



Attn: Sylvia Hughes
British Museum
London
WC1B 3DG

20th February 2017

Dear Sylvia,

British Museum, London WC1B 3DG
Noise Commissioning Technical Letter
Minor Alterations to Applications 2015/3203/P & 2015/4344/L
8-11 Montague Street & 39 Russell Square

I can confirm that I have carried out the noise commissioning assessment as requested by Elaine Quigley (Senior Planning Officer), Camden Borough Council. Ref: Email – Sylvia Hughes, British Museum (25th January 2017).

I attended site on Thursday 16th February 2017 to measure the acoustic egress from the new services located on the roofs of 8-10 Montague Street and external facades of 11 Montague Street and 39 Russell Square.

The new plant consisted of the following:

- 1 Boiler Flue & 1 Extractor Unit (Located on Roof) – 8 Montague Street
- 1 Boiler Flue & 1 Extractor Unit (Located on Roof) – 9 Montague Street
- 1 Boiler Flue & 1 Extractor Unit (Located on Roof) – 10 Montague Street
- 3 Condensers (Located on External Façade) – 11 Montague Street
- 2 Condensers (Located on External Façade) – 39 Russell Square

The newly installed plant had been set up and commissioned before the acoustic survey was undertaken. All plant was in operation during the survey, therefore the noise levels measured were the combined ‘worst case’ in terms of potential noise impact.

Noise monitoring was undertaken at the external façade of Room 8MS3002, 1st Floor, 8 Montague Street. The location of the noise monitoring allowed representative samples to be obtained equivalent to those expected at the nearest noise sensitive receptor (The Portland Hotel, 7 Montague Street). It is understood that plant will only operate Monday to Friday during typical working hours so a weekday daytime assessment was appropriate.

All measurements were taken with UKAS calibrated equipment and followed appropriate standards and procedures. The weather during the survey was within acceptable parameters. 1.5ms wind speed, 13°C temperature, minimal cloud coverage and no precipitation.

Due to the existing background noise environment at the British Museum it was possible to measure differences of up to 7dB, LAeq (5 min) during a typical hourly period. These fluctuations in levels were due to on-site operational activities as well as typical urban environmental noise factors outside of the museum’s control. For this reason it was deemed appropriate to undertake 5 minute sampling.



Samples of the existing background noise and noise measurements with all plant turned on were taken using 5 minute samples over several hours (excluding rush hour periods) to establish any potential noise impact.

Logarithmic averages of multiple representative sound levels were taken and produced the following sound pressure levels:

Background Noise LAeq (15 min) 51.6dB
All Plant Active Noise LAeq (15min) 51.7dB

The 2 noise values noted above were well within potential measurement error and can be considered identical. This means that there is no increase in the background noise level from the combined effect of the plant and therefore the plant must be a minimum of 10dB under that background noise level.

A subjective listening assessment of the new plant in operation was carried out and it was deemed the plant was inaudible at the measurement position. This would support the acoustic measurements undertaken.

The above values are consistent with the plant acoustic specifications which show that the emitted noise level from 1 extractor fan should be 25dBA at 3m. This indicates that with all 3 extractors running, the combined noise would be 29.8dBA even without considering the additional distance attenuation corrections. This therefore indicates that the extractor fans are some 20dBA below the background LAeq.

I hope that this technical letter is sufficient to enable Camden Borough Council's Planning Approval Conditions to be discharged.

Should you have any queries please do not hesitate to contact me.

Yours sincerely,

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Acoustic Consultant

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