



Project Name: DWP office, Tottenham	Date: 22/12/2022
Author: Marc Fuzellier-Hart	Recipient: David Drake, Tom Wonnacott, David Wynn, Nathaniel Crichton
Document Title N002 - Acoustic specification attenuators	

Following the review of the proposals for the new Air Handling Unit and the existing duct layout (to be retained from the roof level down), calculations have been undertaken to establish the sound insertion loss requirements for the attenuators to be fitted at the air supply and air extract terminations.

The calculations have been based on the sound power levels presented in Table 9 (Appendix B – Plant Noise Data) of the *DWP Office, Tottentham Plant Noise Assessment Report* (Revision A) document dated 22/12/2022.

For fan noise to achieve ambient noise levels lower than NR 35 in the office spaces, the attenuators should achieve the minimum insertion loss performances presented in Table 1 below.

- *Table 1 – Minimum insertion losses for the attenuators*

Attenuator type	Minimum insertion losses (dB) in each octave band centre frequency (Hz)						
	63	125	250	500	1000	2000	4000
<i>900 mm long with 30% free area</i>	7	12	20	33	39	40	35