

From: Mike Hay <mike@thehayassociates.co.uk>
Sent: 21 February 2025 08:26:35 UTC+00:00
To: "Joseph Swift" <Joseph.Swift@midsussex.gov.uk>
Cc: "Lucy Helliwell" <Lucy@thehayassociates.co.uk>
Subject: RE: Planning Application DM/24/2969
Attachments: Planning Application DM/24/2969, TS-65 VA_Integra_Plus_FW.pdf, C1014-M-3001-C02 Ground Floor Ventilation Layout.pdf, C1014-M-3002-C02 First Floor Ventilation Layout.pdf, C1014-M-3003-C02 Second Floor Ventilation Layout.pdf

Good morning Joseph,
 Apologies for the delay in getting back to you as we have been awaiting information from our acoustician who provides the following in relation to the attached email.

Ductborne noise calculations have been undertaken to determine the resulting internal ambient noise level generated within bedrooms from the proposed mechanical ventilation supply.

In order for the cumulative internal noise levels to achieve the BS 8233 criteria, the following guidance for desirable internal ambient noise levels under ADF ventilation conditions have been adopted (extract from the AVO Residential Design Guide).

Indoor ambient noise levels from mechanical services (as per AVO Guide)

Ventilation condition	Possible system or design solution	Desirable internal ambient noise levels from mechanical services
ADF – Whole Dwelling Ventilation (fresh air provision)	System 3: Continuous mechanical extract (MEV), minimum low ventilation rates System 4: Continuous mechanical supply and extract with heat recovery (MVHR), minimum low ventilation rates	Bedrooms $\leq L_{Aeq} 26$ or 30 dB [a]
ADF – Extract Ventilation (removal of vapour or air pollutants from a room)	System 1: Intermittent extract fans System 3: Continuous mechanical extract (MEV), minimum high ventilation rates System 4: Continuous mechanical supply and extract with heat recovery (MVHR), minimum high ventilation rates	Bedrooms $\leq L_{Aeq} 26$ or 30 dB Bathroom WC / Kitchen $\leq L_{Aeq} 45$ dB
ADF – Purge Ventilation (quick removal of high levels of vapour or air pollutants from a room)	Manually controlled fan exchanging a minimum 4 air changes per hour	No desirable noise levels are currently proposed based.
Note		

Ventilation condition	Possible system or design solution	Desirable internal ambient noise levels from mechanical services
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[a] A lower level may be more appropriate. As per paragraph 3.31 of the AVO Guide: “Evidence indicates that “a more prudent limit for mechanical services noise around 24 – 26 dB(A) is likely to be required to prevent an adverse reaction from most occupants while falling asleep.”

To ensure that an appropriate internal noise level within bedrooms from mechanical ventilation systems is maintained, a target criterion of 26 dB L_{Aeq} has been targeted.

It is understood that the following attenuator is proposed to the supply duct across the development, as provided by Royston Jones.

Model	Insertion Loss, Hz							
63	125	250	500	1k	2k	4k	8k	
LRCN A-200-500	9	7	10	16	22	22	15	12

Calculations have been completed using manufacturer noise data for the proposed Vent-Axia Integra Plus EC MVHR system based on flow rate to determine the maximum operating duty acceptable with the proposed attenuators in place.

With the proposed attenuator in place, the proposed Vent-Axia Integra Plus EC system may be operated to provide up to 69 l/s with suitable internal noise levels being achieved. Building services noise is predicted to exceed the assessment criteria should the necessary air flow exceed 69 l/s.

The following in-duct sound power levels are associated with the plant at each operating duty.

Duty	Mode	Octave Band Frequency, Hz							
63	125	250	500	1k	2k	4k	8k		
55 l/s	Supply	39.2	43.1	44.5	47.1	42.6	36.0	29.3	30.7
69 l/s	Supply	42.0	47.6	46.1	49.9	48.8	41.2	33.7	32.5

It is understood that the proposed system will not operate at a duty that provides more than 55 l/s, therefore, appropriate internal noise levels from building services are expected to be achieved.

The mechanical engineers installing the equipment on site also confirm the following:

- The HRU's being installed within the bedroom required have a manual boost, purge and summer mode facility to negate the requirement for opening windows during the periods of overheating.
- Confirmed that HRU's are installed in the areas required – see Ventilation drawings attached.
- HRU's are installed with attenuators to reduce any noise pollution.

I trust this addresses the comments received and the planning condition can be discharged however if you require anything further please let me know.

Kind regards,

Mike Hay
Director



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From: Joseph Swift <Joseph.Swift@midsussex.gov.uk>
Sent: 06 February 2025 12:41
To: Mike Hay <mike@thehayassociates.co.uk>
Subject: RE: Planning Application DM/24/2969

Dear Miss Helliwell,

RE: Discharge of condition no 13 in relation to planning application DM/23/1548

AT: Land To The South Of Kings Way, Burgess Hill, West Sussex

REFERENCE: DM/24/2969

Following my previous email as attached,

Please can you provide me with an update in relation to the additional information required.

I look forward to hearing from you.

Kind regards

Joseph Swift BA (Hons) MPLAN
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From: Joseph Swift

Sent: 07 January 2025 10:19

To: 'info@thehayassociates.co.uk' <info@thehayassociates.co.uk>

Subject: Planning Application DM/24/2969

Dear Miss Helliwell,

RE: Discharge of condition no 13 in relation to planning application DM/23/1548

AT: Land To The South Of Kings Way, Burgess Hill, West Sussex

REFERENCE: DM/24/2969

Following on from the additional information provided please find attached the revised comments from the Environmental Protection Officer.

As you can see from these comments they have requested some additional information, this information can be emailed to me directly.

I look forward to hearing from you.

Kind regards

Joseph Swift BA (Hons) MPLAN
Senior Planning Officer (Brookleigh)
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