



Ref: P4229/L02/WJK(email attachment)

3 August 2022

To:	Matt Mason	of:	Pozzoni
Cc:	As per email body	of:	

Cheetham Hill Retail Park – Discharge of Condition 9, part b & Condition 17 - Verification Report

1.0 Introduction

- 1.1 Acoustic and Engineering Consultants Limited (AEC) has been instructed to provide a verification report to discharge planning Condition 9, part b and Condition 17 of the Manchester City Council (MCC) planning consent relating to mechanical plant noise at the development at Cheetham Hill Retail Park. Planning Conditions 9 and 17 state the following:

9) a) The externally mounted ancillary plant, equipment, acoustic plant enclosure for Units numbered A1, A2 and B1 together with the new internal mezzanine (with the exception of unit A3), as indicated on drawing CPS16-068 006 H stamped as received by the City Council, as Local Planning Authority, on the 19 May 2020, shall be acoustically treated in accordance with the mitigation measures outlined within the Acoustic Report completed by Aecom dated 17th December 2018.

b) A verification report shall then be submitted for approval in writing by the City Council, as Local Planning Authority prior to the first use of the equipment on site, in order to secure a reduction in the level of noise emanating from the site.

17) Prior to the first use Units A1, A2 and B1 as indicated on drawing CPS16-068 006 H stamped as received by the City Council, as Local Planning Authority, on the 19 May 2020, details of the proposed acoustic barrier (as outlined on page 12 & 13 of the Acoustic Report no. 102194 prepared by Miller Goodhall Ltd stamped as received by the Local Planning Authority on the 18th October 2019) shall be submitted for approval in writing by the City Council as Local Planning Authority. The approved details shall then be implemented prior to the first use of the development and thereafter retained and maintained in situ for as long as the development remains in use.

- 1.2 This report provides additional information and clarification to the previous verification report (ref: P4229/L01/WJK) following comments from Manchester City Council, relating to a night-time noise validation assessment and confirmation that there are no gaps in the wooden fence construction between the plant and the noise sensitive properties on Queens Road.
- 1.3 The Aecom acoustic report provides predicted noise levels at the nearest noise sensitive properties on Queens Road, based on the sound power data associated with the new mechanical plant items. The predictions determined that mitigation measures were required to achieve the MCC requirement of 5dB below the background noise level.
- 1.4 The report specifies the construction of a solid close boarded wooden fence of at least 12 kg/m² around the northern edge of the plant compound and extending by at least 1m either side of the equipment area. The report also specifies that the fence should be at least 1m higher than the line of sight between the plant and the fourth-floor apartments of the noise sensitive properties on Queens Road.

2.0 Site Visits and Verification Measurements

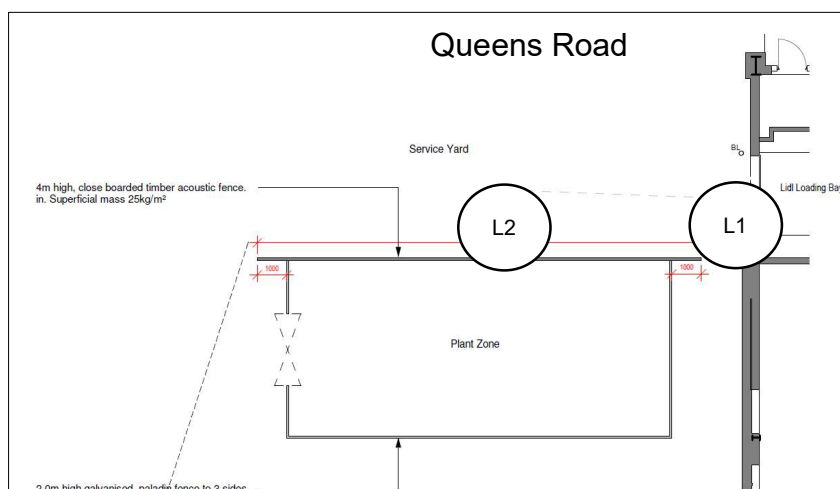
- 2.1 AEC attended site on Monday 1 March 2021 at 2000h. It was confirmed that a close boarded wooden fence has been constructed around the northern edge of the plant compound, which extends at least 1m either side of the plant area, as specified in the Aecom plant assessment report. It is understood that the drawings provided have been accepted as confirmation that there are no gaps in the construction and the following Figure 2.1, taken during the noise survey also demonstrates that there are no gaps in the construction.

Figure 2.1 – Fence Construction



- 2.2 Onsite noise measurements were undertaken at 2 locations on the northern edge of the plant compound at 1m from the installed plant, on the opposite side of the fence, as shown in Figure 2.2, below. Measurements were undertaken in accordance with BS 7445-1:2003 'Description and measurement of environmental noise. Guide to quantities and procedures'.
- 2.3 It was confirmed that all mechanical plant was operating at full capacity.
- 2.4 At the worst-case location at the access opening (L1), the measured noise level was $67.7\text{dBL}_{\text{Aeq},1\text{min}}$. The measured noise level behind the fence was $61.7\text{dBL}_{\text{Aeq},1\text{min}}$. A plan showing the fence and the noise measurement positions is provided in the following Figure 2.2:

Figure 2.2 – Fence and noise measurement positions



Noise Levels at Noise Sensitive Properties

- 2.5 Based on the highest noise measurement recorded during the verification survey at position L1, the noise level from the plant, extrapolated from the measured data, is $37.1\text{dBL}_{\text{Aeq,T}}$ at the nearest noise sensitive properties on Queens Road, with all plant operating. The background noise level was reported in the Aecom acoustic report to be $56\text{dBL}_{\text{A90,T}}$ for the daytime period and $47\text{dBL}_{\text{A90,T}}$ during the night-time. The comparison of the predicted plant noise with the background noise level demonstrates that the MCC requirement of 5dB below the background (dBL_{A90}) has been achieved for both the daytime and night-time periods with all plant operating.
- 2.6 In addition to the above, a subjective noise assessment was carried out at the noise sensitive properties on Queens Road. Noise from all the installed plant operating was barely audible even when there was no audible road traffic noise. For reference, it is accepted that a noise level of 5dB below the prevailing background noise level would equate to a barely audible condition.
- 2.7 Following comments from MCC, it has not been possible to confirm with the premises tenant which plant items would operate during the night-time period. However, based on previous planning noise assessments carried out for Lidl stores, it is understood that only 2 Dry Coolers would typically operate overnight when the store is closed. The noise level provided by manufacturers for the operation of each unit is 42dBA at a distance of 5m.
- 2.8 Based on the above data, the noise level from the operation of the Dry Coolers at the nearest noise sensitive properties, extrapolated from the manufacturer data, would be $31\text{dBL}_{\text{Aeq,T}}$ during the night-time period.
- 2.9 Following the MCC comments, a night-time noise assessment was carried out on Thursday 28 July 2022, between 2315h and 0015h. At night, when the store is closed, fewer plant items operate and there is less demand/duty on the operating plant. During the assessment at the nearest noise sensitive properties, the dominant noise source was observed to be road traffic along Queens Road. When road traffic was not audible, the dominant noise source was the electrical substation on the opposite side of the road to the residential properties. Noise from the external mechanical plant was not audible at the nearest noise sensitive properties at any time during the noise survey.
- 2.10 The average measured background noise level during the survey was $43\text{dBL}_{\text{Aeq,T}}$. As noise from the plant was inaudible at the nearest noise sensitive properties at night, it is reasonable to conclude that it is at least 10dB below the background noise level i.e. no greater than approximately $33\text{dBL}_{\text{Aeq,T}}$. This level is corroborated by the noise levels discussed above, extrapolated from the manufacturer data.

Based on the above assessment, I can confirm that the acoustic barrier has been constructed in accordance with the details provided on pages 12 and 13 the acoustic report no.102194 prepared by Miller Goodall and the Local Authority criteria of 5dB below the background noise level has been achieved during the day and night-time periods.

I trust the above is clear and of assistance. Please do not hesitate to contact me if you have any further queries.

Yours sincerely



Warren King

Checked by: DMT