester, to be referred to hereafter as 'the Site'.

This assessment looks to determine the key noise sources associated with the development and to assess their impact, if any, upon existing 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 at nearby receptors, day and night.
- ✦ Consider the potential sources of sound associated with the site.
- ✦ Assess the impact of commercial sound upon existing receptors in accordance with BS 4142.
- ✦ Provide advice on mitigation measures, where required.

1.3. PROPOSED DEVELOPMENT

The client intends to demolish the existing buildings, for which an order has already been submitted, erect an ATF test lane to the side of the existing building, remove 3 existing bays to provide a larger yard and a link to be provided from their current site to this site.

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.

A full weekday and weekend background sound survey was conducted on the northern boundary of the site to capture baseline levels of noise at the nearby receptors. Figure 2 shows the Noise Measurement Position.

[illegible]



3.1. BACKGROUND SOUND SURVEY

E3P has conducted a background sound survey in a position considered representative of the closest receptors. The survey was carried out over the following time periods:

- 📍 11:00 Friday 26th September to 12:00 Monday 29th September 2025.

The following noise measurement position was chosen for the Noise Survey:

- 📍 Noise Measurement Position 1 (NMP1): Located within the site boundaries, on the existing gate to the west of the existing building. This position was equidistant from Bentley Avenue as the front facades of the dwellings to the north. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. The sound climate was dominated by road traffic sound, occasional commercial noise from the south and birdsong.

A summary of the measured sound pressure levels are presented in Table 3.1.

Table 3.1 Summary of Background Sound Levels

DATE	ASSESSMENT PERIOD	RANGE OF MEASURED BACKGROUND SOUND LEVELS, $L_{A90,T}$ (dB)	MEDIAN MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)
Friday September 26th	Daytime	45.8-61.1	50
	Night-time	39.0-45.8	41
Saturday September 27th	Daytime	44.6-50.2	48
	Night-time	34.5-56.5	43
Sunday September 28th	Daytime	41.4-50.1	48
	Night-time	38.5-51.9	42

Weather conditions during the survey were conducive to the measurement of environmental noise. The equipment outlined in Table 3.2 was used for the noise survey.

Table 3.2 Noise Measurement Equipment and Calibration Dates

MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER AND TYPE NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE
NMP1	Sound Level Meter	Svantek 971A	154342	8th January 2027
	Pre-amplifier	Svantek 7152	93784	
	Calibrator	CR:515	109471	4th August 2026



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 commercial premises.

The following inputs have been included in the model:

- ✳ Proposal Scheme Site Plan.
- ✳ Heavy Goods Vehicle (HGV) movements are input as a moving point source along the access and egress areas. A total movement of 5 vehicles per hour is assumed for the daytime and 2 vehicles every 15 minutes for the night-time. A sound power level of 95 dB L_{WA} is used based on library source data.
- ✳ The building facades are input as vertical area sources, assuming an internal noise level of 80 dBA, typical for a workshop. The roof is input as an area source. All of which are assumed to have a sound reduction of 31 dB.
- ✳ The roller shutters are input as above but with a sound reduction of 15 dB. It is assumed that the ATF northern shutter remains closed during tests but the southern access and other workshop doors are open. These vertical area sources only have a 6 dB reduction to allow for correction of the sound from internal to external.
- ✳ All roller shutters are assumed to be closed at night.
- ✳ The truck compound is input as parking lot with the LfU Study selected assuming a truck parking area. 100% usage is assumed during the day and 50% usage at night.
- ✳ Ground 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 have been included in the model and assumed to have a structured façade.
- ✳ 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.

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 Site as a whole operation.

Table 5.1 Acoustic Features

ACOUSTIC FEATURE	APPLICABLE?	ATTRIBUTABLE PENALTY	COMMENT
Tonality	No	-	No tonality expected.
Intermittency	Yes	+3 dB	Vehicle movements are intermittent
Impulsivity	No	-	No impulsive sounds expected.
Other	No	-	Intermittency applied.



Figures 3 and 4 determine the rating levels across the Site during the daytime and night-time periods due to commercial/industrial sound respectively.

4.1. DAYTIME ASSESSMENT – 07:00–23:00

Figure 3 should be used to view the specific noise level at the receptors. The grid is calculated at 1.5 m height to show garden noise levels as well as building evaluations showing worst-case façade 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 $L_{A,r}$ (dB)	LOWEST MEDIAN BACKGROUND SOUND LEVEL, $L_{A90,1hr}$ (dB)	DIFFERENCE +/- (dB)
29 to 35 Bentley Ave	41	44	48	-6
37 to 43 Bentley Ave	46	49		+1
45 to 51 Bentley Ave	46	49		+1
53 and 55 Bentley Ave	45	48		0

The assessment has determined that the predicted rating level from the proposed development would exceed the background sound level at some receptors by up to 1 dB. Considering the location of the site and the context of existing industrial uses, this level of exceedance is not considered significant. Indeed, noise levels in rear gardens are below 35 dB for all receptors.

With windows open, internal specific noise levels would be no more than 33 dB, 2 dB below the relevant criteria.

As such, no adverse impact is predicted.

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. To inform a worst-case assessment.



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

RECEPTOR	CALCULATED SPECIFIC NOISE LEVEL, $L_{Aeq,T}$ (dB)	CALCULATED RATING LEVEL $L_{A,r}$ (dB)	LOWEST MEDIAN BACKGROUND SOUND LEVEL, $L_{A90,15mins}$ (dB)	DIFFERENCE +/- (dB)
29 to 35 Bentley Ave	39	42	41	+1
37 to 43 Bentley Ave	38	41		0
45 to 51 Bentley Ave	38	41		0
53 and 55 Bentley Ave	37	40		-1

Should the development operate at night, an exceedance of up to 1 dB is expected assuming full operations during this period.

However, the absolute level of noise, 39 dB, is considered low and should windows be open, internal noise levels would be 26 dB, 4 dB below the criterion for sleeping conditions.

As such, no adverse impact is predicted.



5. CONCLUSIONS AND DISCUSSION

E3P has undertaken a full weekday and weekend background sound survey in a position considered representative of the existing receptors to the immediate north along Bentley Avenue.

A 3D noise model has been constructed to assess potential commercial sound associated with the site at existing receptors.

Commercial noise is assessed in accordance with BS 4142:2014+A1:2019.

The assessment determined rating levels to be either below, equal to or marginally above the typical background sound level. However, exceedances of up to 1 dB were not considered significant considering the context of the site and absolute levels of noise.

As such, no mitigation measures are recommended beyond the assumptions that the ATF northern shutter would remain closed during testing and all other roller shutters would be closed at night.

This assessment has shown that no adverse impact is predicted day or night at the receptors due to commercial sound.

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 – NMP1





Table A.1 Ambient and Background Sound Levels

MEASUREMENT START TIME	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,T}$ (dB)
26/09/2025 11:00	67.1	51.3
26/09/2025 12:00	73.2	61.1
26/09/2025 13:00	66.6	51.8
26/09/2025 14:00	58.3	51.2
26/09/2025 15:00	54.6	49.9
26/09/2025 16:00	56.3	49.9
26/09/2025 17:00	56.8	50.6
26/09/2025 18:00	56.4	49.5
26/09/2025 19:00	56.7	48.6
26/09/2025 20:00	51.1	47.5
26/09/2025 21:00	53.0	46.4
26/09/2025 22:00	49.9	45.8
26/09/2025 23:00	49.4	45.9
27/09/2025 00:00	47.7	43.8
27/09/2025 01:00	47.6	41.3
27/09/2025 02:00	45.2	40.3
27/09/2025 03:00	44.1	39.8
27/09/2025 04:00	45.7	39.7
27/09/2025 05:00	46.4	40.8
27/09/2025 06:00	48.2	43.4
27/09/2025 07:00	50.9	44.8
27/09/2025 08:00	53.3	47.2
27/09/2025 09:00	54.7	49.3
27/09/2025 10:00	55.8	50.2
27/09/2025 11:00	54.7	50.2
27/09/2025 12:00	54.9	50.1
27/09/2025 13:00	52.8	49.3
27/09/2025 14:00	55.3	49.4
27/09/2025 15:00	54.0	49.3
27/09/2025 16:00	55.1	48.4
27/09/2025 17:00	54.5	48.1
27/09/2025 18:00	51.8	48.3
27/09/2025 19:00	52.8	47.5
27/09/2025 20:00	49.8	45.4



MEASUREMENT START TIME	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,T}$ (dB)
27/09/2025 21:00	51.2	44.6
27/09/2025 22:00	52.3	47.3
27/09/2025 23:00	55.8	50.8
28/09/2025 00:00	56.7	51.9
28/09/2025 01:00	52.3	49.0
28/09/2025 02:00	48.7	42.8
28/09/2025 03:00	47.8	42.7
28/09/2025 04:00	43.2	37.9
28/09/2025 05:00	44.2	36.0
28/09/2025 06:00	49.1	39.6
28/09/2025 07:00	49.7	41.4
28/09/2025 08:00	51.9	43.9
28/09/2025 09:00	55.9	45.2
28/09/2025 10:00	56.4	48.8
28/09/2025 11:00	55.6	50.1
28/09/2025 12:00	55.4	49.6
28/09/2025 13:00	55.1	49.8
28/09/2025 14:00	54.8	49.1
28/09/2025 15:00	55.8	48.5
28/09/2025 16:00	52.4	47.9
28/09/2025 17:00	55.6	48.4
28/09/2025 18:00	55.1	47.7
28/09/2025 19:00	56.9	47.1
28/09/2025 20:00	52.8	46.7
28/09/2025 21:00	50.5	47.5
28/09/2025 22:00	52.5	45.1
28/09/2025 23:00	49.3	44.4
29/09/2025 00:00	45.8	40.8
29/09/2025 01:00	46.8	41.6
29/09/2025 02:00	45.6	40.7
29/09/2025 03:00	45.2	39.4
29/09/2025 04:00	45.7	40.2
29/09/2025 05:00	49.8	43.1
29/09/2025 06:00	54.4	48.6
29/09/2025 07:00	55.3	51.7

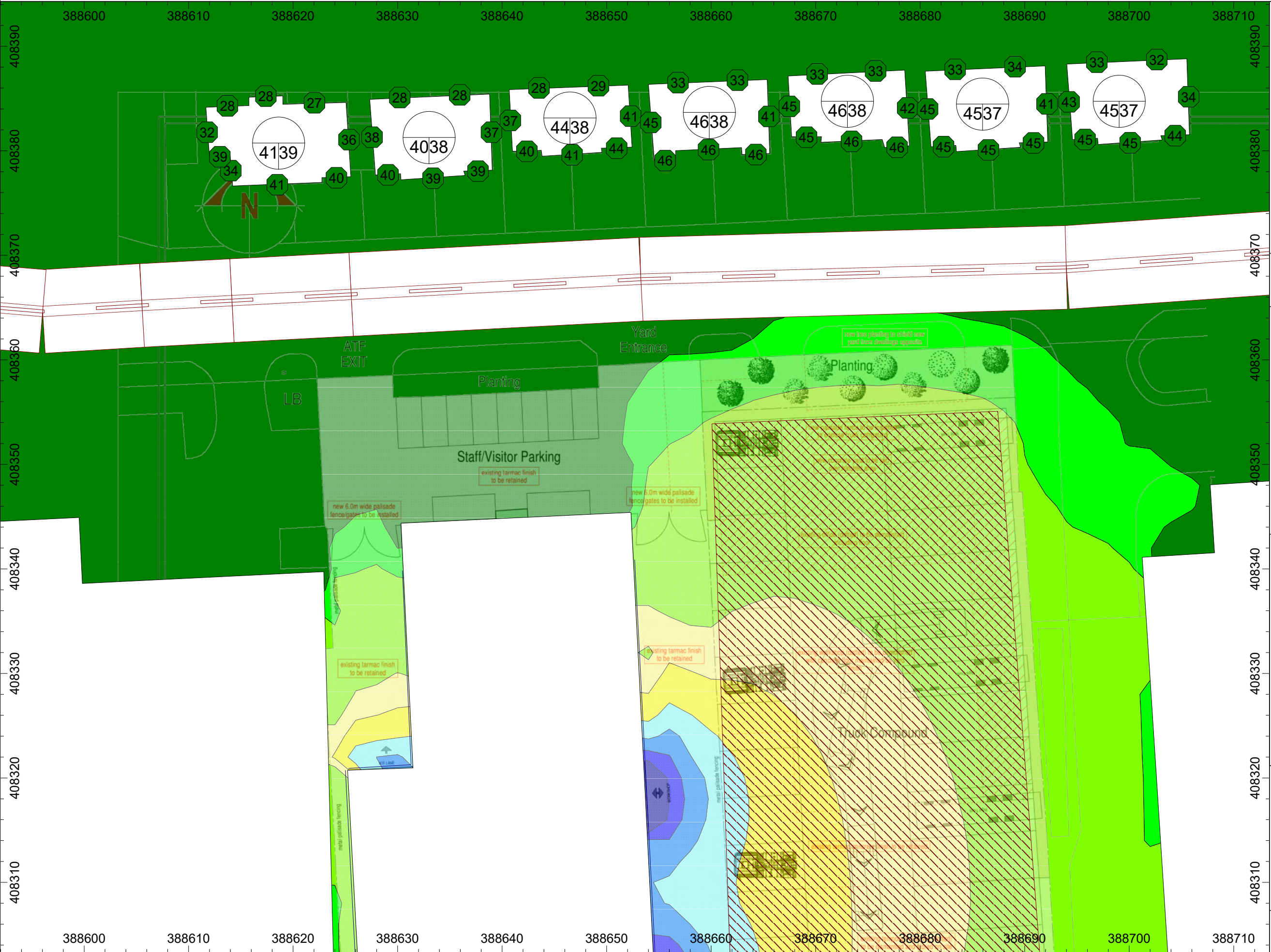


MEASUREMENT START TIME	MEASURED BACKGROUND SOUND LEVEL, $L_{A90,T}$ (dB)	MEASURED AMBIENT SOUND LEVEL, $L_{Aeq,T}$ (dB)
29/09/2025 08:00	57.5	53.3
29/09/2025 09:00	57.6	51.9
29/09/2025 10:00	58.4	50.4
29/09/2025 11:00	55.6	49.8

Appendix IV: Figures



Figure 3 - Daytime Grid Noise Map - Calculation at 1.5 m above ground level



Project:
Unit 3 Stakehill
Industrial Estate

Project-No:
51-855

Client:
Montgomery
Developments
Ltd

**Predicted Noise Level,
LAeq,T (dB)**

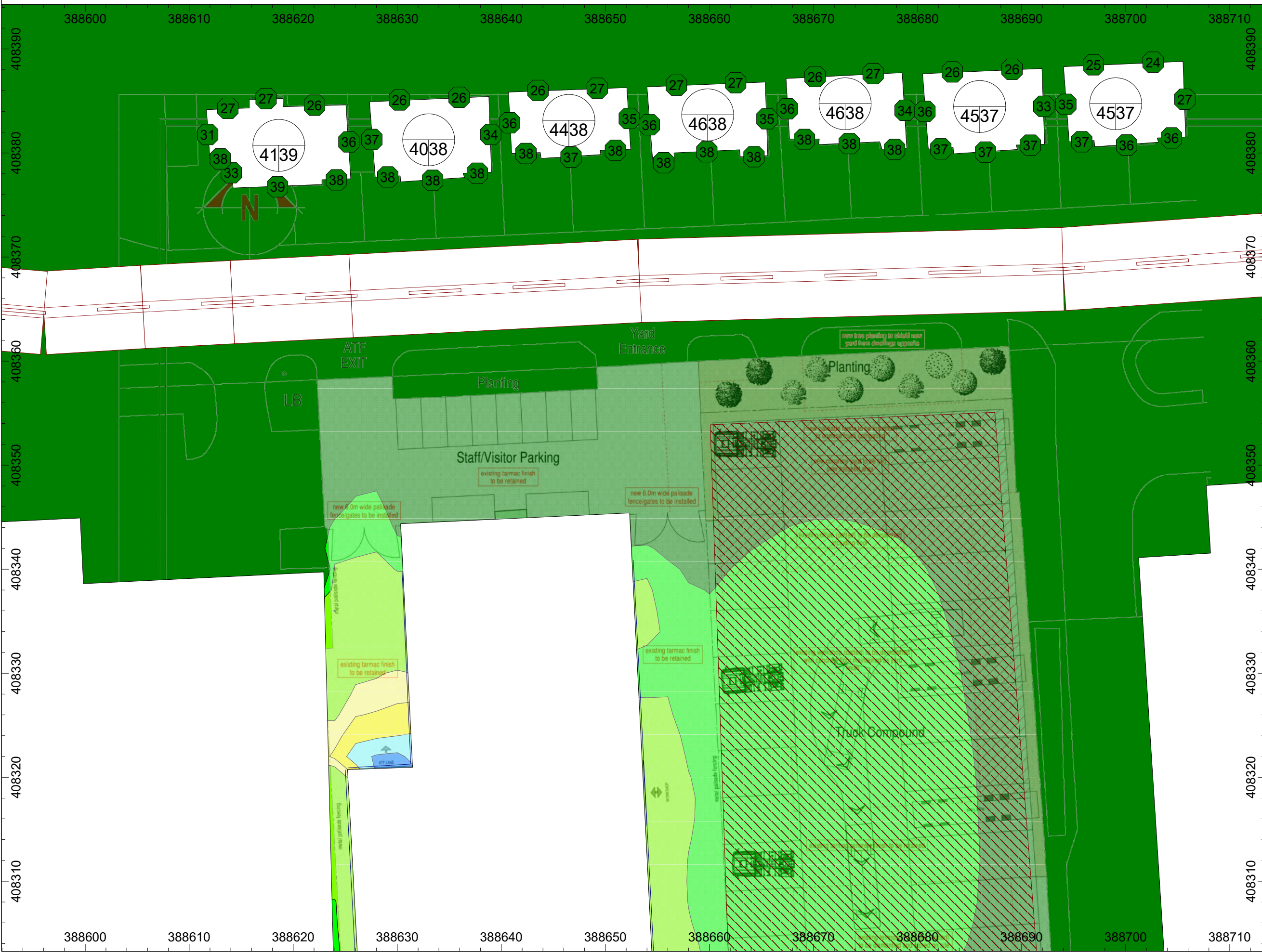
...	<= 47
47 < ...	<= 50
50 < ...	<= 55
55 < ...	<= 57
57 < ...	<= 60
60 < ...	<= 62
62 < ...	<= 65
65 < ...	<= 67
67 < ...	

Noise Map Objects

- Line Source
- Area Source
- vert. Area Source
- Road
- Parking Lot
- Building
- Building Evaluation
- Calculation Area

Project Engineer: L Faulkner
Date: 07/10/2025

Figure 4 - Night-time Grid Noise Map - Calculation at 4 m above ground level



Project:
Unit 3 Stakehill Industrial Estate

Project-No:
51-855

Client:
Montgomery Developments Ltd

Predicted Noise Level, LAeq,T (dB)

Dark Green	... ≤ 47
Light Green	47 < ... ≤ 50
Yellow-Green	50 < ... ≤ 55
Yellow	55 < ... ≤ 57
Orange	57 < ... ≤ 60
Light Blue	60 < ... ≤ 62
Blue	62 < ... ≤ 65
Dark Blue	65 < ... ≤ 67
Very Dark Blue	67 < ...

Noise Map Objects

- Line Source
- Area Source
- vert. Area Source
- Road
- Parking Lot
- Building
- Building Evaluation
- Calculation Area

Project Engineer: L Faulkner
Date: 07/10/2025