

Altman, Rebecca

From: Wedgbury, Stuart
Sent: 26 June 2024 15:10
To: Altman, Rebecca
Subject: RE: Brookfield Drainage Calculations F/24/97312 and Noise

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Consultation responses

Thanks Rebecca

So my response is as follows:

1. Fenestration: Typically, I try to avoid the need for an applicant to engage further acoustic assessment, by specifying the acoustic requirements of the glazing required in a condition based upon the work already carried out. Thus, it becomes a simple matter for the developer to source products to that specification. However, I have no objections to the approach suggested by the applicant.
2. Ventilation: OK, it's a matter for you whether the ventilation requirements are settled before determining the application bearing in mind the applicants comments below. The condition suggested is suitable for addressing both the acoustic design of the windows and ventilation system. However, the ventilation assessment and design will need to be completed before the condition can be discharged.

CONDITION: Prior to the first occupation of the property, a scheme to demonstrate that the internal noise levels within the residential unit and the external noise levels in garden and other relevant outdoor amenity areas will conform to the standard identified by BS 8233 2014, Sound Insulation and Noise Reduction for Buildings - Code of Practice, shall be submitted to and approved in writing by the local planning authority. In bedrooms the scheme must achieve noise levels of 35dB LAeq between the hours of 07:00 and 23:00 and 30dB LAeq between the hours of 23:00 to 07:00. In living/resting rooms the scheme must achieve a noise level of 35dB LAeq between the hours of 07:00 and 23:00. The development hereby approved shall then be carried out in accordance with the approved details prior to occupation of the premises and retained as such thereafter.

3. Plant Noise: The consultant makes a good point that the condition as I drafted, assumes for simplicity that all plant would operate during the evening periods. If it did not, the standard set would (at least in theory) be overly onerous; although in practice, probably easily achievable. However, I have no principled objection to a condition in the form suggested. I have made some amendments to reference the periods of interest requiring separate assessment to capture my concern about lower background noise levels in the evening periods. I have also made some minor adjustments to the wording to show that the assessment is for the combined impact of all plant; include the correct nomenclature from the Standard and require a submission for approval. I've underlined the changes for clarity.

CONDITION: The combined sound from all external plant, mechanical ventilation and flues shall be designed to achieve a rating level ($L_{A,Tp}$) below the measured background noise (L_{A90}) as measured one metre from the nearest affected window of the nearest affected residential property, unless agreed in writing by the Local Planning Authority, as defined in British Standard BS 4142: 2014 +A1:2019 'Methods for rating and assessing industrial and commercial sound'. An assessment to demonstrate that the design can achieve this standard shall be carried for three separate periods of interest: 07:00 hours to 18:00 hours; 18:00 hours to 23:00 hours and 23:00 hours to 07:00 hour and submitted to the Local Planning Authority for approval. The external plant and flues shall be constructed in accordance with the approved details and retained as such for the lifetime of the development, unless otherwise agreed in writing with the local planning authority".

Regards

Stuart Wedgbury

Stuart Wedgbury
Environmental Health Specialist
Planning & Environment - Pollution

From: Altman, Rebecca <rebecca.altman@eastleigh.gov.uk>
Sent: Wednesday, June 26, 2024 10:30 AM
To: Wedgbury, Stuart <Stuart.Wedgbury@eastleigh.gov.uk>
Subject: FW: Brookfield Drainage Calculations F/24/97312 and Noise

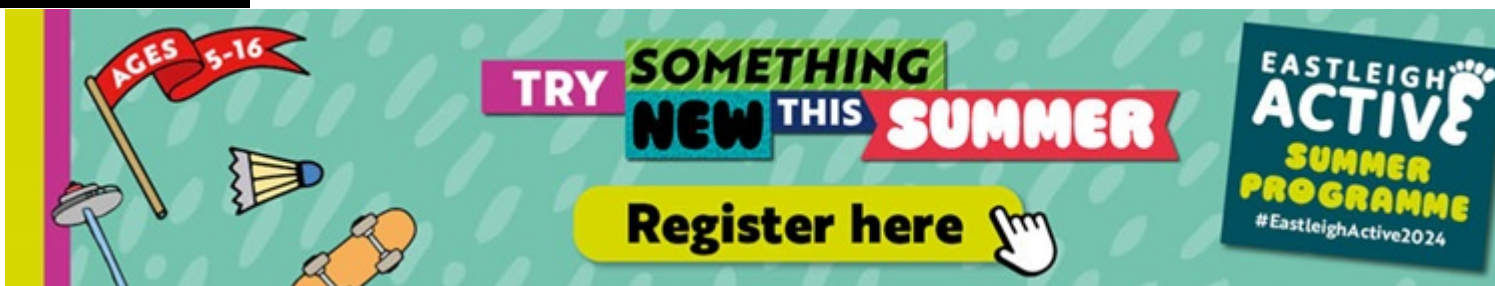
Hi Stuart

I have asked for a new formal consultation to be sent to you, but please see the email below with a response to your comments on the application for the care community at Providence Hill – ref. F/24/97312.

Thank you

Rebecca

Rebecca Altman
Principal Planning Officer
Planning & Environment - Planning/Development Management



From: Jean-Mickael Hopkinson <[REDACTED]>
Sent: Tuesday, June 25, 2024 4:06 PM
To: Altman, Rebecca <rebecca.altman@eastleigh.gov.uk>
Subject: RE: Brookfield Drainage Calculations F/24/97312 and Noise

Hi Rebecca,

That's correct for the drainage calculations.

In addition, please see the comments below in response to noise:

With regards to the five points regarding noise, my comments are as follows:

1. The assessment demonstrates that suitable internal noise levels can comfortably be achieved with standard doubled glazed windows, typically with an R_w of 33 dB. Using the rough approximation method contained within Annex G of BS 8233, noise levels within the bedrooms would be well below the internal criteria, both during the day and night-time. However, as different window solutions perform differently in different octave bands, it is always recommended that when a final window solution is chosen, the specific window is checked using the equation contained within Annex G of BS 8233, using the octave band data of the window and the measured onsite octave band data, to show compliance with the minimum internal standards contained within BS 8233. As such there is no "required octave performance" – typically a condition would read something along the lines of: *"Prior to the first occupation of the property, a scheme to demonstrate that the internal noise levels within the residential unit and the external noise levels in garden and other relevant outdoor amenity areas will conform to the standard identified by BS 8233 2014, Sound Insulation and Noise Reduction for Buildings - Code of Practice, shall be submitted to and approved in writing by the local planning authority. In bedrooms the scheme must achieve noise levels of 35dB LAeq between the hours of 07:00 and 23:00 and 30dB LAeq between the hours of 23:00 to 07:00. In living/resting rooms the scheme must achieve a noise level of 35dB LAeq between the hours of 07:00 and 23:00. The development hereby approved shall then be carried out in accordance with the approved details prior to occupation of the premises and retained as such thereafter"*. In order to discharge this condition, one may supply the details of these calculations demonstrating that the overall noise levels within rooms are below the requirements of BS 8233.
2. Our noise report notes that windows cannot be opened to deal with overheating. The Council are asking whether a strategy has been formulated as to how this is going to be dealt with – this really is a question for the ventilation specialist as this could affect the appearance of the building. It is noted that *"noise break in through any ventilation system proposed is an important planning consideration"* – I would very much agree with this. As noted in our report, any passive vents would need to be appropriately acoustically treated and if mechanical ventilation is settled upon, the AVO Guide provides advice on the maximum internal noise levels in regard to building services.
3. This is in relation to outdoor amenity space and was very much their comments only and does not require a response from us.
4. The background noise levels quoted in the report are most certainly open to interpretation and whilst we have suggested 51 dB and the Council have suggested 45 dB, I would argue that both approaches have their merits. BS 4142 purposely gives consultants a certain amount of interpretation and professional judgement. Generally, we would use a background noise level that is representative of the bulk of the time as BS 4142 no longer recommends a worst-case background noise level to be used in the assessment – since most hours are between 51 to 54 dB, we therefore recommend 51 dB as the background. If the Council want us to interpret this differently, I would certainly be open to this and I would not consider that the determination of background noise levels should be a sticking point. As the Council note, adherence to the lower Rating limit should be easier enough anyway. However, to a certain extent this debate is not relevant – the planning condition as put forward suggests setting exact Rating noise levels based on the background noise level. This approach is not generally recommended for various reasons - the main reason relating to the time period over which plant is operational. The maximum Rating noise level should be set based on the time period over which the plant is operational. For example, the Council recommend a daytime Rating level based on the time period between 7am and 11pm; however, if the plant is only operational during office hours, for example between 8am and 6pm where background noise levels are higher, a higher Rating level would be more appropriate; however, based on this condition, a lower Rating level would be required. It is more common to have a more open ended condition in relation to plant noise, something along the lines of *"All external plant, mechanical ventilation and flues shall be designed to achieve a Rating noise level below the measured background noise (L_{A90}) as measured one metre from the nearest affected window of the nearest affected residential property, unless agreed in writing by the LPA, as defined in British Standard BS 4142: 2014 +A1:2019 'Methods for rating and assessing industrial and commercial sound'. The external plant and flues shall be constructed in accordance with the approved details and retained as such for the lifetime of the development, unless otherwise agreed in writing with the local planning authority"*.

Regarding development phase noise, it would not be common to go into detail about construction noise at this early stage for a development of this size. Typically, noise impacts could be dealt with within the CEMP. Whilst I agree that piling could be a concern, similarly it should be possible to deal with noise in relation to piling via the CEMP and setting construction noise limits and/or limits on the hours of working.

Many thanks and see you tomorrow for our meeting,

JM

JM Hopkinson
Graduate Planner
Planning

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