ASDA
Manchester Square Gardens

Condition 15(b) Discharge Report

31639/RP3/R1

17 December 2025

For:
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Document Control

Rev	Date	Comment	Prepared by	Checked by	Authorised by
1	17/12/2025	Updated to include latest plant layout plan.	[redacted] Nick Mitchell Senior Consultant BSc (Hons) AMIOA	Jake Howarth Senior Associate BEng(Hons), MIOA	
0	16/12/2025	-	Nick Mitchell Senior Consultant BSc (Hons) AMIOA	Jake Howarth Senior Associate BEng(Hons), MIOA	

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Hann Tucker Associates

Condition 15(b) Discharge Report
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1.0 Introduction

Hann Tucker Associates Limited (Hann Tucker) has been commissioned by TSA Riley to undertake an assessment for the discharge of Planning Condition 15(b) attached the decision notice of application ref 125573/FO/2019 at Manchester Square Gardens.

Consent was granted in 2020 for the construction of four buildings of heights varying from 10 storeys to 45 storeys comprising Co-living bedspaces (use class sui generis) and associated amenity facilities, with ground floor commercial units (Use classes A3 ((Café / Restaurant and D2 Gym)), private amenity space and public realm comprising hard and soft landscaping, car parking and cycle facilities and other associated works.

The decision notice (Ref 125573/FO/2019) included a number of conditions which relate to noise and this assessment has been prepared to support the discharge of external plant noise emissions from the proposed retail store for supermarket use.

The assessment draws upon the results of a baseline noise survey undertaken by Noise Solutions Limited (reference: 92328/NIA), dated 2nd July 2024.

2.0 Planning Condition

The Decision Notice associated with the planning application (Ref 125573/FO/2019) details several planning conditions. Planning condition 15 relate to noise from the prior to occupation and state the following:

Planning Condition 15

"Prior to the occupation of

(a) The residential accommodation; and

(b) Each of the ground floor commercial units

A scheme for the acoustic insulation of any externally mounted ancillary equipment associated with the development to ensure that it achieves a background noise level of 5dB below the existing background (La90) at the nearest noise sensitive location shall be submitted to and approved in writing by the City Council as local planning authority in order to secure a reduction in the level of noise emanating from the equipment.

The approved scheme shall be completed before the premises is occupied and a verification report submitted for approval by the City Council as local planning authority and any non compliance suitably mitigated in accordance with an agreed scheme prior to occupation. The approved scheme shall remain operational thereafter."

This technical report details the external plant measurements undertaken at site in order to review the in-situ noise levels associated with a retail unit condenser and assess against background noise levels measured by Noise Solutions Limited (NSL) in accordance with relevant standards/guidance and condition set by Manchester City Council (MCC).

3.0 Acoustic Terminology

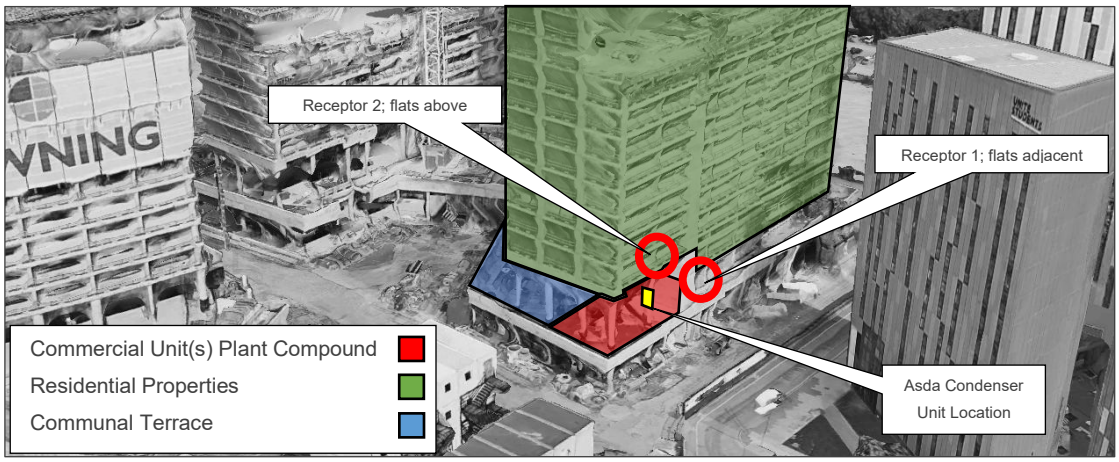
For an explanation of the acoustic terminology used in this report please refer to Appendix A.

4.0 Site Description

4.1 Location

The site is located to the south side of Manchester, in Deansgate. To the south of the site is the Mancunian Way (A57M), which is a two-lane part of the Manchester inner ring road. To the west of site is Medlock Street Junction which is a roundabout that links three carriageways. To the north of the site is Hume Street which links the site with Oxford Road to the east. To the east of site is Wilmott Street. To the south-east corner of site is bound by Chester Street and Newcastle Street.

The proposed ASDA store is located at Ground Floor level in Unit 03. The residential apartments closest to the ASDA are located adjacent and above the terrace area at level 03.



Location Map (Maxar Technologies, Google Map data ©2025)

A floor plan of the ASDA store is shown below.



A-00-01-900_Proposed Site Layout

5.0 Condition 15(b) Assessment

5.1 Summary

A pre-completion report was submitted to and approved by the Local Planning Authority (LPA). The report reviewed the proposed condenser for the commercial unit and included a plant noise impact assessment based on typical measured L_{A90} background levels undertaken at the site by Noise Solutions Limited 92328/NIA), dated 2nd July 2024. As part of the condition discharge for the scheme, Manchester City Council (MCC) has requested that a post completion verification report be submitted.

The commercial unit includes only 1no. condenser associated with the heating and ventilation of the store and is located within the first-floor plant compound alongside plant systems associated with the other retail units. All the refrigerant plant are integral systems and therefore do not require externally mounted units to operate.

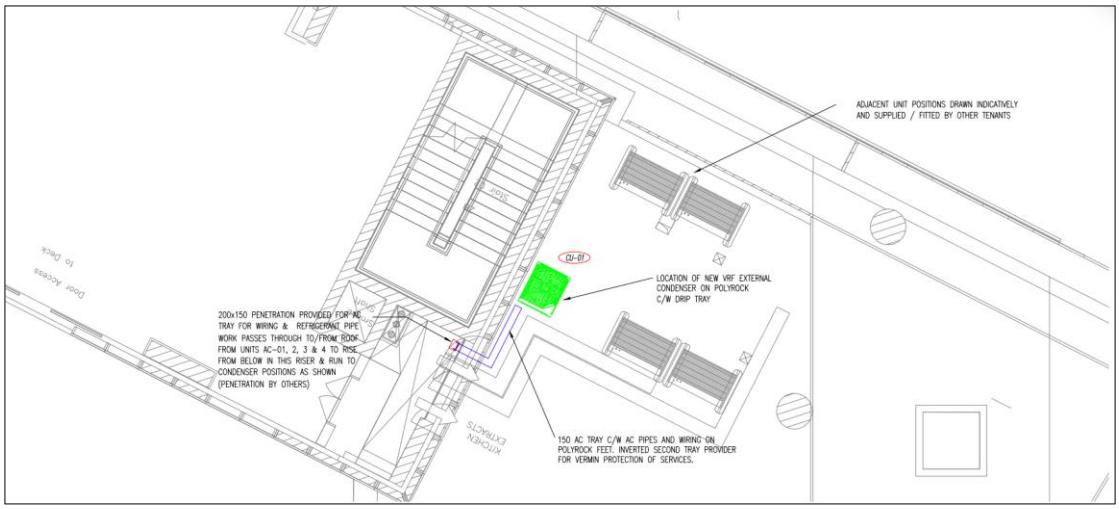
The AC plant unit is to run during operational times only (i.e. between 07:00 – 23:00).

The assessment and site visit reviewed the plant noise emissions from the unit operating at maximum capacity and corrected for background noise when the unit is off.

The nearest receptors were identified in the NSL report, as marked in Section 4.1. NSR 1 is approximately 8m from the unit and sits adjacent to the plant courtyard at Level 02. NSR 2 is approximately 9m from the unit and sits above the plant courtyard at Level 03. Both receptors are fully screened by the building massing which has been accounted for in the calculations between source and receiver.

5.2 Plant Location

A plant layout plan has been provided to us by the client on the installed location, provided below.



Plant Location Drawing (document ref: TDE25-011-ZZ-00-DR-M-3103/RD)

5.3 Criteria

5.3.1 External Plant Noise Limits

The noise criteria is presented below, taken from Section 5.12, Table 4, of the NSL document.

Period	Cumulative plant rating level, dB(A)
Daytime (07.00 – 23.00) hours	45
Night-time (23.00 – 07.00) hours	43

5.4 Survey Methodology

5.4.1 Procedure

Attended noise monitoring was undertaken by Nick Mitchell BSc (Hons) between 09:25 hours on 05 December 2025 and 09:39 hours on 05 December 2025 within the external plant compound.

Measurements were taken of the A-weighted (dBA) L_{90} and L_{eq} sound pressure levels. In addition, at each position L_{eq} 1/3 octave band spectra (from 50Hz to 10kHz) were taken at 1 second intervals to gain a more detailed description of the prevailing noise climate.

Measurements were undertaken for a period of 1-minute with the plant item operating at maximum capacity, and when the item was turned off. The measurements have therefore been corrected for background noise when the unit was not in operation. The noise level measurements were taken at 1m around the three exposed sides of the unit. The rear of the unit was against the façade and therefore the measurements include reflections from the façade.

The unit is proposed to operate for daytime use only for air conditioning, and therefore an assessment against night-time criteria is not required.

5.4.2 Measurements

The measurements as described in Section 5.4.1 are detailed in the table below.

Measurement	Date	Time	Duration	Description
1	05/12/2025	09:25:06	1 minute	Measurement of the right-hand side of condenser unit at 1 metre.
2		09:26:22		Measurement of the front of condenser unit at 1 metre.
3		09:27:38		Measurement of the left-hand side of condenser unit at 1 metre.
4		09:35:08		Measurement of the right-hand side of condenser unit OFF.
5		09:36:13		Measurement of the front of condenser unit OFF.
6		09:37:22		Measurement of the left-hand side of condenser unit OFF.

5.4.3 Instrumentation

The instrumentation used during the survey is presented in the table below.

Position	Description	Manufacturer	Type	Serial Number	Calibration
All	Type 1 Data Logging Sound Level Meter	Brüel and Kjær	2250	3025254	Calibration on 21/02/2024
	Type 1 Calibrator	Brüel and Kjær	4231	2308993	Calibration on 13/02/2025

The sound level meter, including the extension cable, was calibrated prior to and on completion of the survey. No significant changes were found to have occurred (no more than 0.3 dB). The microphone was fitted with a windshield.

5.5 Results

5.5.1 Attended Survey

The measured noise levels recorded during the survey between measurements 1 to 6 are presented in the table below.

Measurement	Sound Pressure Level (dB re $2x10^{-5}$ Pa) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
1 – Right (ON)	77	72	72	71	68	62	61	53	73
2 – Front (ON)	79	71	72	70	66	60	54	47	71
3 – Left (ON)	74	69	70	71	69	61	57	49	72
4 – Right (OFF)	68	62	61	61	63	59	50	45	66
5 – Front (OFF)	68	59	57	58	61	56	46	41	64
6 – Left (OFF)	68	60	60	60	63	57	46	33	65

5.5.2 Discussion of Noise Climate

During the daytime measurements (i.e. 1 to 6) there weas no other noise from nearby plant which serves the other commercial units associated with Block A. During the measurements, road traffic noise from Mancunian Way was the dominant source, associated with measurements 4 to 6.

Therefore, the ambient noise levels of the unit operating at maximum capacity are corrected within the assessment to account for the residual noise climate (i.e. subtract measurement 4 from measurement 1, 5 from 2, and 6 from 3).

5.5.3 Plant Noise Assessment

For the purposes of the assessment noise levels measured on the right-hand side of the unit shall be utilised as the receptors are in that direction.

The 50 Hz to 10kHz noise data from Measurement 4 has been logarithmically subtracted from the noise data from Measurement 1 to remove the residual noise and provide an ambient level unaffected by the prevailing noise climate. This is presented in 1/1 octave bands in the table overleaf.

Reference	Measured Specific Sound Pressure Level (dB) at 1m from the Unit at each Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Measurement 1	77	72	72	71	68	62	61	53	73
Measurement 4	68	62	61	61	63	89	50	45	66
Corrected Noise Level	77	72	71	71	67	60	60	52	72

Based on the measured noise levels, the following tables present the results of a BS 4142 assessment for a typical worst-case operation during the daytime period.

NSR 1	Sound Pressure Level (dB re $2x10^{-5}$ Pa) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Condenser Unit at 1m, corrected level	77	72	71	71	67	60	60	52	72
Barrier Loss (ISO 9613-2)	-13	-16	-19	-20	-20	-20	-20	-20	-
Conformal Area Distance Loss (1m to 8m)	-14								-
Specific Sound Level at Receptor,	49	42	38	37	33	26	26	18	38
Specific Sound Level									**38**
Acoustic Feature Correction [1]									**+3**
Rating Level									**41**
Rating Level Limit									**45**
Excess of Rating Level over MCC Criterion									**-4**
Impact									**Low**

Notes:
[1] The unit could potentially run intermittently due to temperate control or demand.

NSR 2	Sound Pressure Level (dB re $2x10^{-5}$ Pa) at Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1k	2k	4k	8k	
Condenser Unit at 1m, corrected level	77	72	71	71	67	60	60	52	72
Barrier Loss (ISO 9613-2)	-8	-10	-12	-15	-18	-20	-20	-20	-
Conformal Area Distance Loss (1m to 8m)	-15								-
Specific Sound Level at Receptor,	53	47	44	41	34	25	25	17	42
Specific Sound Level									**42**
Acoustic Feature Correction [1]									**+3**
Rating Level									**45**
Rating Level Limit									**45**
Excess of Rating Level over MCC Criterion									**0**
Impact									**Low**

Notes:
[1] The unit could potentially run intermittently due to temperate control or demand.

The assessment therefore demonstrates a low impact in accordance with BS 4142 and meets the MCC criteria.

6.0 Conclusions

Hann Tucker Associates Limited (Hann Tucker) has been commissioned by TSA Riley to undertake a plant noise assessment for a proposed ASDA site in Manchester, Square Gardens.

The assessment for the discharge of planning conditions 15(b) regarding external plant noise emissions to nearby receptors which indicated that an appropriate level of protection will be achieved to future noise sensitive receptors on the Site.

It is therefore recommended that noise need not be a determining factor in granting the discharge of Condition 15.

Appendix A

The acoustic terms used in this report are defined as follows:

dB — Decibel - Used as a measurement of sound level. Decibels are not an absolute unit of measurement but an expression of ratio between two quantities expressed in logarithmic form. The relationships between Decibel levels do not work in the same way that non-logarithmic (linear) numbers work (e.g. 30dB + 30dB = 33dB, not 60dB).

dBA — The human ear is more susceptible to mid-frequency noise than the high and low frequencies. The 'A'-weighting scale approximates this response and allows sound levels to be expressed as an overall single figure value in dBA. The $_A$ subscript is applied to an acoustical parameter to indicate the stated noise level is A-weighted

It should be noted that levels in dBA do not have a linear relationship to each other; for similar noises, a change in noise level of 10dBA represents a doubling or halving of subjective loudness. A change of 3dBA is just perceptible.

$L_{90,T}$ — L_{90} is the noise level exceeded for 90% of the period *T* (i.e. the quietest 10% of the measurement) and is often used to describe the background noise level.

$L_{eq,T}$ — $L_{eq,T}$ is the equivalent continuous sound pressure level. It is an average of the total sound energy measured over a specified time period, *T*.

L_{max} — L_{max} is the maximum sound pressure level recorded over the period stated. L_{max} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the L_{eq} noise level.

Sound Pressure Level (L_p) is the sound pressure relative to a standard reference pressure of 2×10^{-5} Pa. This level varies for a given source according to a number of factors (including but not limited to: distance from the source; positioning; screening and meteorological effects).

Sound Power Level (SWL or L_w) is the total amount of sound energy inherent in a particular sound source, independent of its environment. It is a logarithmic measure of the sound power in comparison to a specified reference level (usually 10^{-12} W).