From: Mike Muller

Sent: 06 February 2018 23:32
To: Smith, Kristina; Planning

Cc: Tamsin;

Subject: Re: 2017/7065/P Old Dairy
Attachments: Noise report 20177065P.pdf

#### Dear Kristina

Please accept our comments on application 2017/7065/P The Old Dairy. I have submitted this by email as I need to include the attached pdf. Please confirm this is acceptable and ādvise if I also need to submit comments via the web portal.

# Thanks

Mike

---- comments on application 2017/7056/P ----

We are concerned by the impact of the noise from the proposed plant and its location adjacent to our bedroom windows.

Attached is an expert's report that outlines the concerns. It disputes the assumptions made in determining the impact to our bedroom, requests clarification of the design due to the incomplete nature of the proposal, the challenges needed to meet the performance requirement and the opportunity to review the completed design before approval.

We would also ask that consideration is given to the relocation of the plant to minimise its impact on existing residents.

During the recent residents meeting with the developers one of us asked to visit the site last week to better understand the location chosen for the reference measurements and agreement was given. However, after the meeting had finished we were informed that this would not be possible due to site safety issues, so we are unable to comment on the fairness of the location chosen. We also requested sound measurement readings as required by the CMP to correlate with those in the survey. However, we were told no records exist for the relevant period and only discrete vs continuous measurements from late November are available.

We would ask that there is adherence to, and no relaxation of, monitoring in any future CMP.

Mike Muller and family

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# clarke saunders | acoustics

specialist consultants

Ref: AS10227.180201.L1

01 February 2018

Mike Muller 10 Wakefield Street London WC1N 1PF

Dear Mike

### **AS10227 7 & 10 WAKEFIELD STREET, LONDON**

#### **Review of Venta Acoustics Plant Noise Impact Assessment**

Further to your instruction, we have reviewed the Venta Acoustics plant noise impact assessment ref: VA1948.170911.NIA and can provide the following commentary.

The report has been prepared in support of a planning application for several items of plant to be installed at two separate external areas of a proposed development on the site of The Old Dairy, 7 Wakefield Street, adjacent to Regent Square/Wakefield Street and overlooking St. George's Gardens.

The following commentary concerns only the plant at the proposed installation location neighbouring 10 Wakefield Street. Other plant items are to be located further north. 10 Wakefield Street will be sufficiently screened from this plant by intermediate buildings such that noise emissions from these items are not expected to be audible above the ambient noise climate in the vicinity of the property.

### Commentary

The plant to be installed at the position neighbouring 10 Wakefield Street includes a Mitsubishi condensing unit and a Swegon air handling unit. The VA noise assessment report considers noise emissions from these plant items to you property, referenced as 'Receiver to the West' within the report.

Considerable mitigation of noise emissions from these items is discussed in the Venta Acoustics report, including recommendation of provision of an acoustic enclosure, (typified by those manufactured by Environ Technologies), for the condensing unit and fitting attenuators to the AHU intake and exhaust, for which assumed minimum insertion loss specifications are provided.

The selected Mitsubishi condensing unit is large, featuring two top-mounted fans. Manufacturer's data indicates that the unit is 2140mm wide, 760mm deep and 1710mm high. Enquiries with Environ technologies indicate that an acoustic enclosure provided by that supplier would be considerably larger than unit housed, in order to accommodate acoustic baffling and sufficient free area for the intake and exhaust airpaths.

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The performance specification for in-duct attenuation discussed would typically require attenuator module lengths of 1200mm, though it is acknowledged that this attenuation specification may be achievable with shorter, lower free-area attenuation modules. Even where this is achievable, commercial attenuation modules tend to be of a minimum length of 600mm.

Section 5.2, paragraph 4 of the Venta Acoustics report acknowledges that the scope of the document does not extend beyond acoustics and that other professional advice should be sought with regard to airflow requirements etc.

It is clear, therefore, that others would be responsible for the practical implications of meeting the acoustic specifications for the acoustic enclosure and in-duct attenuation.

Given the limited space available, (the plant area indicated on available drawings is only around 11m²), CSA would contend that the noise emission mitigation measures discussed in the Venta Acoustics report may not be feasibly practicable. Drawings of the installation indicate the locations of the condensing unit and air handling unit within the enclosure. No space allowance for the discussed mitigation measures is indicated.

The Venta Acoustics Report also makes reference to an existing, intermediate brick wall between the plant installation location and neighbouring 10 Wakefield Street, which is discussed in terms of line of sight screening to noise-sensitive receptor windows. Significant propagation losses have been allowed in the accompanying Appendix B calculations to represent this.

The brick wall appears, from Google Maps street view imagery, to rise to just below lintel height of 10 Wakefield Street ground floor windows/doors.

We would contend that the screening losses allowed in the Venta Acoustics plant noise propagation calculations, (presumably to  $1^{\rm st}$  floor neighbouring windows), have been overestimated. There would be no screening available to the tall, thin  $1^{\rm st}$  floor window which overlooks the plant installation and the larger  $1^{\rm st}$  floor window would benefit from far less screening than indicated by the air handling unit intake, exhaust and casing breakout calculations.

If these screening losses are not accounted for, the current acoustic design is likely to result in noise emissions far in excess of LPA requirements. Additional silencing and improved acoustic enclosures for both the AHU and Condenser would be required, potentially combined with an acoustic screening louvre. Within the apparent space constraints, this may present considerable practical design issues.

CSA would recommend that, prior to planning permission being granted for the plant installation, demonstration of how the suggested mitigation can be practically implemented should be provided, including detailed layout drawings indicating plant/enclosure locations, and atmosphere-side AHU ducting and attenuator layouts. Alternatively, the plant may require a full re-selection or re-positioning elsewhere within the proposed development.

Yours sincerely for CLARKE SAUNDERS ASSOCIATES



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