

Subject: FW: F/24/97312- Land adjoining 4 Brookfield, Providence Hill, Bursledon.- our ref PR202405-104535

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Dear Rebecca

Construction of Residential Care Community, comprising a 73-bed care home (Use Class C2) and 5 x 2-bedroom close care cottages (Use Class C3 age restricted), with associated access, internal access road, parking, landscaping and infrastructure.

Thank you for consulting Environmental Health regarding the above application. I comment on noise and odour only.

Noise

I have noted in particular the acoustic report Hawkins acoustic report H 4 1 0 6 – N V – v 1 dated 9/4/24 that provides a very thorough examination of the noise issues. Overall, I am persuaded that the development should be suitable for this location in form shown subject to conditional consent.

There are however, some points of clarification that I should like the acoustic consultant or developer to provide, so that suitable conditions can be framed and I will set these out below together with recommendations in respect of other matters:

1. Acoustic Performance of Windows

The consultant advises in Section 6.22 that standard double glazed windows should be suitable to deliver acceptable internal acoustics to meet the recommended levels in BS8233 (and incidentally the local plan criteria for acceptable average sound levels). However, they also state that; *'[.....] it is always strongly recommended that any glazing solution is tested within the parameters of BS 8233: 2014, using full octave band data to determine suitability.'* However, the required octave performance of the glazing is not provided.

The consultant should clarify their recommendations. Are they advising that the proposed glazing must meet a specified acoustic performance for each octave band and that that performance must have been demonstrated by testing of a whole window unit by the manufacturer of the installed glazing? If so we will need to understand the required octave performance so that an appropriate planning condition can be framed. By inference, such glazing would need to be installed in all habitable and common areas with amenity value and as such, this will likely have a cost premium for the developer. If alternatively, the consultant is fully confident that standard double glazing will provide sufficient performance in any or all locations there would be no need for such a condition. Can the consultant clarify their specific recommendations in this regard and if the former prevails on some or all of the site, specify the octave performance required.

Further, with regard to the consideration of maximum noise levels at night in bedrooms and the 45dBA criterion (no more than 10-15 time per night), I cannot see any particular analysis of this risk. Can the consultant confirm that the glazing proposals suggested in answer to the query above will be sufficient to ensure this criterion also is achieved and provide some justification of this conclusion.

2. Acoustic Performance of Ventilation system

The consultant advises in Section 6.2.3 that satisfactory internal sound levels cannot be achieved with partially open windows. As such an alternative ventilation system will be required. The consultant goes on to consider a variety of potential ventilation options, suggestive that a ventilation strategy has not yet been established. They advise by implication, that if passive vents are to be provided they should have an acoustic performance of $D_{new} 40dB$ (I assume increased by $10 \cdot \log N$ where N is the number of vents in any one room). However, they also consider the potential issue of summer overheating and advise that a medium risk applies in this development. The consultant goes on to recommend that, '*it will be necessary to use the "Dynamic Thermal Modelling Method" to demonstrate compliance with AD-O*[Approved Document O made under the Building Regulations]'. The consultant further advises:

'It should be noted that exceedances of the above noise thresholds do not necessarily mean that windows cannot be opened or that mechanical ventilation is required. For example, it may be possible to remove adequate heat from the rooms using a combination of smaller openable windows areas (through either smaller openable glazed panels or by fitting window restrictors) and ventilation louvres in external walls. It should be noted that consideration of AD-O is only in relation to night time noise in bedrooms.'

It is not known if this work has been completed and if so, what the implications are for the building design. Can the applicant advise if this work has been completed and if so advise of the outcome. The outcome might have implications for the appearance of the building if different window or louvre features than those shown on the plan are required for example. In terms of noise the acoustic performance of any openings in bedrooms (such as passive vents) should be controlled by condition to ensure that the local plan acoustic criteria can be achieved. I can frame a suitable condition for you once I understand the outcome of the work on ventilation.

Please note, I cannot advise on the suitability of any ventilation proposals. As I understand, there is overlap with Building Regulations, whereby the ventilation requirements considering both ventilation requirements and overheating risks are considered through this process. However, noise break in through any ventilation system proposed is an important planning consideration.

3. Acoustic Quality of Outdoor Space

The consultant advises in Section 6.3 that all balconies and terraces would likely have noise levels that do not exceed the criterion of $LA_{eq,16\text{ hour}} 55dBA$ matching that set within the adopted local plan. I agree that this conclusion is likely correct. The side elevation balcony to the cottages 1-3 is likely at around $55dBA$ on the evidence in the report. With regard to the more general open landscaped space, it is self evidence that landscaped areas closer to the A27 than the proposed cottages will have noise levels in excess of the criterion, but I suspect you will not expect such areas to provide amenity value and so I do not comment further on this point.

That being the case, I do not see any need to apply conditions to any consent.

4. Noise From Fixed Plant and Equipment associated with the development.

I note and accept the recommendations in Section 7 that cumulative plant noise from the site expressed as a noise rating should not exceed background noise levels on the site during periods of interest. I accept the consultant's recommendations that the nighttime background sound be considered as $31dBA$. However, I do not see a justification for determining that the daytime value should be $51dBA$. By reference to Figure 4.3; 5 hours out of the 16hour daytime period show lower background levels than the $51dBA$ suggested. By reference to Figure 4.2, I can see that the quieter periods correspond to evening periods when neighbouring residents will be especially likely to wish to use garden areas for relaxation. I suggest $45dBA$ would be more appropriate. I do not think this will be challenging to achieve in practice, but am happy to listen to any counter arguments. However, if there are none I would recommend that if consent is granted it should be subject to the following condition:

CONDITION: Prior to the first use of any fixed plant or equipment to be installed exterior to the building, details of the acoustic design of such plant shall be submitted to the Local Planning Authority for

approval. The submitted details shall set out the acoustic emission of the proposed plant; its proposed location; any engineering controls to reduce noise emission; and its proposed operational hours. An acoustic assessment shall also be submitted to the Local Planning Authority to demonstrate that the expected noise rating (as defined in BS4142) of the proposed plant in combination with all other fixed plant or equipment previously installed exterior to the building, does not exceed the following criteria assessed at the worst impacted residential premises.

Noise Rating $L_{Ar, 1 \text{ hour}}$ of 45dBA between 07:00 hours and 23:00 hours

Noise Rating $L_{Ar, 15 \text{ minute}}$ of 31dBA between 23:00 hours and 07:00 hours

5. Development Phase Noise

I note the submitted CEMP; typical of such documents submitted at an early phase. In particular, I suggest that you limit the times during which such work can occur in accordance with EBCs normal practice for such activity near to residential premises. The CEMP does not constitute a detailed construction methodology. I should only be interested in scrutinising such detail, if especially disruptive work activities are later found to be necessary. The most obvious of which would be piling operations.

Odour

I note that the development includes for the provision of a kitchen. Assuming hot food cooking is to take place a cooking extract will be needed that will introduce a risk to amenity from cooking odours. The first control measure would be to ensure good dispersion and that will require a high level terminus for the extract system. I cannot see clearly from the elevation detail where the cooking extract system will be provided and where it will terminate. I would recommend that you obtain clarification from the developer on this point before determination, as the flue will likely be external and need to terminate above roof eaves height and so should be shown in the drawings.

I would recommend that any consent is conditional upon the design of odour abatement for the extract system. I can suggest a suitable condition once clarification has been obtained on the above paragraph.

Regards

Stuart Wedgbury

Environmental Health Specialist

Planning & Environment - Pollution