



Ref: P4528/L01a/AGB

29 June 2022

To:	Oli Butler	of:	Kier
Cc:	As per email distribution list	of:	

Dear Oli

Elizabeth Street, Cheetham Hill – Addendum to Noise Impact Assessment.

As discussed, find below AEC's addendum to the previously issued noise impact assessment.

1.0 INTRODUCTION AND BACKGROUND

- 1.1 This letter forms an addendum to the noise impact assessment report (P4528-R1b-AGB) that was previously issued 20 April 2022 in relation to the application for the construction of 9 light industrial / commercial / warehouse units on a site off Elizabeth St, Cheetham Hill, Manchester.
- 1.2 The proposals are for 24-hour operation of the units over seven days per week. After submission of the report, Manchester City Council (MCC) has raised concerns relating to night-time deliveries, fork-lift truck use and potential noise break-out from the units.
- 1.3 Draft planning conditions were proposed by MCC, four of which related to noise, as discussed below.
- 1.4 Planning condition 14. This draft condition relates to atmospheric noise from mechanical plant serving each unit and includes a requirement to confirm the plant items to be used and a validation test of the units when installed.

This condition will not be discussed further in this addendum.

- 1.5 Planning condition 15. This draft condition relates to noise break-out from the units. This draft condition discusses entertainment noise, which is not relevant to this development and it is assumed that this condition will be removed or re drafted.

This condition will not be discussed further in this addendum.

- 1.6 Draft Planning Condition 16 states: *'Prior to any above ground works, a Noise Management Plan (NMP), to assess noise from all activities associated with the use of the loading bays, service yards and loading dock area shall be submitted for approval in writing by the City Council as local planning authority. The noise management plan shall include details as follows:*

- *That no deliveries from HGVs after 20:00 (with only 3.5t sized vehicles after 20:00 to 07:00);*
- *No use of Fork lift trucks externally between 20:00 and 07:00; and*
- *Roller shutters to be kept close between the hours of 23:00 and 07:00'*

- 1.7 Draft Planning Condition 17 states: *'Prior to the first use of the development hereby approved, details of the opening and delivery hours for each buildings hereby approved shall be submitted*

for approval in writing by the City Council, as Local Planning Authority. The approved opening and delivery hours for each building shall thereafter be implemented and maintained for as long as the buildings remain in use.'

- 1.8 With regard to the above Draft Conditions 16 + 17, Kier Developments requires the greatest flexibility on unit use and the ability to allow for night-time deliveries are required even if there are some restrictions to these. As such there is a requirement to alter these conditions and this report addendum addresses this.
- 1.9 Discussions were held with Graham Souter (EHO with MCC) when he confirmed that MCC had concerns regarding the potential impact of certain night-time activities as a result of the relatively close proximity of the site to residential properties. However, Graham stated that MCC are not entirely against night-time deliveries but would need to see a more detailed assessment with a proposed Noise Management Plan for the site. In addition, Graham indicated that an acoustic fence (installed between units 8&9) would be of benefit.
- 1.10 The noise management plan that is required as part of planning condition 16 has been prepared and this has been issued as a separate document.
- 1.11 As presented below, in summary, this addendum demonstrates that 24-hour operation and servicing of Units 2, to 7 and 9 (including by HGVs) is acceptable and will not result in any significant adverse impacts upon surrounding residential amenity.

2.0 ASSESSMENT OF NIGHT-TIME DELIVERY NOISE

- 2.1 As identified in the submitted noise impact assessment, delivery noise has been assessed with reference to noise levels that AEC has measured in relation to other non-related light-industrial / warehouse uses.
- 2.2 Based on extensive noise level measurements undertaken by, the anticipated 'worst-case' noise levels due to HGV and Van deliveries are presented in Table 3.1, below.

Table 3.1 – Summary of Measured Noise Levels for Van & HGV Loading/Unloading Activities at 10m

Activity	Noise Level at 10m, dB		
	L _{AE}	L _{Aeq}	L _{Amax}
Van Noise			
Van manoeuvring	76	-	66-71
Van Idling	-	54	-
Loading / Unloading	-	53	69
Van pass-by	74	-	-
HGV Noise			
HGV arriving / pass-by	84	-	-
HGV manoeuvring	87	-	72-79
HGV idling	-	63	-
Loading/unloading	-	60	76-81

- 2.3 The assessment is based on the following van unloading process:

- Van enters the site and drives to unit, travelling at no greater than 15mph;

- Van reverses to the unit up roller shutter door, which is opened to the height of the vehicle only;
- Van is unloaded / loaded;
- Engine is switched off during the loading process;
- Van drives off the site via the same route that it entered.

2.4 For HGV deliveries, the following process has been used in the assessment:

- HGV arrives at site and drives to unit at no greater than 15mph;
- HGV turns into the service yard and manoeuvres into position to reverse onto the HGV loading bay, travelling at no greater than 10mph (and any bay could be used during the night-time and the daytime);
- Roller shutter is open to the height of the vehicle only;
- HGV is unloaded / loaded;
- HGV is switched off during the loading process;
- HGV drives off the site via the same route.

2.5 To produce the model for night-time delivery noise, the assessment has assumed that in any single 15-minute period during the night-time there will be:

- 1 HGV entering the site (to unit 9);
- 1 HGV leaving the site (from unit 7);
- 3 HGVs being unloaded (1 in each of units 9, 7 and 2);
- 2 vans entering or leaving the site;
- 4 vans being unloaded (1 in each of units 8, 4, 6 and 2);
- An open roller shutter area of 10m² to each of the units where deliveries are occurring. As discussed, the shutter would be closed to the height of the van / HGV and this would be the open area next to the vehicle.
- Internal noise levels are no greater than 75dB(A) during delivery times.

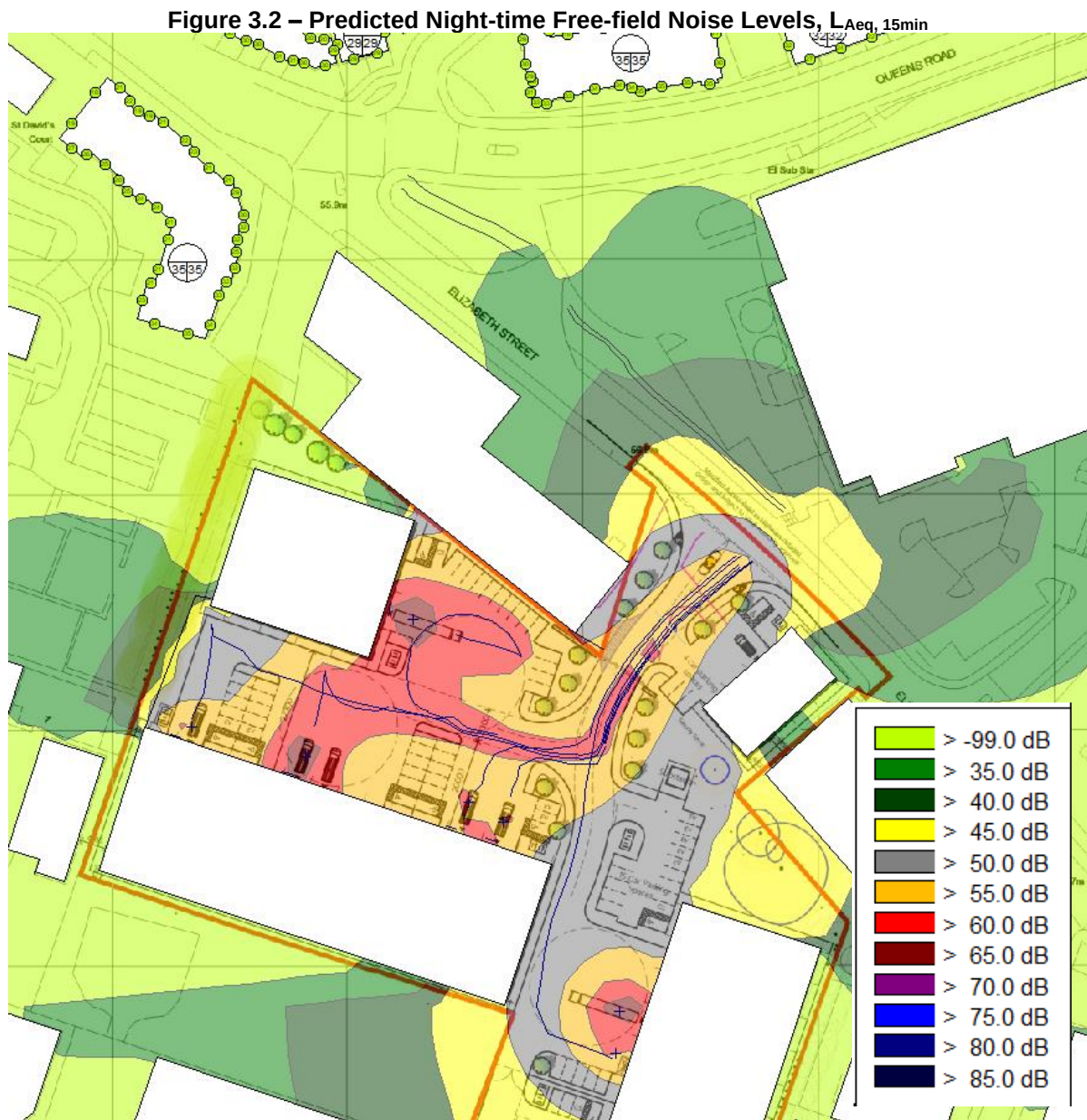
2.6 It is important to note that the above is considered to represent a 'worst-case' 15-minute period for night-time deliveries and in reality it is unlikely that this scenario would occur and it certainly should be not considered as a normal scenario.

2.7 In addition to the above, it has been assumed that a 4m high barrier will be erected between units 8 and 9, the location of which is identified on Figure 3.1, below. This barrier could be moved out to the site boundary as necessary.

Figure 3.1 – Location of Proposed Barrier (Blue Line)

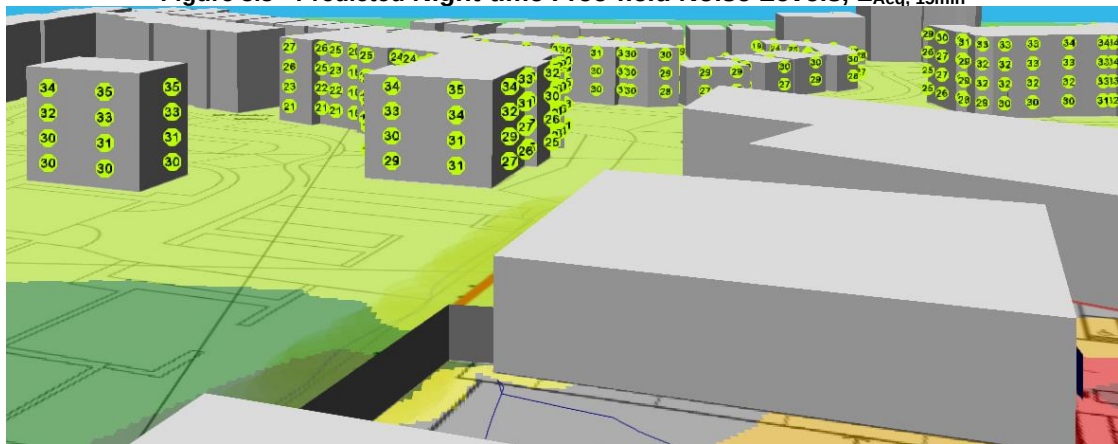


- 2.8 As identified above, HGV deliveries will not occur to units 1 or 8 during the night-time. This means that HGV deliveries would be well screened to the nearest residential properties (four storey flats on St. Davids Court) or would be some 160m away.
- 2.9 Due to the size and nature of the units it has been assumed that there would be no requirement to unhitch and re-hitch trailers. This activity is normally only associated with large distribution units.
- 2.10 Based on the above, a noise map has been produced, a screen shot of which is presented on Figure 3.2, below. As this identifies, the 'worst-case' noise level predicted are 35dB_{L_{Aeq}, 15min}.



- 2.11 Figure 3.3, below presents a 3D plot, showing the noise levels on each floor of the flats on St Davids Court. As this shows, the majority of locations would be subjected to noise levels below 35dB_{L_{Aeq}}.

Figure 3.3 - Predicted Night-time Free-field Noise Levels, $L_{Aeq, 15min}$



2.12 Based on the above, a BS4142 assessment for the night-time period is presented below.

Table 5.4 – BS4142 Assessment of Delivery Noise Levels During the Night-time (15-minutes)

Description	St Davids Court
Specific Noise Level, $dB_{LAeq,T}$	35
Character adjustment, dB	+5
Rated Noise Level, $dB_{LA_{r,Tr}}$	40
Background, $dB_{LA90,T}$	43
Rated Minus Background, dB	-3

2.13 In terms of the night-time in all instances the rated delivery noise levels should be no higher than the background level minus 3dB. This level is considered to be acceptable for the following reasons:

- It is considered to represent a 'worst-case' assessment for a night-time 15-minute period. In reality it is considered that the number of deliveries used in the assessment will rarely occur in a 15-minute night-time period;
- Using BS4142 guidance, the impact is considered to represent a low adverse impact;
- In terms of context, the development is in an area that includes a lot of other industrial and commercial units.

2.14 As stated above, the assessment includes noise break-out via an opening in the roller shutter doors to those units receiving a delivery 6 units whilst there is a reverberant internal noise level of up to $75dB_{LAeq,T}$ occurring in the unit. An opening of approximately $10m^2$ has been used for each unit receiving a delivery, as per the separately issued NMP.

2.15 Based on the above, provided that the site operates in accordance with the NMP, which has been submitted separately, shows that the proposed development will not result in any significant adverse impacts upon residential amenity as a result of noise (in accordance with the NPPF and NPSE) and there is no need to impose any further restrictions on either operations or servicing of the units

3.0 NIGHT-TIME FORKLIFT TRUCK NOISE

- 3.1 As identified in the NMP, which has been issued separately to this document, only electric forklift trucks will be used during the late evening / night-time periods (2100h to 0700h). These forklifts will be selected to generate a noise level of no greater than $65\text{dBL}_{\text{Aeq,T}}$ at 3m distance during use and reversing alarms will be switched off during this period.
- 3.2 In addition, during the period of 2100h to 0700h the forklifts will only be used to unload vehicles internally with the exception of occasional brief use outside when absolutely essential and this would be for no longer than around 3 minutes in any one hour.

Yours sincerely



Andrew Burke

Checked by: DMT