



Trade City – Sharston			
Technical Note - Response to Manchester City Council Comments			
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1.0 INTRODUCTION

This technical note provides a response to Manchester City Council's (MCC)'s comments on the AEC noise impact assessment, AEC ref: P6545-R1-AGB) that was submitted as part of the planning application for the above site (App Ref: 143771/FO/2025).

The comments made are presented below in blue italics with AEC's response below each.

2.0 RESPONSES

- 1. The report has said that the development will be Class B2/B8 development with ancillary office space at first floor with associated external works for servicing and parking. The proposed use is for 24 hours per day 7 days per week with no restrictions on servicing hours.*

Whilst provision has been sought across Class B2/ B8 and E to provide flexibility for future tenants, the proposed units are not suited to heavy industry or industrial manufacturing type uses. Preliminary discussions have been undertaken with the LPA as to the construction of a condition of approval which states that "heavy industry" uses would not be permitted.

The proposal is for the provision of a Trade Park development equivalent to one which Kier has successfully developed in Manchester at Elizabeth Street, in Cheetham Hill. That site has numerous similarities to the proposal here, both in relation to the form of development and proximity to residential dwellings. In that instance, Manchester City Council accepted that the 24-hour use of that floorspace was acceptable, with some servicing restrictions contained in a management plan.

Based on the above experiences, it is considered that 24-hour operations at the site are acceptable, as evidenced by numerous similar developments in Manchester and other major cities in the UK.

- 2. It states that "It lies within an area characterised predominantly by commercial and industrial uses". This is on the edge of the commercial / industrial area and residential properties are across the road from the development site approximately 25-30 meters away.*

The development is at the edge of a well-established industrial estate that has been used for industrial and commercial uses for an extended period. Whilst that is the case, the noise impact assessment explicitly states that there are residential receivers along Longley Lane to the north.

- 3. The noise report states that "The main noise associated with the development will be delivery noise and noise from potential external mechanical services plant. **There is no heavy industry associated with the development** and, as such, internal noise break-out is not considered to be an issue". I have checked and B2 use can include manufacturing plants, Heavy Machinery Workshops, food industrial processing etc and B8 is storage, distribution and warehouse, which*

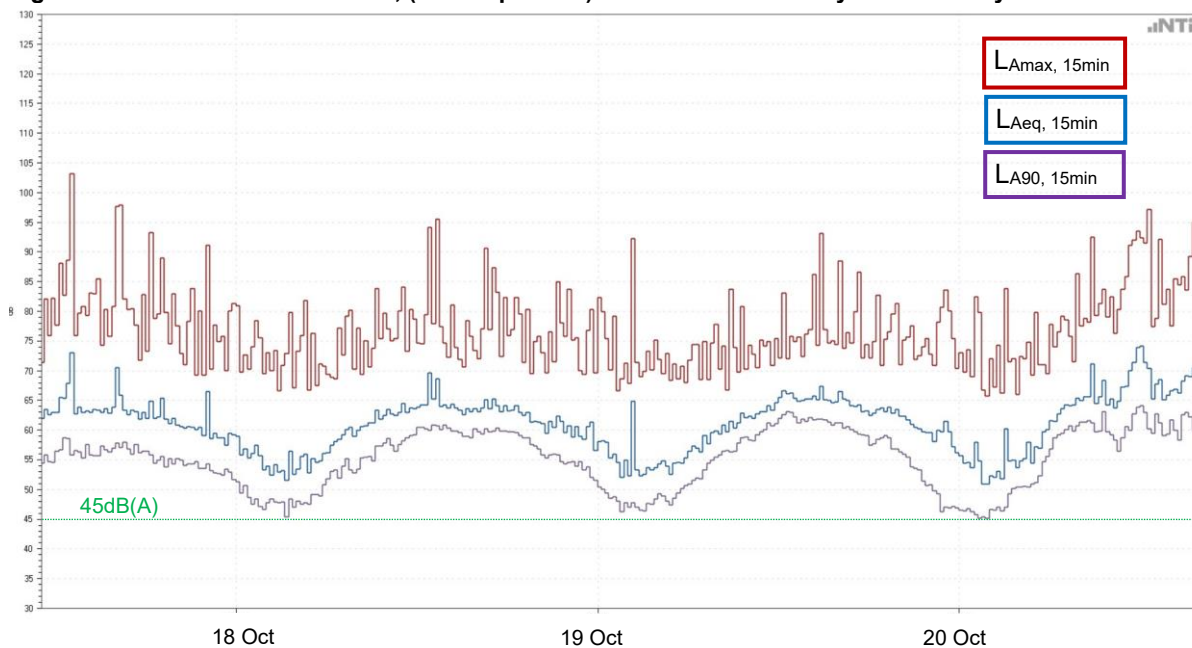
may involve fork lift truck movements and lorry movements throughout the night. As referenced above, we had to consider noise breakout at Elizabeth Street, as well as the use of forklifts etc.

Please refer to the comments above to point 1. The intention is that 24-hour use will be acceptable (subject to conditions) and that other operational noise-generating activities (i.e. forklift use) will be captured in a management plan and controlled by an appropriate planning condition (see below).

4. *Noise monitoring was only done from Tuesday - Friday, so the quietest times (Sundays) when people are most likely to be affected by the noise were not included in the baseline noise climate monitoring. Is it necessary to re-survey overnight on a Sunday? The measured background level is 40dB, which is fairly-low for a commercial location with residential adjacent.*

AEC has returned to site to measure background noise levels from Friday 17 to Monday 20 October 2025 and the measured data is presented in Figure 1, below.

Figure 1 – Measured Noise Levels, (15 min periods) Sharston Road Friday 17 to Monday 20 October 2025



The measured background (L_{A90}) noise levels were higher than those previously measured in the week, including on Sunday 19 October. As the site is relatively close to the M56, M60 and Princess parkway, variations in the background conditions are to be expected due to local weather and temperature fluctuations.

Based on the above, the daytime background noise levels of approximately 53dBL_{A90} and night-time of approximately 40dBL_{A90} as used in the NIA are appropriate.

5. *Section 4.7 of the report says that "Deliveries and collections are usually controlled by restricting operational hours but depending on the extent of these activities, a Noise Management Plan (NMP) may be requested, which would include an assessment of noise. This would usually involve assessing the noise upon arrival, loading/unloading period and then departure." but the applicant wants 24/7 use with no restrictions on servicing hours.*

The statement referenced in the AEC report was taken from MCC's Planning and Noise Technical guidance.

Our client Kier is aware that noise will need to be managed and has successfully produced and followed a NMP for the development off Elizabeth Street. A proposed draft noise management plan for the current development proposal is attached as Appendix A.

6. *Section 4.8 of the report says that "The NMP may also need to include controls such as acoustically sealed delivery bays, and restrictions on vehicle mounted refrigeration units and audible alarm systems. Where applicable, the noise assessment will take account of multiple noise sources operating simultaneously and report the cumulative impact." This will be needed as part of the application, not as part of an NMP. We need to know in advance, before the application has been approved, that these issues have been considered and addressed.*

The issues identified in the above comment have been considered in the submitted NIA report. Refrigeration units and audible alarm systems have only been included in the NMP because, it is considered that noise from these sources are likely to be unacceptable to the residents during the night-time periods.

7. *What are the predictions of worst case HGV and Van movements based on? Is it possible that all 9 units could have HGV's arriving / unloading at the same time? They all have separate loading bays and are separate units, so there would be no co-ordinated scheduling of deliveries as there would if it was one large unit.*

These were based on reasonable assumptions as agreed with the design team. They were considered a typical 'worst-case' situation.

Whilst there are separate loading bays, it is extremely unlikely that all units would be serviced overnight and therefore even more unlikely that all 9 units having deliveries occur at the same time is highly improbable. As referenced above, the development is for a Trade Park, where the future tenants of the floorspace are as yet unknown. The Applicant is therefore seeking to obtain planning permission which preserves the possibility for tenants to operate on a 24-hour basis. It is expected that the majority of future operators will not choose to operate or receive deliveries during the overnight period.

The following Figures 2 and 3 have been prepared by the transport consultant and show the predicted trip numbers.

Figure 2 – Anticipated Vehicle Trips (B8 Uses)

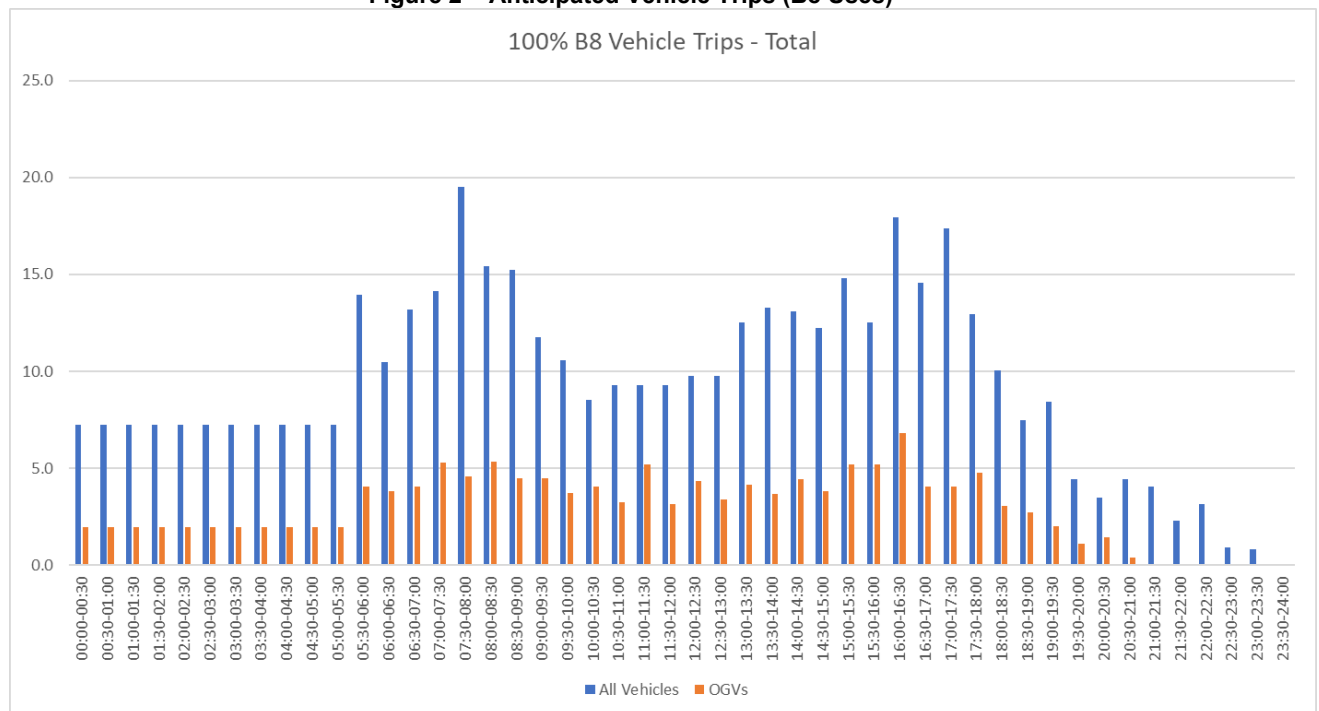
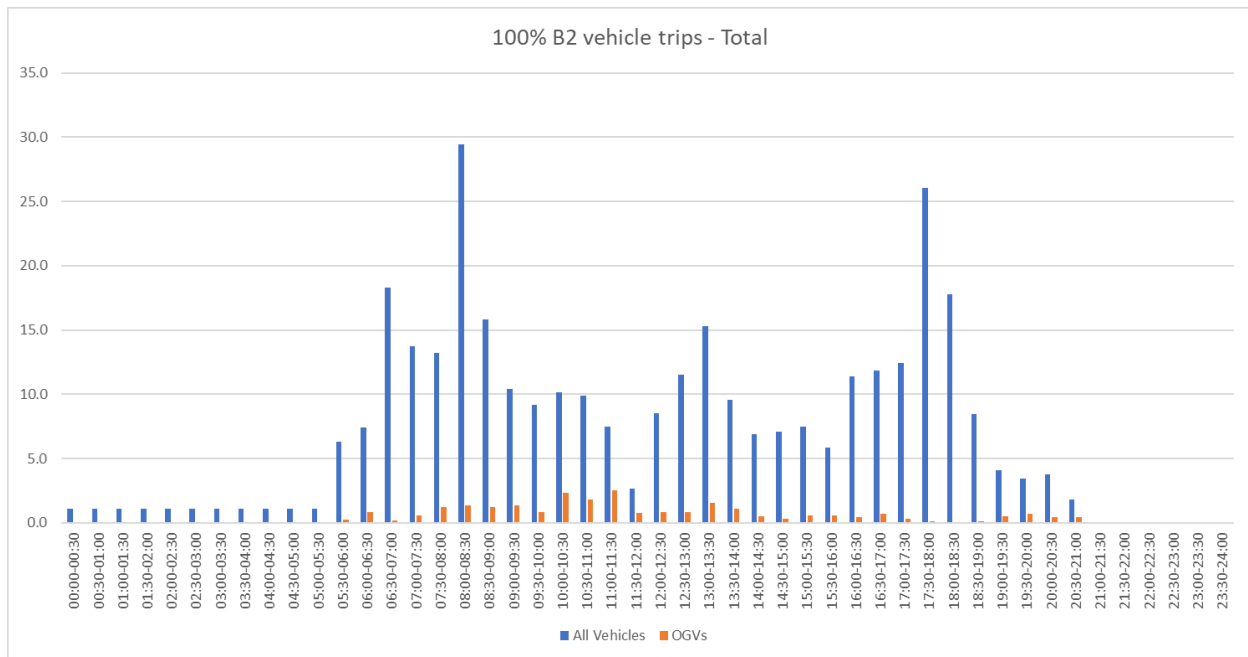
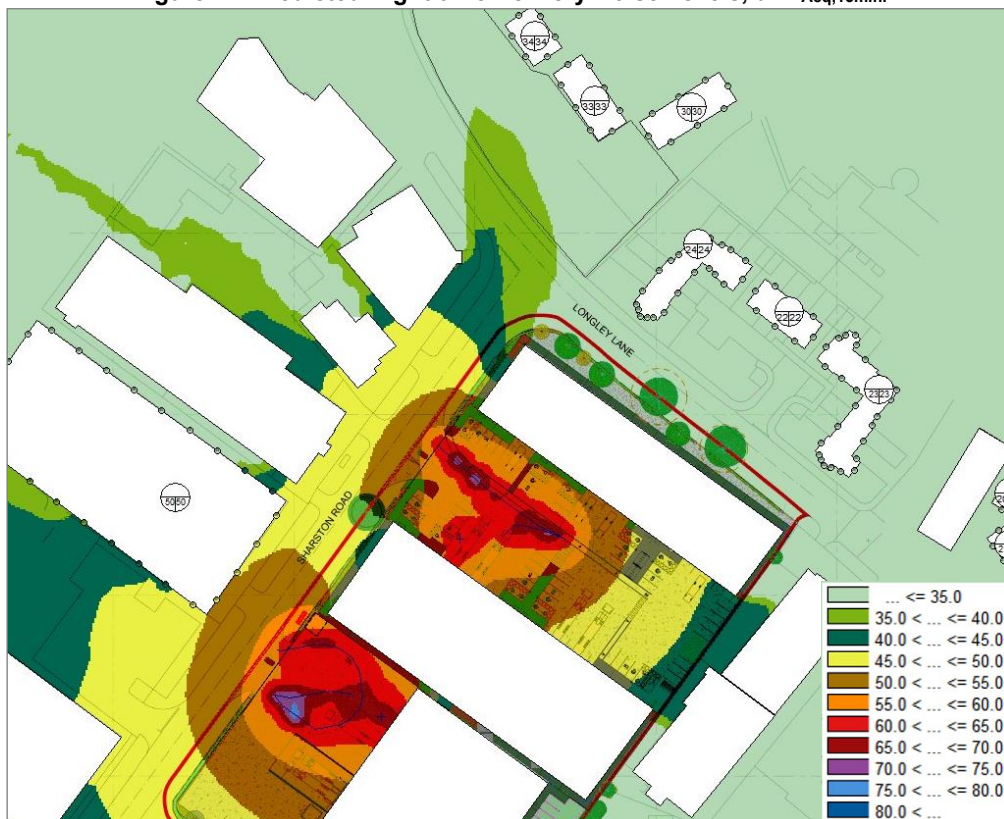


Figure 3 – Anticipated Vehicle Trips (B2 Uses)



As shown on Figures 1 and 2, only 2 OGV (potentially HGV) movements are expected per 30-minute period during the night-time up to approximately 0530h. Based on this, the numbers used in the NIA previously submitted are appropriate and that assessment is correct, at least up until 0530h. The night-time noise model output from the NIA is presented on the following Figure 4.

Figure 4 – Predicted Night-time Delivery Noise Levels, $dBL_{Aeq,15min}$.



As identified above and in the original NIA, night-time background noise levels would typically be no lower than $40dBL_{A90}$ up to approximately 0530h. Based on this, with a 3dB noise character correction

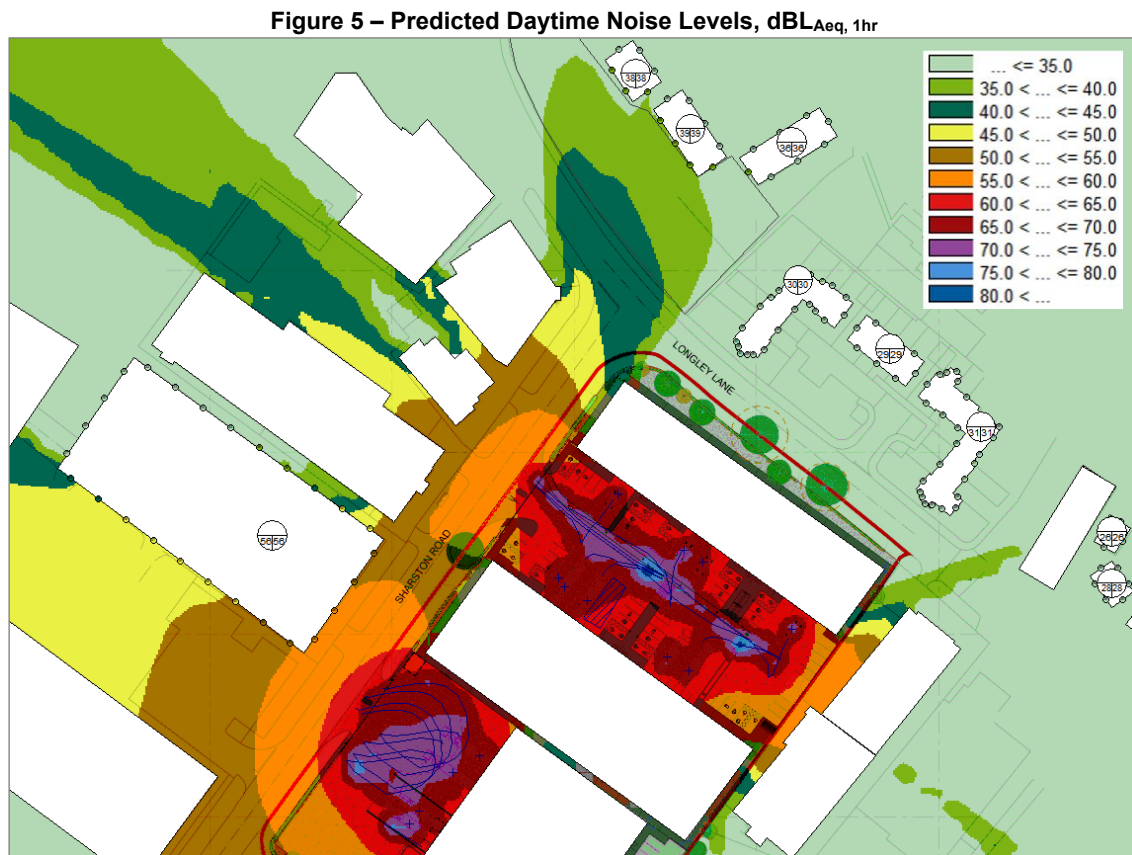
applied, the anticipated noise rating level would be approximately 3dB lower than the typical lowest daytime background noise. As discussed in response to point 11, below, other noise sources associated with the site would only marginally increase this predicted noise level.

BS4142 indicates that the context in which the sound occurs should be considered. As historically industrial units have operated on the site and as the site is on the edge of an industrial/commercial estate, it is considered that the potential noise levels represent a low impact and should therefore be considered acceptable. Additionally, as background noise levels will often be higher than used in the assessment, this adds further context that the impact should be low.

After 0530h, it is noted that the potential OGV movements could increase to approximately 5 per half hour period. It is anticipated that the noise levels would increase by approximately 4dB. However, at this time, the background noise levels will typically be at least 5dB higher and therefore the assessment would remain as above, i.e. a low impact with associated low adverse effects.

In terms of the daytime, with reference to Figures 2 and 3, above, there could be up to 12 OGV movements during the daytime up to the early evening. A new model has been produced for the daytime period based on this. The model assumes 8 HGV and 4 flatbed deliveries in an hour with external forklift use on up to 3 deliveries.

The predicted noise levels at the worst case affected properties would be approximately 39dBL_{Aeq, 1hr} as presented on the following Figure 5.



As identified above and in the original NIA, daytime background noise levels would typically be no lower than 53dBL_{A90}. Based on this, with a 3dB noise character correction applied, the anticipated noise rating level would be approximately 11dB lower than the typical lowest daytime background noise. This level of noise should have no impact or a low impact and should therefore be considered acceptable.

We therefore conclude that 24-hour servicing of the site is acceptable, being mindful that the assessment:

- Utilises the lowest measured background sound level from our surveys;
- Is undertaken on the basis that all of the units would operate on a 24-hour basis which, as set out above, is not anticipated nor typical of a Trade Park development; and
- A Noise Management Plan is to be imposed.

8. *Table 5.2 assesses delivery noise at Royle Green Road (nearest property on that road is about 65 meters from the site), which they consider the worst case affected properties. What about the houses on Longley Lane that are closer (30 Meters from the site)? Why aren't they considered?*

The dwellings on the opposite side of Longley Lane were considered and the predicted noise levels are presented in the noise modelling results. However, the report text did not explicitly state this.

The properties on Longley Lane that are closer to the site are subject to significantly lower noise levels than those considered in the worst-case assessment i.e. up to approximately 25dB_{L_{Aeq,T}} as opposed to approximately 33dB_{L_{Aeq,T}} at the properties closest to the site.

9. *Table 5.3 assesses the maximum noise levels due to deliveries at night at residential properties that are 100 - 120m away. What about the ones 30m away across the road?*

Please see above in response to point 8. The maximum noise levels affecting the properties rear of properties on Royal Green Road (overlooking Longley Lane) represent a 'worst-case' assessment.

10. *Section 5.21 says that "It is assumed that reverberant noise levels inside light industrial uses would be no greater than 75dB_{L_{Aeq,T}}". Why is that assumed? Heavy machinery workshops fall into the B2 Category. Noise from there could be impulsive, tonal and loud so until it is known what will actually be inside the units there is no way of knowing what the rated noise levels will be at the nearest residential premises. For perspective, the HSE website says that a metal cutting saw can produce noise levels of 90-95dB(A) free running and over 100dB(A) when cutting. So if the sound insulation performance of the building is roughly 37dBRw, the noise levels will be detrimental to the amenity of the residents 30m away*

Please refer to the above response in relation to heavy industry the intention to agree a condition stating that heavy industry would not be permitted on the site.

Furthermore, in relation to the noise levels stated in the MCC response, it is important to note that the HSE noise level data quoted relates to noise at the operator's ear. It is quoted in terms of potential noise induced hearing loss and typically relates to noise measured at approximately 0.5m to 1.0m from a source. It is incorrect to conflate this with reverberant noise levels which is the level across the unit and these will be significantly lower than the noise at the operator's ear.

Furthermore, it is important to note that noise level data quoted by the HSE is often the worst-case measured noise level for a particular source and it does not normally represent a typically sources.

AEC has undertaken extensive noise surveys across many industries and it is rare for reverberant noise levels to exceed 80dB(A) across a shop floor with perhaps press shops and other larger industrial processes exceeding this. For example, assembly lines in large car manufacturing plants would typically be no greater than 75-80dB_{L_{Aeq,T}} in terms of reverberant noise levels.

Based on this, a reverberant noise level of approximately 75dB_{L_{Aeq,T}} for the units is considered a reasonable assumption. Furthermore, the likelihood of all units operating with reverberant noise levels of 75dB(A) is considered unlikely especially as most of the uses are likely to be class B8

Further break-out calculations have demonstrated that the even if the units closest to the residential properties operated with internal noise levels of 75dB(A), noise at the nearest properties on Longley Lane should be no greater than approximately 23dBL_{Aeq,T}.

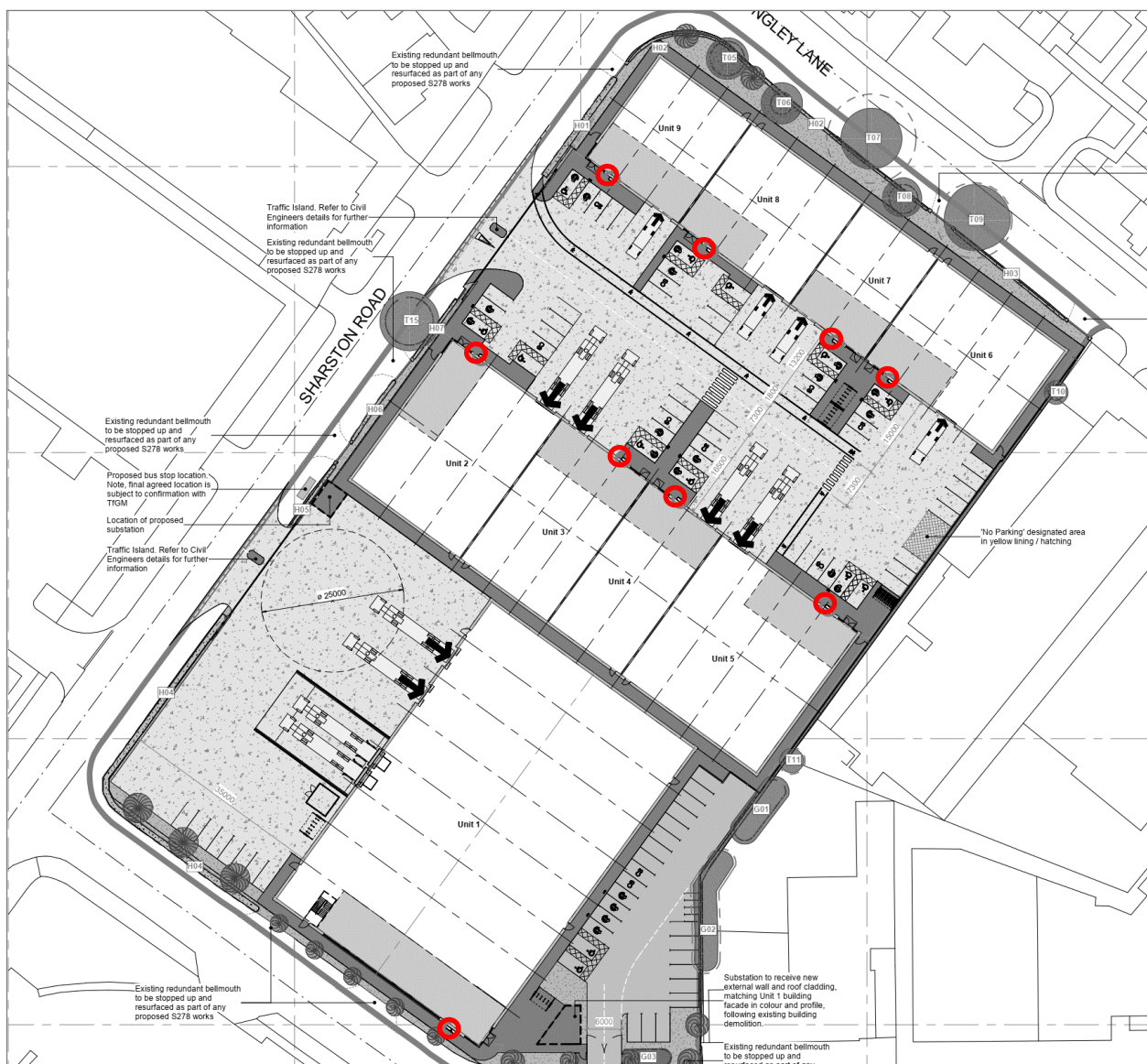
11. The report has not considered the cumulative noise impact of deliveries, activities inside the units and external fixed plant and equipment on nearby residents.

The report has considered the cumulative effect although perhaps this wasn't explicitly stated. The anticipated night-time delivery noise levels are approximately 34dBL_{Aeq,T} over 15 minutes. As indicated above, the anticipated noise break-out levels should be no greater than approximately 23L_{Aeq,T} which would add up to 0.4dB to the delivery noise.

In terms of the plant. The units are serviced by a heat pump which is located at the front of each unit (identified by a red circle on the following Figure 4).

The heat pumps will likely be equivalent to those used on the previous scheme which generate noise levels of approximately 53dB(A) at 1m (refer to Appendix B for example product). Based on this, the resultant noise levels are the worst-case' affected property would be lower than 15dB(A) and, as such, would not add to the overall level noise climate. I

Figure 4 – Locations of the Proposed Heat Pumps (Red Circles)



Appendix A

Trade City, Sharston – DRAFT Noise Management Plan

The noise management plan (NMP) for operation of the development is presented below. This is equivalent to the plan that was previously been agreed with MCC for Elizabeth Street, Cheetham Hill.

This document will be issued to any new management company for the site and will also form part of any handover document pack should the site be sold

1.0 FORKLIFT TRUCK USE

- 1.1 Only electric forklifts can be used on the site during the late evening (2100h to 2300h) / night-time periods (2300h to 0700h).
- 1.2 Forklift truck use will be avoided at night other than occasional essential use. Activities that involve using a fork-lift truck for longer than approximately 3 minutes (in each hour) must only be undertaken during normal daytime hours (0800h to 1800h).
- 1.3 Reversing alarms will be switched off at night. Appropriate driving speeds and/or banks person will be used where necessary to allow for reversing without alarms.
- 1.4 Electric forklifts will be selected that generate a noise level of no greater than 65dB(A) at 3m during use.
- 1.5 The external surface will be well constructed with all joints between different sections and external to internal surfaces levelled.
- 1.6 All floor surfaces must be kept in a good state of repair.
- 1.7 Forks must not strike or impact the ground at any time during the daytime or the night-time.
- 1.8 Forks must be secured in order that there is no rattling that occurs when the trucks are driven.
- 1.9 Forklifts will be driven with care to avoid impact with any pallets, bollards, buildings or delivery vehicles.

2.0 DELIVERIES

- 2.1 Units 6 to 9 will not have the potential for HGV deliveries.
- 2.2 During the night-time period, deliveries for HGVs and large vans (greater than 3.5 tonnes) will only occur via a vehicle that has reversed up to the shutter doors so deliveries can only occur internally.
- 2.3 During the night-time, the roller shutter doors will be lowered to the top of the vehicle to minimise the opening size to no greater than approximately 10m².
- 2.4 Any night-time deliveries incorporating forklift trucks can only occur in the buildings – i.e. night-time service yard deliveries will not occur.
- 2.5 Hand deliveries via vans can occur at any time but noisy delivery cages etc. will not be used.
- 2.6 Reversing alarms will be switched off during the late evening / night-time periods and a banks person / appropriate driving speeds used to safely allow alarms to be switched off.
- 2.7 Trailers will not be unhitched / re-hitched at any point during the night-time.

- 2.8 HGV chiller units will not run during the night-time.
- 2.9 Engines of any delivery vehicles will not idle for more than 1 minute i.e. engines cannot be left idling.

3.0 OTHER ELEMENTS

- 3.1 Roller shutter doors will remain closed during the late evening (2100h to 2300h) / night-time (2300h to 0700h) periods excluding the periods when deliveries are occurring (as described under the 'deliveries' section above).
- 3.2 Internal activity noise levels will be limited to 75dBL_{Aeq} during period when deliveries occur.
- 3.3 No impact noises shall occur in external areas during the night-time periods – e.g. use of external skips, pallets being dropped etc.
- 3.4 No communication using raised voices will occur in the external areas during the night-time periods.

4.0 LANDLORDS & TENANTS CHECKS / MAINTENANCE

Tenant's Checks

- 4.1 A site supervisor / manager for each building that operates forklifts will undertake checks before each night-shift to ensure that forks of any fork-lifts are secured and not resulting in rattling noises when being driven. These checks shall be recorded together with any non-compliance actions taken.
- 4.2 Site supervisors / managers for each building should inform the Landlord should any of the loading area surface become damaged resulting in impact noise from forklift use.

Landlord's Checks

- 4.3 Periodic late evening / night-time checks are to be undertaken by the landlord / management company to ensure that tenants are complying with the relevant points above. These checks will be documented and details of any non-compliance actions taken will be recorded.
- 4.4 Repeat offenders may lose their tenancy if their actions result in specific and verified noise complaints to the site or the landlord, and the tenant's actions are in breach of the tenancy agreement.
- 4.5 The landlord / management company will undertake annual inspections of the noise barrier to ensure a good state of repair. Maintenance works are discussed below.
- 4.6 The landlord / management company will undertake annual inspections of the surface of the service yard. Maintenance works are discussed below.
- 4.7 Furthermore, should any noise complaints be made checks will be undertaken in addition to the periodic checks.

Maintenance

- 4.8 Should any damage to the loading area surface be identified (either by landlord's checks or tenant's reports) which is resulting in impact noise due to forklift trucks rolling over it, the landlord / management company will aim to repair the surface within 1 week of the damage being logged.

- 4.9 Should there be any noise barriers associated with the development, the landlord / management company will aim repair the noise barrier with 1 week of logging any damage. An equivalent Jackson's fence panel will be used for large repairs. For smaller repairs appropriate timber panels will be used that have a mass per unit area of at least 10kg/m^2 e.g. 20mm thick pine.

APPENDIX D – Example Heat Pumps

Heating

Product Information

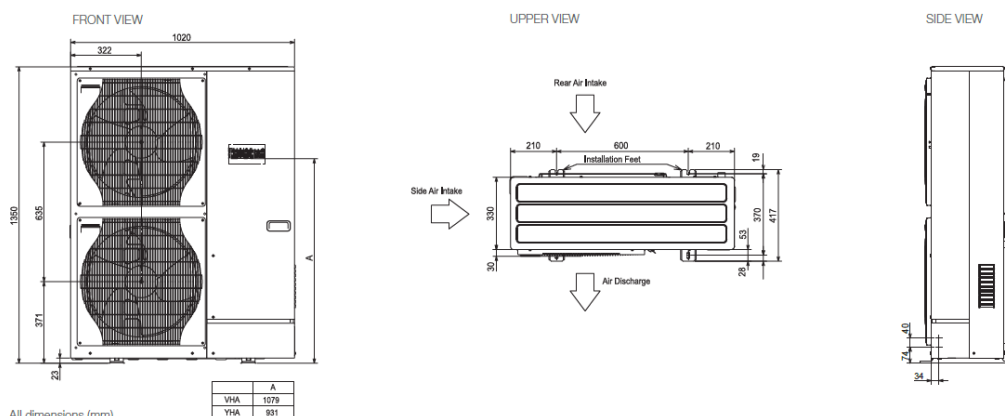
PUZ-HWM140VHA(-BS)
Ecodan R32
Monobloc Air Source Heat Pump

OUTDOOR UNIT		PUZ-HWM140VHA(-BS)	NOMINAL HEATING CAPACITY	
HEAT PUMP SPACE HEATER - 55°C	ErP Rating	A++		
	η_{hp}	131%		
	SCOP (MCS)	3.35		
HEAT PUMP SPACE HEATER - 35°C	ErP Rating	A+++		
	η_{hp}	176%		
	SCOP (MCS)	4.48		
HEAT PUMP COMBINATION HEATER - Large Profile ¹	ErP Rating	A+		
	η_{hp}	130%		
HEATING ² (A-7/W35)	Capacity (kW)	14		
	Power Input (kW)	5.71		
	COP	2.45		
OPERATING AMBIENT TEMPERATURE (°C DB)		-28 - +35		
SOUND DATA ³	Pressure Level at 1m (dBA)	53		
	Power Level (dBA) ⁴	67		
WATER DATA	Pipework Size (mm)	28		
	Flow Rate (l/min)	40.1		
	Water Pressure Drop (kPa)	20		
DIMENSIONS (mm)		Width 1020		
WEIGHT (kg)				
ELECTRICAL DATA				
Nominal running current (I _{nom}) (A) ⁵		13.5 (35)		
Fuse Rating - MCB Sizes (A) ⁶		40		
REFRIGERANT CHARGE (kg) / CO ₂ EQUIVALENT (t)		R32 (GWP 675) 3.3		

Notes:

- ¹ Combination with EPT20X Cylinder
² Under normal heating conditions at outdoor temp: -7°CDB / -8°CWB, outlet water temp 35°C, inlet water temp 30°C.
³ Under normal heating conditions at outdoor temp: 7°CDB / 6°CWB, outlet water temp 55°C, inlet water temp 47°C as tested to BS EN14511.
 Low Noise mode accessory (reference PAC-SA807A-EP) available for V-HA chassis.
⁴ Sound power level tested to BS EN12102.
⁵ Under nominal heating conditions at outdoor temp: 7°C, outlet water temp: 35°C.
⁶ MCB Sizes BS EN60898-2 & BS EN60947-2.
⁷ Grille.
 η_{hp} is the seasonal space heating energy efficiency (SSHEE) η_{hp} is the water heating energy efficiency

PUZ-HWM140VHA(-BS) DIMENSIONS



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Note: The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774), R134a (GWP:1430), R513A (GWP:831), R454B (GWP:488), R1234ze (GWP:7) or R1234yf (GWP:4). These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No 626/2011 from IPCC 3rd edition, these are as follows: R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).

Effective as of September 2020

