15037-R24-A
10 July 2026

Old Granada Studios, Manchester

Planning Condition 19 discharge report

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Version	Date	Comments	Author	Reviewer
A	9 Jul 26		JMG	JA

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Summary

Sandy Brown has been appointed by Manchester Quays Developments (OGS) Ltd to carry out acoustic verification measurements to demonstrate compliance with Planning Condition 19 under 138820/JO/2023. This report sets out relevant information to discharge the condition.

Attended sample noise measurements were undertaken on site on 1 July 2026 to verify noise levels from the installed gym plant in operation. The measurements and assessment indicate that plant noise egress complies with the criteria.

Based on the above, Planning Condition 19 can be discharged.

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1 Introduction

Sandy Brown has been appointed by Manchester Quays Developments (OGS) Ltd to carry out acoustic verification measurements to demonstrate compliance with Planning Condition 19 under 138820/JO/2023. This report sets out relevant information to discharge the condition.

Attended noise measurements were undertaken on site on 1 July 2026 for the installed and operational rooftop gym plant equipment. The measurement results have been used as the basis for predicting the levels outside the nearby receptors for comparison to the criteria set in line with Manchester City Council. Verification measurements have also been carried out outside Globe and Simpson's development on Quay Street.

This report presents the survey methodology, results, and a noise egress assessment of the installed rooftop plant at the nearby noise sensitive premises.

2 Planning Condition 19

Planning condition 19 is split in two parts, a) and b), which states the following in regard to externally mounted plant.

a) *Prior to first occupation of the hotel gymnasium hereby approved, the building, together with any externally mounted ancillary equipment, shall be acoustically insulated in accordance with the Acoustic Planning Report Ref: 15037-R17-A dated 6 December 2023 by Sandy Brown and the Sandy Brown Memo M070-A dated 13 December 2023 'L2 and L10 Rooftop Noise Egress Reassessment - Zones 4 and 5' in order to secure a reduction in the level of noise emanating from the equipment so as to achieve a rating level of 5dB (L_{Aeq}) below the typical background (LA90) level at the nearest noise sensitive location.*

b) *Prior to first occupation of the hotel gymnasium hereby approved, a verification report to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the Acoustic Planning Report Ref: 15037-R17-A dated 6 December 2023 by Sandy Brown and the Sandy Brown Memo M070-A dated 13 December 2023 'L2 and L10 Rooftop Noise Egress Reassessment - Zones 4 and 5' shall be submitted to and approved in writing by the City Council as local planning authority. The verification report shall include post completion testing to confirm that acceptable criteria has been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the agreed noise criteria and timescales for the implementation of those measures.*

3 Site description

The site location in relation to its surroundings is outlined in yellow in Figure 1.

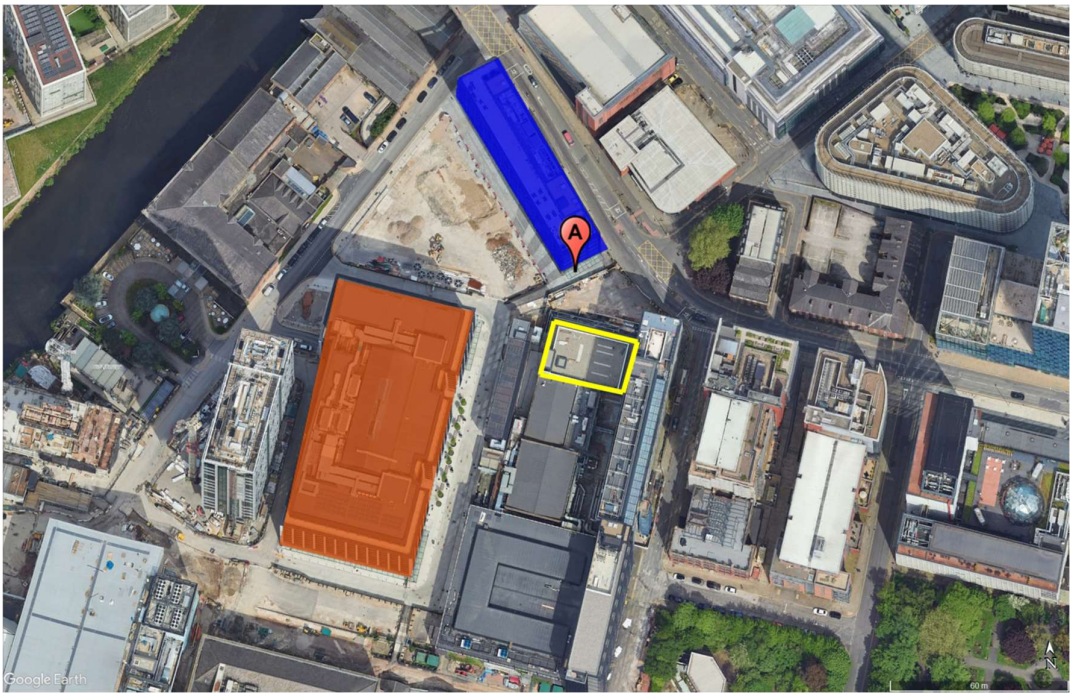


Figure 1 Aerial view of site (courtesy of Google Earth Pro)

3.1 Adjacent premises

The nearest and worst affected receptors are 88-100 Quay Street (Globe and Simpson) highlighted in blue in Figure 1 to the north of the site, and Manchester Goods Yard office building to the west highlighted in orange in Figure 1. These comprise office premises and are considered to be a noise sensitive premises on weekdays (Monday to Friday) between 07:00 and 19:00.

Bauhaus residential apartments building on Atherton Street is not considered a noise sensitive premise as Mollies hotel development fully screens rooftop plant from these premises.

4 Plant noise egress limits

4.1 Background noise levels

An environmental noise survey has previously been undertaken at the site to determine the existing noise levels in the vicinity of the site and nearby noise sensitive premises. Full

details of this survey can be found in Sandy Brown report 15037-R03-E *Acoustic planning report* dated 5 October 2020.

The representative background noise levels measured applicable to the nearest noise sensitive receptors are set out in Table 1.

Table 1 Representative background noise levels at the nearest noise sensitive premises

Location	Representative background noise level, L_{A90} (dB)	
	Day (07:00-23:00)	Night (23:00 – 07:00)
West and south of the site	51	50
East of the site	51	45

4.2 Normally operating plant

Plant noise egress limits at 1 m from the nearest noise sensitive premises for gym normally operating plant are provided in Table 2. These limits are in line with the requirements of Planning Condition 19 based on the background noise levels measured at the site.

Table 2 Noise limits for gym rooftop plant

Location	Plant noise egress limit, L_{Aeq} (dB)	
	Day (07:00-23:00)	Night (23:00 – 07:00)
West and south of the site	46	45
East of the site	46	40

Globe and Simpson and Manchester Goods Yard and both commercial premises. On this basis, day operation only will be applicable at these premises.

Corrections will need to be applied for any attention catching feature in line with BS4142:2014.

5 Hours of operation

Based on the available opening times online, it is understood the gym opening hours are as set out below:

- Weekdays: 06:00 to 21:00 hrs
- Weekends: 08:00 to 20:00 hrs

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6 Plant equipment

A parapet of approximately 1.8 m high above the rooftop level, and specialist acoustic screen with lid above the VRV units have been considered in the noise egress assessment detailed in this report.

The following plant equipment has been installed to level 2 rooftop to serve the gym.

- 1 x Helios GB-WSD 560/630/EC500 highlighted in pink in Figure 2
- 1 x Daikin REYQ16U7Y1B highlighted in blue in Figure 2
- 1 x Helios GBD EC 450 highlighted in red in Figure 2
- 1 x Helios extract fan unit highlighted in green in Figure 2
- 3 x Daikin REYQ8U units highlighted in orange in Figure 2

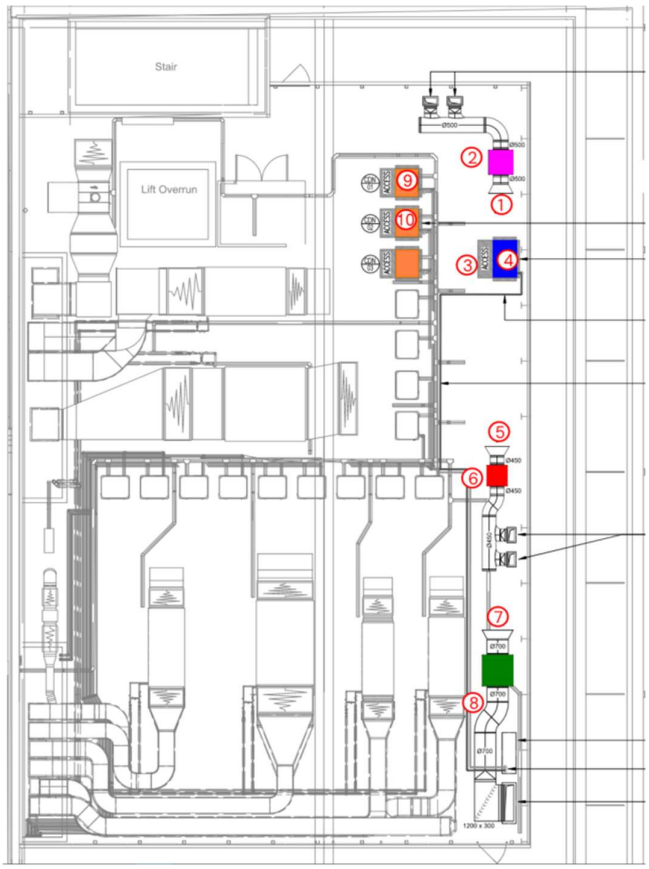


Figure 2 Level 2 rooftop installed gym plant layout

7 Verification measurements

7.1 Method

Sample noise measurements were carried out on 1 July 2026 to determine the noise levels produced by the installed and operational normally operating plant. Measurements were carried out in 1/3 octave bands over 1 minute periods.

For each measurement, the microphone was mounted on a tripod approximately 1 m from each plant item or termination and approximately 1.5 m above the ground, or roof level for plant side measurements. In addition, for units with top terminations or fans, measurements were undertaken 1 m above.

Mark-ups indicating the measurement locations are given in Figure 2.

Measurements undertaken at 1 m from Globe and Simpson building (commercial) are marked-up as 'A' in Figure 1. Measurements were carried out in 1/3 octave bands and 5 min of duration. A photograph of the measurement position A is given in Figure 3.

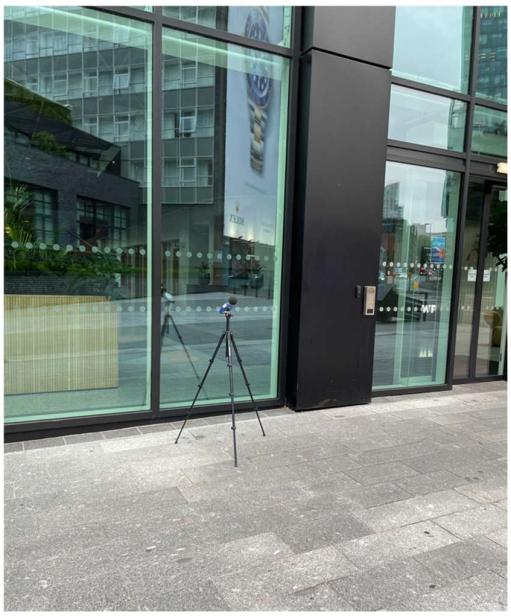


Figure 3 Photograph of the measurement position at ground level outside Globe and Simpson building

7.2 Weather conditions

The weather conditions during the measurements on 1 July 2026 were dry and no rain occurred, these are considered suitable for obtaining representative measurements.

7.3 Measurement results

Plant noise measurement results are set out in Table 3. Observations for each measurement are also provided. Plant noise was noted to be the dominant noise source in all cases. Subjectively, no attention catching features, with reference to BS4142 were noted during the measurements.

All plant measurements were undertaken in 1/3 octave bands and 1 min measurement duration. Plant items were switched on/off to ensure measurements were carried out in isolation. Where plant items were paired, measurements were carried out with units in operation.

Table 3 Plant measurement results

Measurement position	Sound pressure level measured, L_{Aeq} (dB)	Notes
1	67	Dominated by plant unit in isolation with contributions from kitchen extract in operation (1 m from exhaust)
	53	Background measurement with plant switched off, dominated by distant kitchen extract in operation
2	60	Dominated by exhaust with contributions from kitchen extract in operation (1 m from side)
3	55	Dominated by Mollies plant in operation with contributions from road traffic (1 m from side)
	51	Dominated by road traffic and Mollies rooftop plant in operation (1 m from side)
4	61	Dominated by unit in operation with contributions from Mollies plant in operation and road traffic (1 m from top)
	60	Background measurement, dominated by Mollies plant in operation and road traffic (1 m from top)
5	66	Dominated by plant exhaust in operation (1 m from side)
	52	Background measurement dominated by Mollies plant in operation and road traffic (1 m from side)
6	59	Dominated by exhaust with contributions from Mollies plant in operation (1 m from side)

Measurement position	Sound pressure level measured, L_{Aeq} (dB)	Notes
7	59	Dominated by plant in operation with contributions from Mollies rooftop plant in operation and road traffic (1 m from side)
7	53	Background measurement, dominated by Mollies plant in operation and road traffic (1 m from side)
8	53	Dominated by Mollies plant in operation and road traffic (1 m from side)
9	58	Within the acoustic screening, subjectively dominated by Mollies rooftop plant in operation with contributions from VRV unit in operation (1 m from top)
	58	Background measurement, dominated by Mollies plant in operation (1 m from top)
10	61	Within the acoustic screening, subjectively dominated by Mollies rooftop plant in operation with contributions from VRV unit in operation (1 m from top)
	61	Background measurement, dominated by Mollies plant in operation (1 m from top)
A	60	At 1 m from G&S facade at ground level. Dominated by road traffic on Quay Street, rooftop plant subjectively not audible.
	65	At 1 m from G&S facade at ground level. Background measurement, dominated by road traffic on Quay Street.

The measurement results at position A (Globe and Simpson building) and observations are summarised in Table 4.

Table 4 Measurement results outside Globe and Simpson building

Position	Start time	Sound pressure levels (dB)			Noise sources
		$L_{Aeq,5min}$	$L_{AFmax,5min}$	$L_{A90,5min}$	
A	06:39	60	68	52	Gym rooftop plant in operation Dominated by road traffic on Quay Street, rooftop plant subjectively not audible.

Position	Start time	Sound pressure levels (dB)			Noise sources
		$L_{Aeq,5min}$	$L_{AFmax,5min}$	$L_{A90,5min}$	
A	06:46	65	77	57	Rooftop plant switched off Dominated by road traffic on Quay Street

8 3D modelling

A 3D environmental noise model of the site has been created using the computational acoustic modelling package CadnaA (version 2026).

3D modelling has been used to predict the plant noise egress at the nearby noise sensitive premises for normally operating plant, based on the localised plant verification measurement results.

The modelling is based on the measurement results carried out on site, and includes the acoustic screening installed to the west and east elevations. The model has been calibrated based on the measurements to predict plant noise egress levels at the worst affected noise sensitive receptors.

The software carries out calculations using a ray tracing technique, and considers the effects of topography, reflections, screening and distance attenuation for noise sources to predict noise levels in three dimensions. Calculations are carried out in accordance with ISO 9613 Attenuation of sound during propagation outdoors.

A screenshot of the model is presented in Figure 4.

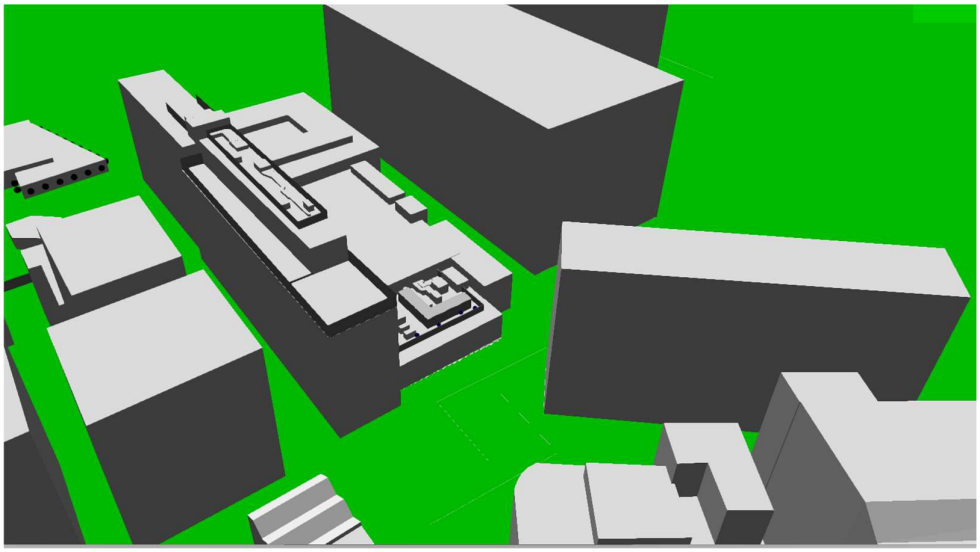


Figure 4 Screenshot of 3D environmental noise model

8.1 Results

The predicted plant noise egress levels outside the nearby noise sensitive receptors are provided in Table 5. The modelling has been based on the localised plant noise verification measurement results. As the nearby receptors are commercial buildings, they are not considered to be noise sensitive during the night.

Table 5 Predicted plant noise egress levels at the nearest noise sensitive premises

Location	Predicted gym only plant noise egress level, L_{Aeq} (dB)	
	Day (07:00-23:00)	Night (23:00 – 07:00)
Globe and Simpsons (commercial)	45	N/A
Manchester Goods Yard (commercial)	43	N/A

8.1.1 Assessment

The predicted plant noise egress levels comply with the noise criteria, and no additional mitigation measures are required.

Based on the predicted noise levels at the noise sensitive premises, the plant noise egress complies with the criteria and Planning Condition 19 can be discharged.

9 Conclusion

Sandy Brown has been appointed by Manchester Quays Developments (OGS) Ltd to carry out acoustic verification measurements to demonstrate compliance with Planning Condition 19 under 138820/JO/2023.

Attended sample noise measurements were undertaken on site on 1 July 2026 to verify noise levels generated by the installed gym plant in operation, and to demonstrate that gym rooftop plant is suitably controlled and complies with the limits set out at the nearest noise sensitive premises.

A 3D environmental noise model of the site has been developed to assess the measured gym rooftop plant noise.

Based on the predicted noise levels at the nearest noise sensitive premises, the plant noise egress complies with the limits and Planning Condition 19 can be discharged.

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Appendix A

Survey details

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Equipment

The noise measurements were taken using a B&K 2250 and Rion NL-52 sound level meters.

Calibration details for the equipment used during the survey are provided in Table A1.

Table A1 Equipment calibration data

Equipment description	Type/serial number	Manufacturer	Calibration expiry	Calibration certification number
Sound level meter	NL-52/01010788	Rion	24 Sep 27	TRAC25/09422
Microphone	UC-59/20416	Rion	24 Sep 27	TRAC25/09422
Pre-amp	NH-25/11436	Rion	24 Sep 27	TRAC25/09422
Calibrator	SV30A/10559	Svantek	24 Sep 27	TRAC25/09422

Calibration of the meters used for the measurements is traceable to national standards. Calibration certificates for the sound level meters used in this survey are available upon request.

Calibration checks were carried out on the meters and their measurement chains at the beginning and end of the survey. No significant calibration deviation occurred.

Noise indices

Noise indices recorded included the following:

- $L_{Aeq,T}$ The A-weighted equivalent continuous sound pressure level over a period of time, T.
- $L_{AFmax,T}$ The A-weighted maximum sound pressure level that occurred during a given period, T, with a fast time weighting.
- $L_{A90,T}$ The A-weighted sound pressure level exceeded for 90% of the measurement period. Indicative of the background sound level.

Sound pressure level measurements are normally taken with an A-weighting (denoted by a subscript 'A', eg, L_{A90}) to approximate the frequency response of the human ear.

A more detailed explanation of these quantities can be found in BS 7445: Part 1: 2003 *Description and measurement of environmental noise, Part 1. Guide to quantities and procedures*.

Weather conditions

During the attended noise measurements, the weather was generally overcast, but rain did not occur during the attended measurements. Wind speeds were measured at each position and varied between 0 m/s and 1 m/s.

These weather conditions are considered suitable for obtaining representative measurements.

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