

Uncommon Holborn

Templar House

London

Noise Impact Assessment Report

23 May 2023

For Uncommon



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Uncommon Holborn, Templar House Noise Impact Assessment Report



SUMMARY

New external terraces are proposed at ground floor and on upper levels as part of the refurbishment of Templar House, located on High Holborn in London.

auricl has been undertaken an assessment of noise emissions associated with the proposed terraces.

A background noise survey has been undertaken to determine background noise levels at the nearest noise sensitive properties, against which the potential terrace noise emissions can be compared.

Noise emissions associated with the proposed terraces are predicted to be negligible, when both the worst-case and typical cases are compared with the IEMA noise impact assessment guidelines.

As such, the noise impact on the nearest noise sensitive property is predicted to be negligible, therefore use of the proposed terraces should be acoustically acceptable and should not restrict the granting of planning permission.

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1.0 Introduction

New external terraces are proposed at ground floor and on upper levels as part of the refurbishment of Templar House, located on High Holborn in London.

auricl has been appointed to carry out an assessment of noise emissions associated with the proposed terraces.

The following report presents the methodology and results of the survey, and an assessment of noise emissions from the proposed terraces.

The report is technical in nature, and such, a summary of noise units and acoustic terminology are included in Appendix A for reference.

2.0 Description of Site and Proposals

The site is located at 81-87 High Holborn within a predominantly commercial area. The building has façades facing onto High Holborn to the south/south-east and Eagle Street to the north/north-west.

Commercial properties are located to the east, west and south of the site, and residential properties are located to the north-west of the site, on the northern side of Eagle Street, and to the east of the site, within 79-80 High Holborn.

Figure 2.1 shows the site extent in **red** in relation to the surrounding area with the nearest residential properties indicated in **blue**.





External terraces are proposed at ground, sixth and seventh floor level, in the approximate locations indicated in green on Figure 2.2.







The maximum occupancy of each terrace area would be 60 people, although in reality only 10 people would be expected to use each area at any one time, with the proposed usage hours being 08:00 - 21:00 hours, Monday to Friday.

3.0 Noise Impact Assessment Criteria

We have reviewed the Camden Planning Guidance document (January 2021) which states that an acoustic report should accompany the application where potential noise-generating uses are proposed.

The document does not specifically consider outdoor terraces associated with office buildings, however for outdoor standing/seating areas and smoking areas associated with leisure uses it states that *"the Council expects the noise impacts of these uses to be considered within an acoustic report"*.

The document does not propose any specific criteria for noise from new external terraces, therefore the noise impact will be assessed against the criteria shown in Table 3.1, which are based on the IEMA document "Guidelines for Environmental Noise Impact Assessment" (November 2014).



Table 3.1	Noise I	mpact	Assessment	Criteria
			,	

Noise Level Change (dB, L _{Aeq})	Noise Impact
< 3	Negligible
3 – 5	Moderate
5 – 10	Substantial
> 10	Very Substantial

Our assessment has therefore considered the above.

4.0 Noise Survey Methodology and Results

4.1 Methodology

An unmanned noise survey was carried out over a 24-hour period from Monday 18 November 2019 to Tuesday 19 November 2019 to determine existing background noise levels at the nearest noise sensitive properties.

Noise measurements were undertaken at a position which is considered to be representative of background noise levels at the nearest noise sensitive properties.

The measurement microphone was attached to a balustrade at roof level on the eastern side of the site as indicated approximately in **purple** on Figure 4.1, which also shows the proposed terrace locations and nearest noise sensitive property.



Figure 4.1 Site Plan Indicating Noise Measurement Position



The equipment used for the noise survey is summarised in Table 4.1.

Item	Make & Model	Serial Number
Type 1 automated logging sound level meter	01dB FUSION	12032
Type 1 ½" microphone	GRAS 40CE	33089
Calibrator	01dB CAL21	34375252

Table 4.1 Descri	intion of H	Fauinment	used for	Noise Survey
		gaipinent	ascajor	Noise Survey

The noise monitoring equipment was calibrated before and after the survey. No significant change was found. Laboratory equipment calibration certificates can be provided upon request.

Due to the nature of the noise survey, i.e. unmanned, we are unable to comment on the weather conditions throughout the entire noise survey period, however at the beginning and end of the survey period, there was noted to be no rainfall, a clear sky and only light wind. These conditions are understood to be representative of the majority of the survey period and are considered appropriate for undertaking environmental noise measurements.

4.2 Noise Survey Results & Observations

Appendix B presents a time history graph showing the L_{Aeq} and L_{A90} sound pressure levels measured throughout the noise survey (shown as 15-minute intervals).

During our site visits the noise climate at the site was observed to be dominated by noise due to road traffic using surrounding roads, in particular High Holborn to the south and Procter Street to the west.

5.0 Terrace Noise Assessment

5.1 Basis of Assessment

As described above, the maximum occupancy of each terrace area would be 60 people, although in reality only 10 people would be expected to use each area at any one time, with the proposed usage hours being 08:00 - 21:00 hours, Monday to Friday. Likely activities on the terraces would be conversations, telephone calls, etc. with no amplified music proposed.

Our assessment has assumed a worst-case maximum occupancy of 60 people during a typical daytime hour, with half of the guests (30) talking at typical vocal effort. We have also considered a more typical case of 10 people during a typical daytime hour, again with half of the guests (5) talking at typical vocal effort.

Our calculations have taken into account the approximate distances from the terraces to the nearest existing noise sensitive property at 79-80 High Holborn, which are as follows:

- Ground Floor West Terrace
 40m
- Sixth Floor Terrace 33m
- Seventh Floor West Terrace 30m
- Seventh Floor East Terrace 20m



A sound power level for speech at normal level of 68 dB L_{wA} (per person) has been used as the basis of the assessment, taken from "Acoustic Design of Schools: A Design Guide" (November 2015).

As a worst-case, our assessment has considered all of the terrace areas being occupied simultaneously.

5.2 Noise Limits

In our assessment of noise due to users of the terraces, we have considered the existing ambient noise levels measured during the proposed operating hours (08:00 - 21:00 hours, Monday to Friday) which ranged from 54 dB to 55 dB L_{Aeq (1 hour)}.

5.3 Predictions

Our noise impact calculations are shown in Table 5.1 (worst-case) and Table 5.2 (typical case).

Table 5.1 Terrace Noise Calculations – Worst-Case (60 people)

	Level (dB)			
Element	Ground Floor	Sixth Floor	Seventh Floor West	Seventh Floor East
Sound Power Level	68	68	68	68
Quantity Correction	+15	+15	+15	+15
Acoustic Reflections	+5	+3	+3	+3
Distance Attenuation	-43	-41	-41	-37
Screening Attenuation	-15	-10	-5	0
Predicted Noise Level	30	34	40	49
TOTAL Predicted Noise Level			50	
Existing Noise Levels		54	- 55	
Total Future Noise Levels			55	
Predicted Noise Level Difference		0 t	o +1	



	Level (dB)			
Element	Ground Floor	Sixth Floor	Seventh Floor West	Seventh Floor East
Sound Power Level	68	68	68	68
Quantity Correction	+7	+7	+7	+7
Acoustic Reflections	+5	+3	+3	+3
Distance Attenuation	-43	-41	-41	-37
Screening Attenuation	-15	-10	-5	0
Predicted Noise Level	22	27	32	41
TOTAL Predicted Noise Level		4	2	
Existing Noise Levels		54 -	- 55	
Total Future Noise Levels	54 – 55			
Predicted Noise Level Difference		()	

Table 5.2 Terrace Noise Calculations – Typical Case (10 People
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It can be seen that the predicted noise level difference due to guests on the external terraces is negligible, when both the worst-case and typical cases are compared with the IEMA criteria described in Section 3.0 above.

As such, the noise impact on the nearest noise sensitive property is predicted to be negligible, therefore use of the proposed terraces should be acoustically acceptable and should not restrict the granting of planning permission.



Parameter	Description
Decibel (dB)	A logarithmic scale representing the sound pressure or power level relative to the threshold of hearing (20x10 ⁻⁶ Pascals).
Sound Pressure Level (L _p)	The sound pressure level is the sound pressure fluctuation caused by vibrating objects relative to the threshold of hearing.
A-weighting (L_A or dBA)	The sound level in dB with a filter applied to increase certain frequencies and decrease others to correspond with the average human response to sound.
L _{Amax}	The A-weighted maximum noise level measured during the measurement period.
L _{Aeq,T}	The A-weighted equivalent continuous noise level over the time period T (typically $T= 16$ hours for daytime periods, $T = 8$ hours for night-time periods).
	This is the sound level that is equivalent to the average energy of noise recorded over a given period.
L _{A90} (15 min)	The noise level exceeded for 90% of the time (also referred to as the background noise level), measured over a 15-minute period

Appendix A – Acoustic Terminology





Measured Sound Pressure Level (dB)

