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[REDACTED]

[REDACTED]
[REDACTED]

The assessment position is the lounge window on the ground floor, south face of the neighbouring building, 83 Moor Lane.

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]

Step	Instructions	MCS contractor results / notes
1.	<p>From manufacturer's data, obtain the A-weighted sound power level of the heat pump. See 'Note 1: Sound power level'. The highest sound power level specified should be used (the power in "low noise mode" should not be used).</p> <p><i>Example: Manufacturer's data states the sound power level of the heat pump is 55 dB(A).</i></p>	<p>STEP 1 RESULT = 62</p>
2.	<p>Use 'Note 2: Sound pressure level' and 'Note 3: Determination of directivity' below to establish the directivity 'Q' of the heat pump noise.</p> <p><i>Example: The heat pump is to be installed on the ground and against a single wall hence the directivity (Q) of the heat pump noise is Q4.</i></p>	<p>STEP 2 RESULT = Q4</p>
3.	<p>Measure the distance from the heat pump to the assessment position in metres.</p> <p><i>Example: Distance between heat pump and assessment position is 4 metres.</i></p>	<p>STEP 3 RESULT = 4</p>
4.	<p>Use table in 'Note 4: dB distance reduction' below to obtain a dB reduction.</p> <p><i>Example: 4metres @ Q4 = -17 db.</i></p>	<p>STEP 4 RESULT = -17</p>

5.	<p>Establish whether there is a solid barrier between the heat pump and the assessment position using '<u>Note 5: Barriers between the heat pump and the assessment position</u>' and note any dB reduction.</p> <p><i>Example: There is a brick wall between the heat pump and the assessment position. Moving less than 25cm enables the assessment position to be seen. dB reduction = -5 dB.</i></p>	<p>STEP 5 RESULT =</p> <p>0</p>
6.	<p>Calculate the sound pressure level (see '<u>Note 2: Sound pressure level</u>') from the heat pump at the assessment position using the following calculation:</p> <p>(STEP 1) + (STEP 4) + (STEP 5)</p> <p><i>Example (55) + (-17) + (-5)=55 - 17 - 5 =33 dB(A) Lp</i></p>	<p>STEP 6 RESULT =</p> <p>45</p>
7.	<p>Background noise level. For the purposes of the MCS Planning Standard for air source heat pumps the background noise level is assumed to be 40 dB(A) Lp. For information see '<u>Note 6: MCS Planning Standard for air source heat pumps background noise level</u>'.</p> <p><i>Example: Background noise level is 40 dB(A).</i></p>	<p>STEP 7 RESULT =</p> <p>40 dB(A)</p>
8.	<p>Determine the difference between STEP 7 background noise level and the heat pump noise level using the following calculation:</p> <p>(STEP 7) – (STEP 6)</p>	<p>STEP 8 RESULT =</p> <p>-5</p>

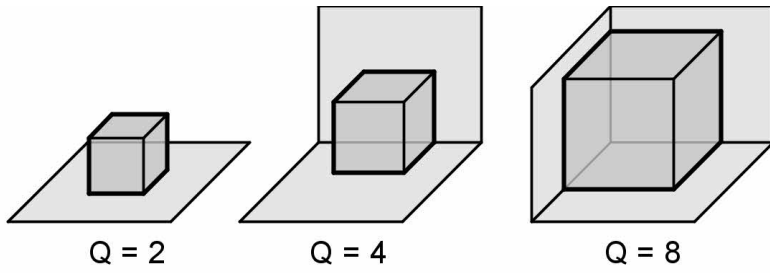
	<p>[REDACTED]</p> <p>[REDACTED]</p>	
■	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p> <p>47</p>
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[REDACTED]

[REDACTED]

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NOTE 7: DECIBEL CORRECTION (STEP 9)

Please note that the left hand column should be used for both positive and negative differences (e.g. a difference of +3 and -3 both attract a correction of 1.8 dB).

Difference between the two noise levels (db) (+/-)	Add this correction to the higher noise level (db)
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4
11	0.3
12	0.3
13	0.2
14	0.2
15	0.1

[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] [REDACTED]
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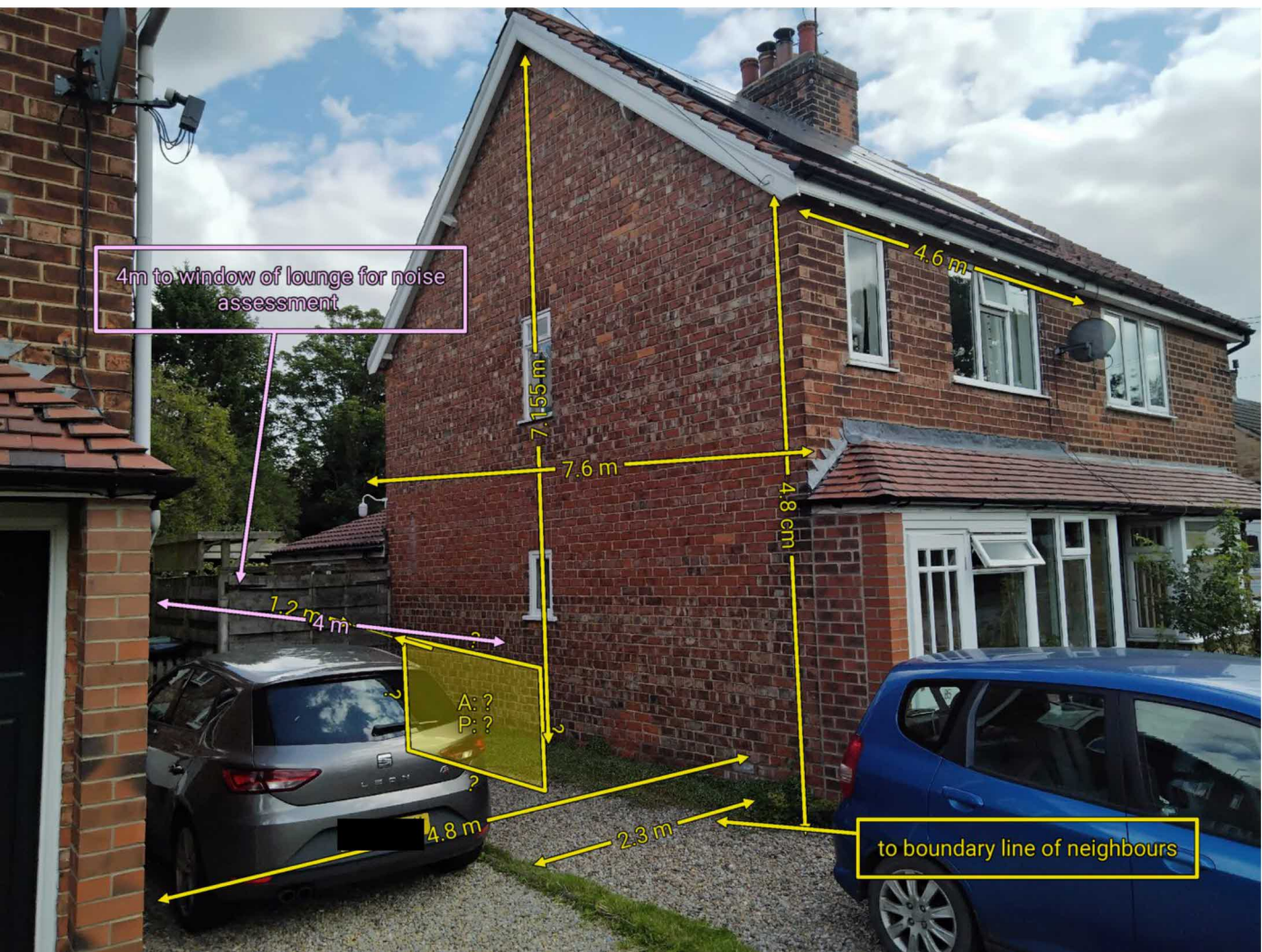
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]



4m to window of lounge for noise assessment

7.155 m

7.6 m

4.6 m

4.8 cm

1.2 m

4.8 m

2.3 m

to boundary line of neighbours

A: ?
P: ?