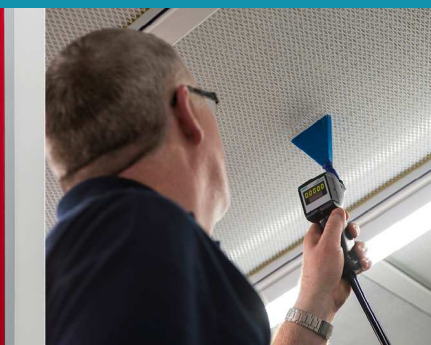




T1710 - LSHTM

Roof mounted Extract Fans

Noise assessment



Prepared by: Tony Goggins

Date: 28th February 2019

Ref: T1710

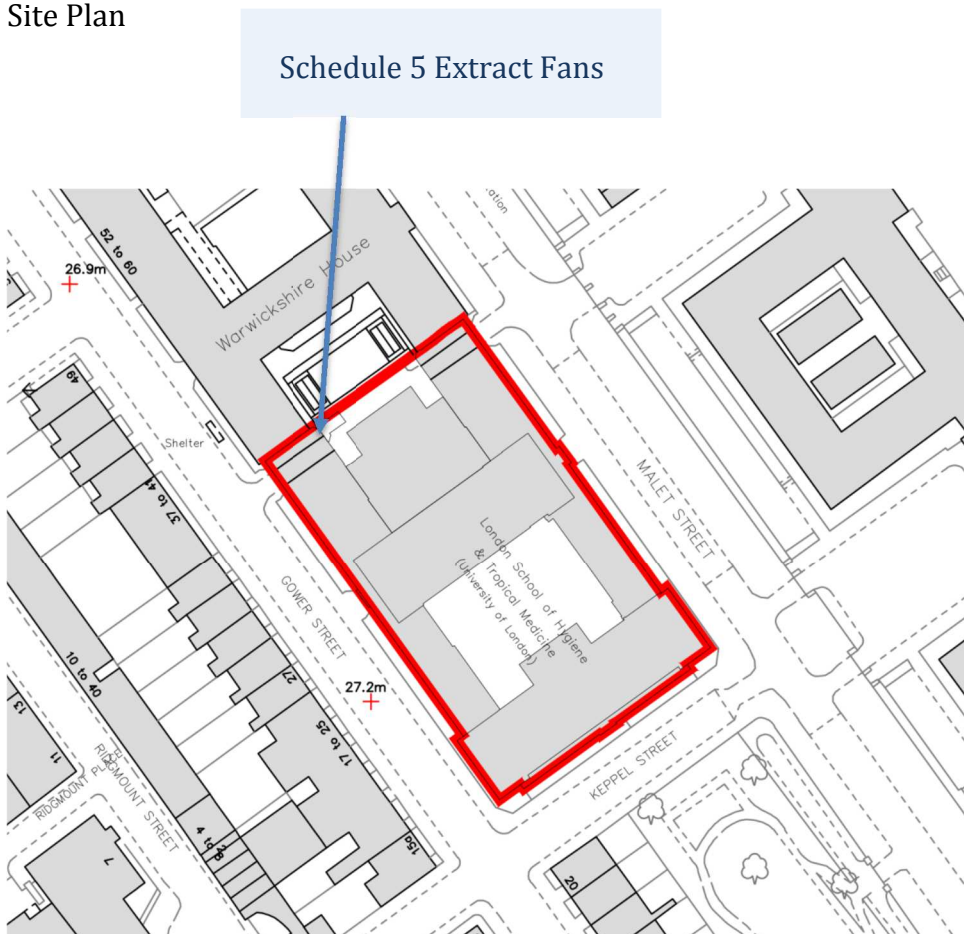
Mobile: 07780 521698

Extract Fan type and Location

Schedule 5 Suite Extract Fans (3 No. Fans)

Fans are identified as EF01, EF02, & EF03 and are mounted at Roof level adjacent to the Party wall as shown below

Site Plan



The 3 No. Fans are manufactured by Central Fans (Colasit Ltd) model types:

- EF01 – BCV200
- EF02 – FC200
- EF03 – FC200



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Gillieron Scott report

Gillieron Scott 'Extract Fan Noise impact assessment' report gave the following Plant noise limit to which the new Extract fans were required to comply with:

*"A plant noise impact assessment has been carried out based on the topography of the intervening ground between newly proposed plant items and noise sensitive residential dwellings. The plant noise impact assessment has set a cumulative emission limit of **60 dB(A) for the new item(s) of plant at 1 m.** This would result in a Rating Level 15 dB* below the typical night-time background sound level, indicating a low impact within the context of the acoustic environment at the worst affected residential dwelling. This would also indicate a LOAEL (green) noise level in accordance with Table C of Appendix 3 of the Borough of Camden Local Plan"*

The table below indicates the Manufacturer's Fan SPL Noise levels per Fan.

In-duct SWL dB										
REF	63	125	250	500	1K	2K	4K	8K	SPL @1m dB(A)	Acoustic Scroll -6 dB(A)
EF01	76	83	71	66	61	55	47	39	53 @ 1m	47 @ 1m
EF02	67	69	71	71	70	69	63	56	59 @ 1m	53 @ 1m
EF03	67	69	71	71	70	69	63	56	59 @ 1m	53 @ 1m
Temp	60	64	70	72	69	65	61	51	60 @ 1m	54 @ 1m

Therefore using 2 No. identical noise sources + 3dB(A) plus additional 1dB(A) for EF01

Accumulated total of 57dB(A)

****Note****

There is also a 4th Fan, this is a Temporary Fan and will be removed once the Main Building AHU is fully operational. If this is included in the calculations then

3 No. Identical noise sources = +4.5 dB(A) plus (up to 5 dB(A) difference EF01) = +1 dB(A)

Therefore, total accumulated for 4 No. Fans is 53 +4.5+1 = 58.5dB(A)



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