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Manchester New Square

Planning condition 17b – tenant noise limits

This memo sets out tenant noise limits for both operational noise and plant noise egress. These limits shall be adhered to by incoming tenants to ensure compliance with Planning condition 17b.

Operational noise limits

MCC criteria

Manchester City Council advises that music noise egress from entertainment venues should be limited to be 10 dB (L_{Aeq}) below the existing L_{A90} in each octave band outside nearby noise sensitive premises.

These limits shall apply to any amplified music egress associated with the commercial units at ground level.

Amplified sound external noise limits

The cumulative noise level resulting from amplified sound egress at 1 m from the most affected windows of the nearest noise sensitive premises should not exceed 10 dB below the existing background (L_{A90}). These limits are set out in Table 1 and Table 2.

Details of the background noise survey carried out in order to establish the existing background sound levels around the site are provided in 15226-R08-B *Acoustic planning report* issued 16 November 2016.

Table 1 Amplified music limits at 1 m from the nearest noise sensitive premises during the day (07:00-23:00)

Location	Maximum daytime sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street & Venice Court	49	47	43	39	38	34	30
Bombay House and Whitworth House	55	49	45	41	40	36	28
Regency House & Brazil House and Amazon House	54	47	43	41	40	35	27

Table 2 Amplified music limits at 1 m from the nearest noise sensitive premises at night (23:00-07:00)

Location	Maximum night-time sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street & Venice Court	43	42	39	34	33	27	21
Bombay House and Whitworth House	51	45	41	41	41	36	28
Regency House & Brazil House and Amazon House	52	47	40	39	38	32	23

Noise limits with ground floor commercial/amenity spaces

Maximum internal noise limits within the ground floor commercial/amenity spaces are provided in Table 3 based on controlling noise transfer to the apartments above as well as noise egress to the nearby sensitive premises/apartments within the scheme. These are based on the floor and facade constructions set out in 15226-R10-D *Stage 4 acoustic report* issued 31 August 2017.

These limits rely on the following tenant works:

- Louvres shown through the retail facades at high level for future ductwork connections are to be blanked/internally lined to maintain performance of the glazed facade.
- External doors are to be lobbied.

If higher noise levels are required by the tenant then the enhancement works to improve the sound insulation performance will be required.

Table 3 Operational noise limit in commercial units based on controlling noise transfer to the dwellings above

	Operational noise limit in ground level commercial & amenity units, L_{eq} (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
Operational noise limits	70	77	85	82	82	86	84

Plant noise egress limits

MCC criteria

Manchester City Council (MCC) stipulates the following criteria in regards to plant noise emissions:

- Achieve a noise level (L_{Aeq}) of at least 5 dB below the background noise levels (L_{A90}) at the nearest noise sensitive location at the quietest time the equipment will be in operation; and
- Not contain any discernible tonal characteristics at the nearest noise sensitive location at the quietest time the equipment will be in operation.

Where the product data suggests there may be a tonal element to the noise (i.e. the octave band noise data shows a peak at a particular frequency) it will be required to demonstrate that noise from the equipment will be at least 5 dB below the background noise level (L_{90}) in each octave band at the nearest noise sensitive location at the quietest time the equipment will be in operation.

The above noise limits apply to dwellings within the scheme as well those outside it.

Emergency plant

For emergency plant items (eg, smoke ventilation, generator) MCC permit a level 10 dB above the existing background noise level (L_{A90}) at the nearest noise sensitive location.

The above noise limits apply to dwellings within the scheme as well those outside it.

Tenant external plant noise limits

The cumulative noise level resulting from the operation of all new tenant plant at 1 m from the nearest noise sensitive receptor should not exceed the limits in Table 4 and Table 5.

Table 4 Tenant plant noise limits 1m from the nearest sensitive premises during the day (07:00-23:00)

Location	Maximum daytime sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street& Venice Court	44	42	38	34	33	29	25
Bombay House and Whitworth House	50	44	40	36	35	31	23
Regency House & Brazil House and Amazon House	49	42	38	36	35	30	22

Table 5 Tenant plant noise limits 1m from the nearest sensitive premises at night (23:00-07:00)

Location	Maximum night-time sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street& Venice Court	38	37	34	29	28	22	16
Bombay House and Whitworth House	46	40	36	36	36	31	23
Regency House & Brazil House and Amazon House	47	42	35	34	33	27	18

Tenant external emergency plant noise limits

The cumulative noise level when all tenant emergency plant is operating should not exceed the limits set out in Table 6 and Table 7 at 1m from the nearest noise sensitive receptors.

Table 6 Tenant emergency plant noise limits 1m from the nearest sensitive premises during the day (07:00-23:00)

Location	Maximum daytime sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street& Venice Court	59	57	53	49	48	44	40
Bombay House and Whitworth House	65	59	55	51	50	46	38
Regency House & Brazil House and Amazon House	64	57	53	51	50	45	37

Table 7 Tenant emergency plant noise limits 1m from the nearest sensitive premises at night (23:00-07:00)

Location	Maximum night-time sound pressure level at 1m from noise sensitive premises (dB)						
	Octave-band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
The Atrium, 80 Princess Street& Venice Court	53	52	49	44	43	37	31
Bombay House and Whitworth House	61	55	51	51	51	46	38
Regency House & Brazil House and Amazon House	62	57	50	49	48	42	33