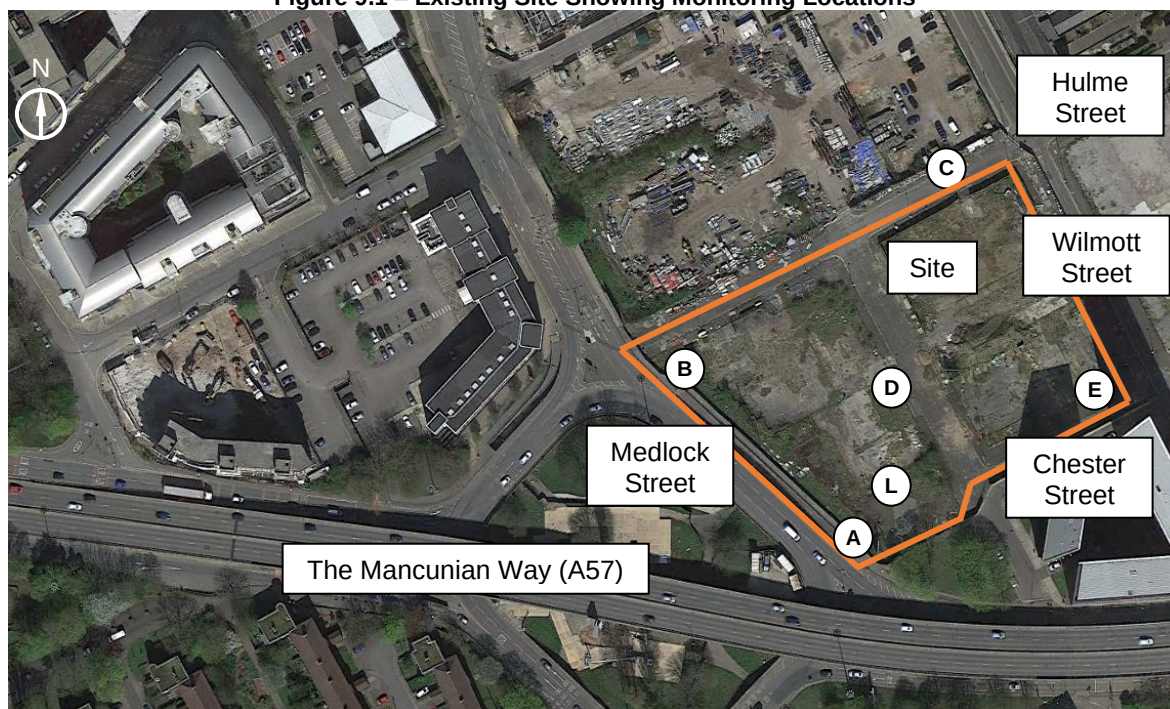


Appendix 9.1 – Noise Measurement Procedure and Noise Level Data

Figure 9.1 – Existing Site Showing Monitoring Locations



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Noise Measurement Procedure

2019 Survey						
Date & Time of Survey:	Wednesday 10 July 2019, 1000 to 1430h. Friday 12 July 2019, 1100h to 0100h Saturday 13 July 2019. Monday 15 July 2019, 1030 to 1130h.					
Personnel:	Michael Ridley (AEC).					
Equipment Used:	Cirrus CR:171B Real Time Analyser (AEC Kit 3). B&K 2250 lite Real Time Analyser (AEC Kit 4).					
Calibration:	The sound level analysers, which conforms to BS EN 61672-1: 2003 ' <i>Electro acoustics – sound level meters - Part 1 Specifications</i> ' for Class 1 Type Z meters, was in calibration and check calibrated before and after the measurement periods using a Brüel & Kjær type 4231 (94dB) calibrator. There was no significant drift of calibration. Calibration certificates are available on request.					
Weather Conditions:	Date	Period	Wet/Dry	Temp°C	Wind Speed & Direction	Cloud Cover
	10 July 2019	Day	Dry	20°C	Southerly and 4 m/s	90%
	12 July 2019	Night	Dry	15°C	Westerly and 3 m/s	70%
	15 July 2019	Day	Dry	10°C	Northerly and 2 m/s	10%
Measurement Locations:	<p>Measurements were undertaken at 5 locations around the development site. Identified as A to E on Figure 9.1 and described below.</p> <p>A – 10m north from the nearest carriageway of Medlock Street. B – 9m north east from the nearest carriageway of Medlock Street . C – 24m south west from the nearest carriageway of Wilmott Street. D – 64m north east from the nearest carriageway of Medlock Street. E – 8m south west from the nearest carriageway of Wilmott Street.</p>					
Measurement Details:	Measurements were undertaken over various periods in terms of L_{eq} , L_{10} , L_{90} , and L_{max} .					
Façade / Free-Field:	A to E - Free-field.					
	Full results for the attended measurements are given in Tables B.1 and B.2.					
Measured Data:	Full octave band centre frequency data was obtained for all measurements.					

Table B.1 – Measured Daytime Noise Levels

Location	Period, h	Noise Level, dB				Comments
		L _{Aeq}	L _{A10}	L _{A90}	L _{Amax, F}	
A	0953 – 1007	73.9	76.0	70.3	86.4	Road traffic on the Mancunian Way. Construction noise was audible but did not contribute to the ambient noise level. Maximum noise levels from HGV's.
	1148 – 1203	73.2	75.2	70.1	80.0	
	1307 – 1322	73.7	75.9	70.1	84.6	
B	1024 – 1039	66.2	67.2	64.0	82.7	Road traffic on the Mancunian Way and Medlock Street. Construction noise was audible but did not contribute to the ambient noise level. Maximum noise levels from HGV's.
	1212 – 1227	65.1	66.3	63.4	72.5	
	1330 – 1345	65.0	66.4	62.9	73.3	
C	1051 – 1106	59.6	61.0	57.0	77.3	Road traffic on the Mancunian Way. Construction noise was audible but did not contribute to the ambient noise level. Maximum noise levels from HGV's.
	1233 – 1240	60.8	62.4	58.6	70.1	
D	1112 – 1127	62.7	64.2	60.9	67.4	Road traffic on the Mancunian Way. Maximum noise levels from HGV's.
	1244 – 1250	62.7	64.5	59.4	69.1	
E	1123 – 1138	62.3	64.1	59.7	69.0	Road traffic on the Mancunian Way. Maximum noise levels from HGV's.
	1256 – 1301	62.7	64.3	60.4	67.5	

Table B.2 – Measured Night-Time Noise Levels

Location	Period, h	Noise Level, dB			Comments
		L _{Aeq}	L _{A90}	L _{Amax, F}	
A	2302 – 2322	72.0	68.4	81.0	Road traffic on the Mancunian Way. Maximum noise levels from HGV's.
	0007 – 0017	71.3	66.4	88.1	
	0050 – 0100	70.1	64.6	78.9	
B	2319 – 2329	63.2	61.4	68.2	Road traffic on the Mancunian Way and Medlock Street. Maximum noise levels from HGV's.
	0021 – 0031	62.6	60.0	80.4	
C	2332 – 2342	56.0	54.0	63.2	Road traffic on the Mancunian Way. Maximum noise levels from HGV's.
	0035 – 0045	59.0	56.4	66.0	
D	2344 – 2354	60.8	57.2	74.8	Road traffic on the Mancunian Way and Medlock Street. Maximum noise levels from HGV's.
E	2357 – 0002	60.2	57.4	66.3	Road traffic on the Mancunian Way. Maximum noise levels from HGV's.

Noise Measurement Procedure

2023 Survey						
Date & Time of Survey:	Unattended measurements between 1500h on Friday 26 May to 1930h on Monday 29 May Month 2023.					
Personnel:	Paul Knowles (AEC).					
Equipment Used:	Cirrus CR:171B Real Time Analyser (AEC Kit 3).					
Calibration:	The sound level analysers, which conforms to BS EN 61672-1: 2013 ' <i>Electroacoustics – Sound level meters - Part 1 Specifications</i> ' for Class 1 Type Z meters, was in calibration and check calibrated before and after the measurement periods using a Brüel & Kjær type 4231 (94dB) calibrator. There was no significant drift of calibration. Calibration certificates are available on request.					
Weather Conditions:	Date	Period	Wet/Dry	Temp°C	Wind Speed & Direction	Cloud Cover
	26.06.23	Day	Dry	12-20°C	Calm	75%
	26-27.06.23	Night	Dry	7-12°C	Calm	50%
	27.06.23	Day	Dry	14-22°C	1 to N 4m/s	50%
	27-28.06.23	Night	Dry	9-14°C	Calm	50%
	28.06.23	Day	Dry	10-20°C	1 to ENE 4m/s	50%
	28-29.06.23	Night	Dry	5-16°C	Calm	0%
	29.06.23	Day	Dry	11-19°C	1 to ENE 4m/s	25%
Measurement Locations:	The microphone was connected via an extension cable and fixed externally on the third floor of the external cabins, identified as L on Figure 9.1.					
Measurement Details:	<p>Measurement at location L were undertaken under free-field conditions.</p> <p>Measurements were undertaken over various periods in terms of L_{eq}, L_{90}, and L_{max} and logged continuously over 1s for post processing and assessment.</p> <p>The measured daytime and night-time periods for the unattended survey is presented on Graph B.1.</p>					
Measured Data:	Full 1/3 rd octave/octave band centre frequency data was obtained for all measurements.					

Graph B.1 - Noise Levels Measured at Location L

