



PROJECT TECHNICAL MEMORANDUM

JOB TITLE : Heyford Park
PROJECT NO : 23195
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RE: PHASE EIGHT – NOISE IMPACT ASSESSMENT

1.0 The planning permission for each phase of the development includes the following condition.

Outline Consent – 10/01642/OUT – Condition 33

For each phase or sub phase of the development, no works shall be undertaken until such times as a detailed scheme of noise assessment and possible sound insulation measures for the residential units (including a timetable for its implementation) has first been submitted to and approved in writing by the Local Planning Authority within. That scheme shall be implemented in accordance with the approved details.

2.0 The Phase Eight section of the development is affected by a combination of road traffic noise and some existing commercial noise sources.

The impact of these noise sources has previously been assessed within Chapter 6 – Noise Section of the Watermans Environmental Statement (ES).

Road traffic noise levels are not significant for Phase Eight, because of its location relative to the nearest significant road, Camp Road. Measurements reported within the ES support demonstrated low noise of 45dB LAeq,16hr and 37dB LAeq,8hr for the day and night-time periods respectively. These low noise levels are compatible with the guidance provided by the World Health Organisation and BS 8233:2014.

The ES also identified several sources of existing commercial/industrial noise which could have an adverse impact upon the proposed new housing. Sources of industrial and commercial sound are usually assessed in accordance with BS 4142:2014 “Methods for rating and assessing industrial and commercial sound”. Section 8.5 from BS 4142:2014 advises “where a new noise-sensitive receptor is introduced and there is extant industrial and/or commercial



sound, it ought to be recognised that the industrial and/or commercial sound forms a component of the acoustic environment. In such circumstances other guidance and criteria in addition to our alternative to this standard can also inform the appropriateness of both introducing a new noise-sensitive receptor and the extent of required noise mitigation.”

In view of the advice provided by BS 4142:2014 it is not possible to consider a BS 4142 assessment in isolation from other methodologies referred to, the key standards being:

World Health Organisation (WHO) 1999. Guidelines for community noise BS 8233:2014 Guidance on sound insulation and noise relation for buildings.

A recent Appeal Decision (Appeal Ref: APP/G2245/W/15/3130787) considers a very similar situation with existing industrial noise sources adjacent to proposed new housing. In this case the inspector allowed the appeal subject to conditions, including noise emissions from the industrial units not exceeding the World Health Organisation Community Noise Guidelines, (tabulated below) at the residential properties.

Specific Environment	Critical Health Effect(s)	L _{Aeq} (dB)	Time Base (hours)	L _{Amax,fast} (dB)
Outdoor living area	Serious annoyance, daytime and evening	55	16	-
	Moderate annoyance, daytime and evening	50	16	-
Dwelling, indoors	Speech intelligibility and moderate annoyance, daytime and evening	35	16	-
Inside bedrooms	Sleep disturbance, night-time	30	8	45
Outside bedrooms	Sleep disturbance, window open (outdoor values)	45	8	60

Five commercial/industrial noise sources were noted within the ES. These have been assessed for their impact upon Phase Eight dwellings, for comparison with WHO criteria.

Noise Source	Measured Noise Level L _{Aeq,T}	Distance Correction	Screening Loss	Noise Level at Dwelling	WHO Criteria L _{Aeq,T}
A Daytime	66 @ 1m	(134m) – 43dB	0	34dBA	50dBA
A Night-time	67 @ 1m	(134m) – 43dB	0	24dBA	45dBA
B Daytime	66 @ 10m	(135m) – 23dB	0	43dBA	50dBA
B Night-time	57 @ 10m	(135m) – 23dB	0	34dBA	45dBA
C Daytime	51 @ 5m	(166m) – 30dB	0	21dBA	50dBA
C Night-time	Not applicable				
D Daytime	52 @ 10m	(62m) – 16dB	0	36dBA	50dBA
D Night-time	43 @ 10m	(62m) – 16dB	0	27dBA	45dBA
E Daytime	65 @ 1m	(23m) – 27dB	0	38dBA	50dBA
E Night-time	59 @ 1m	(23m) – 27dB	0	32dBA	45dBA



The above table demonstrates that all the existing commercial/industrial noise sources identified within the ES would not exceed the criteria advised by WHO. Therefore the proposed Phase Eight development requires no further mitigation works.

- 3.0 An assessment has been undertaken to evaluate background noise impact upon the proposed Phase Eight development in accordance with Condition 34.

The assessment concludes existing background noise levels would have no adverse impact upon the proposed residential dwellings, and no further noise mitigation is required.

Yours sincerely



John Gibbs

for HANN TUCKER ASSOCIATES