Hann Tucker Associates
Consultants in Acoustics Noise & Vibration
First Floor 346 Deansgate Manchester M3 4LY
(t) +44 (0) 0161 832 7041
(e) enquiries@hanntucker.co.uk
(w) hanntucker.co.uk

Directors:
Stuart G Morgan CEng MIMechE MCIBSE FIOA (Chairman)
Simon R Hancock BEng(Hons) CEng MCIBSE FIOA (Managing)
John L Gibbs MIOA(D) MSEE CEnv
John R Ridpath BSc(Hons) MIOA
Andrew D Fermer BSc(Hons) MIOA
Andrew G Jameson BSc(Hons) MIOA MAES

PROJECT TECHNICAL MEMORANDUM

JOB TITLE	:	Hotel Southampton Row, London
PROJECT NO	:	18390
DATE	:	20 April 2016
FROM	:	Andrew Jameson
ISSUED TO	:	David Williams (Planning Resolution)

RE: 2-6 SOUTHAMPTON ROW, LONDON PLANT NOISE EMISSIONS

Planning Permission (reference number 2007/5204/P) was approved on the 30/05/2008 for the *'Conversion and alterations of the former Baptist Church Headquarters to create 84 bedroom hotel (Class C1) with- restaurant, conference room, meeting/banqueting room, bar, spa and gym',* subject to various conditions. Condition 4 relates to plant noise emissions and states:-

Before the use commences, the scheme for the ventilation of and the extraction of fumes from the premises to an adequate outlet level, including details of sound attenuation for any necessary plant shall be provided in accordance with the scheme hereby approved by the Council. The development shall not. be carried out otherwise than in accordance with any approval given and shall thereafter be maintained in effective order to the reasonable satisfaction of the Council.

Reason: To safeguard the amenities of the adjoining premises and the area generally in accordance with the requirements of policies SD6, SD7B,SD8,. Appendix 1 of the London Borough of Camden Replacement Unitary Development Plan 2006

The development allows for plant to be installed in three primary areas; (1) a basement plantroom with outlet grilles to the courtyard, (2) various available flat roof areas within the courtyard, and (3) at roof level. Mechanical ventilation, such as AHUs and extract fans, are mostly located within areas 1 and 2. Heat rejection equipment is located on the roof (area 3) and general services such as a CHO, pumps etc are typically located in the basement plant room (area 1).

In addition to standard (every day) plant installations, a standby generator is proposed. This unit will operate in the event of a power failure to provide emergency power to computer systems, lighting, etc. This unit will be located internally within a dedicated plant room below the chapel restaurant with air intake/discharge from the courtyard and an engine exhaust flue terminating at a roof level.

1.0 Criteria

The site falls within the jurisdiction of the London Borough of Camden and plant noise emission limits for the project were set in line with Camden's Unitary Development Plan, as presented in our plant noise assessment letter dated 2 May 2008. The standard noise limit was set at 5 dB below the prevailing background noise level, provided plant is free from tonality, irregularity or

impulsiveness that might cause it to be more noticeable. A 5 dB penalty would be applies to these items in line with BS 4142.

Emergency plant has been designed to achieve a limit equal to the prevailing background noise level at the nearest receptors. In addition, a maintenance regime involving daytime, weekday brief periods of operation has been agreed.

2.0 Baseline Environmental Noise Survey

A baseline environmental noise survey was undertaken in 2008 (as discussed in the attached letter) which informed the basis for the plant noise emission limits at the nearest noise sensitive receptors. A copy of the original noise survey report can be made available upon request.

3.0 Nearest Noise Sensitive Receptors

The nearest noise sensitive receptors were highlighted in the aforementioned letter of 2 May 2008, as listed below. IN addition to these, our assessment of plant as considered bedroom windows within the proposed hotel development.

Receptor	Description
A	Top floor window on building opposite the development across Catton Street.
B	Third floor window on building adjacent to development to the North-East (Catton St).
C	Sixth floor window on building adjacent to development to South-East (High Holborn).
D	Third floor window of room 3.06 (East elevation).
E	Seventh floor window of room 7.04 (High Holborn elevation).

4.0 Assessment & Noise Mitigation Measures

The building services design has developed significantly since the issue of our assessment letter of 2 May 2008. However, throughout the design process all proposals have been subject to a detailed acoustic design review by Hann Tucker Associates. As part of this review, we have advised on noise mitigation measures to ensure the LPA plant noise emission limits are maintained. Such measures have included, but are not limited to:-

- Acoustically rated doors and air intake louvres to basement plant room;
- In-duct attenuators to air handling plant;
- Air intake and outlet attenuators and louvres to standby generator plant room;
- Enhanced acoustic casings to large AHUs within the courtyard;
- Engine exhaust primary reactive and secondary reactive/absorptive attenuators to generator exhaust flues.

4.0 Summary

Plant noise emission limits have been set for the development in line with environmental noise survey data and the requirements of the London Borough of Camden.

An assessment of plant noise emissions was undertaken in 2008 and determined compliance with these limits with the implementation of various noise mitigation measures (letter attached).

Since then, the building services design and evolved significantly but, nonetheless, Hann Tucker Associates have carried out fully noise level checks of all plant to ensure the requirements of the LPA (and planning condition 4) are met. Any measures required (such as those discussed herein) to meet the LPA requirements have been specified and included.

If required, Hann Tucker Associates would be pleased to carry out pre-completion commissioning noise level measurements to demonstrate compliance with the LPA limits.

We trust the above is clear and of assistance. Should you have any further queries on this matter, please do not hesitate to contact the undersigned directly.

For and on behalf of
Hann Tucker Associates

Andrew Jameson