



Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

Prepared by:

SLR Consulting Limited

Northspring, 36 Park Row, Leeds, LS1 5JL

SLR Project No.: 416.066578.00001

20 February 2026

Revision: 1.0 FINAL

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	20 February 2026	Neil Fletcher	Paul Bentley	Paul Bentley

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with GBCTR Ltd (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.



Table of Contents

1.0 Introduction	5
1.1 Site Location	5
1.2 Site Details	5
1.3 Scope of the Report	5
2.0 Methodology	6
2.1 Assessment Criteria	6
2.2 Environment Agency Guidance	8
2.3 Existing Sensitive Receptors	9
3.0 Baseline Survey	11
3.1 Weather Conditions	11
3.2 Baseline Noise Survey	12
3.3 Determination of Background Sound Level	15
4.0 Assumptions, Limitations and Uncertainty	16
4.1 Assumptions	16
4.2 Limitations	16
4.3 Uncertainty	16
5.0 Noise Modelling	17
5.1 Noise Model Setup	17
5.2 Model Results	19
6.0 Noise Impact Assessment	21
6.1 BS 4142:2014+A1:2019 Assessment	21
6.2 BS4142:2014+A1:2019 Context Assessment	22
6.3 BS4142:2014+A1:2019 Final Assessment	23
6.4 Environment Agency Guidance Assessment	24
6.5 Uncertainty	24
7.0 Appropriate Measures	26
8.0 Conclusions	27

Tables in Text

Table A: BS4142:2014 Assessment Criteria	6
Table B: BS 4142:2014 Subjective Character Corrections	7
Table C: Noise Level Criteria and Actions	8
Table D: Existing Noise Sensitive Receptor Locations	9
Table E: Details of the Noise Monitoring	Error! Bookmark not defined.
Table F: Equipment Used During the Noise Monitoring	Error! Bookmark not defined.



Table G: Details of Onsite Weather Conditions During Noise Survey.....	11
Table H: LT1 Summary of Noise Monitoring Results.....	14
Table I: LT2 Summary of Noise Monitoring Results	14
Table J: LT3 Summary of Noise Monitoring Results.....	15
Table K: Summary of Noise Monitoring Results 06:00hrs – 07:00hrs.....	15
Table I: Representative Background Sound Levels at ESRs	15
Table J: Noise Sources and Sound Levels Used in Modelling Scenario.....	17
Table N: Break-out SRI	18
Table K: Predicted Specific Sound Level at Sensitive Receptors	19
Table P: BS4142 Assessment of the Noise from the Recycling Facility as Received at ESRs During the Daytime (Figures in dB(A))	21
Table Q: Change in Ambient Sound Level Assessment - Daytime	22
Table R: Change in Ambient Sound Level Assessment – Early Morning.....	22
Table S: Change in Ambient Sound Level Assessment – Night-time.....	23

Appendices

- Appendix A** Relevant Policy, Standards and Guidance
- Appendix B** Terminology
- Appendix C** Noise Survey Data

Drawings

- Drawings 416.066578.00001/002 – Proposed Site Layout**
- Drawings 416.066578.00001/001 – Daytime Grid Map at Ground Floor Level**
- Drawings 416.066578.00001/003 – Daytime Grid Map at First Floor Level**
- Drawings 416.066578.00001/004 – Night-time Grid Map at Ground Floor Level**
- Drawings 416.066578.00001/005 – Daytime Grid Map at First Floor Level**



Executive Summary

Purpose of Report

SLR Consulting Ltd (SLR) has been instructed by GBCTR Ltd to prepare a noise impact assessment (NIA) to accompany an Environmental Permit application for a waste recycling facility near Lincoln.

The purpose of this report is to assess the operational noise impact from the site. The assessment includes the results of a noise survey and assessment carried out in accordance with current guidance, including an assessment in accordance with *British Standard 4142:2014+A1:2019 Method for rating and assessing industrial and commercial sound* (BS 4142) and the Environment Agency (EA).

Assessment

The noise associated with the proposed development has been assessed at the nearest existing sensitive receptors (ESR). The assessment is based upon noise emission data, provided by the client, for the plant and equipment for the proposed development.

The predicted sound levels have been used in an assessment using the methodology required by the Environment Agency (EA) which compares the predicted sound levels to the measured baseline noise survey data. The assessment is based upon worst-case noise emission data for typical pieces of equipment which have been assumed for the operations associated with the recycling facility.

Uncertainty has been minimised by using Class 1 sound level meters, determination of baseline levels using the prescribed method in BS4142:2014+A1:2019 and the use of proprietary noise modelling software (SoundPLAN 9.1) that implements ISO 9613-2:2024 provided by SoundPLAN GmbH.

Findings

The results of the assessment have concluded that the impact would be classified as 'Low Impact' when context is considered and based on the operational assumptions and site plan/layout.

At a 'Low Impact' the noise is expected to be barely audible/detectable. At this level of impact, no specific measures are needed to control and minimise noise except for appropriate measures and a noise management plan.



1.0 Introduction

SLR has been commissioned by GBCTR Ltd to undertake a noise impact assessment to accompany a permit application. GBCTR Ltd have proposed to develop a waste recycling facility at Witham St Hughs, Lincoln.

1.1 Site Location

The site is located to the south-west of Lincoln, within the St. Modwen Park, Lincoln development site and was previously an airbase. The wider site is bound to the north by Electric Avenue, to the east by existing woodland and to the south and west by RAF land.

1.2 Site Details

The proposed facility will carry out a number of waste recycling activities to treat the following waste streams:

- End-of-life solar panels
- End-of-life batteries from solar farms and Electric Vehicles.

Whilst the process may operate 24 hours per day and seven days a week, under normal circumstances deliveries of waste materials will only be accepted during the hours of 06:00hrs to 22:00hrs Monday to Friday and 06:00 to 18:00hrs on Saturday, with no delivery or dispatch of waste taking place on Sundays or bank holidays.

Opening of doors will be kept to a minimum and roller shutter doors will be installed where appropriate.

1.3 Scope of the Report

The scope of this noise assessment comprises a consideration of noise from the proposed activities associated with the recycling facility which might affect existing noise sensitive receptors during the operations. The assessment is in accordance with current guidance.

The pertinent aspects of the Scope of Work are as follows:

- Construct a sound propagation model of the Site and surrounding area to predict the sound rating level at each Existing Sensitive Receptors (ESRs) due to the operation of the development; and
- Assess the likely significance of the impact of noise at each ESR in accordance with current guidance.



2.0 Methodology

The assessment has been undertaken in accordance with the following policy, standards and guidance:

- British Standard 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound¹ (BS 4142);
- Environment Agency, Noise and Vibration Management: Environmental Permits, 2022².
- Institute of Environmental Management and Assessment (IEMA) (2014) Guidelines for Environmental Noise Impact Assessment³;

Details of the guidance documents are provided in Appendix A.

2.1 Assessment Criteria

2.1.1 British Standard 4142:2014+A1:2019

The criteria used are based on the background comparison thresholds, in accordance with BS 4142: 2014. The assessment method is detailed below.

2.1.2 Initial Estimate of Impact

BS 4142:2014 provides guidance on appropriate methodology and criteria for assessing the impacts of a new or existing sound source by comparing the operational sound level (rating level) with the sound level that is present without development (background sound level) i.e., the existing acoustic environment. The assessment is based on the following potential results:

Table A: BS4142:2014 Assessment Criteria

Impact Level	Initial Difference in Rating Level ($L_{A,r,T}$ dB) and Background (L_{A90} dB)	Contextual Factors to Consider
Potential for adverse significant impact depending on context	>10dB	<ul style="list-style-type: none"> • The absolute sound level, • The character and level of the residual sound compared to the character and level of the specific sound, • The sensitivity of the receptor
Potential for adverse significant impact depending on context	5-9dB	
Less likely potential for adverse or significant adverse impact depending on context	1-4dB	
Low Impact depending on context	≤0dB	

The context considers the existing use in the area and the existence of the current use of the site. It is therefore considered that the sensitivity of the area to the site activity noise would be lower than might be considered with a rural or completely residential location.

2.1.3 BS 4142:2014 Acoustic Feature Corrections

A penalty should be applied to the specific sound level if a tone, impulse or other characteristic occurs or is expected to be present for new or modified sound sources. The following penalties

1 British Standards Institute, 2014. BS 4142:2014:2014 + A1:2019 Methods for rating and assessing industrial and commercial sound. BSI London, UK

2 Noise and vibration management: environmental permits - GOV.UK

3 Institute of Environmental Management and Assessment (2014). Guidelines for Environmental Noise Impact Assessment. IEMA, London.



are considered in addition to the specific noise level to form the rating level with penalties being added arithmetically to create a total penalty correction.

2.1.4 Tonality

For sound sources ranging from not tonal to prominently tonal, the Joint Nordic Method gives a penalty of between +1 dB and +6dB for tonality. Based on a subjective assessment this can be interpreted as presented in **Table B**.

2.1.5 Impulsivity

A penalty of up to +9 dB can be applied for sound that is highly impulsive, considering both the rapidity of the change in sound level and the overall change in sound level. Based on a subjective assessment this can be interpreted as per **Table B**.

2.1.6 Intermittency and Other Characteristics

Where the specific sound is intermittent and/or where it is neither tonal or impulsive but readily distinctive against the residual acoustic environment, a penalty of +3 dB can be applied.

Table B: BS 4142:2014 Subjective Character Corrections

Acoustic Feature	Acoustic Correction (dB)	Comments
Tonality	+2	Where the tonality is just perceptible at the noise receptor.
	+4	Where the tonality is clearly perceptible at the noise receptor.
	+6	Where the tonality is highly perceptible at the noise receptor.
Impulsivity	+3	Where the impulsivity is just perceptible at the noise receptor.
	+6	Where the impulsivity is clearly perceptible at the noise receptor.
	+9	Where the impulsivity is highly perceptible at the noise receptor.
Intermittency	+3	the intermittency is readily distinctive against the acoustic environment.
Other sound characteristics	+3	Where a sound exhibits characteristics that are neither tonal nor impulsive, though it is readily distinctive acoustic the acoustic environment at the noise receptor.

2.1.7 Reference Time Periods

The appropriate reference time interval for assessing a sound source is dependent upon when it operates i.e., during the daytime or night-time. BS 4142 determines the reference time interval as 1 hour during the day (07:00 – 23:00) and 15 minutes during the night-time (23:00 – 07:00).



2.2 Environment Agency Guidance

To enable the assessment of the proposed development in accordance with EA guidance, **Table C** presents the primary and secondary assessment methodologies to provide additional context where the impact is marginal between two threshold values.

Table C: Noise Level Criteria and Actions

Effect Level (Nearest BS4142:2014+A1:2019 Category)	Noise Sources	Level Criteria	Action Required
No audible or detectable noise (Low or No Impact after context)	Primary Assessment		This level of noise means that no action is needed beyond basic appropriate measures.
	Fixed and mobile plant associated with the proposed wash plant.	Difference between Rating Level ($L_{Ar,Tr}$) dB is 10 dB less than the existing background level $L_{A90,T}$ dB	
	Secondary Assessment to provide Context		
	Change in Noise Level	Negligible relative change (≤ 2.9 dB) based on IEMA 2014 Table 7-10	
Barely audible or detectable noise (Low or No Impact after context)	Primary Assessment		This level of noise means that no action is needed beyond basic appropriate measures.
	Fixed and mobile plant associated with the proposed wash plant.	Difference between Rating Level ($L_{Ar,Tr}$) dB and existing background sound level $L_{A90,T}$ dB is between 1-4dB.	
	Secondary Assessment to provide Context		
	Change in Noise Level	Small relative change (+3.0 to +4.9dB) based on IEMA 2014 Table 7-10	
Audible or detectable noise (Adverse impact after context)	Primary Assessment		Use appropriate measures to prevent or, where that is not practicable, minimise noise.
	Fixed and mobile plant associated with the proposed wash plant.	Difference between Rating Level ($L_{Ar,Tr}$) dB and existing background sound level $L_{A90,T}$ dB is between 5-9dB.	
	Secondary Assessment to provide Context		
	Change in Noise Level	Medium relative change (+5.0 to +9.9dB) based on IEMA 2014 Table 7-10	



Effect Level (Nearest BS4142:2014+A1:2019 Category)	Noise Sources	Level Criteria	Action Required
Unacceptable level of audible or detectable noise (Significant Adverse impact after context)	Primary Assessment		Must take further action or you may have to reduce or stop operations. The environment agencies will not issue a permit if you are likely to be operating at this level.
	Fixed and mobile plant associated with the proposed wash plant.	Difference between Rating Level ($L_{A,r,Tr}$) dB and existing background sound level $L_{A90,T}$ dB is equal to or greater than 10dB	
	Secondary Assessment to provide Context		
	Change in Noise Level	Large relative change ($\geq +10.0$) based on IEMA 2014 Table 7-10	

2.3 Existing Sensitive Receptors

Aerial imagery of the site and surrounding area has been reviewed to identify the nearest ESRs in all directions.

Five ESRs have been selected as the closest to the existing site. The selected ESRs are the most likely to be affected by noise due to the proposed activities. These are detailed in and shown in **Figure 1**.

Table D: Existing Noise Sensitive Receptor Locations

Receptor	Location	Grid Co-ordinates		Bearing from Site	Distance to Site Boundary (m)
		Easting	Northing		
ESR1	Robins Crescent	489133	361970	East	200
ESR2	Ravens View	489134	362001	East	220
ESR3	Owl Close	489133	362097	East	250
ESR4	Norton Lane	489038	361400	South	530
ESR5	Hedge Lane	489165	361787	East	280
ESR6	Warren Lane	489132	362152	East	200
ESR7	Rookery Close	489162	361840	East	250



Figure 1: ESR locations and Noise Monitoring Locations



3.0 Baseline Survey

Noise surveys have been undertaken by SLR on the to the 21st to the 26th November 2025. Noise measurements have been taken at three monitoring locations (LT1 – LT3) along with weather conditions (wind speed, precipitation and temperature) that are representative of the existing noise sensitive receptors.

3.1 Weather Conditions

Weather conditions during the monitoring period have been obtained during the survey through an onsite weather station (Davis Vantage Vue sn: MU240320005). The weather station was located at LT2 with the sound level meter. **Table E** details the weather on site during the noise survey.

Table E: Details of Onsite Weather Conditions During Noise Survey

Start Date and Time (dd/mm/yy hh:mm)	End Date and Time (dd/mm/yy hh:mm)	Temperature °C	Wind Speed (ms ⁻¹)	Precipitation (mm)
21/11/2025 16:00	21/11/2025 23:00	1 - 3	0 - 1	0 - 0
21/11/2025 23:00	22/11/2025 07:00	2 - 4	1 - 2	0 - 0.5
22/11/2025 07:00	22/11/2025 23:00	2 - 7	0 - 2	0 - 0.8
22/11/2025 23:00	23/11/2025 07:00	1 - 4	0 - 0	0 - 2
23/11/2025 07:00	23/11/2025 23:00	4 - 9	0 - 2	0 - 1.8
23/11/2025 23:00	24/11/2025 07:00	2 - 3	0 - 1	0 - 0
24/11/2025 07:00	24/11/2025 23:00	3 - 8	0 - 1	0 - 0.5
24/11/2025 23:00	25/11/2025 07:00	3 - 4	0 - 0	0 - 0
25/11/2025 07:00	25/11/2025 23:00	1 - 8	0 - 1	0 - 0
25/11/2025 23:00	26/11/2025 07:00	-2 - 1	0 - 0	0 - 0
26/11/2025 07:00	26/11/2025 13:00	-2 - 6	0 - 1	0 - 0

Noise data for periods when precipitation occurred and where wind speeds were above 5ms⁻¹ have been removed from the dataset. It is considered that the removal of the data will not significantly affect the determination of the background sound levels used in the BS 4142:2014 and the residual sound level used in the noise level change assessment.



3.2 Baseline Noise Survey

3.2.1 Noise Survey Description

Descriptions of the monitoring locations are as follows and are shown in **Figure 1**.

A-weighted⁴ L_{eq} ⁵ and L_{90} ⁶ noise levels were measured to comply with the requirements of BS4142, together with the maximum and minimum sound pressure levels to provide additional information.

Long Term (LT) 1: This monitoring location was positioned south of the site boundary on Norton Lane adjacent to the ESR4. This position is representative of ESR4.

Long Term (LT) 2: This monitoring location was positioned east of the site boundary. The monitoring location is representative of ESR1, ESR2, ESR3 and ESR6.

Long Term (LT) 3: This monitoring location was positioned east of the site boundary. The monitoring location is representative of ESR5 and ESR7.

The noise monitoring has been undertaken as described in **Table F** Error! Reference source not found..

Table F: Details of the Noise Monitoring

Monitoring Location	Attended / Unattended	Start Date & Time	End Date & Time	Measurement Height	Audible Noise Sources
LT1	Unattended	21/11/2025 15:52	26/11/2025 12:30	1.5	Infrequent road traffic noise from Norton Lane. Distant road traffic noise from northwest as background. Bird song. No quarry or industrial noise heard from north.
LT2	Unattended	21/11/2025 14:20	26/11/2025 12:45	1.5	Road traffic noise from Camp Road. No industrial noise to the west. Bird song.
LT3	Unattended	21/11/2025 15:12	26/11/2025 12:04	1.5	Road traffic noise from Camp Road. Bird song.

3.2.2 Noise Survey Equipment

Measurements were taken using Class 1, integrating sound level meters. Microphones were mounted vertically on tripods 1.5 meters above ground level, in free field positions. The equipment used is detailed in **Table G** Error! Reference source not found..

4 A' Weighting

An electronic filter in a sound level meter which mimics the human ear's response to sounds at different frequencies under defined conditions

5 Leq5

Equivalent continuous noise level; the steady sound pressure which contains an equivalent quantity of sound energy as the time-varying sound pressure levels.

6 L90

The noise level which is exceeded for 90% of the measurement period.



Table G: Equipment used During the Baseline Noise Survey

Monitoring Location	Item	Manufacturer	Model	Serial Number	Calibration Date
LT1	Sound Level Meter	01dB	Fusion	12639	01/08/2024
	Pre-amp	01dB	PRE22	10735	31/07/2024
	Microphone Capsule	GRAS	40CD	367376	16/10/2025
LT2	Sound Level Meter	01dB	Fusion	10711	31/07/2024
	Pre-amp	01dB	PRE22	10735	31/07/2024
	Microphone Capsule	GRAS	40CE	226341	31/07/2024
LT3	Sound Level Meter	01dB	Cube	12198	16/10/2025
	Pre-amp	01dB	PRE22	2004097	16/10/2025
	Microphone Capsule	GRAS	40CD	367376	16/10/2025
-	Field Calibrator	01dB	CAL21	34254653	03/04/2025

The sound level meters were calibrated to a reference level of 94 dB at 1kHz, both before and on completion of the noise survey. No significant drift in calibration was measured during the survey.

The noise monitor at LT1 encountered a connection error and data was corrupted after approximately 38 hours of the monitoring period. The corrupted data has also been removed from the dataset.

The measured sound levels for each monitoring location have been divided into daytime (07:00-23:00 hours) and night-time (23:00-07:00 hours) categories.

The residual sound levels have been produced by logarithmically averaging L_{Aeq} values to produce single daytime and night-time levels. The background noise levels have been separated into mode, mean and median to show what values were considered when choosing a representative level. The results for each of the monitoring locations are presented in **Table H**, **Table I** and **Table J**.



Table H: LT1 Summary of Noise Monitoring Results

Parameter	Background Sound Level, dB L _{A90,T}		Residual Sound Level, dB L _{Aeq,T}		Maximum Sound Level, dB L _{AFmax}	
	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)
Range	35 - 45	25 - 42	40 - 56	31 - 44	48 - 78	41 - 71
25th %ile	39	28	45	35	62	48
Median	42	33	47	38	64	52
75th %ile	43	36	49	40	66	57
Arithmetic Avg	41	32	47	38	64	53
Log Avg	-	-	48	39	-	-
Modal Value	42	36	-	-	-	-

Table I: LT2 Summary of Noise Monitoring Results

Parameter	Background Sound Level, dB L _{A90,T}		Residual Sound Level, dB L _{Aeq,T}		Maximum Sound Level, dB L _{AFmax}	
	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)
Range	39 - 57	33 - 53	44 - 68	39 - 55	57 - 93	49 - 77
25th %ile	45	37	51	43	62	57
Median	47	39	53	45	64	60
75th %ile	50	42	55	48	69	63
Arithmetic Avg	47	40	53	46	66	60
Log Avg	-	-	55	47	-	-
Modal Value	48	38	-	-	-	-



Table J: LT3 Summary of Noise Monitoring Results

Parameter	Background Sound Level, dB $L_{A90,T}$		Residual Sound Level, dB $L_{Aeq,T}$		Maximum Sound Level, dB L_{AFmax}	
	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)	Day (16 hour)	Night (8 hour)
Range	36 - 55	26 - 53	45 - 66	33 - 56	61 - 88	42 - 74
25th %ile	44	34	52	42	67	59
Median	47	38	55	45	68	64
75th %ile	50	41	57	48	72	67
Arithmetic Avg	47	38	55	45	70	62
Log Avg	-	-	56	48	-	-
Modal Value	48	35	-	-	-	-

Based on the results obtained, a robust assessment can be made of the sound levels at the existing noise sensitive receptors.

As deliveries to the facility may occur between the hours of 06:00hrs and 07:00hrs, average noise levels during this period have also been calculated and are presented in

Table K: Summary of Noise Monitoring Results 06:00hrs – 07:00hrs

Monitoring Location	Residual Sound Level, dB $L_{Aeq,T}$	Background Sound Level Range, dB $L_{A90,T}$	Average Background Sound Level, dB $L_{A90,T}$	Adopted Background Sound Level, dB $L_{A90,T}$
LT1	43	41 – 41	41	41
LT2	51	45 – 47	45	45
LT3	53	40 – 49	46	46

Further details of the measured levels are shown in Appendix C.

3.3 Determination of Background Sound Level

Section 8 of BS 4142 provides guidance on the selection of the background sound to be used in the assessment. BS 4142 states that the background sound levels used for the assessment should be representative of the period being assessed (i.e., daytime or night-time periods,) and that there is no 'single' background sound level. A summary of the representative background sound levels used in this assessment are shown in **Table L**.

Table L: Representative Background Sound Levels at ESRs

Monitoring Location	Receptors	Daytime, dB $L_{A90,T}$	06:00hrs – 07:00hrs, dB $L_{A90,T}$	Night-time, dB $L_{A90,T}$
LT1	ESR4	42	41	36
LT2	ESR1 – ESR3 & ESR6	48	45	38
LT3	ESR5 & ESR7	48	46	35



4.0 Assumptions, Limitations and Uncertainty

This assessment has been undertaken with following assumptions, limitations and uncertainty taken into account.

4.1 Assumptions

- Noise Sensitive Receptors (ESRs) are positioned at a height of 1.5m for ground floor, 4.3m for first floor level and 7.1m for second floor level where applicable.
- The site will be operational 24 hours per day, however deliveries to and from the site will only occur between the hours of 06:00hrs and 22:00hrs Monday to Friday and 06:00 to 18:00hrs on Saturday, with no delivery or dispatch of waste taking place on Sundays or bank holidays.
- The site layout shown in drawing **Drawing 416.066578/002 Proposed Site Layout** has been used as the operational site layout/working drawing.

4.2 Limitations

- Noise data provided by the applicant is broadband data only.

4.3 Uncertainty

- Class 1 Sound Level Meters used during the survey have an uncertainty in measurement of approximately ± 1 dB.



5.0 Noise Modelling

This section of the report sets out the details of the methods used to prepare the noise model so that proposed sources of noise can be accurately determined at the closest occupied dwellings.

The computer noise model has been used to consider the noise from the existing and proposed operations at receptors.

The noise model used to inform the assessment is 416.066578 v1.0 FINAL.

5.1 Noise Model Setup

5.1.1 Modelled Noise Sources

The assessment of the propagation of sound from the operations associated with the recycling facility at receptors has been undertaken using the noise modelling software SoundPLAN version 9.1 (SoundPLAN).

SoundPLAN software uses geographical information to create a model of the study area on which to generate noise contours and includes objects that affect the propagation of noise such as buildings and topography.

SoundPLAN model uses the noise prediction methodology set out in ISO 9613-2:2024 'Attenuation of sound during propagation outdoors'. The noise modelling produces noise contour plans demonstrating the levels of industrial noise at receptors.

The intervening ground between the recycling facility and receptors is predominantly mixed ground, therefore a ground factor of 0.6 has been used to represent intermediate ground.

Source noise data is taken from the manufacturers or generic datasets for similar plant in BS5228-1:2009+A1:2019 and SLR measurements.

Noise has been modelled as omni-directional point and moving point on a line sources. No correction for directionality on any plant has been allowed for.

Noise data for the stacks has been assumed to be the same as the noise data provided for the fans at the base of the stacks. Therefore, as a worst-case two-point sources have been used, one at the base of the stack and one at top of the stack for each stack.

The following noise sources, detailed in **Table J**, have been input into the noise model.

Table M: Noise Sources and Sound Levels Used in Modelling Scenario

Details of Equipment	Quantity	Sound Power Level (dB(A))	On-time (%)	Comment
Service Yard Operations				
Forklift truck (FLT) movement	4	116	10%	Moving point on a line – set to 15 km/h. Based on BS 5228:2009 Table D7.94 – Site forklift trucks.
HGV Manoeuvring	1	94	2 trips per hour	Moving point on a line – set to 18 km/h.
HGV Loading	1	93	30 mins per hour	Point source based on SLR measurement



Details of Equipment	Quantity	Sound Power Level (dB(A))	On-time (%)	Comment
Fixed Plant - External				
Stacks	4	94	100%	Point source, manufacturers data. 15 m AOD.
Chiller	1	93	100%	Point source, manufacturers data.
Fan (Dust filter)	1	93	100%	Point source, manufacturers data.
Fixed Plant - Internal				
Battery recycling (Shredder)	1	118	100%	Point source, manufacturers data.
Battery recycling (Dryer)	1	93	100%	Point source, manufacturers data.
Battery recycling (Densifier)	1	98	100%	Point source, manufacturers data.
Battery recycling (Fan)	1	90	100%	Point source, manufacturers data.
Battery recycling (Sieve)	1	88	100%	Point source, manufacturers data.
Battery recycling (Nitrogen Generator)	1	88	100%	Point source, manufacturers data.
Alloy recycling	1	100	100%	Area source, manufacturers data.
PV Line	2	113	100%	Area source, manufacturers data.
Alloy recycling magnet	1	88	100%	Area source, manufacturers data.

The equipment, which is listed in **Table M**, and which has been included in the noise model, is considered the worst-case scenario for operational activity at the site at any one time.

5.1.2 Building Noise Break-out

Noise breakout calculations have been calculated using the internal noise levels above operating within the building. Building façade specifications have been taken from the Developers Works Specification. The building is modelled at 12.5 m high to the eaves. The sound reduction indices are presented in **Table N**.

Table N: Break-out SRI

Façade	Material	Octave Band Centre Frequency Sound Reduction (SRI), dB					
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz
External Walls and Roof	Euroclad Elite (-5dB reduction applied for flanking)	16	26	32	41	49	59



Façade	Material	Octave Band Centre Frequency Sound Reduction (SRI), dB					
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz
Opening	N/A	0	0	0	0	0	0
Roller Shutter Doors	Aluminium	8	11	10	11	13	13

5.1.3 Modelled Scenarios

Three scenarios have been modelled to represent different periods for 24 hours operations.

5.1.3.1 Daytime Scenario (07:00 – 23:00)

All service yard noise sources are included within the model. One HGV per hour will service the facility, unloading of the HGV will last approximately 30 minutes. FLT's will move unloaded materials around the service yard and into the processing building. The processing building is equipped with 12 dock doors, during the daytime, it has been assumed that half the doors will be open as a worst-case. In reality, this is considered to be unlikely. All external and internal fixed plant is assumed to be operational 100% of the time.

5.1.3.2 Early Morning Hours (06:00 – 07:00)

All sources during the early morning hours are as described for the daytime scenario. However, as the hour 06:00 – 07:00 is considered night-time according to noise guidance, the reference period is considered to be equal to 15 minutes.

5.1.3.3 Night-time Scenario (23:00 – 07:00)

During the night-time no deliveries to or from the facility will occur, therefore HGV related activity is not included within the model. FLT activity has been included within the service yard. Docks doors have been m

5.2 Model Results

The predicted specific sound levels during the daytime at the ESRs are presented below in **Table O**.

The sound from the site have been predicted as a free-field noise level, 1m from the façade of the identified ESRs. The specific sound levels have been predicted at ground floor (1.5 m), first (4.3 m) or second floor (7.1 m).

Table O: Predicted Specific Sound Level at Sensitive Receptors

Receptor	Daytime, dB $L_{Aeq, 1hr}$			06:00 – 07:00, dB $L_{Aeq, 15min}$			Night-time, dB $L_{Aeq, 15min}$		
	Ground Floor	First Floor	Second Floor	Ground Floor	First Floor	Second Floor	Ground Floor	First Floor	Second Floor
ESR1	38.8	39.3		38.8	39.3		38.7	39.3	
ESR2	39.9	40.5	41.2	39.9	40.5	41.2	39.6	40.1	40.3
ESR3	40.8	42.0	42	40.8	42.0	42	39.5	40.3	40.4
ESR4	32.8	33.5		32.8	33.5		32.7	33.4	
ESR5	36.7	40.1		36.7	40.1		36.6	39.6	
ESR6	43.7	44.4	44.3	43.7	44.4	44.3	40.2	40.8	41



Receptor	Daytime, dB $L_{Aeq, 1hr}$			06:00 – 07:00, dB $L_{Aeq, 15min}$			Night-time, dB $L_{Aeq, 15min}$		
	Ground Floor	First Floor	Second Floor	Ground Floor	First Floor	Second Floor	Ground Floor	First Floor	Second Floor
ESR7	37.8	38.9		37.8	38.9		37.7	38.8	



6.0 Noise Impact Assessment

6.1 BS 4142:2014+A1:2019 Assessment

This section of the report sets out the assessment of noise emissions from the site, and the potential impacts they have on the receptors.

6.1.1 Identification of Specific Sound

The predicted specific sound levels during the daytime at the ESRs are presented in **Table O**.

6.1.2 Application of Weighting for Characteristics of Specific Sound

BS4142 includes guidance on the application of additional weightings which include tonality, impulsivity or intermittency. Where such features are present at the assessment location characteristic corrections to the specific sound should be added to obtain a rating level.

It is not anticipated that tonal or impulsive characteristics will be perceivable at the ESRs, however, a +3 dB acoustic feature correction has been applied to account a sound distinguishable above the typical acoustic climate.

6.1.3 Initial Estimate of Impact

In accordance with BS 4142, the noise rating levels from the site, as received at the ESR, have been compared with the corresponding L_{A90} background sound levels and are shown below in **Table P**. The predicted noise levels for each ESR, regardless of floor level have been taken from **Table O**, to represent a worst-case scenario.

Table P: BS4142 Assessment of the Noise from the Recycling Facility as Received at ESRs (Figures in dB(A))

Receptor	Specific Sound Level L_{Aeq} (dB)			Acoustic Feature Correction (dB)	Rating level (dB)			Measured background level L_{A90} (dB)			BS 4142 Score		
	Day time	06:00 - 07:00	Night-time		Day time	06:00 - 07:00	Night-time	Day time	06:00 - 07:00	Night-time	Day time	06:00 - 07:00	Night-time
ESR1	39	39	39	3	42	42	42	48	45	38	-6	-3	4
ESR2	41	41	40	3	44	44	43	48	45	38	-4	-1	5
ESR3	42	42	40	3	45	45	43	48	45	38	-3	0	5
ESR4	34	34	33	3	37	37	36	42	41	36	-6	-5	0
ESR5	40	40	40	3	43	43	43	48	46	35	-5	-3	8
ESR6	44	44	41	3	47	47	44	48	45	38	-1	2	6
ESR7	39	39	39	3	42	42	42	48	46	35	-6	-4	7

The initial estimate of impact shows that predicted Rating Level at all the receptors are below the existing background sound level during the daytime and early morning. During the night-time rating levels are above the existing background sound level at all ESRs, except for ESR4 which is equal to the existing background sound level.

For ESR1 and ESR4 the difference between the Rating Level and background sound level is +4 dB and 0 dB respectively during the night-time. At this level difference there is a low impact depending on context.



For ESR2, ESR3, ESR5 – ESR7 the difference between the Rating Level and background sound level is between +5 dB during the night-time, indicating a potential for adverse impact depending on context.

In summary the initial assessment results are as follows

- ESR2, ESR3, ESR5 – ESR7 – Adverse impact
- ESR1 and ESR4 – Low impact

At this level the noise from operational activity is audible and may cause small changes in behaviour, attitude of other physiological response. The noise may affect the character of the area that there is small perceived change in the quality of life.

This level would conclude to be at the **Lowest Observed Adverse Effect Level (LOAEL)** in accordance with the Noise Exposure Hierarchy. At this level of effect, the measures to mitigate and reduce to a minimum are needed to manage the impact on health, wellbeing and quality of life.

6.2 BS4142:2014+A1:2019 Context Assessment

To provide additional context an assessment of change in noise level is presented below.

6.2.1 Change in Ambient Sound Level Assessment

The measured residual sound levels have been logarithmically added to the specific sound level to determine the change in noise level following the completion of the development. The predicted noise levels for each ESR, regardless of floor level have been taken from **Table O**, to represent a worst-case scenario. The results are presented in **Table Q, Table R** and **Table S**.

Table Q: Change in Ambient Sound Level Assessment - Daytime

Receptor	External Specific Sound Level (dB)	Residual Sound Level (dB)	Ambient Sound Level (Specific + Residual) (dB)	Change in Sound Level (dB)
ESR1	39	55.0	55.1	0.1
ESR2	41	55.0	55.2	0.2
ESR3	42	55.0	55.2	0.2
ESR4	34	48.0	48.2	0.2
ESR5	40	56.0	56.1	0.1
ESR6	44	55.0	55.4	0.4
ESR7	39	56.0	56.1	0.1

The results in **Table Q** show that the change in noise level at all receptors during the daytime is less than 1 dB. When considering the assessment criteria in IEMA, this shows that a Negligible relative change at all receptors.

Table R: Change in Ambient Sound Level Assessment – Early Morning

Receptor	External Specific Sound Level (dB)	Residual Sound Level (dB)	Ambient Sound Level (Specific + Residual) (dB)	Change in Sound Level (dB)
ESR1	39	50.7	51.0	0.3
ESR2	41	50.7	51.1	0.4
ESR3	42	50.7	51.2	0.5



Receptor	External Specific Sound Level (dB)	Residual Sound Level (dB)	Ambient Sound Level (Specific + Residual) (dB)	Change in Sound Level (dB)
ESR4	34	42.8	43.3	0.5
ESR5	40	53.4	53.6	0.2
ESR6	44	50.7	51.6	0.9
ESR7	39	53.4	53.6	0.2

The results in **Table R** show that the change in noise level at all receptors during the early morning is less than 1dB. When considering the assessment criteria in IEMA, this shows that a Negligible relative change at all receptors.

Table S: Change in Ambient Sound Level Assessment – Night-time

Receptor	External Specific Sound Level (dB)	Residual Sound Level (dB)	Ambient Sound Level (Specific + Residual) (dB)	Change in Sound Level (dB)
ESR1	39	47.0	47.7	0.7
ESR2	40	47.0	47.8	0.8
ESR3	40	47.0	47.9	0.9
ESR4	33	39.0	40.1	1.1
ESR5	40	48.0	48.6	0.6
ESR6	41	47.0	48.0	1.0
ESR7	39	48.0	48.5	0.5

The results in **Table S** show that the change in noise level at all receptors during the daytime is less than 1 dB, with the exception of ESR4 and ESR6 which are no greater than 1dB. When considering the assessment criteria in IEMA, this shows that a Negligible relative change at all receptors.

When considered against a receptor sensitivity of High (for residential environments) the degree of effect would be None in accordance with Table 7-11 of the IEMA 2014 guidance for all receptors.

An increase in the sound level of less than 3dB is also unlikely to be detectable subjectively by human receptors. Therefore, it is expected there will be no observable change in the acoustic environment in terms of loudness above what is already being experienced.

At this level of change although the noise from operational activity maybe audible the noise will not cause a change in behaviour, attitude of other physiological response. This level would conclude to be at the **No Observed Adverse Effect Level (NOAEL)** in accordance with the Noise Exposure Hierarchy.

At this level of effect, the no specific measures are needed to manage or reduce noise as there is no observed adverse effect on health, wellbeing or quality of life as significant adverse and adverse effects have been avoided and mitigated and minimised by plant selection and site design.

6.3 BS4142:2014+A1:2019 Final Assessment

The initial conclusion of the BS4142:2014+A1:2014 assessment indicated and a worst-case impact of potential for adverse impact (which would be concluded to be **LOAEL** in accordance with the Noise Exposure Hierarchy). The consideration of context allows for the initial assessment result to be modified provided justification is given.



The initial assessment indicates an adverse impact with the inclusion of a +3dB feature correction. Without this the impact is low impact. The inclusion of the feature corrections places the initial assessment at the lower threshold of adverse impact and therefore can be concluded to be a borderline adverse impact.

When the absolute Ambient sound level observable changes in sound levels for with and without scenarios (change in noise level assessment) are considered within the decision-making process the initial categorisation of adverse impact can be justifiably modified to Low Impact for all receptors.

A Low Impact when considered against National Policy requirements for noise would be at the **No Observed Adverse Effect Level (NOAEL)**. At this level of effect, the no specific measures are needed to manage or reduce noise as there is no observed adverse effect on health, wellbeing or quality of life as significant adverse and adverse effects have been avoided and mitigated and minimised by plant selection and site design.

6.4 Environment Agency Guidance Assessment

A low impact after context is concluded using the methodology in BS4142:2014+A1:2019.

In accordance with the EA guidance, an impact at this level noise is barely audible or detectable and no measures others than those required under general appropriate measures are needed.

The recommended measures outlined in Section 7.0 are considered to be general appropriate measures and should be implemented in a site wide noise management plan.

We would anticipate a reduction of between 5-10dB based on experience from the implementation of the management plan. With the implementation of the appropriate measures, we anticipate the residual assessment would result in a Low or No Impact.

6.5 Uncertainty

As stated with the EA permitting guidance, the uncertainty of the measurements and predictions must be identified and minimised. It also stated that uncertainties should be proportionate to the risk that the site presents, and the likely scale of the uncertainty.

With regard to the sources of noise, manufacturer data has been used within the model to predict the levels at the ESRs. The model uses the noise prediction methodology set out in ISO 9613-2:2024 'Attenuation of sound during propagation outdoors' which accounts for downwind propagation.

Furthermore, care has been taken when setting up the noise model to ensure its accuracy, and that represents the proposed site layout and the local environment local area (i.e. topography and existing buildings).

A reasonable and professional judgement has been made when undertaking the assessment, and while there could be a small margin of uncertainty within the predictions, it is unlikely to increase the overall impact level at the ESRs.

To further reduce measurement uncertainty the following steps have been taken:

- In accordance with guidance the microphone was mounted vertically on a tripod 1.5m above the ground. The monitoring location was also more than 3.5 metres from any other reflecting surfaces;
- The background noise measurements were undertaken during suitable weather conditions, with a weather station situated on site;
- Noise data has been removed during periods of adverse weather;



- The background noise monitoring was undertaken during what is considered to be the representative periods of the daytime, night-time and early morning;
- The results of each measurement period are reported to the nearest 1dB; and
- Noise measurements were made using a Class 1, integrating sound level meter.

Overall, the estimated uncertainty of the assessment is within the range of $\pm 3\text{dB}$.



7.0 Appropriate Measures

Appropriate measures must be implemented on site. This should be delivered through the Noise Management Plan (NMP).

It is expected that appropriate measures will provide between 5-10 dB of noise reduction to onsite operations. Appropriate measures include:

- All plant and machinery should be regularly maintained to control noise emissions, with particular emphasis on lubrication of bearings and the integrity of silencers;
- Site staff should be aware where the nearest houses are located and avoid all unnecessary noise due to misuse of tools and equipment, unnecessary shouting, and radios;
- As far as possible, avoid multiple noisy operations occurring simultaneously in close proximity to the same sensitive receptor;
- Adherence to set working hours during the week and at weekends;
- Machines not in use will be shut down or throttled down to a minimum;
- Electrically powered plant, equipment and tools will be preferred over diesel or petrol driven; and
- Localised screening to be employed in areas where there are fixed plant items.

The management plan will be a live document and be regularly reviewed and updated when specific problems arise from operations.

The contents of the management plan will be based the assumptions made during the modelling exercise in relation to plant items and working times.

Where changes to onsite operations are made that change modelling assumption parameters i.e. addition of new plant or intensification of plant use this will be tested through additional modelling and mitigation to reduce the impact will be proposed and implemented (subject to planning controls).



8.0 Conclusions

The potential noise associated with the proposed recycling have been assessed at the nearest ESRs. The assessment has followed the methodology laid out in the EA guidance on noise, specifically a BS4142:2014+A1:2019.

The assessment concludes that there is low impact from operational noise associated with the recycling facility. At this level no measures other than the general measures required by appropriate measures are needed.

General measures for appropriate measures have been provided. A noise management plan will also be provided which details the site-specific measures that will be followed to reduce and minimise noise from the operational activities.





Appendix A Relevant Policy, Standards and Guidance

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

Policy	Policy Context																
Noise Policy Statement for England (NPSE)	<p>Paragraph 1.6 sets out the long-term vision of Government noise policy, i.e. to <i>“promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”</i></p> <p>Paragraph 1.7 states that the NPSE vision is supported by aims to effectively manage and control environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development by avoiding significant adverse impacts, mitigating and minimising adverse impacts and contributing to the improvement of health and quality of life.</p> <p>Paragraph 2.20 states that to identify “significant adverse” and “adverse” impact in line with the three aims of NPSE, there are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organization:</p> <p>No Observed Effect Level (NOEL): This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.</p> <p>Lowest Observed Adverse Effect Level (LOAEL): This is the level above which adverse effects on health and quality of life can be detected.</p> <p>Significant Observed Adverse Effect Level (SOAEL). This is the level above which significant adverse effects on health and quality of life occur.</p> <p>Paragraph 2.24 states that where an impact lies somewhere between LOAEL and SOAEL, all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur.</p> <p>Paragraph 2.22 notes that the NPSE states <i>“it is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available.”</i></p>																
Planning Practice Guidance - Noise (PPG-N)	<p>The PPG-N provides guidance in the form of a noise exposure hierarchy, which details the levels of perception to noise exposure and the expected outcomes and required actions.</p> <table border="1" data-bbox="504 1563 1391 2029"> <thead> <tr> <th colspan="4" data-bbox="504 1563 1391 1615">Table 1 PPG Noise exposure Hierarchy</th> </tr> <tr> <th data-bbox="504 1615 663 1693">Perception</th> <th data-bbox="663 1615 1043 1693">Examples of Outcomes</th> <th data-bbox="1043 1615 1238 1693">Increasing Effect Level</th> <th data-bbox="1238 1615 1391 1693">Action</th> </tr> </thead> <tbody> <tr> <td data-bbox="504 1693 663 1832">Not Present</td> <td data-bbox="663 1693 1043 1832">No Effect</td> <td data-bbox="1043 1693 1238 1832">No Observed Effect</td> <td data-bbox="1238 1693 1391 1832">No Specific Measures Required</td> </tr> <tr> <td data-bbox="504 1832 663 2029">Present and not intrusive</td> <td data-bbox="663 1832 1043 2029">Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not</td> <td data-bbox="1043 1832 1238 2029">No Observed Adverse Effect</td> <td data-bbox="1238 1832 1391 2029">No Specific Measures Required</td> </tr> </tbody> </table>	Table 1 PPG Noise exposure Hierarchy				Perception	Examples of Outcomes	Increasing Effect Level	Action	Not Present	No Effect	No Observed Effect	No Specific Measures Required	Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not	No Observed Adverse Effect	No Specific Measures Required
Table 1 PPG Noise exposure Hierarchy																	
Perception	Examples of Outcomes	Increasing Effect Level	Action														
Not Present	No Effect	No Observed Effect	No Specific Measures Required														
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not	No Observed Adverse Effect	No Specific Measures Required														



Policy	Policy Context			
		such that there is a change in the quality of life.		
	Lowest Observed adverse Effect Level (LOAEL)			
	Present and not intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
	Significant Observed adverse Effect Level (SOAEL)			
	Present and not disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. 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 Adverse Effect	Avoid
	Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent



Guidance document	Summary
BS 4142:2014 +A1:2019 Methods for rating and assessing industrial and commercial sound	BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound is used to rate and assess sound of an industrial nature including, but not limited to, assessing sound from proposed, new, modified, or additional sources of industrial sound, and sound at proposed new dwellings. It contains guidance on the monitoring and assessment of industrial and commercial sound sources (including fixed installations comprising mechanical and electrical plant and equipment) affecting sensitive receptors.
ISO 9613:2024 Acoustics – Attenuation of sound during propagation outdoors: Part 2 General Method of Calculation (ISO 9613-2)	Defines a method for calculating the attenuation of sound during propagation outdoors in order to predict the levels of environmental noise at distances from a source.
Institute of Environmental Management and Assessment (IEMA) (2014) Guidelines for Environmental Noise Impact Assessment	Presents guidelines on how the assessment of noise effects should be presented within the Environmental Impact Assessment (EIA) process. The IEMA guidelines cover aspects such as: scoping, baseline, prediction and example definitions of significance criteria.





Appendix B Terminology

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026

This section provides explanations and definitions for terms which may be used in this report.

The decibel scale, A-weighting & typical sound levels

A logarithmic scale is used when defining sound level measurements, the scale used is the decibel (dB). This is due to the ratio between the lowest audible sound and the highest being a million to one in terms of change in sound pressure. The human response to airborne sound pressure level is typically between 0 – 140 dB.

Due to the sensitivity of the ear in terms of pitch and frequency, A-weighting is applied to instrument measured sound which accounts for the relative loudness perceived by the human ear. Therefore, these measurements with this correction factor are written as dBA or dB(A).

The dB(A) unit is internationally accepted and has been found to correspond well with people's subjective reaction to sound. Typical dB(A) sound levels for familiar sounds are given in **Table B.1**.

Approximate noise level dB(A)	Example
0	Threshold of hearing for normal young people.
20	Recording studio, ambient level.
40	Quiet residential neighbourhood, ambient level.
60	Department store, restaurant, speech levels.
80	Next to busy highway, shouting.
100	Textile mill; press room with presses running; punch press and wood planers, at operators' position.
120	Ship's engine room, rock concert, in front and close to speakers.
140	Moon launch at 100m; artillery fire, gunner's position.

Sound power, sound level indices and other descriptors

The sound levels given in Table A.1 are sound pressure levels (L_p) and describe the sound level at a measurable distance from a source. Sound power level (L_w) is the total acoustic energy emitted by a source and are intrinsic.

Sound pressure levels vary over time depending on sound generating activities. The following indices are used to take account of these variations:

$L_{Aeq, T}$ - the equivalent continuous sound level. This is the sound level of a steady sound having the same energy as a fluctuating sound over the same period. Ambient sound levels are described with this index. $L_{Aeq, T}$ is considered the best general-purpose index for environmental sound, as it is the index which generally best represents how sound levels are perceived;

$L_{A90, T}$ - this noise index represents the sound level exceeded for 90% of the measurement period and is used to indicate quieter times during the measurement period. In BS 4142 assessments it is usually referred to as the background sound level, and describes the quietest 10% of a measurement period; and

L_{Amax} - is the maximum recorded sound level during the measurement period.

In addition, the following descriptors are often used in noise assessments:



Ambient sound is the totally encompassing sound in a given situation, at a given time, usually composed of sound from many sources near and far;

Fast time weighting is where a sound pressure level measurement using a 125 ms moving average time weighting period has been used;

Free field signifies that a sound measurement has been undertaken in 'free field' conditions i.e., away from any reflecting facades, other than the ground, e.g., building facades, close boarded fence work etc.; and

Façade level: A standard correction of +3 dB may be added to a free field sound level to estimate the sound level 1 m away from a façade to account for both the sound upon the façade and the reflected sound from the façade. When considering the break in of external sound into a room, the sound level which is incident upon the façade, rather than the façade level, is considered because only the incident sound will pass through the fabric of the building, whilst reflected sound travels away from the building. The standard +3 dB façade correction is most applicable in situations where the façade has a relatively unobstructed angle of view of the source (i.e., an uninterrupted 180° angle of view of the source in the horizontal plane).





Appendix C Noise Survey Data

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026

Monitoring Location LT1

Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
21/11/2025 16:00	52.4	43.8	72.3	0
21/11/2025 16:15	49.8	44.2	67.3	0
21/11/2025 16:30	48.9	43.7	65	0
21/11/2025 16:45	47.2	43.9	65	0
21/11/2025 17:00	49	43.7	63.3	0
21/11/2025 17:15	48.4	44	64.7	0
21/11/2025 17:30	49.3	44.4	64	0
21/11/2025 17:45	49.9	44.5	63.2	0
21/11/2025 18:00	48.4	44.2	62.7	0
21/11/2025 18:15	47.7	43.3	65.8	0
21/11/2025 18:30	47.4	43.4	62.5	0
21/11/2025 18:45	45.6	42	61.7	0
21/11/2025 19:00	45.8	42.6	59.8	0
21/11/2025 19:15	48.8	42.4	64.6	0
21/11/2025 19:30	46.1	41.5	61.8	0
21/11/2025 19:45	43.5	41.5	55.4	0
21/11/2025 20:00	44.8	40.8	60	0
21/11/2025 20:15	45.8	40.9	64	0
21/11/2025 20:30	46.8	40.8	68.4	0
21/11/2025 20:45	45.7	39	62.3	0
21/11/2025 21:00	45.4	40.2	61.3	0
21/11/2025 21:15	45.3	39.1	64.2	0
21/11/2025 21:30	42.4	39	60.1	0
21/11/2025 21:45	45.7	39.1	65.4	0
21/11/2025 22:00	42.9	39.4	56.4	0
21/11/2025 22:15	41.8	39	47.8	0
21/11/2025 22:30	44.8	38.6	65.1	0
21/11/2025 22:45	41.7	37	55.3	0
21/11/2025 23:00	41.4	37.3	57.5	0
21/11/2025 23:15	39.6	36.8	45.5	0
21/11/2025 23:30	39.1	36.5	44.8	0
21/11/2025 23:45	38.6	34.7	46	0
22/11/2025 00:00	41.1	33.9	59.3	0
22/11/2025 00:15	43.6	34.1	63.9	0
22/11/2025 00:30	41.2	34.1	61	0
22/11/2025 00:45	40	34.6	61.2	0
22/11/2025 01:00	39.8	35.9	47.3	0
22/11/2025 01:15	40.2	36.2	50.3	0
22/11/2025 01:30	39.2	36.3	45.8	0
22/11/2025 01:45	43.6	35.1	67.8	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 02:00	37.8	31.5	59.9	0
22/11/2025 02:15	36.2	33.8	41.7	0
22/11/2025 02:30	35.1	31.2	44	0
22/11/2025 02:45	34.4	32.6	42.9	0
22/11/2025 03:00	36	33.4	43.1	0
22/11/2025 03:15	36	33.6	41.3	0
22/11/2025 03:30	37.6	33.2	57.1	0
22/11/2025 03:45	36.5	31.1	52.8	0
22/11/2025 04:00	36.2	33	50.9	0
22/11/2025 04:15	42.6	34.4	65	0
22/11/2025 04:30	40	36.3	51.5	0
22/11/2025 04:45	38.9	35.9	46.1	0
22/11/2025 05:00	39.8	37.2	48.5	0
22/11/2025 05:15	44	40.8	50.9	0
22/11/2025 05:30	45.3	43.1	57.1	1
22/11/2025 05:45	44	41.8	56.9	0
22/11/2025 06:00	43.5	39.3	58.1	1
22/11/2025 06:15	42.8	40.8	53.6	0
22/11/2025 06:30	45.9	42.3	67.9	1
22/11/2025 06:45	47.7	44	63.4	1
22/11/2025 07:00	52.4	44.8	67.1	1
22/11/2025 07:15	50.2	44.1	65.6	1
22/11/2025 07:30	47.5	41.3	69.5	0
22/11/2025 07:45	49.1	42.4	68	0
22/11/2025 08:00	46.7	43.1	63.3	0
22/11/2025 08:15	48.1	43	66.2	0
22/11/2025 08:30	49.3	43.7	63.9	0
22/11/2025 08:45	48.6	42.4	63	0
22/11/2025 09:00	47.8	42.4	65.7	0
22/11/2025 09:15	47.6	43.2	65	0
22/11/2025 09:30	48.7	44.5	65.7	0
22/11/2025 09:45	49.7	44.4	67.6	0
22/11/2025 10:00	49.3	43.6	70.1	0
22/11/2025 10:15	51.1	43.8	64.7	0
22/11/2025 10:30	50.9	43.9	66.3	0
22/11/2025 10:45	49.7	43.2	68	0
22/11/2025 11:00	48.5	42.9	67.8	0
22/11/2025 11:15	49.3	42.7	66.5	0
22/11/2025 11:30	48.4	42.5	70.7	0
22/11/2025 11:45	48.5	42.4	64.1	0
22/11/2025 12:00	49.4	42.4	68.8	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 12:15	56.3	41.7	78	0
22/11/2025 12:30	50.1	41.9	67.2	0
22/11/2025 12:45	48.5	41.5	67.4	0
22/11/2025 13:00	48.3	41.3	64	1
22/11/2025 13:15	49.6	41.6	74.6	0
22/11/2025 13:30	47.8	41.2	63.5	1
22/11/2025 13:45	49.8	41.2	65.2	0
22/11/2025 14:00	47.1	40.4	63.6	0
22/11/2025 14:15	50.4	41.3	66.6	1
22/11/2025 14:30	48.1	41.2	66.3	0
22/11/2025 14:45	48.3	42.6	64.3	1
22/11/2025 15:00	48.3	43.4	65.6	1
22/11/2025 15:15	50.6	43.6	65.7	1
22/11/2025 15:30	48.2	43.6	64.6	1
22/11/2025 15:45	48	43.2	64.7	1
22/11/2025 16:00	49.5	40.7	70.2	1
22/11/2025 16:15	45.6	40.9	73.5	1
22/11/2025 16:30	45.7	39	63.9	1
22/11/2025 16:45	46.9	39.4	64.3	1
22/11/2025 17:00	46.1	41.8	68.1	1
22/11/2025 17:15	47.3	42.3	63.7	1
22/11/2025 17:30	45.2	41.8	64.5	0
22/11/2025 17:45	47.3	41.1	64.8	0
22/11/2025 18:00	49	41.6	65.4	0
22/11/2025 18:15	47.9	40.7	67.7	0
22/11/2025 18:30	45.8	39.3	64.8	0
22/11/2025 18:45	46.4	38.4	63.2	0
22/11/2025 19:00	43.4	37.7	60.9	0
22/11/2025 19:15	42.6	37.4	61.8	1
22/11/2025 19:30	43.2	35.4	60.4	0
22/11/2025 19:45	44.9	37.1	62.7	0
22/11/2025 20:00	42.3	37	61.2	0
22/11/2025 20:15	41.1	35.9	58.6	0
22/11/2025 20:30	40.9	35.6	59.2	0
22/11/2025 20:45	44.1	35.2	62	0
22/11/2025 21:00	42.2	36.4	61.5	0
22/11/2025 21:15	40.4	36.8	59	0
22/11/2025 21:30	42.1	38.2	58.6	0
22/11/2025 21:45	41.7	37.4	61.6	0
22/11/2025 22:00	45.3	38.2	64.6	0
22/11/2025 22:15	43.2	37.4	62.9	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 22:30	42.8	38.1	60.8	0
22/11/2025 22:45	42.2	34.6	58.6	0
22/11/2025 23:00	44	36.2	63.7	0
22/11/2025 23:15	41.4	35	70.8	0
22/11/2025 23:30	39.4	35.9	56.8	0
22/11/2025 23:45	38.1	32.1	52.6	0
23/11/2025 00:00	37.9	33	55	0
23/11/2025 00:15	36.9	31.9	56.5	0
23/11/2025 00:30	36.5	29.5	49.7	0
23/11/2025 00:45	33.2	28.7	51.6	0
23/11/2025 01:00	34.3	27.3	58.7	0
23/11/2025 01:15	33.4	26.8	52.5	0
23/11/2025 01:30	32.6	28.1	56.4	0
23/11/2025 01:45	34.1	28.4	49.1	0
23/11/2025 02:00	36.9	28.2	63.8	0
23/11/2025 02:15	34.2	27.5	49.8	0
23/11/2025 02:30	34.3	25.7	56.6	0
23/11/2025 02:45	33.4	25.5	45.7	0
23/11/2025 03:00	33.6	26.6	46.8	0
23/11/2025 03:15	33.5	26.4	50.2	0
23/11/2025 03:30	33.4	26.1	52.1	0
23/11/2025 03:45	30.5	25.4	53.8	0
23/11/2025 04:00	33.7	25.2	52.7	0
23/11/2025 04:15	35.4	27.3	51.7	0
23/11/2025 04:30	35.9	29.8	55.6	0
23/11/2025 04:45	35.2	29.1	50.1	0
23/11/2025 05:00	39.8	31.9	59	0
23/11/2025 05:15	38.4	32.6	47.8	0
23/11/2025 05:30	46.9	35.4	81	1
23/11/2025 05:45	62.8	40	99.5	1
23/11/2025 06:00	60.4	39.4	93.8	1
23/11/2025 06:15	39.8	35.2	61.5	1
23/11/2025 06:30	64.5	35.6	102.3	1
23/11/2025 06:45	59.7	36.2	95.3	1
23/11/2025 07:00	42.5	36.9	67.4	1
23/11/2025 07:15	37.2	32.9	59.4	1
23/11/2025 07:30	37.9	33.2	56.3	1
23/11/2025 07:45	52.5	34.8	90.2	1
23/11/2025 08:00	39.6	34.1	58.6	1
23/11/2025 08:15	41.1	34.8	66.9	1
23/11/2025 08:30	41.7	36.5	71.4	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 08:45	41.7	37.2	60.6	1
23/11/2025 09:00	41.1	37.8	60.1	1
23/11/2025 09:15	58.4	41.7	92.2	1
23/11/2025 09:30	47.4	41.8	71.1	1
23/11/2025 09:45	46.2	41.1	61.4	1
23/11/2025 10:00	45.7	42.1	60.2	1
23/11/2025 10:15	45.2	41.6	60.5	1
23/11/2025 10:30	46.1	38.9	65.3	1
23/11/2025 10:45	45.2	39.3	60	1
23/11/2025 11:00	44.4	39.7	59.2	1
23/11/2025 11:15	43.1	39.2	58.1	1
23/11/2025 11:30	44.7	38.9	75.4	1
23/11/2025 11:45	56.1	39.6	80.6	1
23/11/2025 12:00	45.7	39.8	69.2	1
23/11/2025 12:15	46.1	39.7	61	1
23/11/2025 12:30	45.3	40.4	62.3	1
23/11/2025 12:45	44.7	40.1	67.1	1
23/11/2025 13:00	47.5	40.5	67.3	1
23/11/2025 13:15	43.4	39.4	58.9	1
23/11/2025 13:30	44.2	38.7	59.3	1
23/11/2025 13:45	40.4	35.3	56.8	1
23/11/2025 14:00	38.9	33.3	53.6	1
23/11/2025 14:15	36.5	33.4	51.2	1
23/11/2025 14:30	37.1	32.5	59.9	1
23/11/2025 14:45	47.9	31.7	83.6	1
23/11/2025 15:00	35.6	31.2	51.9	1
23/11/2025 15:15	31.1	29.6	42.9	1
23/11/2025 15:30	63.5	28.6	101.8	1
23/11/2025 15:45	63.3	29.3	101.6	1
23/11/2025 16:00	63.2	29.4	101.5	1
23/11/2025 16:15	32.9	28.5	48.3	1
23/11/2025 16:30	63.3	28.8	101.6	1
23/11/2025 16:45	63.3	27.8	101.6	1
23/11/2025 17:00	37.6	27.4	58.4	1
23/11/2025 17:15	63	27.7	101.4	1
23/11/2025 17:30	63.3	28.4	101.6	1
23/11/2025 17:45	31.8	26.7	47.7	1
23/11/2025 18:00	63.1	27	101.5	1
23/11/2025 18:15	63.4	26.2	101.7	1
23/11/2025 18:30	63.3	24	101.6	1
23/11/2025 18:45	63.3	24.8	101.7	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 19:00	63.3	25.7	101.6	1
23/11/2025 19:15	63.3	25.2	101.7	1
23/11/2025 19:30	33.1	25.1	80.2	1
23/11/2025 19:45	63.3	24.2	101.6	1
23/11/2025 20:00	63.3	24.5	101.6	1
23/11/2025 20:15	63.3	24.6	101.6	1
23/11/2025 20:30	29.3	23.2	60.8	1
23/11/2025 20:45	63.1	24.2	101.4	1
23/11/2025 21:00	62.8	22.9	101.1	1
23/11/2025 21:15	27.1	22.8	47.2	1
23/11/2025 21:30	62.6	22.7	101	1
23/11/2025 21:45	62.6	22.1	100.9	1
23/11/2025 22:00	62.7	21.4	101	1
23/11/2025 22:15	26	22.1	41.6	1
23/11/2025 22:30	62.8	21	101.1	1
23/11/2025 22:45	23.5	21	30.9	1
23/11/2025 23:00	64.7	19.5	103	1
23/11/2025 23:15	23.3	19.8	31.2	1
23/11/2025 23:30	22.6	18.9	32.7	1
23/11/2025 23:45	20.5	17.7	30.5	1
24/11/2025 00:00	20.6	18	34.3	1
24/11/2025 00:15	64.6	18.6	102.9	1
24/11/2025 00:30	21.6	18.8	30.8	1
24/11/2025 00:45	20.6	17.7	31.5	1
24/11/2025 01:00	18.8	15.7	43.2	1
24/11/2025 01:15	64.6	17.1	102.9	1
24/11/2025 01:30	23.4	16.3	44.8	1
24/11/2025 01:45	20.4	16.8	28.9	1
24/11/2025 02:00	19.2	16.4	30.2	1
24/11/2025 02:15	19.7	16.1	34	1
24/11/2025 02:30	19.7	17.1	41.3	1
24/11/2025 02:45	64.6	17.4	103	1
24/11/2025 03:00	20.5	17.6	28.7	1
24/11/2025 03:15	20.7	17.7	29.9	1
24/11/2025 03:30	21.1	17.9	33.7	1
24/11/2025 03:45	21.4	17.5	41.1	1
24/11/2025 04:00	64.6	21.1	103	1
24/11/2025 04:15	23.6	20.5	40.9	1
24/11/2025 04:30	24.1	21.6	30.9	1
24/11/2025 04:45	64.6	21.3	102.9	1
24/11/2025 05:00	25.3	22.9	34.7	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 05:15	25.3	22.9	30.3	1
24/11/2025 05:30	27.7	25.8	37.4	1
24/11/2025 05:45	29.6	26.8	44.4	1
24/11/2025 06:00	28.6	26.9	38.4	1
24/11/2025 06:15	29.4	27.2	35.2	1
24/11/2025 06:30	31.4	28.5	44.1	1
24/11/2025 06:45	30.8	27.9	45.1	1
24/11/2025 07:00	32.6	28.4	48.1	1
24/11/2025 07:15	33	29.5	48.1	1
24/11/2025 07:30	32.1	29	46.6	1
24/11/2025 07:45	32.5	28.4	50.3	1
24/11/2025 08:00	30.7	27.9	43.9	1
24/11/2025 08:15	33.1	27.3	52.3	1
24/11/2025 08:30	32.9	29.5	47	1
24/11/2025 08:45	33	28.9	48.3	1
24/11/2025 09:00	36.2	29.4	56.7	1
24/11/2025 09:15	64.5	29.2	102.8	1
24/11/2025 09:30	35.8	31.2	51.1	1
24/11/2025 09:45	34.9	31.2	50.7	1
24/11/2025 10:00	47	32.1	67.8	1
24/11/2025 10:15	35.9	32.1	54.3	1
24/11/2025 10:30	38.8	32.9	54.8	1
24/11/2025 10:45	37.4	32.8	52.2	1
24/11/2025 11:00	38.1	33	53.3	1
24/11/2025 11:15	38.2	33.5	56	1
24/11/2025 11:30	40	34.9	54.2	1
24/11/2025 11:45	40.8	36.1	56	1
24/11/2025 12:00	40.2	37.2	53.9	1
24/11/2025 12:15	48.3	35.7	70.4	1
24/11/2025 12:30	38.6	33.5	53.5	1
24/11/2025 12:45	36.9	31.8	52	1
24/11/2025 13:00	34.2	31.1	46.9	1
24/11/2025 13:15	34	31	49.3	1
24/11/2025 13:30	35.5	30.8	49.3	1
24/11/2025 13:45	35.8	32	52.4	1
24/11/2025 14:00	64.6	30.5	102.9	1
24/11/2025 14:15	45.2	31.6	82.1	1
24/11/2025 14:30	64.7	32.2	103.1	1
24/11/2025 14:45	35	31.9	47.5	1
24/11/2025 15:00	33.4	31	45.1	1
24/11/2025 15:15	64.8	32.2	103.1	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 15:30	34.8	32.2	48.2	1
24/11/2025 15:45	35.1	32.2	47.2	1
24/11/2025 16:00	64.8	31.6	103.2	1
24/11/2025 16:15	36.7	31.9	56	1
24/11/2025 16:30	64.8	32	103.2	1
24/11/2025 16:45	35.4	32	47.6	1
24/11/2025 17:00	64.8	30.9	103.2	1
24/11/2025 17:15	35.5	31.7	49.3	1
24/11/2025 17:30	33.7	30.6	45.6	1
24/11/2025 17:45	65	30.5	103.4	1
24/11/2025 18:00	33.7	30.3	49.2	1
24/11/2025 18:15	64.2	29.2	102.7	1
24/11/2025 18:30	31.5	29.2	46.1	1
24/11/2025 18:45	32.6	29.1	46.3	1
24/11/2025 19:00	31.6	28.2	51.7	1
24/11/2025 19:15	64.3	29.2	102.6	1
24/11/2025 19:30	31	27.1	46.1	1
24/11/2025 19:45	30.2	27.3	43.9	1
24/11/2025 20:00	29.2	26.3	45.5	1
24/11/2025 20:15	28.4	25	42.1	1
24/11/2025 20:30	64.2	25	102.5	1
24/11/2025 20:45	29.2	26.6	46.8	1
24/11/2025 21:00	29.6	24.6	44.7	1
24/11/2025 21:15	64.2	25.6	102.6	1
24/11/2025 21:30	29.8	24.8	51.1	1
24/11/2025 21:45	27.3	24.6	44.5	1
24/11/2025 22:00	64.2	23.6	102.5	1
24/11/2025 22:15	27.5	22.9	48.4	1
24/11/2025 22:30	64.2	22.7	102.5	1
24/11/2025 22:45	26	24.2	33.1	1
24/11/2025 23:00	27.1	22.9	48.2	1
24/11/2025 23:15	27.8	24.1	48.5	1
24/11/2025 23:30	25.1	22.9	33.1	1
24/11/2025 23:45	23.6	21.5	31.9	1
25/11/2025 00:00	64.2	20	102.5	1
25/11/2025 00:15	24.9	22.6	34.5	1
25/11/2025 00:30	23.9	21.5	33.1	1
25/11/2025 00:45	64.2	19.9	102.5	1
25/11/2025 01:00	21.9	18.5	32.2	1
25/11/2025 01:15	24.2	21.9	31.7	1
25/11/2025 01:30	24.1	21.9	32	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 01:45	23.7	20.7	33.4	1
25/11/2025 02:00	64.2	20.1	102.5	1
25/11/2025 02:15	24.2	20.4	42.7	1
25/11/2025 02:30	22.4	19.1	32.4	1
25/11/2025 02:45	21.3	19.2	35.8	1
25/11/2025 03:00	64.2	19.7	102.5	1
25/11/2025 03:15	22.8	20.5	32.4	1
25/11/2025 03:30	25.6	21.8	43.3	1
25/11/2025 03:45	23.8	21.7	36.1	1
25/11/2025 04:00	64.1	23.4	102.5	1
25/11/2025 04:15	26	23.6	33.2	1
25/11/2025 04:30	26.2	23.4	35.3	1
25/11/2025 04:45	28.4	24.8	47.8	1
25/11/2025 05:00	27.3	25.2	31.8	1
25/11/2025 05:15	28.5	26.8	39.5	1
25/11/2025 05:30	28.5	27.1	36.4	1
25/11/2025 05:45	29.8	28	37.6	1
25/11/2025 06:00	30.3	28.2	36.8	1
25/11/2025 06:15	64.1	29.8	102.4	1
25/11/2025 06:30	31.8	30.5	40.3	1
25/11/2025 06:45	64.1	30.2	102.5	1
25/11/2025 07:00	34.2	31	48.6	1
25/11/2025 07:15	64.1	30.9	102.4	1
25/11/2025 07:30	34.1	31.9	47.8	1
25/11/2025 07:45	34.3	31.1	47.7	1
25/11/2025 08:00	64.1	32.1	102.5	1
25/11/2025 08:15	34.7	31.8	46.7	1
25/11/2025 08:30	38.8	32.8	56.5	1
25/11/2025 08:45	36.4	33.5	49.6	1
25/11/2025 09:00	36.1	32.8	49.9	1
25/11/2025 09:15	34.3	32.5	47.5	1
25/11/2025 09:30	35.2	31.9	51.2	1
25/11/2025 09:45	39.2	31.9	60.7	1
25/11/2025 10:00	37.9	33.3	51.5	1
25/11/2025 10:15	39.1	35	55.4	1
25/11/2025 10:30	38.6	35.5	51	1
25/11/2025 10:45	38.6	35	51.3	1
25/11/2025 11:00	42.1	38.2	58.2	1
25/11/2025 11:15	40.6	38.1	53.5	1
25/11/2025 11:30	41.8	38.6	55.9	1
25/11/2025 11:45	41.2	37.3	54.8	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 12:00	42.7	38.6	57.1	1
25/11/2025 12:15	45.5	39.9	57.2	1
25/11/2025 12:30	43.3	40.2	58.1	1
25/11/2025 12:45	42.5	38.6	56.1	1
25/11/2025 13:00	40.1	35.8	56.5	1
25/11/2025 13:15	38.2	34.4	53	1
25/11/2025 13:30	35.6	31	50.3	1
25/11/2025 13:45	34.6	29.2	65	1
25/11/2025 14:00	32.8	28.6	47.9	1
25/11/2025 14:15	64.2	28.7	102.4	1
25/11/2025 14:30	64.1	29	102.4	1
25/11/2025 14:45	64	28.9	102.2	1
25/11/2025 15:00	33.7	29.6	60.6	1
25/11/2025 15:15	64	30.1	102.3	1
25/11/2025 15:30	64	29	102.2	1
25/11/2025 15:45	33.6	29.9	47.8	1
25/11/2025 16:00	64	30.3	102.3	1
25/11/2025 16:15	63.9	29.8	102.3	1
25/11/2025 16:30	33.5	30.8	44.9	1
25/11/2025 16:45	32.2	29.1	46.6	1
25/11/2025 17:00	63.9	29.3	102.2	1
25/11/2025 17:15	32.8	29.5	48.5	1
25/11/2025 17:30	32.3	28.3	45.3	1
25/11/2025 17:45	33.8	29.2	50.6	1
25/11/2025 18:00	31.8	28.8	46.6	1
25/11/2025 18:15	63.8	29	102.1	1
25/11/2025 18:30	63.9	28.6	102.2	1
25/11/2025 18:45	30.7	27.3	46.5	1
25/11/2025 19:00	63.9	27.8	102.2	1
25/11/2025 19:15	27.4	25.4	39.2	1
25/11/2025 19:30	63.9	25.9	102.2	1
25/11/2025 19:45	28.6	24.9	44.5	1
25/11/2025 20:00	27.4	24.5	43.2	1
25/11/2025 20:15	63.9	25.1	102.2	1
25/11/2025 20:30	27.3	24.2	43	1
25/11/2025 20:45	25.7	23.1	42.2	1
25/11/2025 21:00	63.9	22.5	102.2	1
25/11/2025 21:15	27.3	22.6	44	1
25/11/2025 21:30	63.9	22.6	102.2	1
25/11/2025 21:45	26.6	21.7	45.3	1
25/11/2025 22:00	64	21.6	102.3	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 22:15	64.1	21.5	102.4	1
25/11/2025 22:30	23.2	20.5	36.8	1
25/11/2025 22:45	21.6	19.4	35.4	1
25/11/2025 23:00	22.1	18.5	40.2	1
25/11/2025 23:15	64	20.8	102.3	1
25/11/2025 23:30	22.3	20.4	27.5	1
25/11/2025 23:45	22.1	20.2	34.4	1
26/11/2025 00:00	64	17.7	102.3	1
26/11/2025 00:15	23.6	19.3	33.3	1
26/11/2025 00:30	24.7	21.8	31.1	1
26/11/2025 00:45	22.8	19.4	32.2	1
26/11/2025 01:00	22.3	16.8	41.8	1
26/11/2025 01:15	64	20.1	102.4	1
26/11/2025 01:30	21.8	17.8	34.1	1
26/11/2025 01:45	64.1	18.4	102.4	1
26/11/2025 02:00	24.8	20.3	39.7	1
26/11/2025 02:15	23.2	19.4	35.5	1
26/11/2025 02:30	23	19.2	38.1	1
26/11/2025 02:45	24	19.7	29.8	1
26/11/2025 03:00	21.3	16.8	34.3	1
26/11/2025 03:15	64	17.8	102.4	1
26/11/2025 03:30	23.4	20.4	34.7	1
26/11/2025 03:45	23.1	18.7	29.8	1
26/11/2025 04:00	24.9	21	31.4	1
26/11/2025 04:15	24.4	20.9	32.4	1
26/11/2025 04:30	26	22.1	42.6	1
26/11/2025 04:45	26	23.2	32.2	1
26/11/2025 05:00	26.5	23.4	34.5	1
26/11/2025 05:15	26.8	22.9	33.8	1
26/11/2025 05:30	63.9	26.8	102.3	1
26/11/2025 05:45	31.4	28.9	43.3	1
26/11/2025 06:00	30.5	28.6	40	1
26/11/2025 06:15	27	25	35.2	1
26/11/2025 06:30	28.8	26.1	44.3	1
26/11/2025 06:45	31.8	29.1	43.6	1
26/11/2025 07:00	30.5	27.7	45.8	1
26/11/2025 07:15	30.2	27.7	42.9	1
26/11/2025 07:30	63.9	28.7	102.2	1
26/11/2025 07:45	31.5	27.2	44.2	1
26/11/2025 08:00	30.2	27.9	40.5	1
26/11/2025 08:15	30.5	27.9	41.7	1



Start Date & Time	L_{Aeq,T}	L_{A90,T}	L_{Afmax,T}	Exclude due to weather? (1 = exclude)
26/11/2025 08:30	30.3	26.2	46.8	1
26/11/2025 08:45	30.4	25.9	42.5	1
26/11/2025 09:00	29.8	26.6	44.5	1
26/11/2025 09:15	29.8	26.6	41.9	1
26/11/2025 09:30	32	29.8	43.5	1
26/11/2025 09:45	34.5	31.2	47.4	1
26/11/2025 10:00	37.2	32.2	57.5	1
26/11/2025 10:15	38.5	34.4	53.4	1
26/11/2025 10:30	39	33.7	51.1	1
26/11/2025 10:45	37.8	34.2	53.2	1
26/11/2025 11:00	39.2	35.7	51.1	1
26/11/2025 11:15	39.7	36.2	53.1	1
26/11/2025 11:30	38.8	35.8	53.6	1
26/11/2025 11:45	41.2	35.6	57.2	1
26/11/2025 12:00	40	35.2	55.9	1
26/11/2025 12:15	45.4	36	62.1	1



Monitoring Location LT2

Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
21/11/2025 14:30	55.8	44.3	76.4	0
21/11/2025 14:45	53.1	46.5	69.8	0
21/11/2025 15:00	52.6	45.6	63.5	0
21/11/2025 15:15	53.3	45.7	62.5	0
21/11/2025 15:30	53.5	46.8	64.8	0
21/11/2025 15:45	53.8	47.9	61.3	0
21/11/2025 16:00	55	48.6	64.4	0
21/11/2025 16:15	54.5	48.2	62.5	0
21/11/2025 16:30	54.4	48.6	61.8	0
21/11/2025 16:45	52.9	47	62.5	0
21/11/2025 17:00	53.8	48.2	61.1	0
21/11/2025 17:15	52.7	47.6	61.4	0
21/11/2025 17:30	52.9	47.8	60.5	0
21/11/2025 17:45	53.5	47.4	62.4	0
21/11/2025 18:00	52.6	47.3	60.5	0
21/11/2025 18:15	52.3	46.5	61	0
21/11/2025 18:30	52.3	46.7	65.1	0
21/11/2025 18:45	51.5	45.7	66.3	0
21/11/2025 19:00	50.2	45.4	58.9	0
21/11/2025 19:15	51	44.8	61	0
21/11/2025 19:30	50.6	44.7	61.4	0
21/11/2025 19:45	49.6	44.3	60.8	0
21/11/2025 20:00	49.4	43.7	59.5	0
21/11/2025 20:15	49.9	44.3	59.7	0
21/11/2025 20:30	49	43.3	65.8	0
21/11/2025 20:45	49.1	42.6	61	0
21/11/2025 21:00	49	42.4	63.9	0
21/11/2025 21:15	47.4	41.5	61.6	0
21/11/2025 21:30	46.9	40.8	57.9	0
21/11/2025 21:45	49.4	42.4	61.9	0
21/11/2025 22:00	47.3	42.5	60.7	0
21/11/2025 22:15	47.3	41.8	58.9	0
21/11/2025 22:30	46.2	40.6	58.5	0
21/11/2025 22:45	45	39.4	58.6	0
21/11/2025 23:00	47.6	41.2	60.4	0
21/11/2025 23:15	45.7	40	59.4	0
21/11/2025 23:30	47.3	39.9	60	0
21/11/2025 23:45	45.2	38.7	57.6	0
22/11/2025 00:00	45.6	38.1	58	0
22/11/2025 00:15	45.1	37.9	57.9	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 00:30	45.5	37.7	60.8	0
22/11/2025 00:45	44.8	40.1	58.3	0
22/11/2025 01:00	46.7	39.3	61.3	0
22/11/2025 01:15	49.2	42.5	62.1	0
22/11/2025 01:30	47.2	41.4	59.1	0
22/11/2025 01:45	46.1	40.8	60.1	0
22/11/2025 02:00	43.4	36.1	57.2	0
22/11/2025 02:15	42	36.1	60.9	0
22/11/2025 02:30	42.8	36.6	54.4	0
22/11/2025 02:45	41.5	34.6	55.9	0
22/11/2025 03:00	43.3	37.3	52.3	0
22/11/2025 03:15	40.7	35.7	53.5	0
22/11/2025 03:30	41.9	34.9	55.3	0
22/11/2025 03:45	41.3	35.2	54	0
22/11/2025 04:00	40.5	33.9	59.3	0
22/11/2025 04:15	45.1	38.4	57.8	0
22/11/2025 04:30	49.3	41.4	65	0
22/11/2025 04:45	49.7	41.9	68.1	0
22/11/2025 05:00	48.1	42.1	62.1	0
22/11/2025 05:15	51.5	46.1	61.7	0
22/11/2025 05:30	50.9	47	61.8	1
22/11/2025 05:45	49.6	45.8	61	0
22/11/2025 06:00	50.2	44.6	64.7	1
22/11/2025 06:15	50.6	45.5	62.4	0
22/11/2025 06:30	53	48.3	64.7	1
22/11/2025 06:45	55.2	49.4	65.9	1
22/11/2025 07:00	56	51.9	65.8	1
22/11/2025 07:15	55.5	49	67.1	1
22/11/2025 07:30	52.2	44.7	67.3	0
22/11/2025 07:45	53.4	46.8	64.3	0
22/11/2025 08:00	55.6	49.1	73.3	0
22/11/2025 08:15	54.6	48	67	0
22/11/2025 08:30	55.8	49.4	68.9	0
22/11/2025 08:45	58.1	51.3	73	0
22/11/2025 09:00	54.3	48.6	65.9	0
22/11/2025 09:15	55.5	49.8	70.3	0
22/11/2025 09:30	58.6	50.8	74.8	0
22/11/2025 09:45	58.5	53.3	75.6	0
22/11/2025 10:00	56.6	51.2	68.8	0
22/11/2025 10:15	57.7	49.9	74.2	0
22/11/2025 10:30	56.7	49.7	70.7	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 10:45	54.5	48.2	71.4	0
22/11/2025 11:00	54	48.1	68.4	0
22/11/2025 11:15	54.1	46.8	69.4	0
22/11/2025 11:30	54.5	48.5	67.3	0
22/11/2025 11:45	53.3	46.8	70.3	0
22/11/2025 12:00	53	46.2	66.8	1
22/11/2025 12:15	55.1	46.7	73.7	0
22/11/2025 12:30	52.5	46.7	62.2	0
22/11/2025 12:45	52.9	47.4	63.1	0
22/11/2025 13:00	52.9	47.4	69.7	1
22/11/2025 13:15	53	47.7	64.7	0
22/11/2025 13:30	52.8	46.4	64.6	1
22/11/2025 13:45	51.7	46	67.3	0
22/11/2025 14:00	51.9	46.3	61.2	0
22/11/2025 14:15	51.7	45.9	63.2	1
22/11/2025 14:30	52.2	46.8	69.5	0
22/11/2025 14:45	53.6	47.9	74.2	1
22/11/2025 15:00	54.1	49.6	69.2	1
22/11/2025 15:15	54.2	49.9	67.7	1
22/11/2025 15:30	53.7	49.9	71.4	1
22/11/2025 15:45	53.5	49.4	68.5	1
22/11/2025 16:00	52.2	47.7	70.1	1
22/11/2025 16:15	53.4	49.1	73.9	1
22/11/2025 16:30	52.9	48.2	64.8	1
22/11/2025 16:45	53.2	49.9	67	1
22/11/2025 17:00	54.3	50.2	64.7	1
22/11/2025 17:15	55	50	62.4	1
22/11/2025 17:30	53.3	47.3	67.6	0
22/11/2025 17:45	52.6	46.1	62.8	0
22/11/2025 18:00	51.5	44.9	70.5	0
22/11/2025 18:15	51.6	43.7	63.6	0
22/11/2025 18:30	51.8	43.9	64	0
22/11/2025 18:45	51.7	42.9	60.3	0
22/11/2025 19:00	51	42.4	62.5	0
22/11/2025 19:15	48.1	40.9	60.9	1
22/11/2025 19:30	49.1	40.5	62.3	0
22/11/2025 19:45	49	40.6	61.6	0
22/11/2025 20:00	48.9	40.4	61.9	0
22/11/2025 20:15	48.6	40.3	61.1	0
22/11/2025 20:30	48.8	39.9	62.3	0
22/11/2025 20:45	49.8	40.4	65.2	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 21:00	47.4	41.3	59.4	0
22/11/2025 21:15	49	42.6	58.9	0
22/11/2025 21:30	47.8	41.6	68.6	0
22/11/2025 21:45	47.8	42.3	62.5	0
22/11/2025 22:00	48.5	43.1	66.2	0
22/11/2025 22:15	48.7	42.4	61.6	0
22/11/2025 22:30	49	41.5	61.8	0
22/11/2025 22:45	47.5	41.3	65.2	0
22/11/2025 23:00	47.6	41.5	62.2	0
22/11/2025 23:15	45.5	40.3	61	0
22/11/2025 23:30	47.3	41.2	62.4	0
22/11/2025 23:45	48.1	41	62.7	0
23/11/2025 00:00	46.7	41.7	66.5	0
23/11/2025 00:15	47.9	43	64.7	0
23/11/2025 00:30	48.3	44	66.1	0
23/11/2025 00:45	46.7	42.1	68	0
23/11/2025 01:00	44.3	39.9	64.7	0
23/11/2025 01:15	42.9	38.4	60.7	0
23/11/2025 01:30	44.2	38.3	61.9	0
23/11/2025 01:45	45.9	39.7	67.5	0
23/11/2025 02:00	45.5	40.4	73.1	0
23/11/2025 02:15	44	39.4	62.7	0
23/11/2025 02:30	42.1	37.1	59.6	0
23/11/2025 02:45	41.5	36.2	64	0
23/11/2025 03:00	42.7	36.3	59	0
23/11/2025 03:15	41.9	35.7	68.1	0
23/11/2025 03:30	40.4	34.7	57.5	0
23/11/2025 03:45	39	34.5	60.8	0
23/11/2025 04:00	39	34.4	60.4	0
23/11/2025 04:15	39.5	35	62.3	0
23/11/2025 04:30	41.5	35.8	62.6	0
23/11/2025 04:45	41.6	35	60.5	0
23/11/2025 05:00	43.6	36	65.3	0
23/11/2025 05:15	42.4	36.9	57.7	0
23/11/2025 05:30	53.3	40.9	64.3	1
23/11/2025 05:45	59.3	55.5	82.2	1
23/11/2025 06:00	60.1	55.2	78.3	1
23/11/2025 06:15	52.3	46.9	72.3	1
23/11/2025 06:30	55.8	45.4	78.8	1
23/11/2025 06:45	55	49.1	73.5	1
23/11/2025 07:00	53.4	48.1	69	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 07:15	51.3	42.4	78.8	0
23/11/2025 07:30	50.1	40.9	69.1	1
23/11/2025 07:45	61.4	47.2	98.1	1
23/11/2025 08:00	54.1	43	81.3	0
23/11/2025 08:15	57	42.7	83	0
23/11/2025 08:30	51.4	42.1	66.2	0
23/11/2025 08:45	50.5	43	72	0
23/11/2025 09:00	54.4	44.6	74.9	1
23/11/2025 09:15	56.8	49.4	75.3	1
23/11/2025 09:30	55.9	48.9	83.1	1
23/11/2025 09:45	53.6	47.9	67.3	0
23/11/2025 10:00	54.1	47.8	75.8	0
23/11/2025 10:15	59.3	49.6	80.9	0
23/11/2025 10:30	54.8	47.6	71.1	0
23/11/2025 10:45	59	50.3	77.2	0
23/11/2025 11:00	62.3	49.6	84.4	0
23/11/2025 11:15	60.9	48.7	87.2	0
23/11/2025 11:30	67.7	51.5	92.5	0
23/11/2025 11:45	64.4	52.7	84.3	0
23/11/2025 12:00	62.1	52.5	84.2	0
23/11/2025 12:15	60	49.3	79.1	0
23/11/2025 12:30	62.3	52	81.6	0
23/11/2025 12:45	59.1	50.2	76	0
23/11/2025 13:00	60.8	51.6	79.7	0
23/11/2025 13:15	56.4	49.8	76.6	0
23/11/2025 13:30	56.4	50	72.6	0
23/11/2025 13:45	53.3	47.8	68.3	0
23/11/2025 14:00	51.5	45.7	64.7	0
23/11/2025 14:15	51.9	47.4	66.3	0
23/11/2025 14:30	54	49	71.4	0
23/11/2025 14:45	52.5	48.5	62	1
23/11/2025 15:00	51.7	47.6	60.9	0
23/11/2025 15:15	51.4	46	60.1	0
23/11/2025 15:30	51.7	46.6	61.1	0
23/11/2025 15:45	52.4	46.8	63.2	0
23/11/2025 16:00	55.2	48.3	70.7	0
23/11/2025 16:15	52.1	46.9	62.7	0
23/11/2025 16:30	52.8	47.7	63.3	0
23/11/2025 16:45	53.8	48.3	68.5	0
23/11/2025 17:00	57.9	47.7	77.7	0
23/11/2025 17:15	52.8	47.7	71.8	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 17:30	54.8	48.2	70.5	0
23/11/2025 17:45	56.4	50.2	73.6	0
23/11/2025 18:00	54.3	48	70.7	0
23/11/2025 18:15	52.5	46.3	68.8	0
23/11/2025 18:30	51.9	45.3	65.6	0
23/11/2025 18:45	52.5	47	66.4	0
23/11/2025 19:00	53.1	46.8	68.8	0
23/11/2025 19:15	50.6	45.4	68.3	0
23/11/2025 19:30	50	44.7	65.9	0
23/11/2025 19:45	51.6	44.6	70.7	0
23/11/2025 20:00	50.1	44.6	64	0
23/11/2025 20:15	51.3	44.5	66.8	0
23/11/2025 20:30	53.2	43.7	69.6	0
23/11/2025 20:45	52.1	44.9	71.1	0
23/11/2025 21:00	54.6	45.7	72.2	0
23/11/2025 21:15	55	46.2	74.2	0
23/11/2025 21:30	54.5	45.5	72	0
23/11/2025 21:45	53	43.3	71.8	0
23/11/2025 22:00	51.1	42.5	68.6	0
23/11/2025 22:15	54.1	42.9	72.1	0
23/11/2025 22:30	50.1	41.5	67.8	0
23/11/2025 22:45	48	40.7	66.2	0
23/11/2025 23:00	50.7	40.6	68.1	0
23/11/2025 23:15	46	37.4	68.7	0
23/11/2025 23:30	44.1	36.1	62.9	0
23/11/2025 23:45	45.5	35.7	64.2	0
24/11/2025 00:00	50.5	38.7	70.3	0
24/11/2025 00:15	47.3	38.4	67.2	0
24/11/2025 00:30	46.7	36.8	65.3	0
24/11/2025 00:45	46.9	35.4	70.5	0
24/11/2025 01:00	44.4	33.4	61.6	0
24/11/2025 01:15	43	32.9	62.4	0
24/11/2025 01:30	46.9	35.5	68.8	0
24/11/2025 01:45	51.2	37.1	76.9	0
24/11/2025 02:00	45	36.2	63.3	0
24/11/2025 02:15	50	36.6	71.6	0
24/11/2025 02:30	54.6	40.2	74.8	0
24/11/2025 02:45	51.5	36.4	72.5	0
24/11/2025 03:00	50.8	38.3	70.5	0
24/11/2025 03:15	49.7	37.3	66.3	0
24/11/2025 03:30	48	38.2	64.5	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 03:45	43.2	35.7	64.1	0
24/11/2025 04:00	43.3	37.6	64.6	0
24/11/2025 04:15	42.2	35.1	60.9	0
24/11/2025 04:30	42.9	37.9	58	0
24/11/2025 04:45	45.6	38	59.5	0
24/11/2025 05:00	43.7	39.4	58.6	0
24/11/2025 05:15	46.3	40	60.4	0
24/11/2025 05:30	49	43.5	61.5	0
24/11/2025 05:45	48.3	44.4	59.5	0
24/11/2025 06:00	49.8	44.5	63.4	0
24/11/2025 06:15	49.9	44.8	66.4	0
24/11/2025 06:30	50.8	45.9	61	0
24/11/2025 06:45	51.9	46.5	61.9	0
24/11/2025 07:00	54.7	48.3	72.6	0
24/11/2025 07:15	53.4	48.2	61.7	0
24/11/2025 07:30	54.9	50.3	62.1	0
24/11/2025 07:45	59.4	53.2	69.8	0
24/11/2025 08:00	59.6	56.3	67.1	0
24/11/2025 08:15	58.5	54.8	68.7	0
24/11/2025 08:30	58.8	55.4	66	0
24/11/2025 08:45	56.8	52.3	66	0
24/11/2025 09:00	59.7	53.7	77.9	0
24/11/2025 09:15	57.9	54.5	69.1	0
24/11/2025 09:30	56.3	52.8	65.7	0
24/11/2025 09:45	55.1	50.3	68.1	0
24/11/2025 10:00	63.5	46.5	84.2	0
24/11/2025 10:15	50.4	44.2	65.5	0
24/11/2025 10:30	49.8	43.5	61.6	0
24/11/2025 10:45	49.9	43.4	60.3	0
24/11/2025 11:00	50.6	45	69.1	0
24/11/2025 11:15	50.8	44.7	69.7	0
24/11/2025 11:30	49.9	43.9	66.6	0
24/11/2025 11:45	50.9	45.5	68.1	0
24/11/2025 12:00	51.3	46.1	66.8	0
24/11/2025 12:15	57.6	46.6	82	0
24/11/2025 12:30	51.6	47.2	63.4	0
24/11/2025 12:45	52.3	47.8	62.4	0
24/11/2025 13:00	51	47	62.6	0
24/11/2025 13:15	52.7	48	70.4	0
24/11/2025 13:30	51	47.4	61	0
24/11/2025 13:45	52.1	49.1	61.2	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 14:00	52.8	48.3	71.2	0
24/11/2025 14:15	54.3	50.4	70.2	1
24/11/2025 14:30	55	50.6	75.3	1
24/11/2025 14:45	54.5	50.1	63.4	0
24/11/2025 15:00	53.7	50.3	62.2	0
24/11/2025 15:15	55.1	51.3	68.7	0
24/11/2025 15:30	55.5	51.3	69.1	0
24/11/2025 15:45	54.4	50.5	67.6	0
24/11/2025 16:00	53.9	50.5	60.9	0
24/11/2025 16:15	54.5	51.1	62.2	0
24/11/2025 16:30	55.7	52	64.2	0
24/11/2025 16:45	54.5	51.3	62.7	0
24/11/2025 17:00	55.7	51.9	71.3	0
24/11/2025 17:15	54.9	51.3	63.1	0
24/11/2025 17:30	54.2	51	61.8	0
24/11/2025 17:45	54.4	51	63	0
24/11/2025 18:00	53.5	50.2	62.1	0
24/11/2025 18:15	53	49.6	62.3	0
24/11/2025 18:30	52	48.5	58.8	0
24/11/2025 18:45	52.3	48.7	61.4	0
24/11/2025 19:00	52	48	62.2	0
24/11/2025 19:15	52.1	48.4	59.4	0
24/11/2025 19:30	51	46.5	60.3	0
24/11/2025 19:45	50.8	46.6	61.7	0
24/11/2025 20:00	49.2	45.6	57.8	0
24/11/2025 20:15	49.7	44.9	60.6	0
24/11/2025 20:30	48.2	44.8	58.8	0
24/11/2025 20:45	48.6	44.4	60.4	0
24/11/2025 21:00	49.2	43.9	60.2	0
24/11/2025 21:15	49.4	43.9	63.8	0
24/11/2025 21:30	48.5	43.2	61.7	0
24/11/2025 21:45	46.9	43.4	57.6	0
24/11/2025 22:00	46.2	42.4	57.5	0
24/11/2025 22:15	48.4	41.9	61.4	0
24/11/2025 22:30	45.8	41.4	61.3	0
24/11/2025 22:45	45.3	41.1	57.8	0
24/11/2025 23:00	41.8	38.4	55.2	0
24/11/2025 23:15	42.4	39.5	56.4	0
24/11/2025 23:30	42.3	39.2	55.5	0
24/11/2025 23:45	41.2	38.1	51.1	0
25/11/2025 00:00	41.8	38.3	50.8	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 00:15	43.1	39.7	56.2	0
25/11/2025 00:30	43.8	39.7	63	0
25/11/2025 00:45	42.6	37.7	58.5	0
25/11/2025 01:00	40.3	35.3	54.8	0
25/11/2025 01:15	43	39.4	54.7	0
25/11/2025 01:30	42.4	39	51.7	0
25/11/2025 01:45	42.3	37.7	52.9	0
25/11/2025 02:00	41.8	37.4	56.5	0
25/11/2025 02:15	43.5	37.4	60	0
25/11/2025 02:30	41.8	36.4	56.4	0
25/11/2025 02:45	40.2	36.3	51.6	0
25/11/2025 03:00	40.2	36.2	49.1	0
25/11/2025 03:15	41.3	37.4	56.1	0
25/11/2025 03:30	43.6	40.3	53.4	0
25/11/2025 03:45	43.4	40.5	53.2	0
25/11/2025 04:00	44.6	40.8	60	0
25/11/2025 04:15	45.5	42.3	56.8	0
25/11/2025 04:30	45.7	42.1	57.1	0
25/11/2025 04:45	48	44	58.4	0
25/11/2025 05:00	47.4	44.1	59.7	0
25/11/2025 05:15	48.9	45.9	61.5	0
25/11/2025 05:30	49.8	46.9	64.3	0
25/11/2025 05:45	50.4	47.5	60.3	0
25/11/2025 06:00	51.3	47.8	66	0
25/11/2025 06:15	51.7	49.1	59.4	0
25/11/2025 06:30	52.2	49.5	62.2	0
25/11/2025 06:45	52.9	50.1	60.1	0
25/11/2025 07:00	54.3	50.8	62.5	0
25/11/2025 07:15	55	51.5	62.1	0
25/11/2025 07:30	55.7	52.4	63.7	0
25/11/2025 07:45	55.9	52.4	63.3	0
25/11/2025 08:00	59.5	55.4	67.6	0
25/11/2025 08:15	59	55.7	67.7	0
25/11/2025 08:30	59.4	54.1	74.8	0
25/11/2025 08:45	56	52.2	67.8	0
25/11/2025 09:00	53.9	50.4	67	0
25/11/2025 09:15	53.9	50.4	69	0
25/11/2025 09:30	55.5	49.5	75.3	0
25/11/2025 09:45	58.3	49.4	80.4	0
25/11/2025 10:00	52.8	49.7	62.6	0
25/11/2025 10:15	52	48.2	70	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 10:30	52.4	49.1	62	0
25/11/2025 10:45	51.9	48.3	62.4	0
25/11/2025 11:00	51.9	47.7	65.6	0
25/11/2025 11:15	51.2	48	63.2	0
25/11/2025 11:30	51.8	48.2	59.9	0
25/11/2025 11:45	51.8	47.5	66.4	0
25/11/2025 12:00	52.2	48	64.5	0
25/11/2025 12:15	52.5	49.1	63.8	0
25/11/2025 12:30	51.5	48.1	61.8	0
25/11/2025 12:45	52.8	49.4	62.3	0
25/11/2025 13:00	51.7	48.2	61.8	0
25/11/2025 13:15	50.9	47.4	64.8	0
25/11/2025 13:30	51.1	47.5	68.8	0
25/11/2025 13:45	50.6	47.3	60.4	0
25/11/2025 14:00	54.5	48.5	78.9	0
25/11/2025 14:15	51.8	49	63.3	0
25/11/2025 14:30	51.9	48.9	60	0
25/11/2025 14:45	51.9	48.9	62.5	0
25/11/2025 15:00	53.5	49.7	68	0
25/11/2025 15:15	54.1	50.6	63.1	0
25/11/2025 15:30	54.5	50.5	63.9	0
25/11/2025 15:45	53.7	50.6	62	0
25/11/2025 16:00	54.4	50.7	63.7	0
25/11/2025 16:15	53.8	50.2	63	0
25/11/2025 16:30	55	51.5	62.2	0
25/11/2025 16:45	53.7	50.2	60.8	0
25/11/2025 17:00	54	50.3	61.4	0
25/11/2025 17:15	54.3	50.6	61.7	0
25/11/2025 17:30	53.8	49.7	60.8	0
25/11/2025 17:45	55.3	50.5	72.6	0
25/11/2025 18:00	53.6	50.1	61.6	0
25/11/2025 18:15	53.5	49.8	69.6	0
25/11/2025 18:30	52.8	49.1	61.6	0
25/11/2025 18:45	52.3	48.8	61.8	0
25/11/2025 19:00	52.7	48.9	60	0
25/11/2025 19:15	51.2	46.7	66.4	0
25/11/2025 19:30	50.6	46.6	60.9	0
25/11/2025 19:45	50	46.1	59.2	0
25/11/2025 20:00	50.6	45.5	73.8	0
25/11/2025 20:15	49.9	46.1	60.8	0
25/11/2025 20:30	49.4	45.7	58.9	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 20:45	49.8	45.1	68.8	0
25/11/2025 21:00	48.1	43.4	58.9	0
25/11/2025 21:15	49.3	44.1	61.2	0
25/11/2025 21:30	47.3	43.1	58.3	0
25/11/2025 21:45	48.3	43.5	59.5	0
25/11/2025 22:00	48.4	42.8	62.4	0
25/11/2025 22:15	46	41.7	58.2	0
25/11/2025 22:30	44.5	40.8	56.6	0
25/11/2025 22:45	44.1	40.6	56.7	0
25/11/2025 23:00	44.8	40.2	58.3	0
25/11/2025 23:15	45.4	42	57.1	0
25/11/2025 23:30	46.1	42.1	61.2	0
25/11/2025 23:45	45.3	42.3	53.4	0
26/11/2025 00:00	45.4	39.8	69.3	0
26/11/2025 00:15	44.8	40.4	55.7	0
26/11/2025 00:30	45.2	42.8	54.6	0
26/11/2025 00:45	43.7	39.3	56.2	0
26/11/2025 01:00	43.6	37.8	56	0
26/11/2025 01:15	45.6	41.6	57.9	0
26/11/2025 01:30	42.7	38.5	50.4	0
26/11/2025 01:45	43.7	39.3	53.5	0
26/11/2025 02:00	41.5	36.2	55	0
26/11/2025 02:15	42.7	33.6	60.1	0
26/11/2025 02:30	42.6	37	51.5	0
26/11/2025 02:45	43.2	37.8	55.7	0
26/11/2025 03:00	41.7	34.6	53.2	0
26/11/2025 03:15	42.6	37.6	54.2	0
26/11/2025 03:30	43.4	39	51	0
26/11/2025 03:45	42.9	39	50	0
26/11/2025 04:00	43.8	40.2	49.3	0
26/11/2025 04:15	45.3	40.6	59.3	0
26/11/2025 04:30	45.9	40.4	60.2	0
26/11/2025 04:45	45.8	41.4	58.7	0
26/11/2025 05:00	47.2	42.8	59.9	0
26/11/2025 05:15	47.6	42.9	60.1	0
26/11/2025 05:30	50.1	46.9	59.6	0
26/11/2025 05:45	50.5	47.4	58.8	0
26/11/2025 06:00	54.1	50.4	61.5	0
26/11/2025 06:15	55.1	52	68.4	0
26/11/2025 06:30	54.9	52.5	61.2	0
26/11/2025 06:45	54.2	50.7	61.1	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
26/11/2025 07:00	54.2	51.5	62.9	0
26/11/2025 07:15	55.3	52.1	61.5	0
26/11/2025 07:30	55.6	52.2	61.5	0
26/11/2025 07:45	56.6	51.3	69.8	0
26/11/2025 08:00	60.1	56.7	72.9	0
26/11/2025 08:15	58.2	55.2	68.9	0
26/11/2025 08:30	58.1	53.8	69.5	0
26/11/2025 08:45	57.9	54.1	70.4	0
26/11/2025 09:00	56.3	52.9	63.4	0
26/11/2025 09:15	55.4	51.5	67.4	0
26/11/2025 09:30	54.6	49.1	68.4	0
26/11/2025 09:45	52.4	47.1	65	0
26/11/2025 10:00	51	46.4	60	0
26/11/2025 10:15	51	45.7	64.1	0
26/11/2025 10:30	50.8	45.5	60.6	0
26/11/2025 10:45	49.9	45.2	66.2	0
26/11/2025 11:00	51.2	44.6	65.8	0
26/11/2025 11:15	50.5	45.1	59	0
26/11/2025 11:30	50.5	44.8	61.4	0
26/11/2025 11:45	50.9	44.6	64.3	0
26/11/2025 12:00	50.3	44.4	66.4	0
26/11/2025 12:15	52.8	45	68.1	0
26/11/2025 12:30	54.1	46.8	70.1	0



Monitoring Location LT3

Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
21/11/2025 15:15	56.1	45.2	71.1	0
21/11/2025 15:30	56.9	46.5	71.6	0
21/11/2025 15:45	56.6	47.9	67.2	0
21/11/2025 16:00	57.9	48.2	72.6	0
21/11/2025 16:15	57.3	47.9	67.9	0
21/11/2025 16:30	57.1	47.1	66.5	0
21/11/2025 16:45	55.1	47.1	66.6	0
21/11/2025 17:00	56.1	47.7	66	0
21/11/2025 17:15	55.1	47.6	66	0
21/11/2025 17:30	55.5	48	66.7	0
21/11/2025 17:45	55.4	47.6	67	0
21/11/2025 18:00	55.3	47.5	68.5	0
21/11/2025 18:15	54.6	47.6	66.9	0
21/11/2025 18:30	54.5	47.1	70.2	0
21/11/2025 18:45	53.6	46	67.2	0
21/11/2025 19:00	52.1	45.7	64.4	0
21/11/2025 19:15	52.4	45	67.1	0
21/11/2025 19:30	53	44.6	67	0
21/11/2025 19:45	52.3	44.8	66.2	0
21/11/2025 20:00	50.4	43	65.8	0
21/11/2025 20:15	51.1	43.6	66.3	0
21/11/2025 20:30	50.7	43.5	71.4	0
21/11/2025 20:45	50.9	42	66.5	0
21/11/2025 21:00	50.3	42.9	68.4	0
21/11/2025 21:15	48.8	42.1	64.7	0
21/11/2025 21:30	48	41.6	63.8	0
21/11/2025 21:45	52.2	41.7	75.2	0
21/11/2025 22:00	48.4	41.3	65.6	0
21/11/2025 22:15	47.7	41.1	64.9	0
21/11/2025 22:30	47.9	40.8	62.6	0
21/11/2025 22:45	45.8	39.8	61.4	0
21/11/2025 23:00	49.5	39.1	64.9	0
21/11/2025 23:15	47.6	38.9	65.2	0
21/11/2025 23:30	46.6	38.2	66.5	0
21/11/2025 23:45	42.4	36.5	60.7	0
22/11/2025 00:00	44.6	34.4	64.4	0
22/11/2025 00:15	45.6	35.3	64.8	0
22/11/2025 00:30	45.4	34.4	64.4	0
22/11/2025 00:45	43.5	35.4	64.2	0
22/11/2025 01:00	43.9	36.9	61.6	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 01:15	40.9	36.8	55.3	0
22/11/2025 01:30	43.6	38.2	63	0
22/11/2025 01:45	45.6	36.4	65	0
22/11/2025 02:00	38.7	32.9	59.2	0
22/11/2025 02:15	38	34.5	51.7	0
22/11/2025 02:30	35.8	31.6	47	0
22/11/2025 02:45	36.1	32.3	47.7	0
22/11/2025 03:00	36.8	33.3	52.7	0
22/11/2025 03:15	37.3	34.7	46.4	0
22/11/2025 03:30	38.8	33.6	58.1	0
22/11/2025 03:45	37.3	31.8	55.3	0
22/11/2025 04:00	38.7	33.2	55.6	0
22/11/2025 04:15	43.5	35.1	65.5	0
22/11/2025 04:30	43.5	37.2	63	0
22/11/2025 04:45	44.4	37.7	60.8	0
22/11/2025 05:00	44.3	38.6	58.7	0
22/11/2025 05:15	46.4	41.8	59.4	0
22/11/2025 05:30	49.1	44.1	62.6	1
22/11/2025 05:45	45.5	42.9	58.5	0
22/11/2025 06:00	47.3	39.8	67.3	1
22/11/2025 06:15	49.9	42.2	66.7	0
22/11/2025 06:30	50.5	44	64.7	1
22/11/2025 06:45	53.2	45	68.9	1
22/11/2025 07:00	54.9	44.3	74.1	1
22/11/2025 07:15	54.4	43.9	73.9	1
22/11/2025 07:30	53.6	42.3	77.1	0
22/11/2025 07:45	54.5	45.1	68.1	0
22/11/2025 08:00	54.8	44.4	78.1	0
22/11/2025 08:15	56.4	45.5	77.2	0
22/11/2025 08:30	58.2	44.9	80.5	0
22/11/2025 08:45	58.4	45.3	79.6	0
22/11/2025 09:00	54.2	44.9	73.7	0
22/11/2025 09:15	55.4	45.4	76.7	0
22/11/2025 09:30	58.1	47.3	77.8	0
22/11/2025 09:45	57.9	47.8	76.2	0
22/11/2025 10:00	56	46.4	74.7	0
22/11/2025 10:15	57.5	47.6	75.4	0
22/11/2025 10:30	60.6	46.8	79.9	0
22/11/2025 10:45	55.3	45.7	72.1	0
22/11/2025 11:00	55.9	45.6	72.5	0
22/11/2025 11:15	54.8	45.3	75.2	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 11:30	54.3	45.2	66.9	0
22/11/2025 11:45	54.3	44.9	67	0
22/11/2025 12:00	54	44	67	1
22/11/2025 12:15	56.1	44.9	73.8	0
22/11/2025 12:30	54.7	44.2	65.7	0
22/11/2025 12:45	54.4	44.6	69.4	0
22/11/2025 13:00	54.2	44.2	65.9	1
22/11/2025 13:15	54.9	44.1	70.4	0
22/11/2025 13:30	53.8	43.4	64.7	1
22/11/2025 13:45	52.6	42.9	65.4	0
22/11/2025 14:00	52.9	43.1	64.7	0
22/11/2025 14:15	53.1	43.1	64.9	1
22/11/2025 14:30	53.3	42.3	67.7	0
22/11/2025 14:45	52.8	42.4	65.4	1
22/11/2025 15:00	54	43.5	66.5	1
22/11/2025 15:15	54.4	43	66.6	1
22/11/2025 15:30	53.4	43.2	68.5	1
22/11/2025 15:45	52.9	43	64.5	1
22/11/2025 16:00	51.5	40.6	65	1
22/11/2025 16:15	52.4	41	67.1	1
22/11/2025 16:30	52.9	41.1	64.2	1
22/11/2025 16:45	52.4	40.9	64.5	1
22/11/2025 17:00	52.2	42.9	65.2	1
22/11/2025 17:15	55.3	46.1	68.2	1
22/11/2025 17:30	53.7	44.1	66.6	0
22/11/2025 17:45	53	44	65.7	0
22/11/2025 18:00	52.4	43.5	64.8	0
22/11/2025 18:15	53.2	43.5	66.7	0
22/11/2025 18:30	52.1	42.9	65.2	0
22/11/2025 18:45	53.4	41.8	66	0
22/11/2025 19:00	53.2	40.2	67.2	0
22/11/2025 19:15	50.3	39.4	65.6	1
22/11/2025 19:30	50	37.5	65.7	0
22/11/2025 19:45	52	37.6	65.8	0
22/11/2025 20:00	50.4	38.5	67.4	0
22/11/2025 20:15	49.3	38.3	64	0
22/11/2025 20:30	49.9	37.2	65.2	0
22/11/2025 20:45	49.8	37.8	65.3	0
22/11/2025 21:00	47.7	38.2	64.3	0
22/11/2025 21:15	49.7	39	65.3	0
22/11/2025 21:30	49.3	40.2	65.8	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
22/11/2025 21:45	46.5	40.4	63.3	0
22/11/2025 22:00	49.5	40.7	63.9	0
22/11/2025 22:15	46.4	41.1	62.7	0
22/11/2025 22:30	49	40.2	64.8	0
22/11/2025 22:45	47.8	38.1	62.8	0
22/11/2025 23:00	48.4	39.3	65.6	0
22/11/2025 23:15	45.8	38.4	63.2	0
22/11/2025 23:30	47	39	67.1	0
22/11/2025 23:45	48	33.8	65.7	0
23/11/2025 00:00	46.3	34.7	65.2	0
23/11/2025 00:15	45.3	34.5	61.6	0
23/11/2025 00:30	44	29.1	63.8	0
23/11/2025 00:45	37.3	28.8	58	0
23/11/2025 01:00	39.3	27.3	59.5	0
23/11/2025 01:15	38.3	28.4	58.7	0
23/11/2025 01:30	35.2	29.2	46.7	0
23/11/2025 01:45	36	27.9	47.1	0
23/11/2025 02:00	37.6	27.6	56.5	0
23/11/2025 02:15	36.9	28.8	48.9	0
23/11/2025 02:30	36.5	27.4	49.1	0
23/11/2025 02:45	34.9	25.9	46.9	0
23/11/2025 03:00	36.6	28.8	48.3	0
23/11/2025 03:15	41	28.8	61.5	0
23/11/2025 03:30	39.3	26.5	60.9	0
23/11/2025 03:45	32.9	26.7	42.4	0
23/11/2025 04:00	34.8	26.4	48.7	0
23/11/2025 04:15	36.9	29.6	48.2	0
23/11/2025 04:30	38.2	32.4	47.8	0
23/11/2025 04:45	36.6	30.3	51.3	0
23/11/2025 05:00	44.4	35.4	64.2	0
23/11/2025 05:15	41.7	35.3	49.2	0
23/11/2025 05:30	49.2	40.5	67.9	1
23/11/2025 05:45	53.1	47.4	79.2	1
23/11/2025 06:00	56	48.5	80.7	1
23/11/2025 06:15	47.2	38.7	66.5	1
23/11/2025 06:30	52.7	40.4	78.8	1
23/11/2025 06:45	50.5	39.6	77.2	1
23/11/2025 07:00	49.5	40	66.7	1
23/11/2025 07:15	47.4	36.4	65.7	0
23/11/2025 07:30	50.1	36.5	73	1
23/11/2025 07:45	51	38.7	69.8	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 08:00	48.5	38.2	67.8	0
23/11/2025 08:15	50.1	39.6	68	0
23/11/2025 08:30	52.4	42.1	70.4	0
23/11/2025 08:45	50.6	42.9	65.1	0
23/11/2025 09:00	50.7	44.1	64.6	1
23/11/2025 09:15	57.8	47.8	83.8	1
23/11/2025 09:30	59.2	46.1	89.2	1
23/11/2025 09:45	54.6	46.8	72.5	0
23/11/2025 10:00	55.5	47.5	74.6	0
23/11/2025 10:15	57.2	48.3	76.9	0
23/11/2025 10:30	54.2	45.6	71.2	0
23/11/2025 10:45	56.8	46.7	75.9	0
23/11/2025 11:00	58.7	47.3	77.7	0
23/11/2025 11:15	59.4	47.5	83.9	0
23/11/2025 11:30	62	48.2	80.6	0
23/11/2025 11:45	66.1	49.5	87.6	0
23/11/2025 12:00	60.6	47.8	80.5	0
23/11/2025 12:15	57.1	47.5	75.5	0
23/11/2025 12:30	62.1	49	81.7	0
23/11/2025 12:45	64	51.9	81.3	0
23/11/2025 13:00	63.5	51	80.6	0
23/11/2025 13:15	61.9	49.8	79.5	0
23/11/2025 13:30	61.7	50.5	79.7	0
23/11/2025 13:45	56	47.5	72.5	0
23/11/2025 14:00	54	45.9	71.9	0
23/11/2025 14:15	54.7	47.5	70.9	0
23/11/2025 14:30	58	50.2	76.4	0
23/11/2025 14:45	57.2	49.5	81.9	1
23/11/2025 15:00	54.4	48	68.2	0
23/11/2025 15:15	54.1	46.6	68.2	0
23/11/2025 15:30	53.9	46.7	66.8	0
23/11/2025 15:45	54.6	48.1	67.2	0
23/11/2025 16:00	56.9	48.4	80.6	0
23/11/2025 16:15	54	47.4	67.1	0
23/11/2025 16:30	54.5	47.3	69.9	0
23/11/2025 16:45	54.7	47	72.3	0
23/11/2025 17:00	57.4	46.2	76.4	0
23/11/2025 17:15	53.6	46.8	69.4	0
23/11/2025 17:30	55.4	47.6	73.9	0
23/11/2025 17:45	56.4	47.8	73.4	0
23/11/2025 18:00	56.5	46.7	73.4	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
23/11/2025 18:15	55	46.6	70.5	0
23/11/2025 18:30	55.5	44.2	74.4	0
23/11/2025 18:45	53.7	45	68.9	0
23/11/2025 19:00	54.3	45.8	71.8	0
23/11/2025 19:15	51.6	44.3	68.3	0
23/11/2025 19:30	51	44.6	66.8	0
23/11/2025 19:45	50.7	43.8	70.2	0
23/11/2025 20:00	52	44.1	69.2	0
23/11/2025 20:15	51.4	44.2	70.9	0
23/11/2025 20:30	50.9	42.4	75.1	0
23/11/2025 20:45	51.6	43.3	72.5	0
23/11/2025 21:00	53.2	42.4	72.8	0
23/11/2025 21:15	53.4	43.6	73.3	0
23/11/2025 21:30	50.4	42.2	71.4	0
23/11/2025 21:45	53	41.7	71.9	0
23/11/2025 22:00	47.6	40.7	68	0
23/11/2025 22:15	48.1	40.6	71.2	0
23/11/2025 22:30	48.7	39.8	67.8	0
23/11/2025 22:45	47.3	39.3	64.6	0
23/11/2025 23:00	44.4	38.1	61.8	0
23/11/2025 23:15	41.9	36.2	56.6	0
23/11/2025 23:30	39.8	34.3	54.1	0
23/11/2025 23:45	43.8	33.3	62.6	0
24/11/2025 00:00	42.4	36	61.9	0
24/11/2025 00:15	41.3	35.3	62.5	0
24/11/2025 00:30	40.2	34.6	61.2	0
24/11/2025 00:45	40.5	34.5	62.4	0
24/11/2025 01:00	43.9	29.7	65.1	0
24/11/2025 01:15	44.5	32.1	67.3	0
24/11/2025 01:30	41.3	29.9	58.6	0
24/11/2025 01:45	42.1	31.9	63	0
24/11/2025 02:00	41	31.2	70.3	0
24/11/2025 02:15	41.1	29.7	66.4	0
24/11/2025 02:30	45	34.8	66.5	0
24/11/2025 02:45	39.5	31.9	58.2	0
24/11/2025 03:00	44.2	31.5	64.9	0
24/11/2025 03:15	42.9	32.8	64.8	0
24/11/2025 03:30	41.8	34.4	64.9	0
24/11/2025 03:45	41.5	35.1	59.5	0
24/11/2025 04:00	42.3	38.6	59.9	0
24/11/2025 04:15	44.5	36.7	65.7	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 04:30	46.4	39.8	62.6	0
24/11/2025 04:45	48.2	39.8	66.5	0
24/11/2025 05:00	44.9	40.9	61.3	0
24/11/2025 05:15	48.7	41.8	66	0
24/11/2025 05:30	51.9	45	69.3	0
24/11/2025 05:45	50.7	46.1	63.4	0
24/11/2025 06:00	51.8	46.5	67.7	0
24/11/2025 06:15	53.3	46.1	71.7	0
24/11/2025 06:30	53.7	46.9	67.3	0
24/11/2025 06:45	55.7	47.8	70.1	0
24/11/2025 07:00	56.3	49.5	68.1	0
24/11/2025 07:15	56.6	50.4	68.7	0
24/11/2025 07:30	59.1	51.5	70.2	0
24/11/2025 07:45	59.5	52.9	67.2	0
24/11/2025 08:00	58.1	50.6	70.1	0
24/11/2025 08:15	58.1	50.6	68.5	0
24/11/2025 08:30	58.4	51.6	68.8	0
24/11/2025 08:45	58.2	50.2	70.4	0
24/11/2025 09:00	59.3	49.9	79.2	0
24/11/2025 09:15	54.9	49.1	67.1	0
24/11/2025 09:30	55.8	51.2	68.3	0
24/11/2025 09:45	55.5	50.7	64.9	0
24/11/2025 10:00	66.3	48.9	87.6	0
24/11/2025 10:15	53.5	45.2	67.5	0
24/11/2025 10:30	53.2	44.6	65.9	0
24/11/2025 10:45	53.2	43	66.5	0
24/11/2025 11:00	53.3	44.6	66.7	0
24/11/2025 11:15	51.4	44.3	64.7	0
24/11/2025 11:30	51.8	43.8	66.9	0
24/11/2025 11:45	53.8	45.3	70	0
24/11/2025 12:00	53.3	46.3	66.5	0
24/11/2025 12:15	58.5	46.6	79.6	0
24/11/2025 12:30	54.4	47.9	66.9	0
24/11/2025 12:45	55.6	48.7	70	0
24/11/2025 13:00	54	47.8	67.3	0
24/11/2025 13:15	54.7	49	70.7	0
24/11/2025 13:30	54.3	48.3	71.9	0
24/11/2025 13:45	54.9	49.3	68.2	0
24/11/2025 14:00	55.8	49.2	72.3	0
24/11/2025 14:15	57.1	50.4	70.7	1
24/11/2025 14:30	57.8	50.5	76.6	1



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
24/11/2025 14:45	57.5	50.2	67.2	0
24/11/2025 15:00	56.8	50.3	66.8	0
24/11/2025 15:15	58.6	51	72.8	0
24/11/2025 15:30	58.7	52.4	71.8	0
24/11/2025 15:45	58.2	51.1	80.1	0
24/11/2025 16:00	57.5	50.7	68.1	0
24/11/2025 16:15	57.3	51.6	68.1	0
24/11/2025 16:30	59.4	52.7	69.6	0
24/11/2025 16:45	58.4	51.9	80.8	0
24/11/2025 17:00	58	51.9	68.4	0
24/11/2025 17:15	57.8	51.9	68.8	0
24/11/2025 17:30	57	51.7	70.8	0
24/11/2025 17:45	57.7	51.5	79.5	0
24/11/2025 18:00	55.9	50.3	72.7	0
24/11/2025 18:15	56.2	50.1	71.9	0
24/11/2025 18:30	54.5	49	72.6	0
24/11/2025 18:45	55	49.3	66.4	0
24/11/2025 19:00	53.2	48.8	64.8	0
24/11/2025 19:15	54.7	48.9	65.9	0
24/11/2025 19:30	53.6	47.2	68.5	0
24/11/2025 19:45	53.4	47.3	70.2	0
24/11/2025 20:00	52.2	46	71.7	0
24/11/2025 20:15	51.9	45.4	68.3	0
24/11/2025 20:30	50.6	45.5	71.3	0
24/11/2025 20:45	50.4	45.2	65.2	0
24/11/2025 21:00	51.6	44.7	65.6	0
24/11/2025 21:15	50.9	45	71.5	0
24/11/2025 21:30	51.6	44.5	69.5	0
24/11/2025 21:45	49.1	44.1	64.6	0
24/11/2025 22:00	49.2	43.2	68.2	0
24/11/2025 22:15	51	43.1	66.5	0
24/11/2025 22:30	48.3	42.3	64.4	0
24/11/2025 22:45	47.7	41.7	68.6	0
24/11/2025 23:00	44.9	39.5	68.3	0
24/11/2025 23:15	48.6	41.1	72.6	0
24/11/2025 23:30	46.1	40.1	67.3	0
24/11/2025 23:45	46.1	39.5	69.6	0
25/11/2025 00:00	48.4	39.4	71	0
25/11/2025 00:15	46	40.5	67.6	0
25/11/2025 00:30	48.9	41.1	71.4	0
25/11/2025 00:45	45.9	38.6	65.6	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 01:00	46.1	37.1	69.7	0
25/11/2025 01:15	49	40.4	73.7	0
25/11/2025 01:30	50	39.7	72.9	0
25/11/2025 01:45	43.3	38.6	61.8	0
25/11/2025 02:00	43.9	38.1	61.5	0
25/11/2025 02:15	46.1	38.3	65.2	0
25/11/2025 02:30	45.2	36.5	66.1	0
25/11/2025 02:45	41	36.7	60.8	0
25/11/2025 03:00	41.8	37.2	63.9	0
25/11/2025 03:15	45.2	39.2	66.4	0
25/11/2025 03:30	47.1	40.8	71.1	0
25/11/2025 03:45	46.3	41	68.1	0
25/11/2025 04:00	47.1	41.7	66.8	0
25/11/2025 04:15	49.5	43.2	72.7	0
25/11/2025 04:30	50	42.7	69.5	0
25/11/2025 04:45	50.3	44.8	70.4	0
25/11/2025 05:00	50.4	44.4	68.2	0
25/11/2025 05:15	50.4	46.6	67.7	0
25/11/2025 05:30	52.1	47.6	70.5	0
25/11/2025 05:45	53	48.2	73.8	0
25/11/2025 06:00	54.5	48.9	70.2	0
25/11/2025 06:15	54	50.1	69.9	0
25/11/2025 06:30	54.1	50.4	66	0
25/11/2025 06:45	55.4	51.2	67	0
25/11/2025 07:00	57.5	51.4	68.9	0
25/11/2025 07:15	57.8	52.6	66.9	0
25/11/2025 07:30	59.4	53.5	69.5	0
25/11/2025 07:45	59.2	53.4	68.7	0
25/11/2025 08:00	59	53.6	70.6	0
25/11/2025 08:15	57.7	52.7	66.9	0
25/11/2025 08:30	59.9	53.8	76.1	0
25/11/2025 08:45	58.2	53.1	70.5	0
25/11/2025 09:00	56.6	52	70.5	0
25/11/2025 09:15	56.1	51.6	66.8	0
25/11/2025 09:30	58.4	50.1	80.7	0
25/11/2025 09:45	58.8	49.9	79.8	0
25/11/2025 10:00	55.5	49.9	69.6	0
25/11/2025 10:15	55.5	49	75.2	0
25/11/2025 10:30	55	49.4	67.9	0
25/11/2025 10:45	54.6	49	67.8	0
25/11/2025 11:00	54.7	48.6	66	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 11:15	53.4	48.5	64.4	0
25/11/2025 11:30	54.5	48.8	70.5	0
25/11/2025 11:45	54	48.6	64.9	0
25/11/2025 12:00	54.1	48.2	65.7	0
25/11/2025 12:15	55.1	49.7	68.2	0
25/11/2025 12:30	53.8	48.6	70.3	0
25/11/2025 12:45	55.3	49.3	66.7	0
25/11/2025 13:00	55	48.7	69.7	0
25/11/2025 13:15	53.3	47.8	70.3	0
25/11/2025 13:30	53.6	48.5	67	0
25/11/2025 13:45	52.9	47.9	67.5	0
25/11/2025 14:00	55.9	49.2	73.3	0
25/11/2025 14:15	54.3	49.9	72.8	0
25/11/2025 14:30	54.3	49.9	69.4	0
25/11/2025 14:45	54.5	49.5	65.4	0
25/11/2025 15:00	55.9	50.3	71.1	0
25/11/2025 15:15	57.1	51.1	72	0
25/11/2025 15:30	57.7	51.4	69.3	0
25/11/2025 15:45	56.4	51.3	66.8	0
25/11/2025 16:00	57.2	51.8	66.9	0
25/11/2025 16:15	56.3	51.2	71	0
25/11/2025 16:30	57.9	52.3	67.5	0
25/11/2025 16:45	56.6	51.6	66.7	0
25/11/2025 17:00	57.3	51.6	66.7	0
25/11/2025 17:15	56.9	51.2	66.8	0
25/11/2025 17:30	57.5	50.9	69.9	0
25/11/2025 17:45	57.5	51.8	71.1	0
25/11/2025 18:00	55.9	51.1	69.3	0
25/11/2025 18:15	56.3	50.8	68.5	0
25/11/2025 18:30	56	50	68.2	0
25/11/2025 18:45	55	49.7	67.7	0
25/11/2025 19:00	55.2	49.7	65.8	0
25/11/2025 19:15	53.7	47.7	73.1	0
25/11/2025 19:30	53.1	47.4	65.6	0
25/11/2025 19:45	52.6	47.1	65	0
25/11/2025 20:00	52.7	46.5	73.2	0
25/11/2025 20:15	52.2	47.1	63.5	0
25/11/2025 20:30	51.7	46.1	65.9	0
25/11/2025 20:45	51.7	45.5	66.7	0
25/11/2025 21:00	49.6	43.9	64.2	0
25/11/2025 21:15	51.8	44.5	65.5	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
25/11/2025 21:30	48.3	44.3	62.7	0
25/11/2025 21:45	50.1	44.2	65	0
25/11/2025 22:00	50.8	43.5	69.5	0
25/11/2025 22:15	48.2	43.1	64.8	0
25/11/2025 22:30	45.1	41.2	60.9	0
25/11/2025 22:45	46.1	40.3	63.5	0
25/11/2025 23:00	46.8	40	64	0
25/11/2025 23:15	46.7	41.9	64.6	0
25/11/2025 23:30	47.5	41.9	66.1	0
25/11/2025 23:45	45.4	41.5	60.1	0
26/11/2025 00:00	44.3	40	61.7	0
26/11/2025 00:15	45.3	41.3	56	0
26/11/2025 00:30	45.4	42.8	53.6	0
26/11/2025 00:45	45.4	39.9	62.6	0
26/11/2025 01:00	44.2	38.7	54.2	0
26/11/2025 01:15	46.8	42.6	63.5	0
26/11/2025 01:30	44	39.7	52.5	0
26/11/2025 01:45	45.2	41.2	53.9	0
26/11/2025 02:00	44.8	38.8	58.4	0
26/11/2025 02:15	45.5	35.6	64.9	0
26/11/2025 02:30	44.7	38.9	58.5	0
26/11/2025 02:45	45.3	40	54.1	0
26/11/2025 03:00	42.9	36.3	53.4	0
26/11/2025 03:15	44.3	37.1	62.7	0
26/11/2025 03:30	43.8	39.1	50.8	0
26/11/2025 03:45	45.2	40.6	51.8	0
26/11/2025 04:00	46.4	42.4	53.4	0
26/11/2025 04:15	46.9	41.3	63.6	0
26/11/2025 04:30	47.2	41.4	65.9	0
26/11/2025 04:45	49.5	43.5	66.1	0
26/11/2025 05:00	50.3	43.8	70	0
26/11/2025 05:15	49.1	45.2	63.2	0
26/11/2025 05:30	53.5	49.7	64.6	0
26/11/2025 05:45	53.9	50.9	64	0
26/11/2025 06:00	55.9	52.9	68.3	0
26/11/2025 06:15	54	50.2	69.6	0
26/11/2025 06:30	55.3	51.2	68.6	0
26/11/2025 06:45	56.3	52	67.3	0
26/11/2025 07:00	57.3	51.7	71.4	0
26/11/2025 07:15	57.6	52.2	67.5	0
26/11/2025 07:30	59.1	53.3	66.9	0



Start Date & Time	L _{Aeq,T}	L _{A90,T}	L _{Afmax,T}	Exclude due to weather? (1 = exclude)
26/11/2025 07:45	58.9	52.5	68.8	0
26/11/2025 08:00	59.1	54.7	67.3	0
26/11/2025 08:15	58.5	53.3	68.8	0
26/11/2025 08:30	59	51.9	67.9	0
26/11/2025 08:45	59.4	52.1	68.9	0
26/11/2025 09:00	56.6	51	68.3	0
26/11/2025 09:15	54.9	49.8	68.6	0
26/11/2025 09:30	55.4	50.4	65.6	0
26/11/2025 09:45	55.8	49.4	66.7	0
26/11/2025 10:00	54.7	48.5	66.9	0
26/11/2025 10:15	55	48.7	71.1	0
26/11/2025 10:30	55.1	48.6	66.4	0
26/11/2025 10:45	53.5	48.1	66.4	0
26/11/2025 11:00	54.8	47.6	69.4	0
26/11/2025 11:15	54.4	48.1	65.8	0
26/11/2025 11:30	55.4	47.9	69.8	0
26/11/2025 11:45	58.4	48.1	75.1	0





Drawings 416.066578.00001/002 – Proposed Site Layout

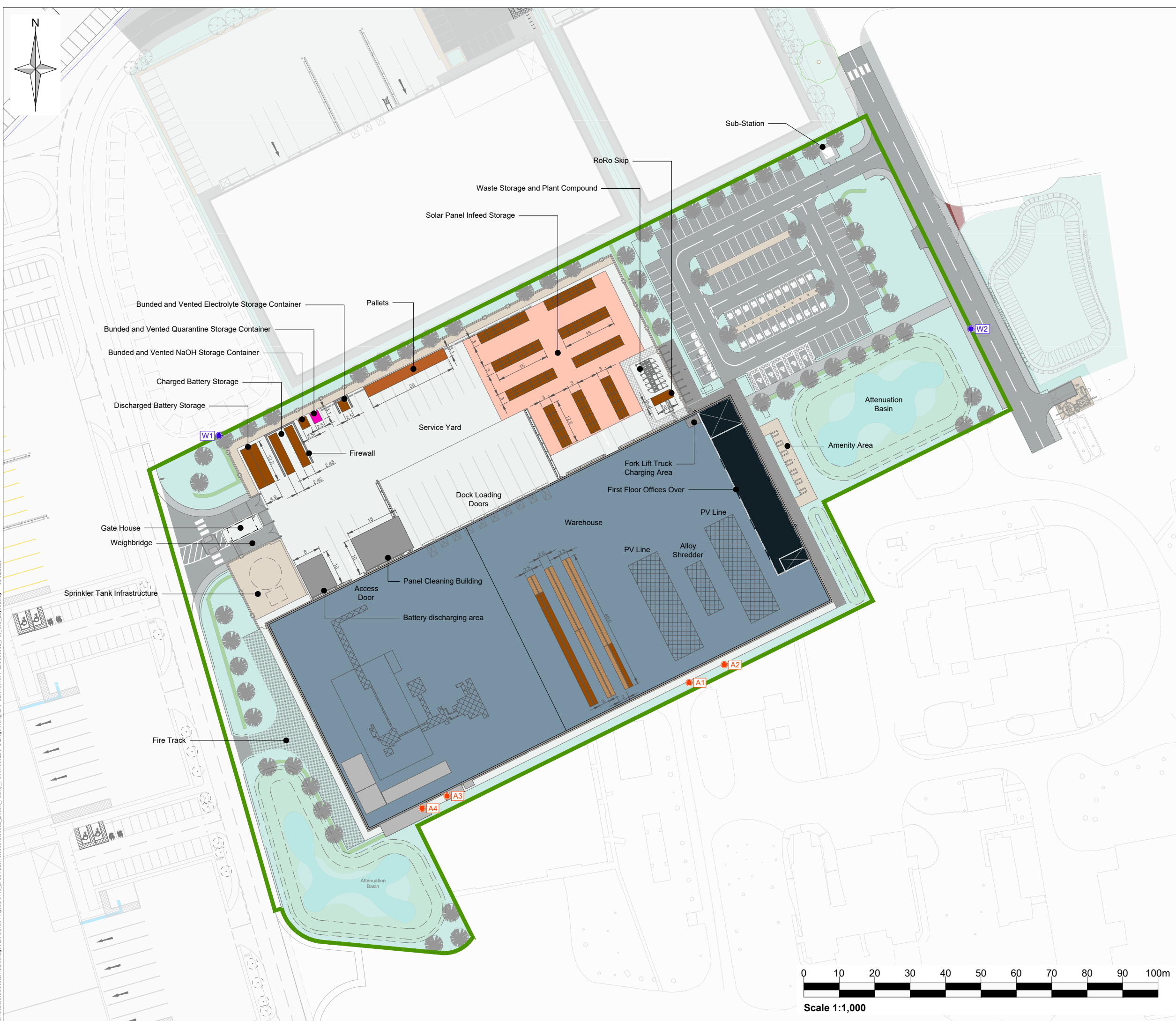
Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026



Legend:

	Environmental Permit Boundary
	Combustible Waste Storage
	Non-Combustible Waste Storage
	Quarantine Area
	Emissions to Air
	Surface Water Discharge

I:\UK\local\offices\UK\Cambridge\Admin\New Projects\M16_BRISTOL\M16_066578_00002_Lincoln_Facility_Permit\Tech\EMPC\Design\Wing\RF-SLR-XX-XX-F-EM-000002_P01_Site_Layout.dwg 05/02/2026

Rev	Amendments	Date	By	Chk	Auth



www.slrconsulting.com

Client
GBCTR Ltd

Project
Lincoln Recycling Facility
Environmental Permit Application

Figure Title
Figure 02
Site Layout

Scale
1:1,000 @ A3

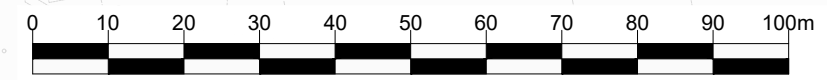
SLR Project No.
416.066578.00002

Designed TS	Checked MD	Authorised PW
----------------	---------------	------------------

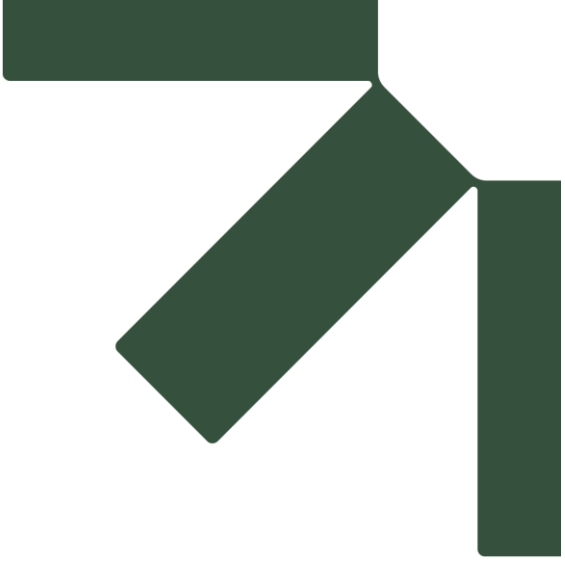
Date Oct 2025	Date Oct 2025	Date Oct 2025
------------------	------------------	------------------

Figure Number
LRF-SLR-XX-XX-F-EM-000002

Rev.
P01



Scale 1:1,000



Drawings 416.066578.00001/001 – Daytime Grid Map at Ground Floor Level

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026



DO NOT SCALE FROM THIS DRAWING

Key

- Site Boundary
- Existing Sensitive Receptors

Point source

- HGV Unloading
- Fan
- Chiller
- Stack

Line source

- FLT Movement
- HGV Movement

Noise Contours LAeq,T

- <50 dB
- 50dB - 54dB
- 55dB- 59dB
- >60dB

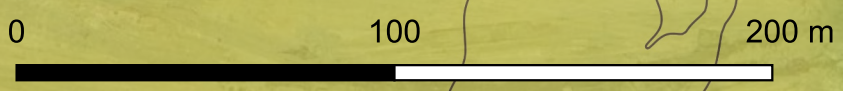
REVISION	DETAILS	DATE	DRN	CHKD	APPD
----------	---------	------	-----	------	------

CLIENT	GBCTR Ltd
--------	-----------

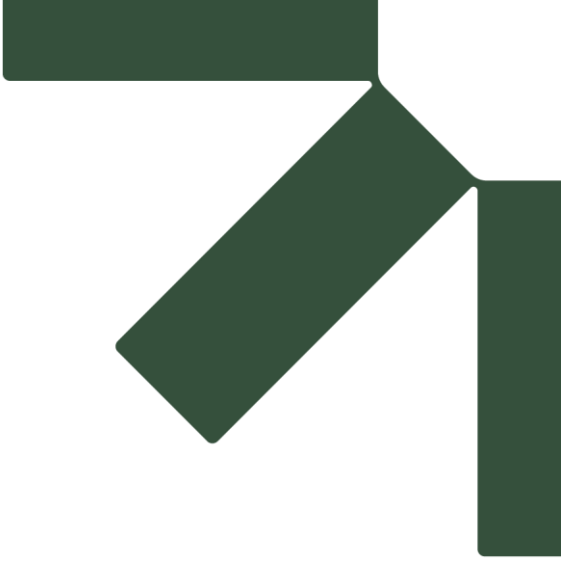
PROJECT	Lincoln Recycling Facility
---------	----------------------------

DRAWING TITLE	Daytime Noise Contours at 1.5 m
---------------	---------------------------------

DRG No.	416.066578.00001	REV	A
DRG SIZE	A3	SCALE	1:2,000
		DATE	February 2026
DRAWN	NF	CHECKED BY	PB
		APPROVED BY	PB



Contains OS data © Crown copyright and database right 2026



Drawings 416.066578.00001/003 – Daytime Grid Map at First Floor Level

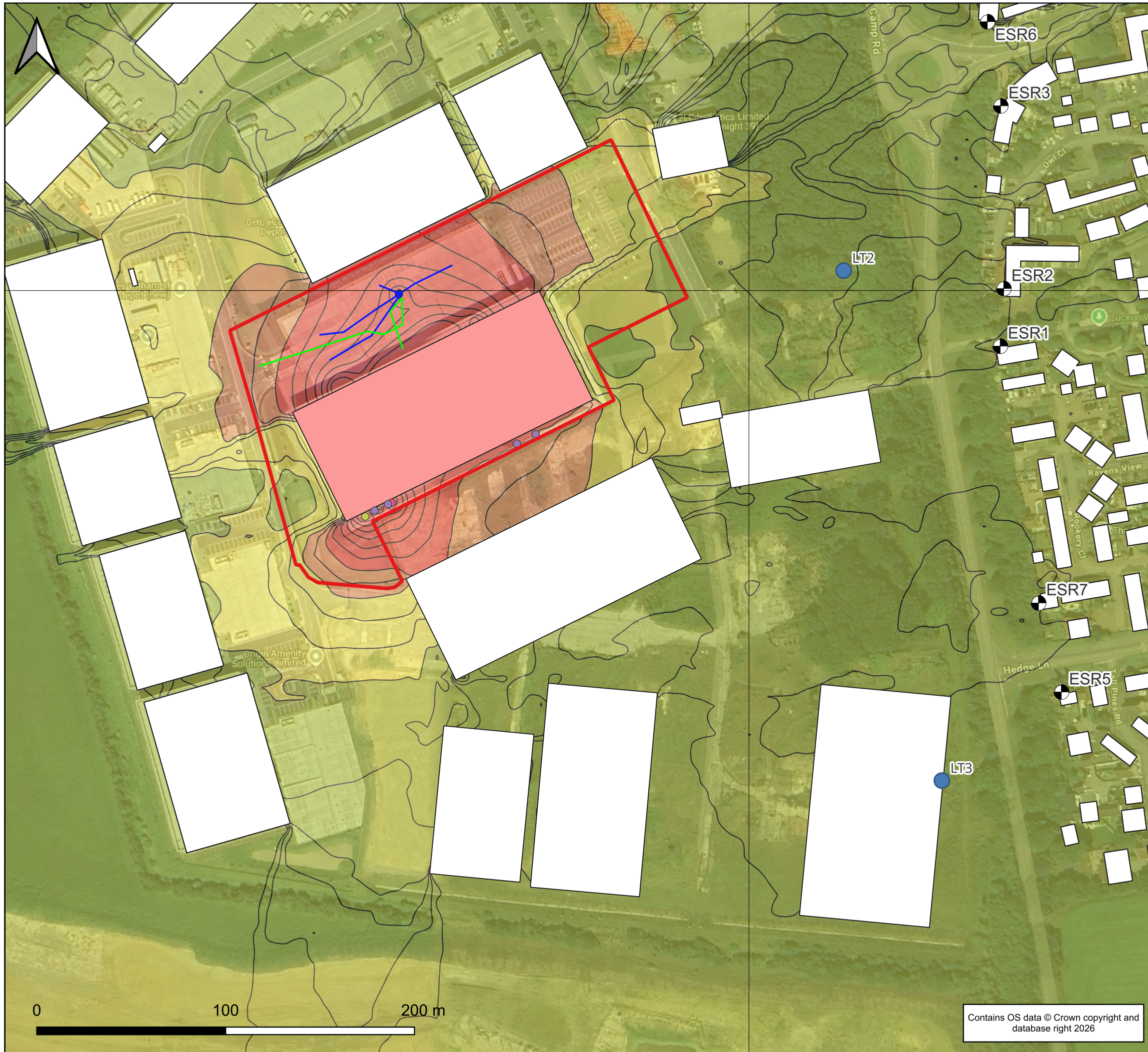
Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026



DO NOT SCALE FROM THIS DRAWING

- Key**
- Site Boundary
 - Existing Sensitive Receptors
- Point source**
- HGV Unloading
 - Fan
 - Chiller
 - Stack
- Line source**
- FLT Movement
 - HGV Movement

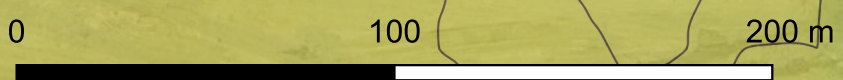
REVISION	DETAILS	DATE	DRN	CHKD	APPD
----------	---------	------	-----	------	------

CLIENT
GBCTR Ltd

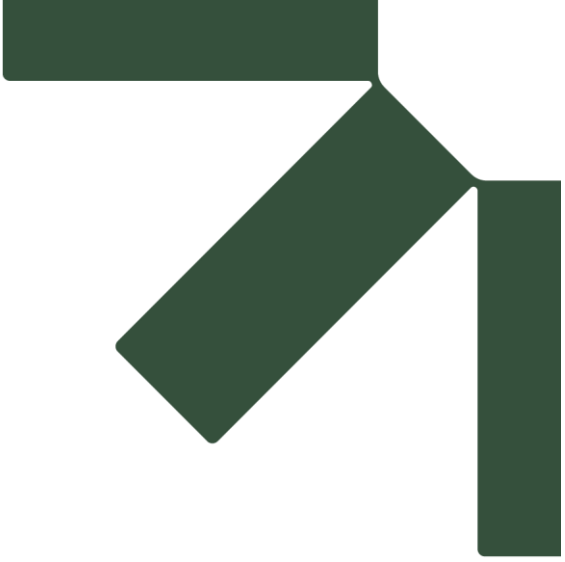
PROJECT
Lincoln Recycling Facility

DRAWING TITLE
Daytime Noise Contours at 4.0 m

DRG No.	416.066578.00003	REV	A
DRG SIZE	A3	SCALE	1:2,000
DATE	February 2026	CHECKED BY	PB
DRAWN	NF	APPROVED BY	PB



Contains OS data © Crown copyright and database right 2026



Drawings 416.066578.00001/004 – Night-time Grid Map at Ground Floor Level

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

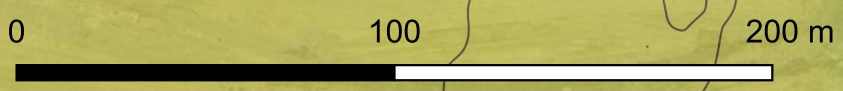
20 February 2026



DO NOT SCALE FROM THIS DRAWING

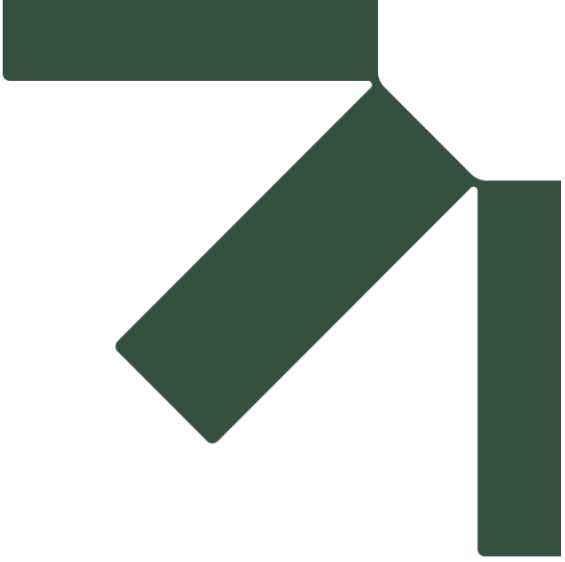
- Key**
- Site Boundary
 - Existing Sensitive Receptors
- Point source**
- Fan
 - Chiller
 - Stack
- Line source**
- FLT Movement

REVISION	DETAILS	DATE	DRN	CHKD	APPD
CLIENT					
GBCTR Ltd					
PROJECT					
Lincoln Recycling Facility					
DRAWING TITLE					
Night-time Noise Contours at 1.5 m					
DRG No.	416.066578.00004	REV	A		
DRG SIZE	A3	SCALE	1:2,000	DATE	February 2026
DRAWN	NF	CHECKED BY	PB	APPROVED BY	PB



Contains OS data © Crown copyright and database right 2026





Drawings 416.066578.00001/005 – Daytime Grid Map at First Floor Level

Noise Impact Assessment

Lincoln Recycling Facility Bespoke Permit

GBCTR Ltd

SLR Project No.: 416.066578.00001

20 February 2026



DO NOT SCALE FROM THIS DRAWING

Key

- Site Boundary
- Existing Sensitive Receptors

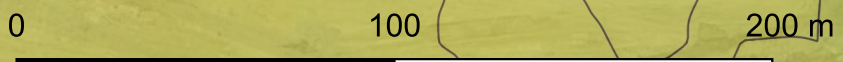
Point source

- Fan
- Chiller
- Stack

Line source

- FLT Movement

REVISION	DETAILS	DATE	DRN	CHKD	APPD
CLIENT					
GBCTR Ltd					
PROJECT					
Lincoln Recycling Facility					
DRAWING TITLE					
Night-time Noise Contours at 4.0 m					
DRG No.	416.066578.00005	REV	A		
DRG SIZE	A3	SCALE	1:2,000	DATE	February 2026
DRAWN	NF	CHECKED BY	PB	APPROVED BY	PB



Contains OS data © Crown copyright and database right 2026



