sharps acoustics

Mary Ward House / Tavis House

Second review of noise assessment work carried out for Tavis House London

Clive Bentley BSc (Hons) CIEH MIEnvSc MIOA CEnv CSci Acoustic Consultant and Partner

Sharps Acoustics LLP

21 Monks Mead, Brightwell-cum-Sotwell, OX10 ORL

10th September 2024

1.0 Introduction

- 1.1 Sharps Acoustics LLP (SAL) were instructed by Mary Ward House to review a noise assessment report submitted in support of a planning application for the refurbishment and extension to Tavis House, London. The report was produced by Hoare Lea and dated 28th March 2024 and SAL produced a note containing our findings on 19th July 2024. It is understood that this was shared with the Tavis House developer and their noise consultant.
- 1.2 Our original review recommended that further noise and vibration work was essential to establish:
 - the potential effects of noise and vibration on Mary Ward House and its users (and other nearby locations) during the demolition and construction phase.
 - The potential effects of noise from proposed activities at Tavis House (such as servicing and use of the terrrace) on Mary Ward House (and other nearby locations).
- 1.3 We also recommended that an assessment needed to be made of the potential impact of plant noise at Mary Ward House using design criteria relevant to the uses which take place there, taking account of the particular sensitivity of, and constraints present due to, the building given its heritage status and that, when assessing the impact of noise at Mary Ward House (and at other locations), baseline noise levels must be representative of the receptor location and not based on measurements made on the roof of Travis House.
- 1.4 The developer's noise consultant has now revised their report (version 2, dated 8^{th} August 2024) and resubmitted this along with a covering letter (dated 6^{th} August 2024), in order to address the comments made by SAL. This note is a review of this second submission.

2.0 Noise from sources other than proposed plant / mechanical services

2.1 The original Hoare Lea report only considered noise from plant associated from the proposed development. We considered that the lack of assessment of noise and vibration impacts during construction and demolition and of other sources of noise during the operational phase were important omissions.

Construction and demolition phase impacts

- 2.2 The second report does not include any consideration of construction / demolition noise and vibration impacts. Instead, the covering letter states that Hoare Lea acknowledge that these impacts will need to be mitigated but suggests that this be dealt with later within a Construction Management Plan (CMP) in a Section 106 agreement.
- 2.3 This does not address our previously expressed comments about this phase of the development and noise and vibration during demolition and construction remain a key concern.
- 2.4 SAL have reviewed the draft CMP submitted (dated 03-12-21) and note the following matters of concern:

- The plan does not identify Mary Ward House as a sensitive receptor
- No information has been provided on noise. In relation to noise, all information prompted by the form has been filled in with, "Details to be provided by the contractor prior to commencement".
- 2.5 Hence the CMP is of no assistance and strongly re-enforces SAL stated concerns that construction noise has not been adequately considered.

Noise from sources other than mechanical services

- 2.6 The second version of the assessment does not consider noise from vehicle movements. However, the covering letter states that there would be no material change in the number of movements as a result of the development. It would be helpful to see predicted vehicle numbers with and without development to support this statement.
- 2.7 Noise from deliveries (and other servicing) have also not been assessed in the second version of the report and no explanation for this has been provided for this in the covering letter. Noise from other sources, such as people using the terrace has also not been addressed in the second submission. These are matters which still need to be addressed in SAL opinion.
- 2.8 No additional information or assessment has been provided to address our listed concerns in relation to other noise sources. The Hoare Lea report remains focussed solely on noise from mechanical services / plant.

3.0 Plant noise

- 3.1 Hoare Lea's covering letter accepts that not assessing plant noise impacts at Mary Ward House was an oversight and amends this by adding it as a noise sensitive receptor to their assessment. Noise levels which would arise from their proposed plant have now been assessed as having a negligible impact at Mary Ward House.
- The assessment criterion for internal noise levels used by Hoare Lea has been taken from the CIBSE Guide A 2021 and the value used is independent of baseline conditions. SAL agree that such an approach is reasonable for the assessment of internal noise levels. However, an explanation to show why the value of NR30 was chosen is required. Given that Mary Ward House is often used as a lecture theatre and a quiet exhibition space, SAL would expect a lower value (NR25) to be used. (It is also used as exam space by the local universities (UCL, SOAS etc), HM Government and Public Sector and not for profits).
- 3.3 Hoare Lea have also considered the potential impact of noise at Mary Ward House using BS4142. The background noise level used for this assessment is unlikely to be representative of the background noise level would be present at Mary Ward House, in SAL opinion. Hoare Lea have confirmed that they consider the noise measurement locations were conducted at locations which were representative of the closest noise sensitive receptors. They have explained that, in their view, background noise levels measured at roof height at Tavis House would be similar to background noise levels present at "roof-height windows"

at Mary Ward House". They do not comment on whether the level would be representative at windows which are below "roof height".

3.4 The assessment methodology used, British Standard BS4142, advises:

"Where possible, measure the background sound level <u>at the assessment location(s)</u>." [SAL emphasis]

- 3.5 Where it is not possible, BS4142 suggests the use of a suitable alternative location is used and requires that where this done, a:
 - "... detailed justification for considering this should be reported."
- No detailed justification has been provided for the location used and it is SAL experience that noise measured at roof height is generally considerably higher than that measured at the level of a ground level receptor. The results of the Hoare Lea surveys do not therefore provide a reliable baseline against which to assess noise impact, for any of the noise sensitive receptors that have been identified in the area.

4.0 Conclusions

- 4.1 No further work has been carried out to assess the potential effects of noise from construction / demolition, nor of sources other than plant noise so our concerns in relation to these matters remain as previously stated.
- 4.2 An assessment has now been made of the potential impact of plant noise at Mary Ward House. Based on the assessment criterion suggested by Hoare Lea or the more onerous target which SAL would consider appropriate, the predicted internal noise levels at Mary Ward House would be acceptable.
- 4.3 However, the assessment which has been carried out of noise levels externally and at other nearby noise sensitive receptors, using BS4142, remains unreliable in SAL opinion. As raised in our previous note, the baseline noise levels, assessed at rooftop level at Travis House are very unlikely to provide a reliable background noise level to use as the basis for the assessment that has been carried out of plant noise. This point has effectively been dismissed by the applicant but remains a valid concern.
- 4.4 The Hoare Lea covering letter states that they intend to "...continue to collaborate with all stakeholders to achieve a balanced outcome". Although no previous discussion and collaboration to resolve these issues (if that is what is meant by a "balanced outcome") has taken place with SAL or Mary Ward House, the letter suggests that such engagement is possible, assuming they consider Mary Ward House to be a stakeholder. It is understood that Mary Ward House would welcome meaningful engagement.