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Development Management
Southampton City Council
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9th March 2011

Dear Sir,

Planning Application Number 11/00204/FUL
Area Housing Office, Youth Centre and Car Park Site, Parkville Road, Swaythling, Southampton
Noise Assessment

I object to the above planning application on the grounds that the Noise Assessment undertaken as part of the application is inadequate and contains errors. My specific objections follow, which are based on discussion with Mr Daniel Doherty MSc, an acoustic engineer with experience undertaking similar noise assessments.

Noise from Road Traffic Affecting the Proposed Development

The noise assessment submitted is in the form of a Technical Note, prepared by Cass Allen Associates, reference TN01-11281 rev 01 and dated 28th January 2011. It contains no new survey data but refers to information prepared for two earlier planning applications dated January and October 2008. The current application therefore relies on the noise assessment undertaken by SLR consulting for the first appication, which uses environmental noise data obtained in June 2007. It is considered that this information is too old for the assessment still to be valid. Noise data of this age would not normally be accepted for such an application.

The original report concluded that the site falls right at the upper limit of Noise Exposure Category (NEC) C *"Planning Permission should not normally be granted. Where it is considered that permission should be given, for example because there are no quieter sites available, conditions should be imposed to ensure a commensurate level of protection against noise".*

In the experience of Mr Dan Doherty writing similar PPG24 reports, acoustic engineers would discourage development within NEC C and recommend that such land be used for building a noise bund or barrier to lower levels across the site. This would not be practical here due to the compact nature of the site. Other sites for the student accommodation are available nearby – namely the site of the existing but empty 16 storey student Hall of Residence adjacent to South Stoneham House. No mention is made anywhere in the planning application why this alternative site is not suitable. This omission should be corrected.

A tiny increase in Laeq, 16hr from 71.6dB to 72dB or above would push the development into NEC D, meaning "*Planning Permission should normally be refused*". A small increase in traffic noise would cause this increase. Even if traffic growth is discounted, the noise report takes no account of additional trips generated as a result of the development, which may well result in the development being classified as NEC D. The noise assessment should therefore be repeated with updated noise readings and taking into account the trips generated by the development to confirm whether reclassification is required.

The noise assessment makes no reference to the effect on the surrounding area of noise generated by deliveries, which may well be outside normal working hours. The noise assessment should be revised to include an assessment of this aspect of the proposal.

No account is taken of the effect of students travelling to and from the development, which could generate a significant nuisance late at night. This issue is made more significant due to the remoteness of the development from bus stops. The design & access statement proposes Langhorn Road as the main bus stop which would require bus users to walk the full length of High Road, a distance of 575m, not 450m as stated when access is restricted to the development at night.

The existing bus stops that would serve the development are all in close proximity to residential properties and noise from students waiting at these bus stops is considered a sufficiently serious issue to warrant analysis as part of the noise assessment.

To provide the mitigation due to the high noise exposure conditions of the site, the report states the following:

"The internal layout of the properties should be considered so that, where possible, sensitive habitable rooms do not overlook the roads. A single aspect design with no habitable rooms overlooking the roads should be considered. Habitable rooms are defined as living rooms, dining rooms and bedrooms but not kitchens, bathrooms, hallways or common areas such as stairwells and landings.
Where orienting the properties in this manner is not feasible, the external building fabric of the properties should utilise materials with a sufficient sound reduction performance to ensure that the internal noise levels meet the reasonable standard of 40dB for living rooms during the daytime and night-time and 35dB for bedrooms during the night-time, as stated in BS8233."

It is clear from the plans on the planning portal that the internal layout includes bedrooms overlooking the busy roads. The author however details a window spec that is required to meet the BS8233 criteria (a window that will reduce noise by 43dB). This is a high-spec window and triple glazed. It should be noted that if the resident were to open the window the BS8233 levels would be exceeded by approximately 30 dB. In addition to the window the author recommends ventilation methods that would also be required to meet the BS8233 level, again the required noise reduction is towards the high end possible by the ventilators. It is not clear from the planning application what ventilation and window specification is provided. The planning application should include a clear statement that noise mitigation to this standard would be provided.

The SLR report specifies the use of PPG24 for assessment. PPG24 requires the following noise levels LAeq,16hr (07:00 – 23:00) daytime and LAeq,8hr (23:00 – 07:00). These levels are used to determine the noise exposure category of the site.

The report states that measurements during the day time shall be taken to follow the CRTN shortened measurement procedure for determining noise from Stoneham Way and Thomas Lewis Way. This has not been followed correctly.

The CRTN shortened measurement procedure should be as follows:
LA10,18hour (road traffic noise indicator) = L10(3-hour) – 1 dB(A)
L10(3hour) is the average of three LA10 (1 hour) (i.e. 3 one-hour long intervals) measurements between 10:00 and 17:00.

Positions one and two should follow the CRTN shortened method:
Measurements during the day were 5 minute intervals typically between 10:40 and 13:40. These 5 minute LA10 measurements were arithmetically averaged to get what the author calls LA10 in Table 4.1. The CRTN shortened method was not carried out correctly since the average of 36 five-minute intervals is not the same as the average of 3 one-hour intervals, typically there is a lot more fluctuation in LA10,5min values over the same time period, in the same way that there is more fluctuation in 5 minute traffic flows than one hour traffic flows. In addition the author did not subtract 1 dB from the average over the three hour period as required.

The Laeq,16hour is determined using the relationship in PPG24:
(Laeq,16hour approx = LA10,18hour – 2)
and the levels stated in section 5.3 are correct (ignoring the 5minute problem above).

The Laeq,8hour for night-time is based on what the author suggests would be the noisiest period between 23:00 and 07:00, i.e. at 23:00. It could be debated that levels at 06:00-07:00 would be higher than 23:00 to 00:00. Strictly following PPG24 would require measurements over the whole period, however this would probably result in a lower level since it is an average over the whole night.

The levels are those predicted at the measurement positions, not at the façade of the building. The levels were corrected to the shorter distance from the road, however the rule should not strictly be applied for distances less than 4 metres from kerb. The daytime noise levels in table 5-4 were corrected for distance, however the night-time

values were not (they should be +1.6 and +1.2 respectively). I believe the report should be revised to correct these problems which may materially affect the noise assessment.

Environmental noise survey

Noise levels were taken at ground floor level and typically noise levels at 1st or 2nd floor are higher, which is where accommodation is proposed. Also there is a substantial bund barrier parallel to Thomas Lewis Way near the site which reduces the noise levels measured at ground level. The effectiveness of this is far reduced at increasing height above ground, resulting in more noise from Thomas Lewis Way for the student accommodation on the first and second floors in particular. The noise survey conclusions are not valid for this reason.

I consider the planning application should not be allowed to be heard by the Planning and Rights of Way Panel until the deficiencies identified herein have been addressed and a revised and updated noise assessment been submitted.

Yours faithfully,

D.W.J Hopgood
B.Eng (Hons), C.Eng, MICE, Chartered Highways and Infrastructure Engineer