

Aldi Food Store Wilmslow Road, Didsbury, Manchester, M20 2DN

Mechanical Services Plant Noise Impact Assessment

Report ref.

RK3914/24125/Rev 1

Issued to

Aldi Stores Limited

Prepared by

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Principal Consultant

Version	Remarks	Date
Rev 0	Initial report issue.	20.08.2025
Rev 1	Revised as per updated mitigation scheme.	03.09.2025



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1. INTRODUCTION

Aldi Stores Limited are seeking planning permission to move existing mechanical services plant at the rear of their store off Wilmslow Road in Didsbury, Greater Manchester. Complaints relating to noise from the plant have been received from a neighbour residing at the rear of the store.

Accordingly, Spectrum Acoustic Consultants have been instructed to provide a noise impact assessment for the purposes of informing the planning application. This report is submitted with the intention of providing the sufficient information required to both inform and satisfy the requirements of the Local Planning Authority.

2. SITE DESCRIPTION AND PROPOSALS

Aldi currently operate a food store at Wilmslow Road, Didsbury, Manchester, M20 2DN. Wilmslow Road bounds the site to the east. There are a number of commercial properties located along Wilmslow Road. At the rear of the store to the west are houses on Pine Road. To the north of the site are the gardens of the properties fronting on to Pine Road, with a tram line located beyond. To the south of the store are commercial properties, along with a church fronting on to Barlow Moor Road.

The store includes a loading bay which is located on the southern side of the store in the service area to accommodate deliveries. The existing mechanical plant serving the store is located in a dedicated plant area at the back of the store, facing the rear of the houses on Pine Road. A satellite image showing the Aldi store is included in Appendix A.

The existing mechanical services plant runs 24 hours per day. Proposals involve enclosing the plant with a bespoke acoustic enclosure. The proposals are shown in Appendix B.

3. ASSESSMENT METHODOLOGY

To assess the environmental noise impact of mechanical services plant, it is generally accepted that the noise levels from the plant need to be compared with the existing background noise levels at the nearest noise sensitive receptor locations to the site.

This assessment adopts the assessment methodology set out in BS 4142:2014+A1:2019 *Methods for rating and assessing industrial and commercial sound*, by comparing the noise levels from mechanical plant, with the existing background noise levels, as measured at locations representative of the nearby residential receptor locations. Further detail on the BS 4142 assessment procedure is provided in Section 5 of this report.



4. BACKGROUND NOISE MEASUREMENT SURVEY

4.1 MEASUREMENT LOCATION

For the purpose of the noise assessment, the following noise measurement location has been identified as being representative of the most sensitive residential position to the plant:

- Position A – Rear garden of No.43 Pine Road.

The measurement location is illustrated on the existing site location plan, included in Appendix A.

4.2 NOISE SURVEY DETAILS AND INSTRUMENTATION

The background noise measurement survey, completed for providing information to use in the noise impact assessment, was carried out on Sunday 27 April 2025. The noise survey consisted of unattended measurements at Position A during the most sensitive daytime period between 16:45 and 18:00. All noise measurements were carried out in accordance with the procedures outlined in BS 4142:2014, with noise samples recorded in terms of 15-minute periods, at 1.5m above ground. During the survey, existing mechanical services plant at the store was switched off between 16:45 and 18:00.

The parameters recorded during the measurement survey included L_{Aeq} , L_{A90} and L_{AFmax} . In accordance with BS 4142 guidance, L_{A90} is used for describing background noise and, as such, will be used for the purpose of the noise impact assessment. L_{Aeq} is used to describe the ambient noise level, with L_{Amax} representing the maximum noise level measured during the sample period.

The following instrumentation was used during the background noise measurement survey:

- Bruel & Kjaer Type 2250 Sound Level Meter s/n 3009933
- Bruel & Kjaer Type 4189 Microphone s/n 3043744
- Bruel & Kjaer Type 4231 Acoustic Calibrator s/n 2115516

Before and after the survey, the sound level meter was field-calibrated in accordance with the manufacturer's guidelines, and no significant drift was observed. The field calibrator is laboratory calibrated annually and the meter and microphone are laboratory calibrated at 2 yearly intervals, all in accordance with UKAS procedures by a UKAS-accredited laboratory.

During the noise survey, the weather was warm and dry, with low wind speeds. The conditions were suitable for noise measurement purposes.

4.3 NOISE SURVEY RESULTS

During the survey, ambient noise levels were controlled by road traffic movements on Wimslow Road and Barlow Moor Road, as well as occasional tram movements. The measured noise profile at Position A is shown in the following chart.



Chart 1: Noise measurement results at Pos A - Rear garden of No.43 Pine Road - Sunday 27 April 2025.

Table 1 shows the representative background noise levels during the sensitive daytime period at the noise measurement location.

Noise Measurement Location (NML)	Representative Night-time Background Sound Level <i>L</i> _{A90,1hour} (dB)
Pos A - No.43 Pine Road.	44

Table 1: Representative background sound level during the sensitive daytime period



5. ASSESSMENT CRITERIA

The noise impact assessment relating to the mechanical services plant at the store will be carried out in accordance with the procedures set out in BS 4142:2014+A1:2019 *Methods for rating and assessing industrial and commercial sound*. The principle of BS 4142 is to determine an initial estimate of impact of industrial/commercial sound on nearby residents by comparing the Rating Level (sound level from the industrial/commercial source, with a correction applied for any acoustic features that characterise the sound) with the Background Sound Level (L_{A90} as measured in absence of the industrial/commercial source).

Generally, the greater the difference by which the Rating Level exceeds the Background Sound Level, the greater the magnitude of impact. BS 4142 states that *'a difference of around +10 dB or more is likely to be an indication of a significant adverse impact [...]. A difference of around +5 dB is likely to be an indication of an adverse impact [...]. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact.'*

However, BS 4142 also advises that *'when making assessments and arriving at decisions [...] it is essential to place the sound in context'* so in each case, the context in which the sound is placed must be considered and the initial estimate of impact should be modified accordingly.

For example, it advises *'Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.'* It also indicates that impacts estimated during *'the middle of the night can be distinctly different (and potentially of lesser importance) compared to the start or end of the night-time period for sleep purposes.'*

Additionally, Guidelines for Community Noise - World Health Organization, 1999 (GCN) was published in 1999 with the aim of informing legislation and guidance produced at the national and regional levels for the purposes of minimising any potential adverse health effects resulting from noise in the community. It presents guideline noise level criteria for the avoidance of adverse effects such as sleep disturbance and annoyance in a range of specific environments. The preface to WHO states that community noise includes road, rail and air traffic, industries, construction and public work, and the neighbourhood.

The GCN document advises that for outdoor living areas during the daytime period (07:00-23:00), table 4.1 of WHO references a guideline façade level of $L_{Aeq(16\text{-hour})}$ 50dB(A). For outside bedrooms (with windows open) during the night-time period (23:00-07:00), table 4.1 of WHO references a guideline façade level of $L_{Aeq(8\text{-hour})}$ 45dB(A).

New guidance from WHO titled Environmental Noise Guidelines for the European Region (ENG) was published in 2018. The document takes a very different approach to guidance set out in the previous GCN document by identifying separate thresholds for specific sources rather than for community noise as a whole. Consequently, much of the earlier guidance set out in GCN is now absent from ENG. While ENG was intended to supersede GCN, it recognises this absence and states that *'indoor guideline values and any values not covered by the current guidelines (such as industrial noise and shopping areas) should remain valid.'*

For the assessment of the noise impact, consideration will therefore be given to the BS 4142:2014+A1:2019 assessment level, together with the precautionary guideline noise limits defined by the WHO Guidelines.

6. POTENTIAL NOISE IMPACT

For the purpose of this assessment, the specific L_{Aeq} noise levels produced by the existing mechanical services plant, directly outside each of the nearby residential receptor locations, will be established by prediction.

Whilst on site, it was possible to measure sound pressure levels close to each of the plant items in isolation. The following instrumentation was used during the plant noise measurement survey:

- Bruel & Kjaer Type 2250 Sound Level Meter s/n 3009933
- Bruel & Kjaer Type 4189 Microphone s/n 3043744
- Bruel & Kjaer Type 4231 Acoustic Calibrator s/n 2115516

Before and after the survey, the sound level meter was field-calibrated in accordance with the manufacturer's guidelines, and no significant drift was observed. The field calibrator is laboratory calibrated annually and the meter and microphone are laboratory calibrated at 2 yearly intervals, all in accordance with UKAS procedures by a UKAS-accredited laboratory.

Prediction methodologies use the sound power level (L_w) of a source as input data, so for this purpose, the measured mechanical plant noise levels, expressed in terms of $L_{Aeq,T}$, need to be converted to the equivalent sound power levels. This is derived using the measured plant $L_{Aeq,T}$ (where T is the measurement period), corrected for the measurement surface area enveloping the noise source. A summary of the calculated sound power levels associated with the existing plant items is shown in Table 2 below.

Plant Item	Measured Sound Pressure Level at 1m (dB)	L_p to L_w Correction (dB)	Sound Power Level L_w (dB)
Compressor Pack	73	16	89
Gas Cooler	83	16	99

Table 2: Summary of the plant equipment noise levels (at full duty)

Note, the noise levels stated in Table 2 are representative of the equipment at full duty where all of the cooling fans are operating. During the night-time, it is understood that the equipment has a limiter set to prevent the fans from operating excessively.

To accurately evaluate the overall effect of the existing plant, it is necessary to consider the noise that is generated by the equipment in the proposed new location at the rear of the store, at the nearby residential receptor locations.

Predictions of how the noise from the mechanical plant source propagates to sensitive community receptors, together with the cumulative effect of all these noise sources, has been determined by noise modelling using proprietary software (iNoise¹) which meets the requirement of ISO 9613 Part 2:1996².

¹ iNoise – V2024.3 Environmental Noise Calculation Software Package

² ISO 9613-2:1996 "Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation to determine Noise Levels



The noise model takes account of the following in its calculations procedures:

- Source sound power level (for point, line and area sources)
- Reflection from nearby structures and source directivity
- Distance from noise source (geometric spreading)
- Atmospheric absorption
- Acoustic screening of intervening structures and topography
- Ground absorption
- Ground effects (which includes the height of ground relative to the noise source)

Detailed noise calculations, providing information on total specific noise at each receptor, together with the contribution from the noise source, at each receptor location, are computed. To illustrate the model, a diagram showing the distribution and location of the mechanical plant noise source, superimposed on a 3D view of the site, is included in Appendix C. A noise map, showing the noise contours produced by the existing mechanical services plant is also provided in Appendix C of this report.

Predicted specific noise levels from the existing mechanical plant at the nearest noise sensitive receptors is provided in Table 3 below.

Receptor	L_{Aeq} dB(A)	L_{Aeq} Octave Band Centre Frequency (Hz)							
		63	125	250	500	1k	2k	4k	8k
R1. No.43 Pine Road (GF L/R)	57	38	46	50	53	51	46	38	26
R2. No.45 Pine Road (GF L/R)	54	35	43	47	49	48	42	34	21
R3. No.41 Pine Road (GF L/R)	52	31	40	45	47	46	41	33	19

Table 3: Predicted specific noise contribution from the mechanical services plant at the nearest noise sensitive receptors.

As indicated in Table 3, the predicted noise levels at the nearest noise sensitive receptors from the combined existing mechanical services plant are L_{Aeq} 52-57dB(A).

7. ASSESSMENT OF NOISE IMPACT

The mechanical plant items operate continuously throughout the daytime and night-time periods. However, the plant only operates at full duty during the daytime, collating with when complaints have been received. Therefore, for the purposes of this assessment, the predicted plant rating levels will be compared with the background sound levels measured during the daytime period, at the nearby residential receptor locations.

None of the plant items emit any distinct impulses or tones. However, the plant does emit other characteristics that are distinctive against the existing residual acoustic environment. Therefore, a feature correction has been included in the rating level.

Residential Position	Specific Level (dB)	Character Correction (dB)	Rating Level (dB)	Background L_{A90} (dB)	Assessment Level (dB) (Background excess)
R1. No.43 Pine Road (GF L/R)	57	+3	60	44	+16
R2. No.45 Pine Road (GF L/R)	54	+3	57	44	+13
R3. No.41 Pine Road (GF L/R)	52	+3	55	44	+11

Table 4: Predicted rating levels from existing mechanical plant at the nearby residential properties



Table 4 indicates that there is currently a significant noise impact at the nearest residential properties to the store. Furthermore, noise levels from the plant currently exceed the WHO guideline noise levels.

In view of the above, mitigation measures were explored in order to reduce the overall noise impact to an acceptable level. Various options were considered, and a solution has been finalised. This is as follows:

- Install a high-performance bespoke acoustic enclosure over the plant equipment. Details of this are included in Appendix D.

Table 5 shows a BS 4142 assessment covering the noise impact associated with the existing mechanical plant located at the proposed new location with the acoustic enclosure at the rear of the store. Detailed results from the noise prediction model are included in Appendix E.

Residential Position	Specific Level (dB)	Character Correction (dB)	Rating Level (dB)	Background L_{A90} (dB)	Assessment Level (dB) (Background excess)
R1. No.43 Pine Road (GF L/R)	31	+3	34	44	-10
R2. No.45 Pine Road (GF L/R)	34	+3	37	44	-7
R3. No.41 Pine Road (GF L/R)	30	+3	33	44	-11

Table 5: Predicted rating levels from existing mechanical plant (with an acoustic enclosure) at the proposed new location at the rear of the store, at the nearby residential properties.

With the proposed mitigation measures in place, Table 4 indicates that there would be a low noise impact at the nearest residential properties to the store.

Overall, noise levels from the plant would be reduced significantly with the mitigation measures in place. This would result in a significant improvement to the amenity of the nearby residential properties.

8. CONCLUSIONS

Spectrum have been instructed to carry out a noise impact assessment associated with moving existing plant equipment at an Aldi food store in Didsbury, Manchester, for the purposes of informing a planning application.

A background noise measurement survey has been conducted at the nearest residential property and predictions of noise from the mechanical plant equipment has been completed, utilising a proprietary software package.

The assessment indicates that noise from the plant currently results in a significant noise impact at the nearby residential properties. Mitigation measures in the form of surrounding the plant with a high-performance acoustic enclosure would result in a low noise impact at the nearest residential properties to the store.

Overall, noise levels from the plant would be reduced significantly with the mitigation measures in place. This would result in a significant improvement to the amenity of the nearby residential properties.

APPENDIX A

Site Location Plan



N

Day Nursery School

Moorland Rd

Moorland Rd

Didsbury Tunnel
(tram) north portal

Oakfield Rd

Pine Rd

Wilmslow Rd

ALDI

Position A

Slug & Lettuce
- Didsbury

Didsbury Pharmacy

Pine rd

A5145

Pine Rd

Norgate St

B5095

Didsbury village

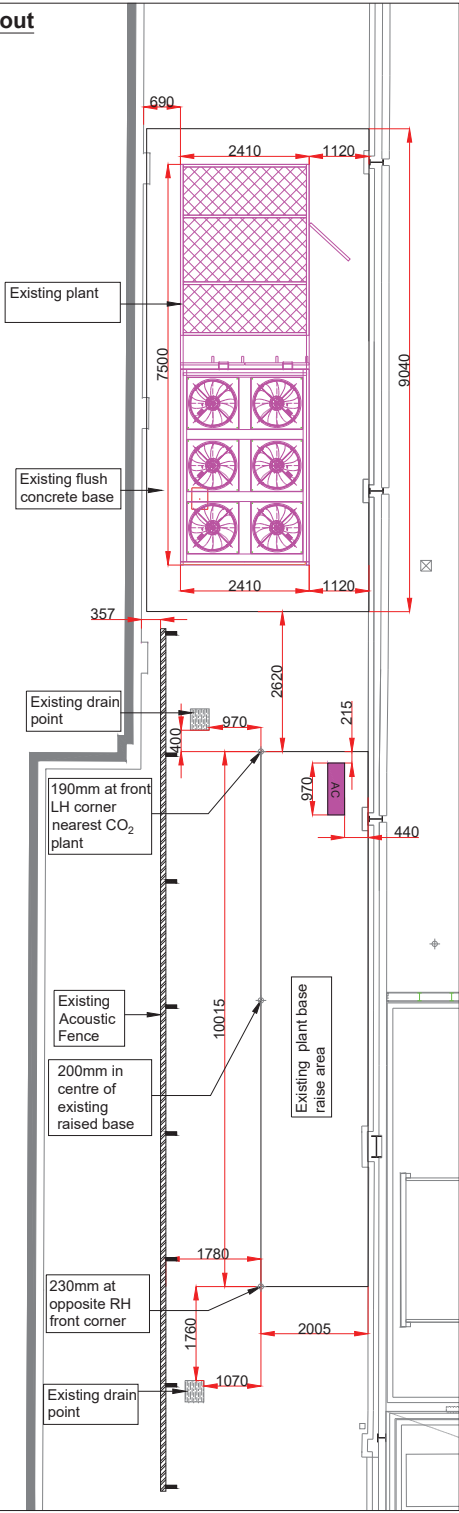
Rudy's Pizza
Napoleatana - Didsbury
Neapolitan • £

Barlow M

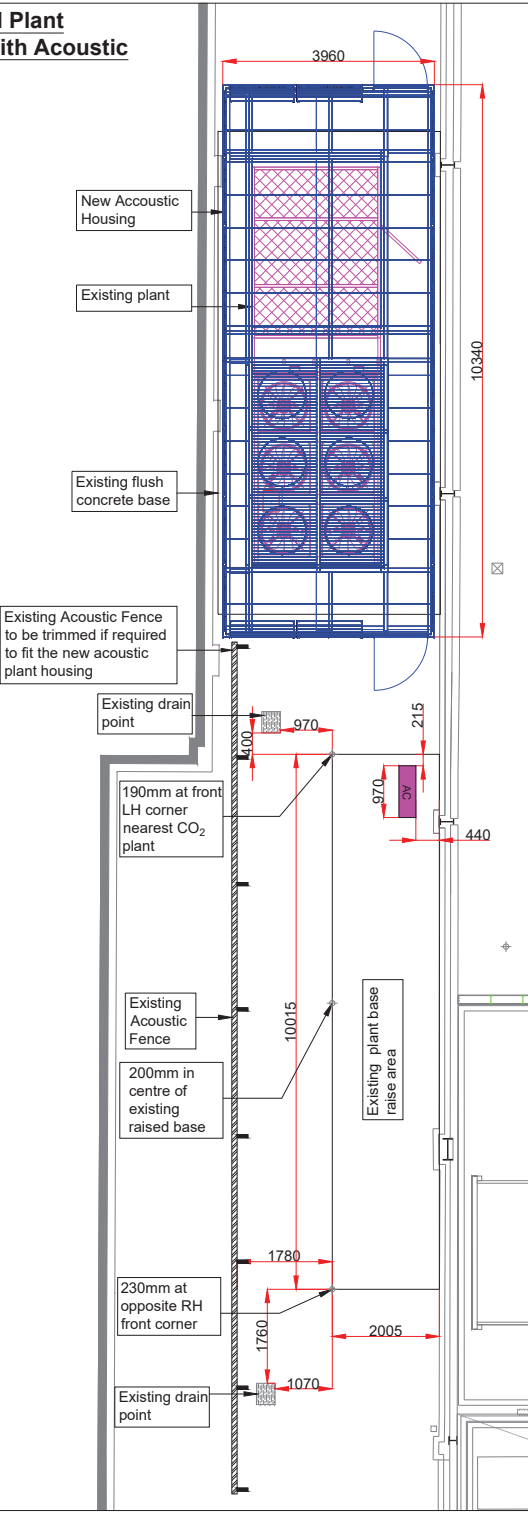
APPENDIX B

Noise Model

Existing Plant Layout

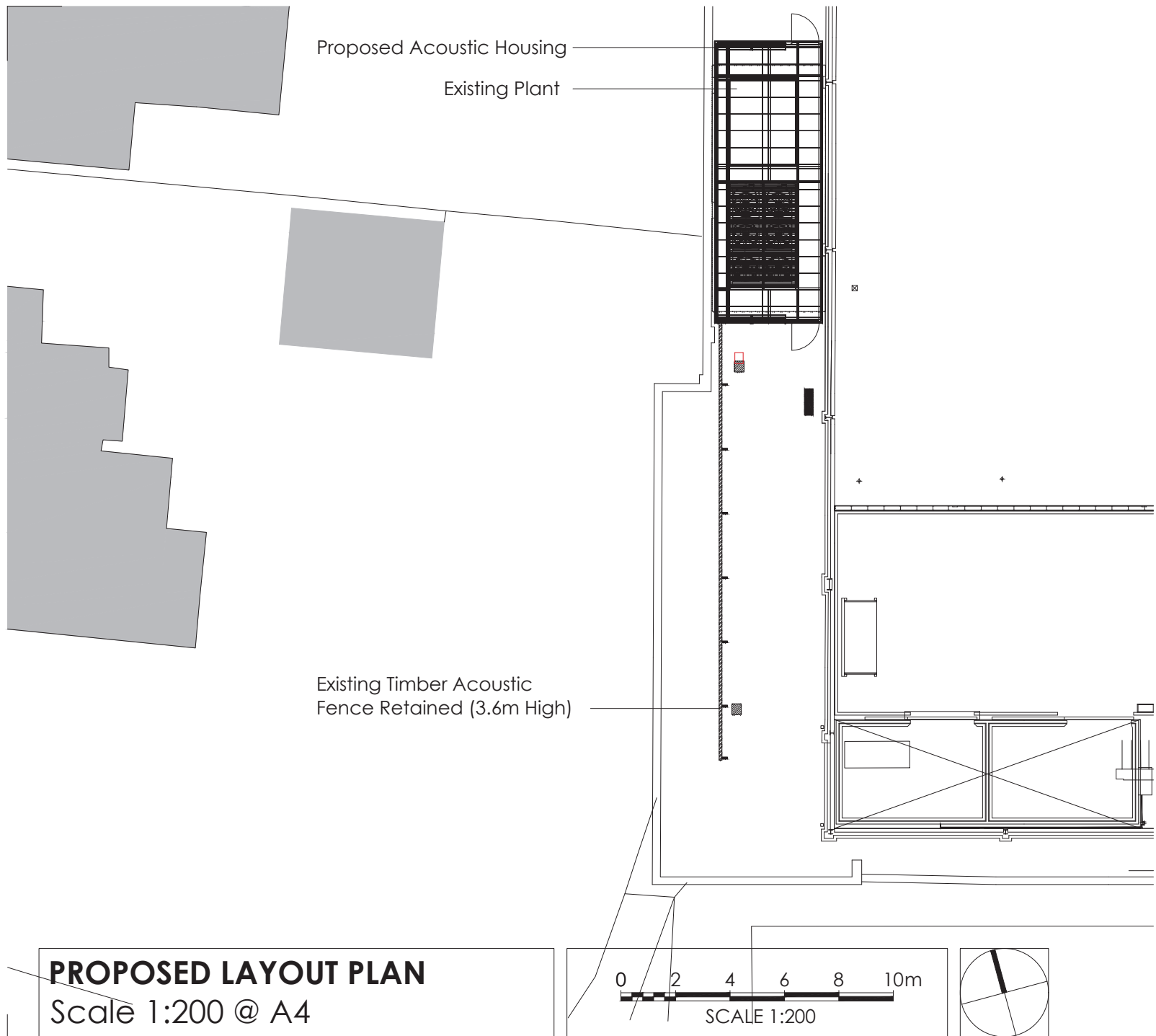


Proposed Plant Layout With Acoustic Housing



Acoustic Housing Details

ORIGINAL EQUIPMENT MANUFACTURERS PUBLISHED DATA									
MAKE, MODEL, DIMENSIONS, AIR FLOW & SOUND PRESSURE LEVEL @1.0M FREE FIELD									
MAKE		MODEL		AIR IN		AIR OUT			
Clade Refrig Pack & 3T Gas Cooler		Unknown		V - Underneath		V - Top			
WIDTH (MM)	3200 & 3750	DEPTH (MM)	2410 & 2410	AIRFLOW (M ³ /S)	8.3	DISTANCE (M)	1	APR (dB(A))	83
HEIGHT (MM)		HEIGHT (MM)	2635 & 2310						
INNER CUBE DIMENSION				ENCLOSURE DETAIL					
WIDTH (MM)	10260	DEPTH (MM)	3870	WIDTH (MM)	10340	DEPTH (MM)	3950	HEIGHT (MM)	3295
AIRFLOW (M ³ /S)	8.30	DISTANCE (M)	1.0	AIRFLOW (M ³ /S)	8.30	DISTANCE (M)	1.0	SPL (dB(A))	61
INLET AIRWAYS				AIRFLOW INFORMATION					
WIDTH (MM)	1146	HEIGHT (MM)	60	PD (MM ²)	5	DESIGN CRITERIA	OK	INLET (M ³ /S)	2.0
HEIGHT (MM)	60	HEIGHT (MM)	60						
OUTLET AIRWAYS				AIRFLOW INFORMATION					
WIDTH (MM)	60	HEIGHT (MM)	1200	PD (MM ²)	4	DESIGN CRITERIA	OK	INLET (M ³ /S)	1.9
HEIGHT (MM)	60	HEIGHT (MM)	60						
ENCLOSURE INFORMATION				WIDTH (MM)	1146	DEPTH (MM)	230	HEIGHT (MM)	60
INLET AIRWAY									
OUTLET AIRWAY									
EXTERNAL SIZE									
INDICATIVE NOISE LEVEL									



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Rev	Date	Description	Drawn	Chk'd
P01	06.01.25	FIRST ISSUE	JH	DJE
P02	12.08.25	ACOUSTIC HOUSING ADDED	EW	JH

PLANNING DRAWING

This drawing has been prepared for submission to the relevant Local Authority as part of a Planning Application. It is not intended to assist with the pricing of any elements.

For Structural details refer to the Structural & Civil Engineers detailed design drawings & specifications.

For M&E information, refer to the M&E Engineers and sub contractor's design drawings & specifications.

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Client

Aldi Stores Ltd



Project Title

Proposed Fence Extension

Aldi Didsbury
Wilmslow Road
M20 2DN

Drawing Title

Proposed Layout Plan

Drawn	Checked	Scale @A4	BIM Status	Date
JH	DJE	1:200	NA	01/25

Drawing Status	Rev.	THP Project No
Planning	P02	19999

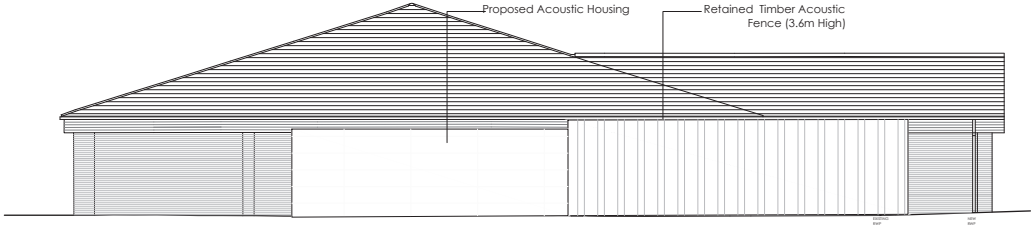
Project No.	Originator	Volume	Level	Type	Role	Number
19999	THPM	XX	00	DR	A	1003

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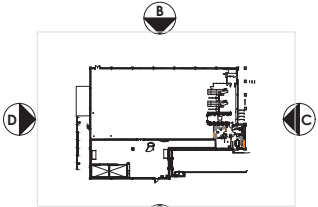
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02	1:100	PROPOSED ACROUSTIC HOUSING	JH	DJE



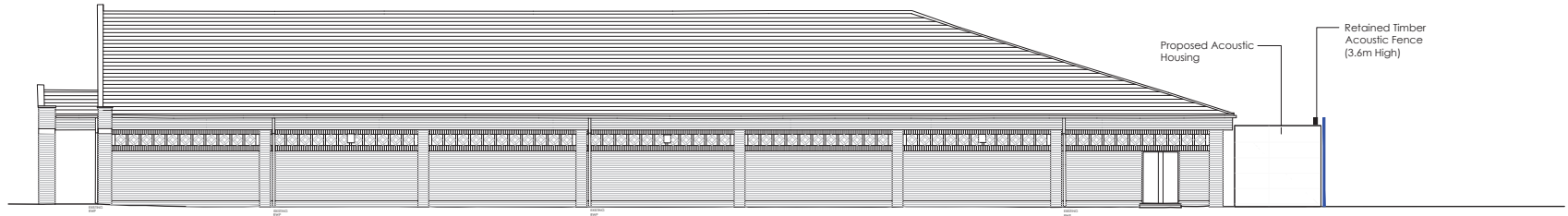
FRONT ELEVATION C TO CAR PARK



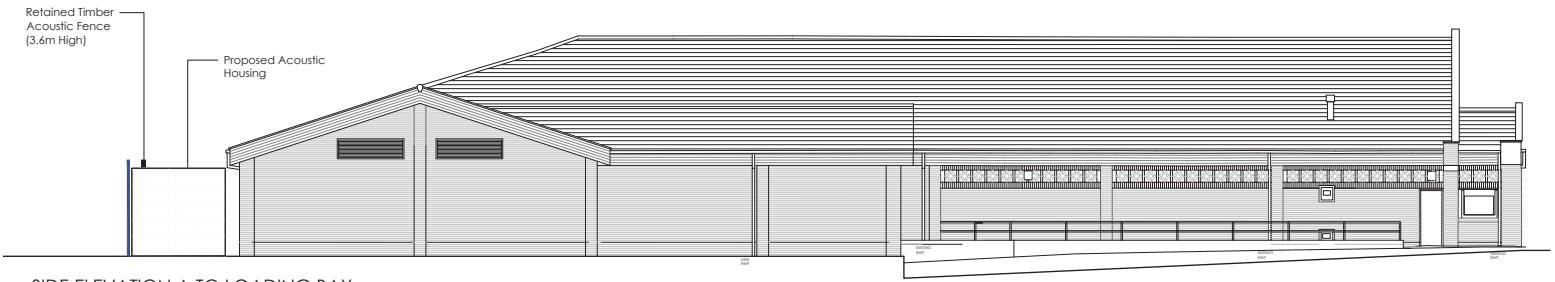
REAR ELEVATION D



Elevation Key: Not to Scale



SIDE ELEVATION B



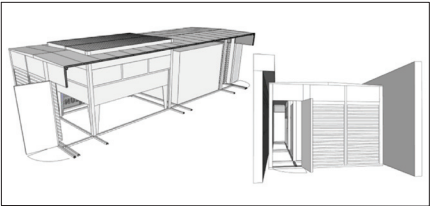
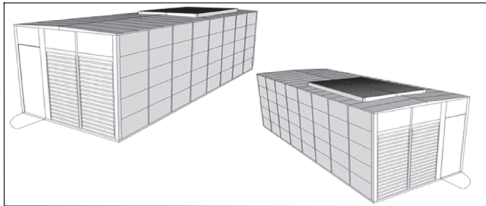
SIDE ELEVATION A TO LOADING BAY

PLANNING (DRAWING)
This drawing has been prepared for submission to the relevant Local Authority or other planning authority. It is not intended to be used for the purpose of any other application.
For structural details refer to the Structural & Civil Engineers' detailed design drawings & specifications.
For other information refer to the relevant drawings and sub-contractor's design drawings & specifications.
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Client
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PROPOSED ELEVATION
Scale 1:100 @ A1

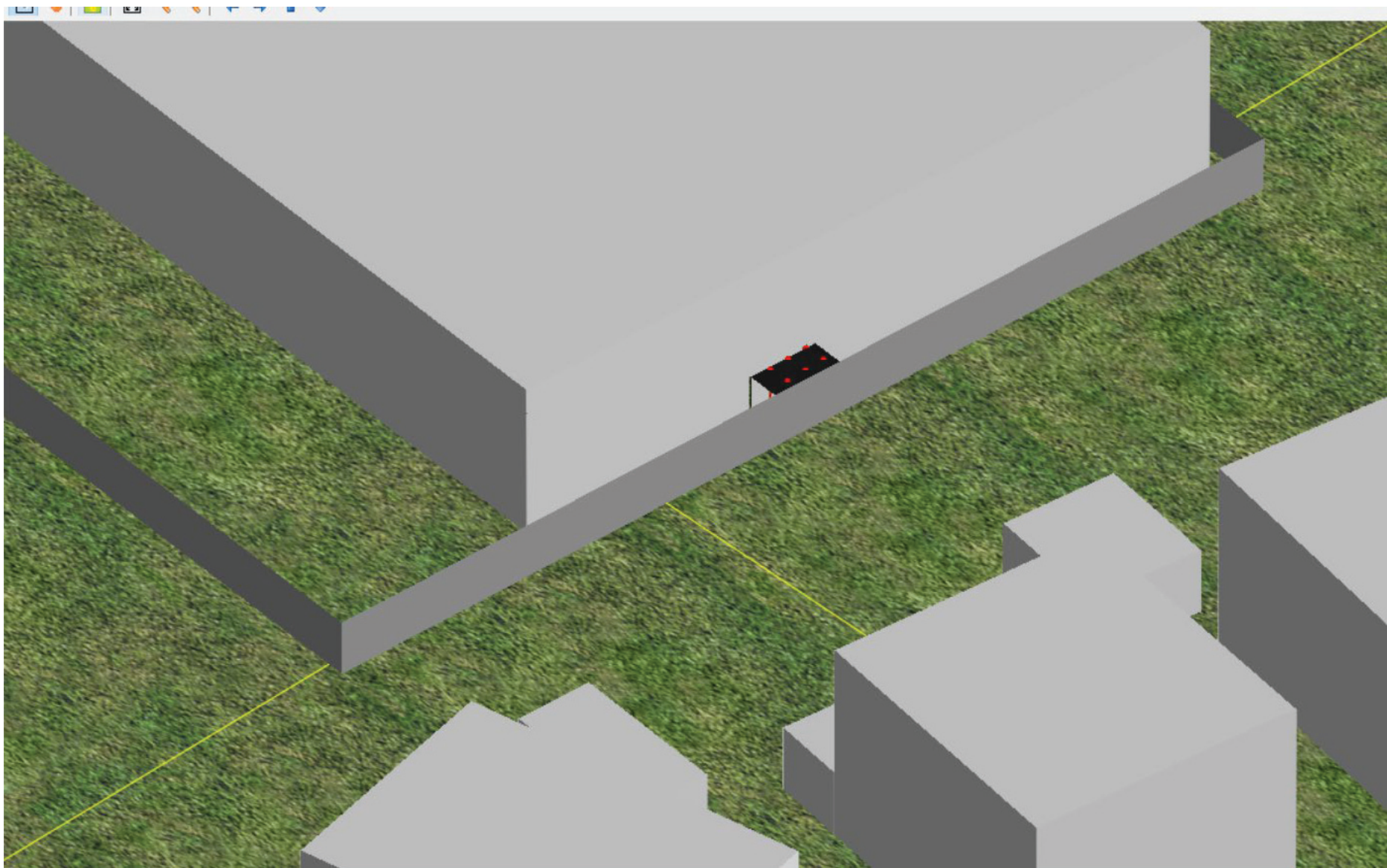
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SCALE 1:100

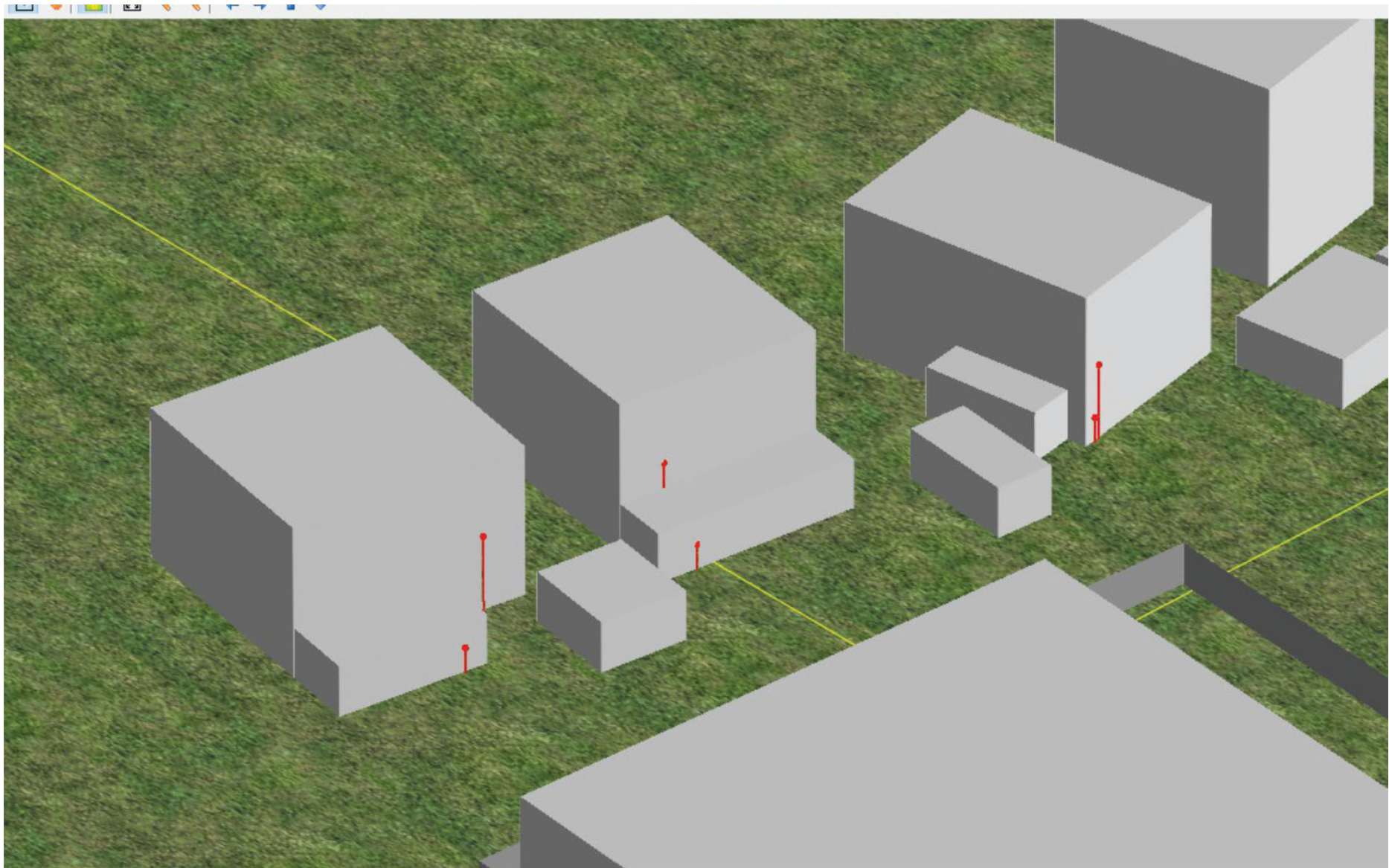


Project Title
Proposed Fence Extension
Aldi Didsbury
Wilmslow Road
M20 2DN
Drawing Title
Proposed Elevations
Drawn: JH, Checked: DJE, Scale: A1, Date: 01/25
Drawing Status: Planning, Rev: RFP Project No: 19999
Project No: 19999, THPM XX EL DR A 0005

APPENDIX C

Noise Model – Existing Plant





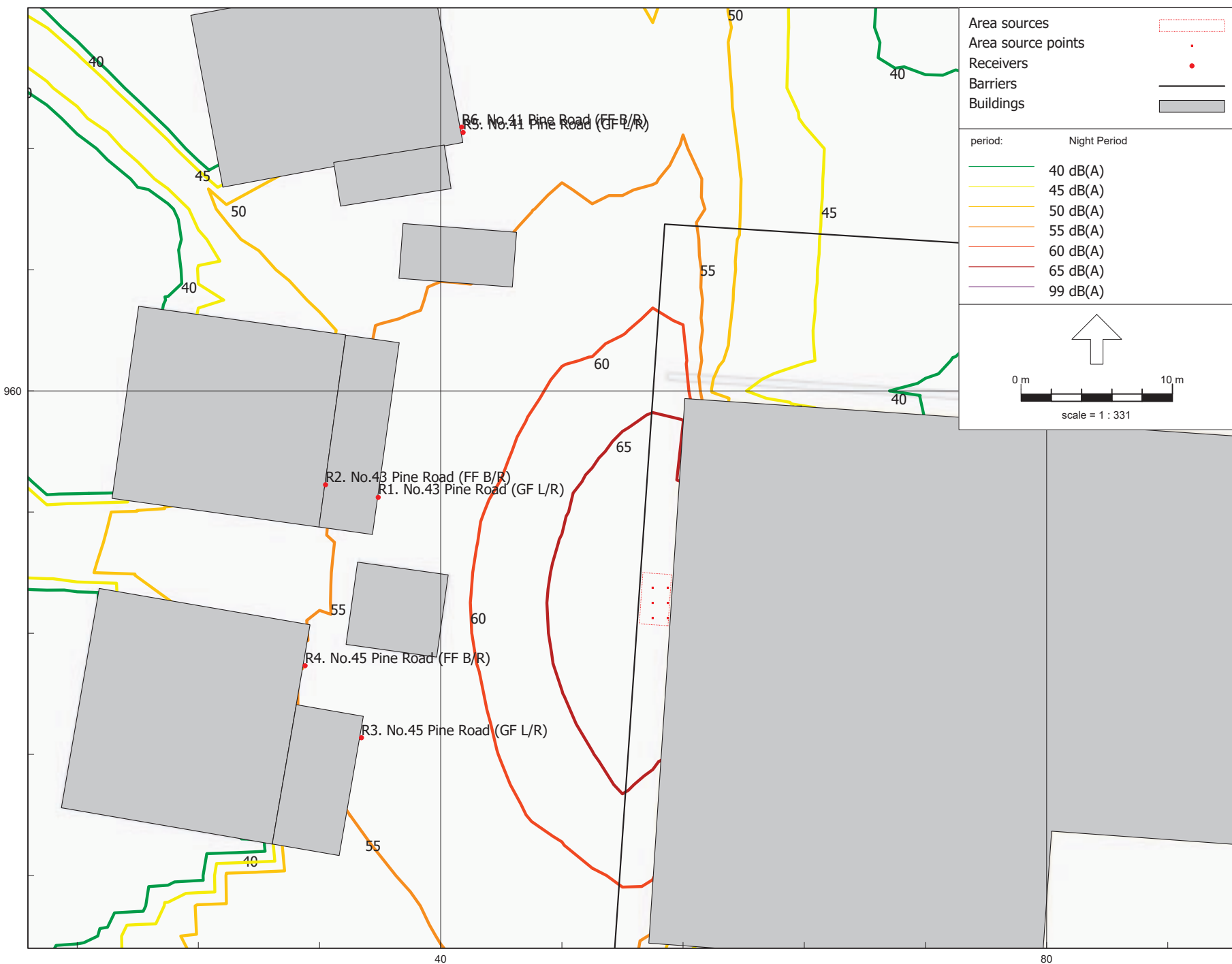
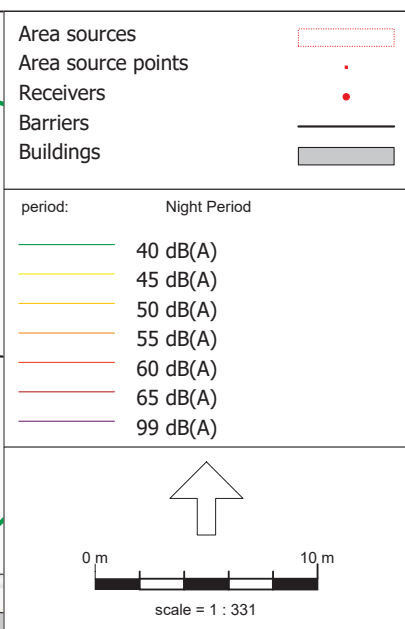
Aldi Didsbury
Predicted Noise Levels - Existing Plant

Report: Table of Results
Model: 2025 Plant model - Existing Scenario
LAeq per octave: total results for receivers
Group: (main group)
Group Reduction: Yes

Name		Height	Day									
Receiver	Description		Total	31	63	125	250	500	1000	2000	4000	8000
_A	R1. No.43 Pine Road (GF L/R)	1.50	57	--	38	46	50	53	51	46	38	26
45_A	R2. No.45 Pine Road (GF L/R)	1.50	54	--	35	43	47	49	48	42	34	21
_A	R3. No.41 Pine Road (GF L/R)	1.50	52	--	31	40	45	47	46	41	33	19

All shown dB values are A-weighted

Predicted Noise Levels - Existing Mechanical Plant



APPENDIX D

Acoustic Enclosure Data Sheets

DATA SHEET

Model: **EG-HYS-Aldi-Didsbury Acoustic Housing**

Acoustic Housing

06 August 2025

CUSTOMER:

SITE / LOCATION / REFERENCE

Wave Consulting

ALDI Didsbury

ORIGINAL EQUIPMENT MANUFACTURERS PUBLISHED DATA

MAKE, MODEL, DIMENSIONS, AIR FLOW & SOUND PRESSURE LEVEL @1.0M FREE FIELD

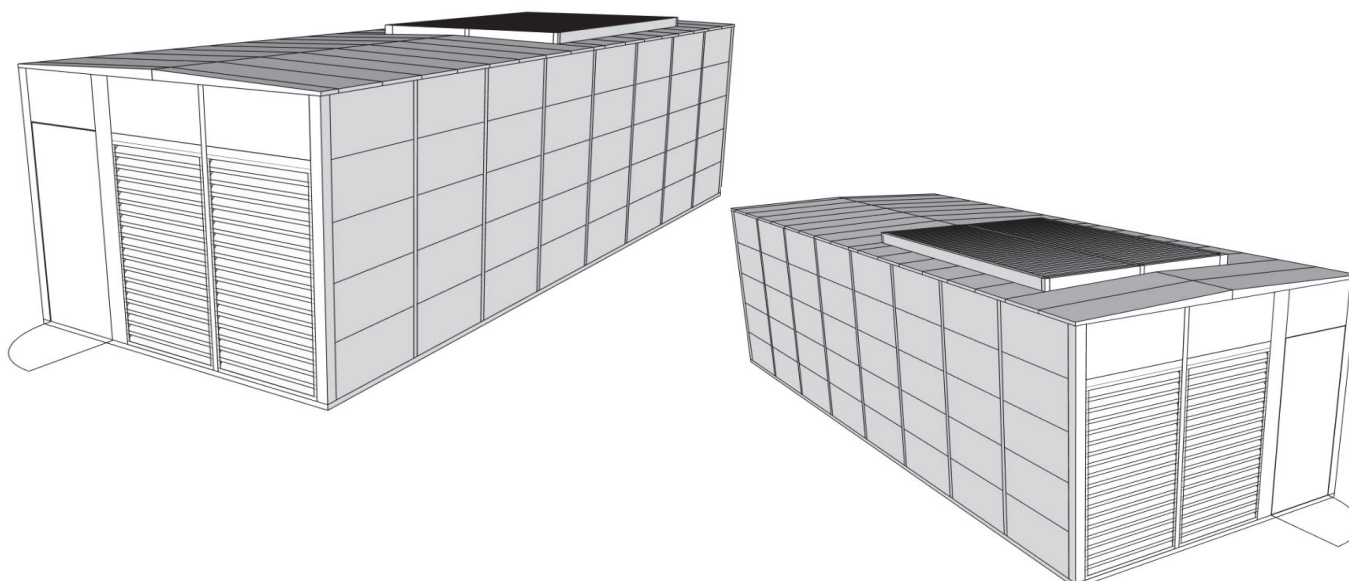
MAKE			MODEL	AIR IN	AIR OUT
Clade Refrig Pack & 3T Gas Cooler			Unknown	V - Underneath	V - Top
WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)	AIRFLOW (M ³ S ⁻¹)	DISTANCE (M)	SPW dB(A)
3200 & 3750	2410 & 2410	2635 & 2310	8.3	1	83
INNER CUBE DIMENSION			ENCLOSURE DETAIL		
WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)	WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
10260	3870	3200	10340	3950	3295
AIRFLOW (M ³ S ⁻¹)	DISTANCE (M)	SPL dB(A)	AIRFLOW (M ³ S ⁻¹)	DISTANCE (M)	SPL dB(A)
8.30	1.0	83	8.30	1.0	61
INLET AIRWAYS			AIRFLOW INFORMATION		
WIDTH (MM)	HEIGHT (MM)	NO.	PD (NM ²)	DESIGN CRITERIA	INLET (MS ⁻¹)
1146	60	60	5	OK	2.0
OUTLET AIRWAYS			AIRFLOW INFORMATION		
WIDTH (MM)	HEIGHT (MM)	NO.	PD (NM ²)	DESIGN CRITERIA	INLET (MS ⁻¹)
60	1200	60	4	OK	1.9
ENCLOSURE INFORMATION					
INLET AIRWAY			WIDTH (MM)	DEPTH (MM)	HEIGHT (MM)
OUTLET AIRWAY			1146	230	60
EXTERNAL SIZE			60	1000	1200
INDICATIVE NOISE LEVEL			10340	3950	3295
			61	**SPW dB(A) SOUND PRESSURE	

NOTES CONCERNING ENCLOSURE DESIGN

Estimated Air Flow through 3T Gas Cooler - detail unknown

UnityAccess Panels Lift Off or Hinged for Maintenance/Service

** Noise level above based on Free Field condition - actual noise levels will be dependant on site conditions

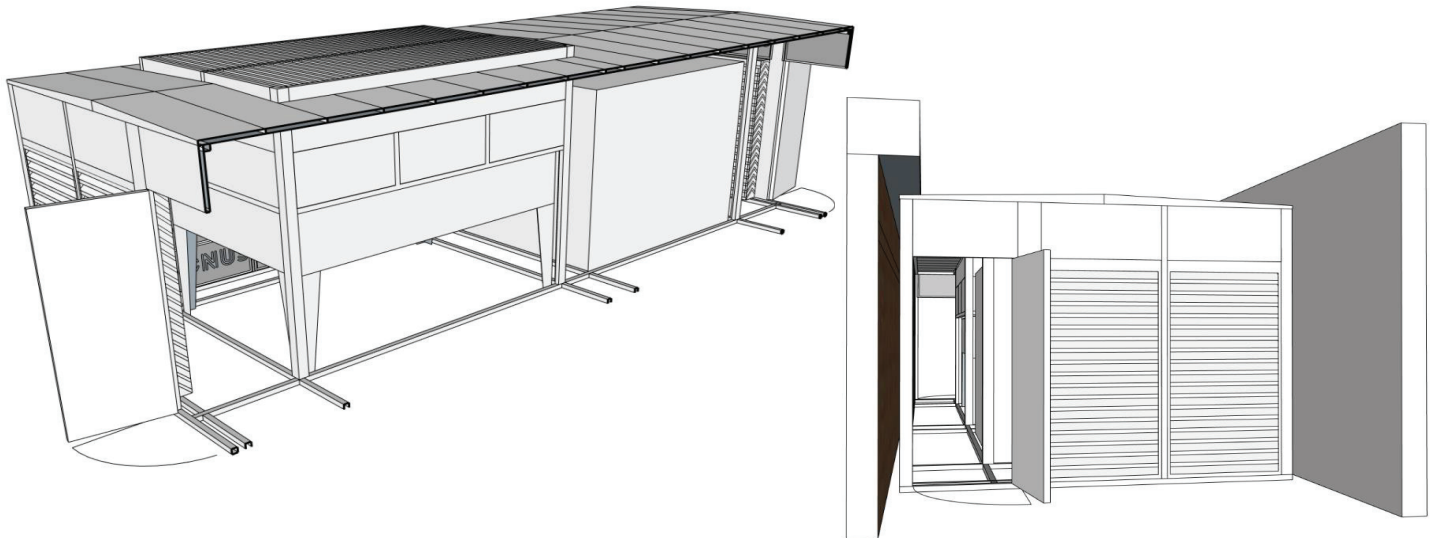


DATA SHEET

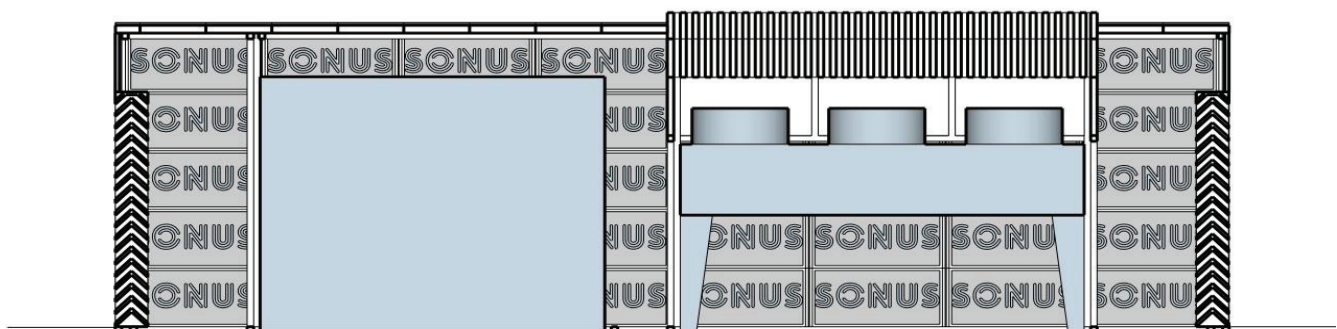
Model: EG-HYS-Aldi-Didsbury Acoustic Housing

Acoustic Housing

06 August 2025

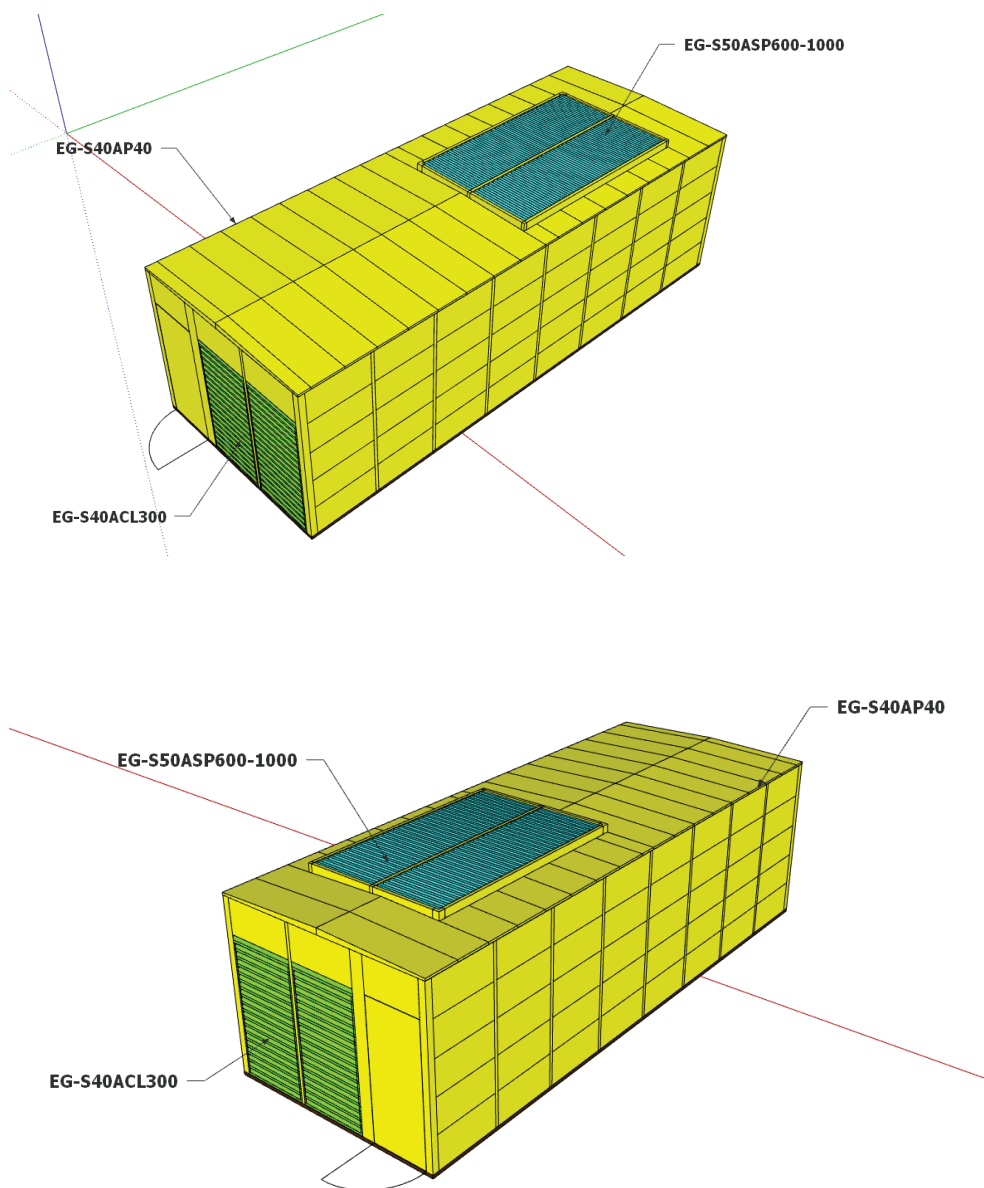


Service/Maintenance Access via access walkway through the housing
Gas Cooler Fan Access via removable internal panels - Access to Refrigeration Pack (No Change)



Ambient Air through Acoustic Louvres to Gable Ends - Discharge Air through top splitter arrangement
Internal Plenum/Septum Panels with integrated rubber edge seals ensure no air recirculation

See below for the make up of the housing proposed from both ends – yellow is the solid panel, green is where the acoustic louvres are and blue is for the splitter attenuation for the discharge air off the top of the gas cooler



I have limited access to other data as I am away at a family funeral today

Regards

By using our new Sonus panel system for composite components that will be used in this application we would expect to achieve the following:

Environ Group Product Line				EG-S40AP40				
Acoustic Measure	Octave Frequency in Hertz (<u>db</u> ref 2 x 10 ⁻⁵ Pascal's)							
	63	125	250	500	1k	2k	4k	8k
Sound Reduction Index	22	26	30	35	40	45	40	40
Weighted Sound Reduction Index (<u>Rw</u>)	40							
Static Insertion Loss								
*Estimated preliminary data – subject to final laboratory testing								

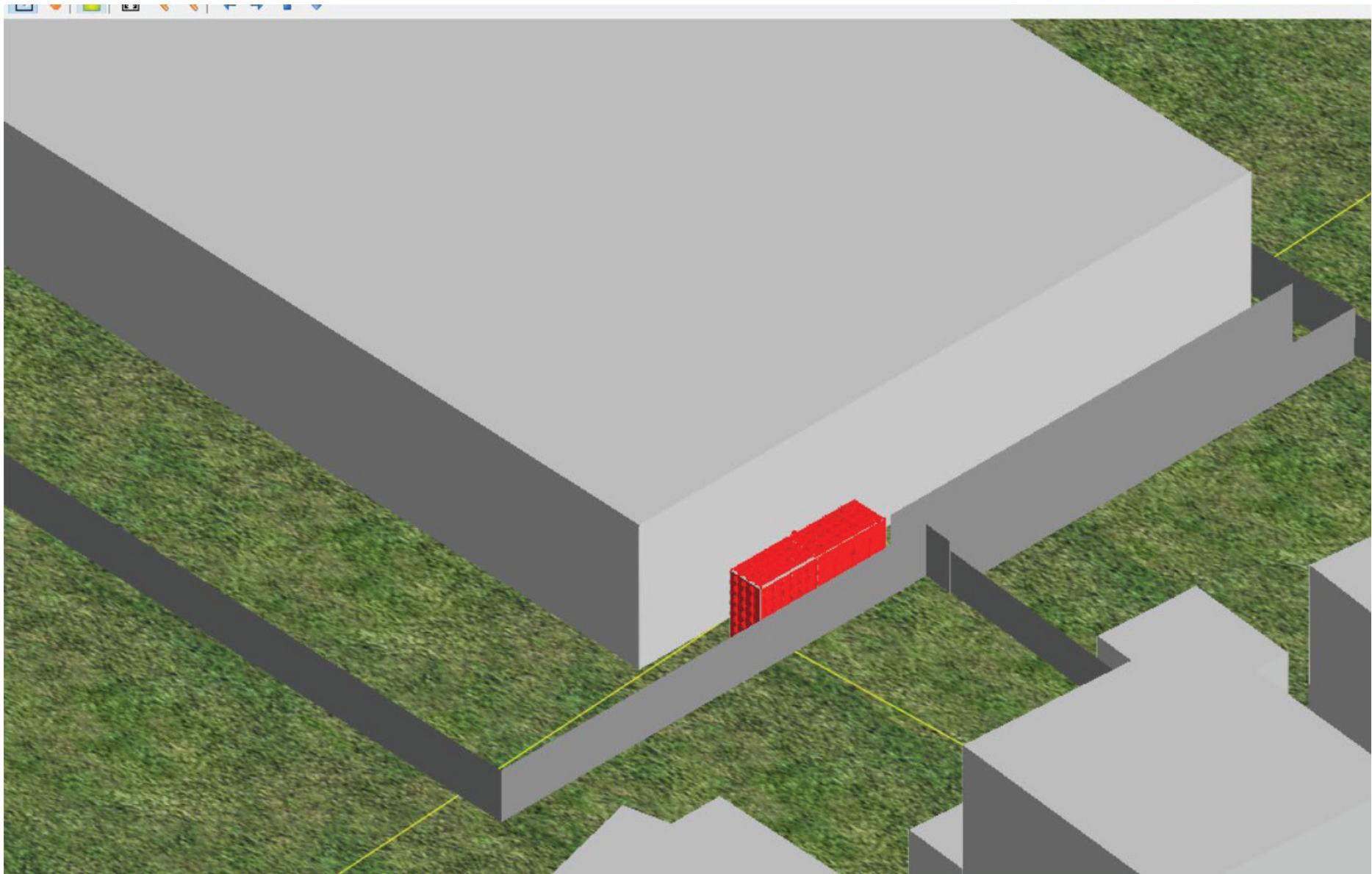
Environ Group Product Line	EG-S50ASP60-1000							
Acoustic Measure	Octave Frequency in Hertz (db ref 2 x 10 ⁻⁵ Pascal's)							
	63	125	250	500	1k	2k	4k	8k
Sound Reduction Index								
Weighted Sound Reduction Index (Rw)								
Static Insertion Loss	12	13	20	29	32	35	36	36
*Estimated preliminary data – subject to final laboratory testing								

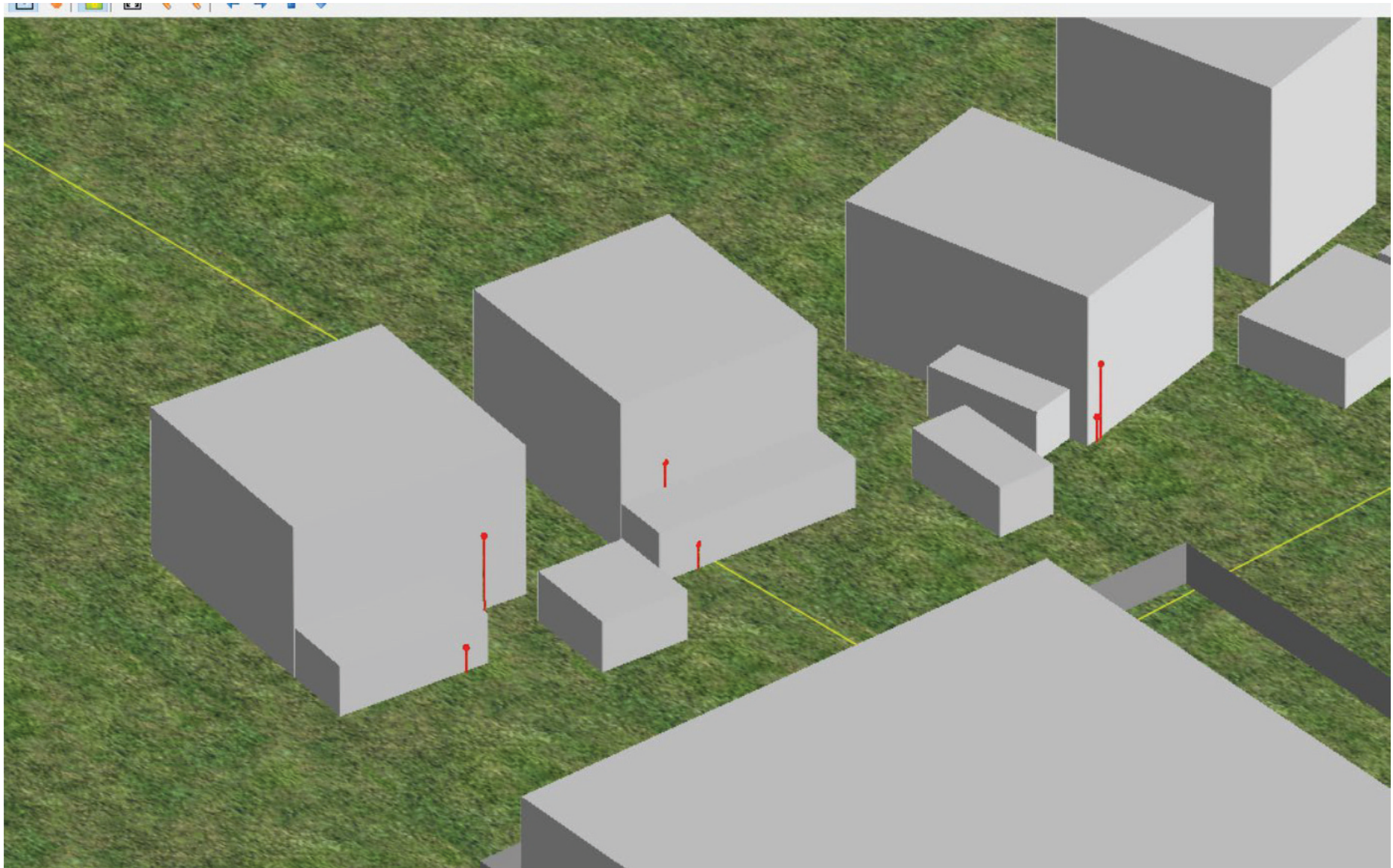
Environ Group Product Line	EG-S40ACL300							
Acoustic Measure	Octave Frequency in Hertz (db ref 2 x 10 ⁻⁵ Pascal's)							
	63	125	250	500	1k	2k	4k	8k
Sound Reduction Index	11	13	20	28	26	30	30	28
Weighted Sound Reduction Index (Rw)	20							
Static Insertion Loss								
*Estimated preliminary data – subject to final laboratory testing								

As discussed these are preliminary figures subject to final lab testing – they are based on data measurements during the product development programme

APPENDIX E

Noise Model – Plant with Mitigation



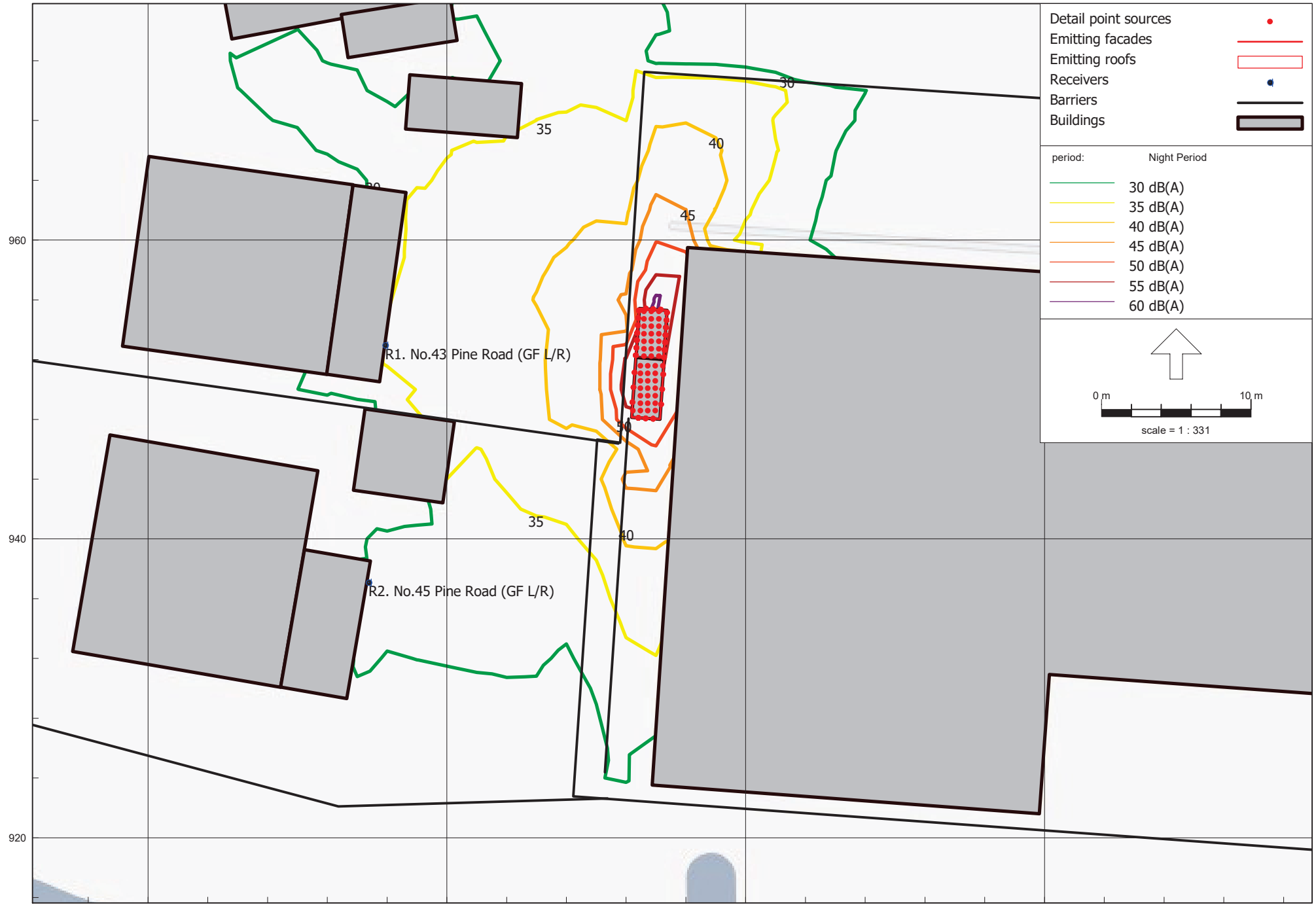


Aldi Didsbury
Predicted Noise Levels - Proposed Plant Enclosure

Report: Table of Results
Model: 2025 Plant model - Proposed New Scheme - With Environ Enclosure - Rev 1
LAeq per octave: total results for receivers
Group: (main group)
Group Reduction: Yes

Name		Height	Night									
Receiver	Description		Total	31	63	125	250	500	1000	2000	4000	8000
45_A	R2. No.45 Pine Road (GF L/R)	1.50	31	--	22	25	26	21	20	9	3	-7
_A	R1. No.43 Pine Road (GF L/R)	1.50	34	--	25	28	29	24	24	13	7	-3
_A	R3. No.41 Pine Road (GF L/R)	1.50	30	--	21	25	25	21	23	12	5	-5

All shown dB values are A-weighted



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