

ENVIRONMENTAL NOISE ASSESSMENT

On behalf of

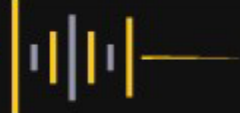
Radelan Estates Ltd

For the site at:

14-16 Bolton Street, Bury, BL9 0LJ

REPORT DATE: 18th September 2025

REPORT REF: AA/25/09/RE/BS/NIA



CLIENT: Radelan Estates Ltd

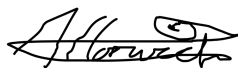
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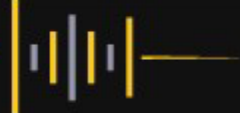
Report Checked By:



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Matthew Gore, BSc, MSc, MIOA

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1. INTRODUCTION

1.1. General

Amber Acoustics has been commissioned by Radelan Estates Ltd to carry out an Environmental Noise assessment to accompany a prior approval application for a change of use of the first and second floor to residential at 14-16 Bolton Street, Bury, BL9 0LJ.

1.2. Assessment Scope

This report will seek to demonstrate that through adequate mitigation and proactive implementation of an upgrade to the external façade, the effect of external noise in the nearby vicinity to the site will be low impact.

Amber Acoustics have completed this report for the benefit of the individuals referred to in Section 1.1 and any other relevant statutory authority which may require reference in relation to approvals for the proposed development. Other third parties should not use, or rely upon, the contents of this report unless explicit written approval has been gained from Amber Acoustics.

Amber Acoustics accepts no responsibility or liability for the consequences of this documentation being used for any purpose or project other than that for which it was commissioned.



2. SITE DESCRIPTION

This Environmental Noise assessment is to accompany a prior approval application for a change of use of the first and second floor to residential at 14-16 Bolton Street, Bury, BL9 0LJ.

The site is set in the ward of Bury East within the boundaries of Bury Borough Council.

The proposed development is at first and second floors, while the ground floor is a wine bar that hosts live music events, that was formerly known as “The Blind Tiger”, but now known as “The Dog House”. The opening times for the bar are set out online and copied below.

The Blind Tiger
4.0 ★★★★★ 242 Google reviews ⓘ
££ · Bar

[Website](#) [Directions](#) [Reviews](#) [Save](#)

[Share](#) [Call](#) [Menu](#)

Service options: Great cocktails · Doesn't accept reservations · Live music

Address: 16-18 Bolton St, Bury BL9 0LJ

Phone: 0161 763 1114

Hours:

Day	Hours
Thursday	8 pm–3 am
Friday	3 pm–4:30 am
Saturday	3 pm–4:30 am
Sunday	5 pm–3 am
Monday	Closed
Tuesday	8 pm–3 am
Wednesday	8 pm–3 am

Bar Operating Times



Satellite image of the site



0161 820 1112



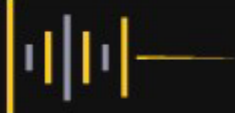
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3. ASSESSMENT STANDARDS

This section of the report outlines the context of the proposed development with respect to noise.

In accordance with the ANC Environmental Sound Measurement Guide ("The Green Book"), in regard to preparing an acoustic assessment which states when preparing an acoustic assessment "the expert needs to understand exactly what is meant and may need to contact the environmental health department or planning authority before formulating the scope of work".

Following correspondence with Rob Hall, Unit Manager, Commercial Team at Bury Council, (4th September 2025) a methodology was agreed that entailed a 3 day and 4 night survey encompassing a weekend and a weekday, with two meters sited out of first-floor windows, one to the front of, and a second to the rear of the property, to establish the baseline from which the facade could be modelled.

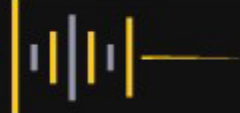
The assessment was undertaken generally in accordance with the guidelines of BS:8233 2014 and in general accordance with BS7445: 2003 'Description and Measurement of Environmental Noise'.

3.1. National Planning Policy Framework and Planning Practice Guidance

The NPPF, published in March 2012, sets out the Government's planning policies for England and how these are to be expected to be applied. The NPPF must be taken into account in the preparation of local and neighbourhood plans and is to be a material consideration in planning decisions.

Paragraph 123 of the NPPF advises that, with respect to noise emissions, planning policies and decisions should aim to:

- Avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;
- Mitigate and reduce to a minimum, other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions
- Planning Practice Guidance, published in March 2014, advises on how planning can manage potential noise impacts in new development. The guidance states that noise needs to be considered when "...new



developments would be sensitive to the prevailing acoustic environment.” Although noise can override other planning concerns, “neither the NPSE1 nor the NPPF expects noise to be considered in isolation from the economic, social and other environmental dimensions of the proposed development. “

When making decisions, local planning authorities should take account of the acoustic environment and in doing so consider:

- Whether or not a significant adverse effect is likely to occur;
- Whether or not an adverse effect is occurring or likely to occur; and
- Whether or not a good standard of amenity can be achieved.

In line with the Explanatory Note of the NPSE this would include identifying whether the overall effect of the noise exposure would be above or below the significant observed adverse effect level. The guidance points to the Explanatory Note for Noise Policy Statement for England 2010 for further information.

3.2. Noise Policy Statement for England 2010

The NPSE sets out the long-term vision of Government noise policy. The Noise Policy Vision is supported by the following Noise Policy Aims:

- Avoid significant impacts on health and quality of life;
- Mitigate and minimise adverse effects on health and quality of life; and
- Where possible, contribute to the improvement of health and quality of life.

The NPSE categorises noise exposure through the concept of observed effect levels:

- No Observed Effect Level (NOEL): The level below which no effect can be detected.
- Lowest Observed Adverse Effect Level (LOAEL): the level above which adverse effects on health and quality of life can be detected.
- Significant Observed Adverse Effect Level (SOAEL): the level of noise exposure above which significant adverse effects on health and quality of life occur.

The second Noise Policy Aim refers to the situation where the noise impact lies between the LOAEL and the SOAEL. It requires that, "...all reasonable steps should be taken to mitigate and minimise effects on health and quality of life... This does not mean that such adverse effects cannot occur."

The NPSE does not contain specific noise level limits to define the SOAEL as it is likely to be different for different noise sources and parameters. In the absence of national LOAEL and SOAEL noise level criteria, noise levels have been assessed against criteria contained within BS8233:2014 and WHO Guidelines.

3.3. The World Health Organisation Guidelines

The WHO Guidelines for Community Noise 1999 consolidate scientific knowledge on the health impacts of community noise and provide guidance to protect people from the harmful effects of noise in non-industrial environments.

Although this guidance was updated in 2018, the specific references to noise levels were omitted, and have still, to the best of the authors' knowledge, not been updated or clarified by the WHO. Therefore, the 1999 guidelines are referenced herein as they contain the specific noise level targets which tie in nicely with those listed in other British Standards.

The WHO Guidelines for Community Noise set out health-based guideline values for community noise, including recommended noise level values for the onset of sleep disturbance, annoyance and speech interference for the general population. Guideline values are provided for outdoor living areas, living rooms and bedrooms, for both continuous noise and discrete noise events. These are:

$L_{Aeq,T}$ - the A-weighted equivalent continuous noise energy level over a given period of time T, applied to fluctuating noise levels to give single figure descriptor and sometimes referred to as the 'average'; and

L_{AFmax} - the maximum A-weighted noise instantaneous sound pressure level recorded during a measurement period using a fast time response.

With regard to outdoor living areas, the WHO Guidelines for Community Noise state that, "... in order to protect the majority of people from being seriously annoyed during the daytime, the outdoor sound level from steady, continuous noise should not exceed 55dB(A) L_{Aeq} on balconies, terraces, and in outdoor living areas".

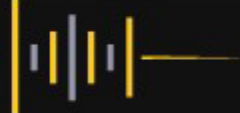


Table 1: WHO Guideline Values for Community Noise

Specific Environment	Critical Health Effect (s)	L_{Aeq} dB(A)	Time base (hours)	L_{AFmax} fast dB(A)
Outdoor living area	Serious annoyance, daytime and evening.	55	16	-
	Moderate annoyance, daytime evening	50	16	-
Dwelling indoors	Speech intelligibility and moderate annoyance, daytime and evening	35	16	-
Inside bedroom	Sleep disturbance night-time	30	8	45
Outside bedroom	Sleep disturbance, window open (outdoor values)	45	8	60

Source: World Health Organisation 1999

3.4. BS8233:2014

BS8233:2014 contains suggested criteria for common situations, such as resting and sleeping, and proposes noise levels that normally satisfy those criteria for most people. For dwellings, the main considerations are:

- For bedrooms, the acoustic effect on sleep; and
- For other rooms, the acoustic effect on resting, listening and communicating.

Suggested noise levels reflect those contained within the WHO Guidelines. BS8233:2014 advises that the time period T, should be appropriate for the activity involved, in this case the daytime $L_{Aeq,16hr}$ (07:00-23:00) and night-time $L_{Aeq,8hr}$ (23:00-07:00).

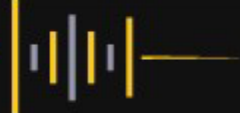


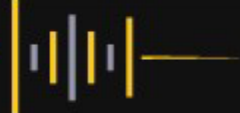
Table 2 below details guideline values for dwellings as recommended within BS8233:2014.

Table 2: BS8233:2014 Recommended Noise Levels

Criterion	Typical situations	Time		
		Daytime 07:00 to 23:00 (L_{Aeq})	Night-time 23:00 to 07:00 (L_{Aeq})	Night-time 23:00 to 07:00 (L_{Amax})
Resting	Living room	35	-	
Sleeping (daytime resting)	Bedroom	35	30	45

Source: BS8223:2014

With regard to external noise levels in amenity spaces such as gardens, the guidance advises that "...it is desirable that the external noise level does not exceed 50dB $L_{Aeq,T}$, with an upper guideline value of 55dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognised that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited."



4. SURVEY MEASUREMENTS

The Environmental Noise Assessment (referred to as MP1 and MP2 in this report) took place over a 3-day and 4-night period commencing at 23:00 on Thursday 11th September 2025 and concluding at 07:00 on Monday 15th September 2025.

The Noise survey was carried out in accordance with BS7445: 2003 'Description and Measurement of Environmental Noise'.

4.1. Measurement Locations

The Measurement location was as follows:

MP1 – A meter was positioned at first floor window level overlooking the front of the property as agreed in correspondence with the Council.

MP2 – A meter was positioned at first floor window level overlooking the rear of the property as agreed in correspondence with the Council.

4.2. Meteorological Conditions

No excessive precipitation was noted during the survey, and the general wind speed in all directions was less than 5m/s, which is suitable for a noise survey. Detailed weather conditions are given in **Appendix C**.

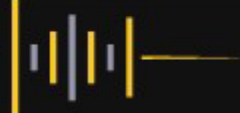
4.3. Measurement Equipment

$L_{Aeq,T}$ and L_{AFmax} sound levels were recorded using Type 1 Svantek SV307 Sound Analysers (serial numbers 100907 and 116709). Measurements were A-weighted and recorded using a fast time response.

The sound level meters were calibrated using a Svantek SV36 Sound Calibrator (serial number 83149) at the start and finish of the monitoring period. No significant calibration drifts were observed. A detailed equipment list is given in **Appendix B** with calibration information in **Appendix D**.

4.4. Observations

The noise from the music bar was the overwhelming dominant noise to the front of the site, with no major source of noise to the rear of the site, save from pedestrians and motor vehicles utilising the nearby roads.



5. RESULTS

To assess the environmental noise climate, noise measurements were undertaken over a 3 day and 4-night period. The testing took place over 11th – 15th September 2025.

The results of the measurements are tabulated below.

	L _{Aeq} 16hr (dB)		L _{Aeq} 8hr (dB)		L _{AFmax} (dB)	
	MP1	MP2	MP1	MP2	MP1	MP2
11/09/2025	-	-	61.5	53.0	78.9	69.8
12/09/2025	67.5	49.8	72.9	51.9	89.7	68.3
13/09/2025	67.7	51.5	65.7	48.6	79.9	61.3
14/09/2025	67.1	50.2	59.8	51.0	77.5	63.5

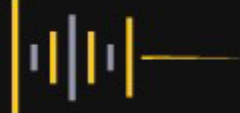
Table 1: Measurement Summary of Noise Survey 1 (MP1) Results.

As the measurements were taken within 1.5 metres of the façade, a 3.0 dB adjustment must be made to the results, in accordance with the guidance contained in BS8233:2014 Section 3.1.10. These adjusted results can be seen in Table 2 below.

	L _{Aeq} 16hr (dB)		L _{Aeq} 8hr (dB)		L _{AFmax} (dB)	
	MP1	MP2	MP1	MP2	MP1	MP2
11/09/2025	-	-	58.5	50.0	75.9	66.8
12/09/2025	64.5	46.8	69.9	48.9	86.7	65.3
13/09/2025	64.7	48.5	62.7	45.6	76.9	58.3
14/09/2025	64.1	47.2	56.8	48.0	74.5	60.5

Table 2: Measurement Summary of Noise Survey Results with Façade correction.

The worst-case results are highlighted in red, and all mitigation measures will be factored against those results as the baseline.



6. ASSESSMENT

6.1. Existing Noise Climate

The noise from the music bar was the overwhelming dominant noise to the front of the site, with no major source of noise to the rear of the site, save from pedestrians and motor vehicles utilising the nearby roads.

6.2. BS8233: 2014 and WHO Guidelines Assessment

A summary of external and internal sound levels to be achieved at the proposed development is provided below:

Living rooms (daytime) $L_{Aeq,T}$ 35dB(A);
Bedrooms(daytime) $L_{Aeq,T}$ 35dB(A)
Bedrooms(night-time) $L_{Aeq,T}$ 30dB(A);
Bedrooms (night-time) L_{AFmax} 45dB(A); and
Gardens $L_{Aeq,T}$ 50-55dB(A).

With regard to internal sound levels, from the site measurement data, it may be extrapolated that, in order to achieve BS8233: 2014 and WHO criteria, the building fabric of the façade overlooking the front of the property will need to provide a minimum sound reduction of up to 29.7 dB(A) during the daytime, and up to 39.9 dB(A) during the night-time.

With regard to L_{AFmax} sound levels in bedrooms during the night-time, the building fabric of the façade will need to provide a minimum sound reduction of up to 41.7 dB(A).

The building fabric of the façade overlooking the rear of the property will need to provide a minimum sound reduction of up to 13.5 dB(A) during the daytime, and up to 20.0 dB(A) during the night-time.

With regard to L_{AFmax} sound levels in bedrooms during the night-time, the building fabric of the façade will need to provide a minimum sound reduction of up to 21.8 dB(A).



7. MITIGATION

It has been identified that the environmental noise climate to the front of the site was overwhelmingly dominated by the music bar noise to the front of the site, with no major source of noise to the rear of the site, save from pedestrians and motor vehicles utilising the nearby roads.

A façade specification (glazing and ventilation) has been identified with the overall aim of reducing the incident external to internal noise ingress to within desirable criteria, as given in *BS8233:2014 – Guidance on sound insulation and noise reduction for buildings*.

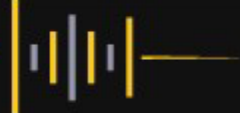
As windows are typically the acoustically weakest point in a façade, requisite sound reduction to be provided by glazing and ventilation systems to achieve the guideline values has been considered.

Assessment indicates that a sound reduction of up to 41.7 dB sound reduction (R_w) will be required to glazing overlooking the front of the property, and sound reduction of up to 21.8 dB sound reduction (R_w) will be required to glazing overlooking the rear of the property to meet the requirements of BS8233:2014.

It is understood that the client intends to use secondary glazing to the front of the property due to it being in a conservation area.

Appendix F demonstrates the typical performance achieved from secondary glazing. If the rear of the property is not under the same conservation constraints, then thermal double glazing, of the following specification (4/(6 to 16)/4) is generally capable of providing a typical sound reduction of approximately 25dB R_{w+Ctr} (BS EN 12758:2019)

Due to the façade being a “closed façade”, mechanical ventilation will be needed to all dwelling with openings overlooking the front façade.



8. SUMMARY AND CONCLUSIONS

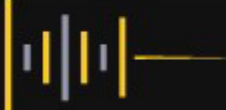
Amber Acoustics has been commissioned by Radelan Estates Ltd to carry out an Environmental Noise assessment to accompany a prior approval application for a change of use of the first and second floor to residential at 14-16 Bolton Street, Bury, BL9 0LJ.

The Environmental Noise Assessment has sought to establish existing daytime and night-time sound levels at the site, and then determine specific mitigation requirements based on the external and internal sound level criteria as set out within BS8233:2014 'Guidance on sound insulation and noise reduction for buildings' and World Health Organisation 'Guidelines for Community Noise'.

Noise survey results and assessment indicate that mitigation of local sound sources will be required in order to achieve the requisite internal sound level criteria in all areas of the proposed development.

The proposed mitigation strategy for the development comprises the installation of new secondary glazing, with a typical minimum sound reduction of R_w 41.7 dB, and suitable acoustically attenuated mechanical ventilation to all dwellings overlooking the front of the property, and replacement glazing with a typical minimum sound reduction of R_w 21.8 dB, and suitable passive ventilation to all dwellings overlooking the rear of the property.

It is considered that, with implementation of the specified mitigation strategy, sound levels will be attenuated to achieve recommended internal sound level criteria for new dwellings.



APPENDICES

APPENDIX A - Measurement Details

Measurement	Kit	Start Date	Start Time	End Date	End Time
MP1	AA1	11 th September 2025	23:00	15 th September 2025	07:00
MP1	AA2	11 th September 2025	23:00	15 th September 2025	07:00

APPENDIX B - Equipment Details

Kit	Equipment	Make	Model	Class	Serial Number
AA1	Sound Meter	Svantek	SV307a	1	116709
AA2	Sound Meter	Svantek	SV307	1	100907
AA3	Calibrator	Svantek	SV36	1	83149

APPENDIX C - Meteorology Details

Measurement	Temp C (Average)	Wind Speed m/s	Humidity %
MP1 + MP2	8.2	3.1	76

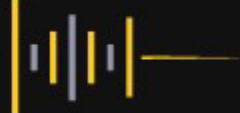
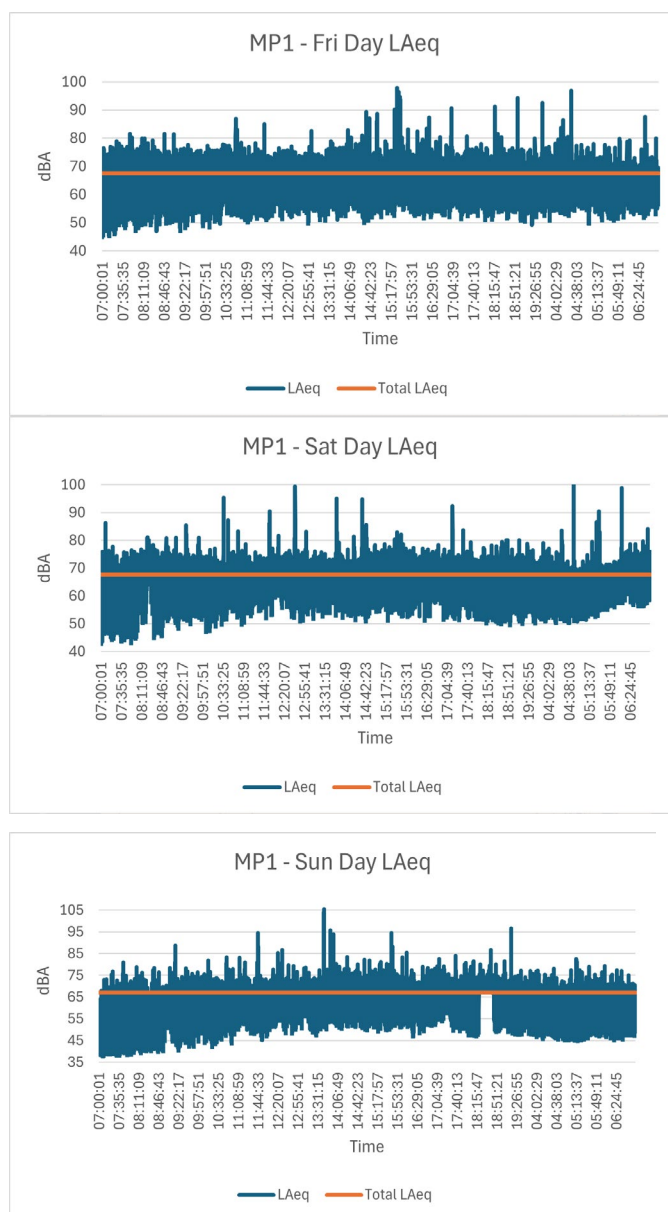
APPENDIX D - Calibration Details

Measurement	Calibrator Ref Level (dB)	Level Before (dB)	Deviation Before (dB)	Level After (dB)	Deviation After (dB)
MP1	114	114.1	-0.1	114.0	0
MP2	114	114.0	0	114.1	-0.1

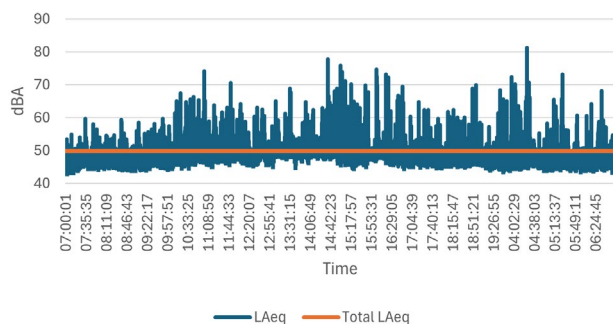


APPENDIX E – Survey Data

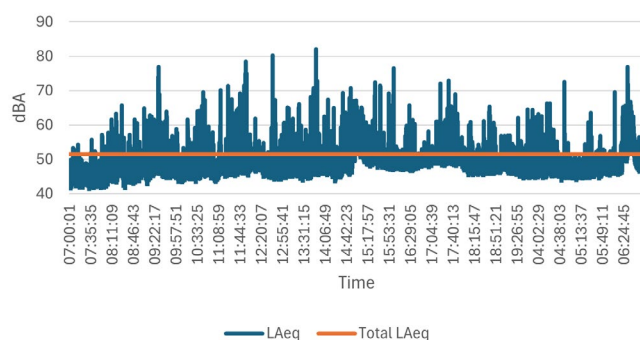
Daytime L_{Aeq} Noise Survey Data



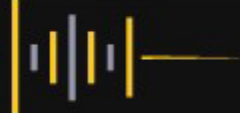
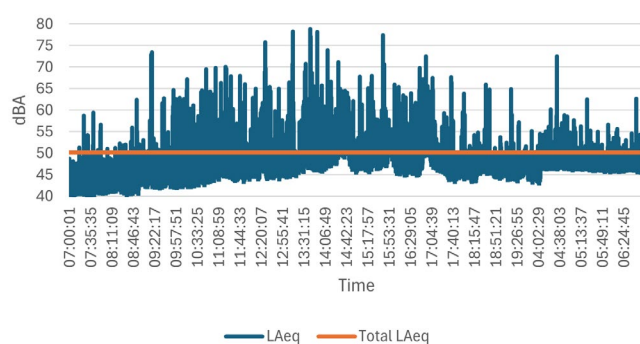
MP2 - Fri Day LAeq



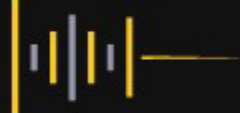
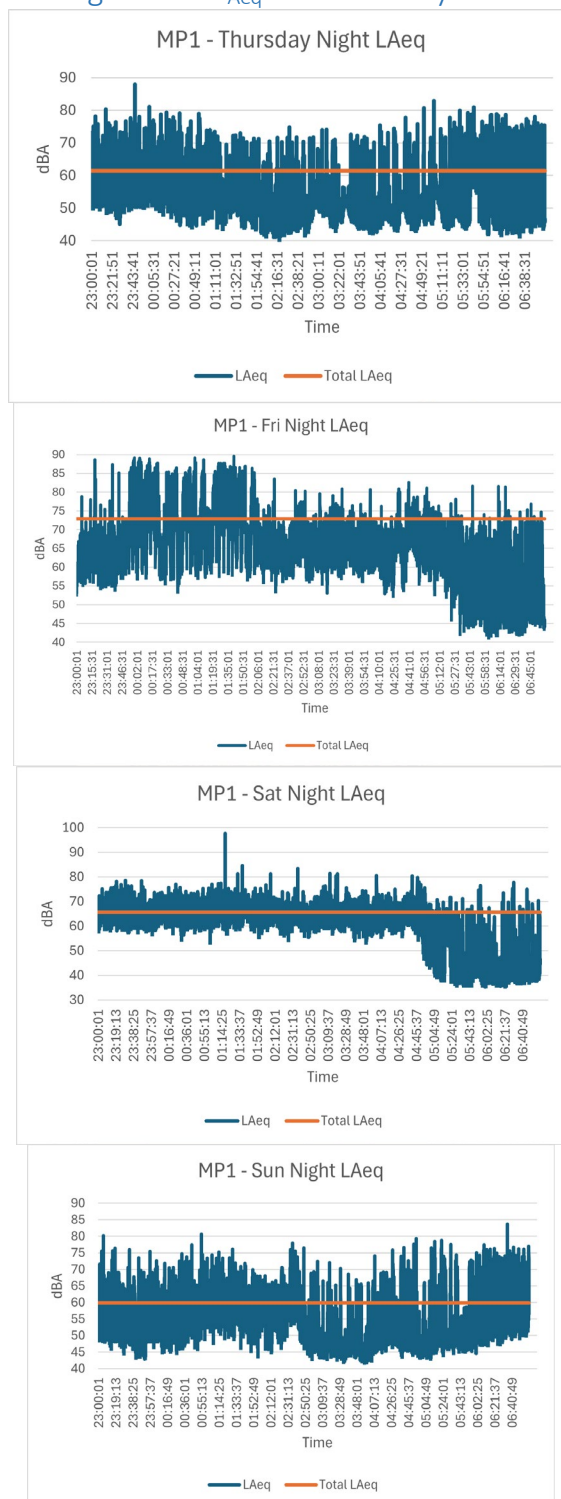
MP2 - Sat Day LAeq

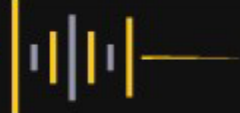
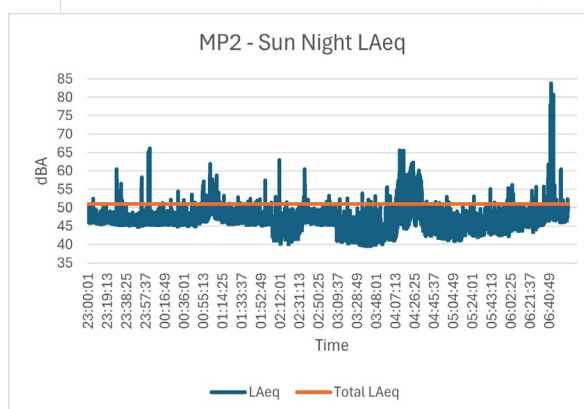
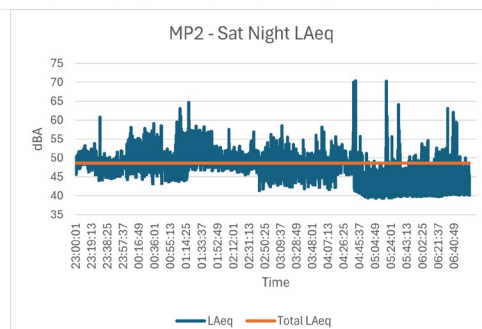
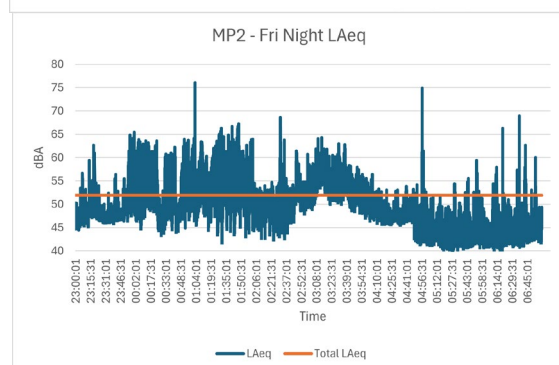
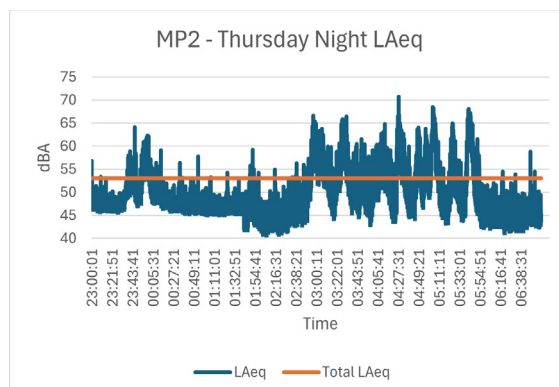


MP2 - Sun Day LAeq

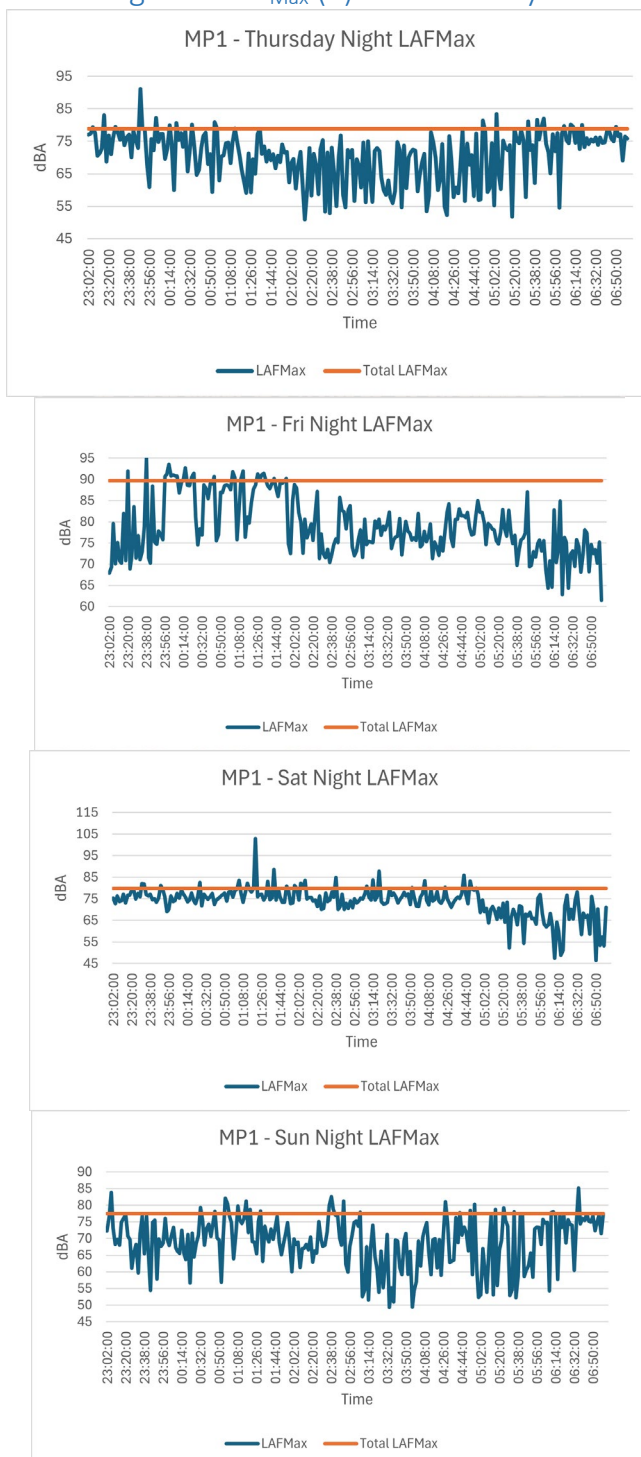


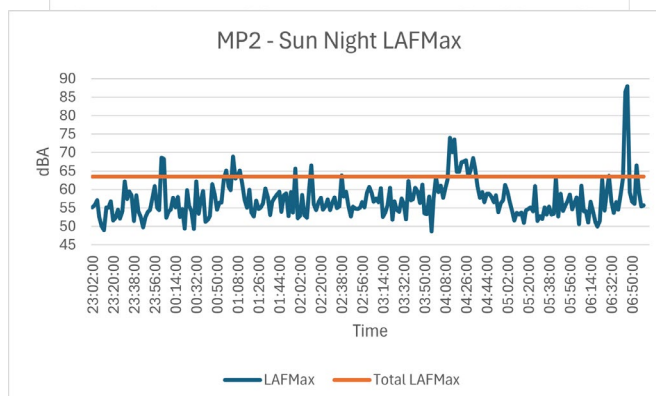
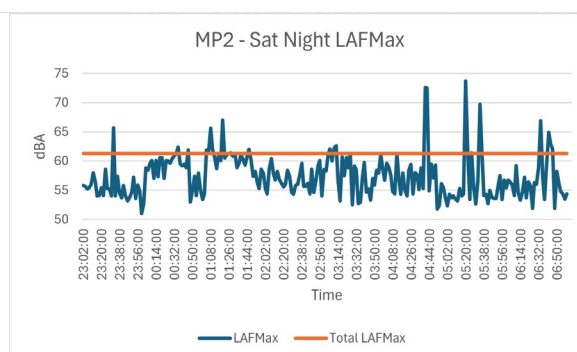
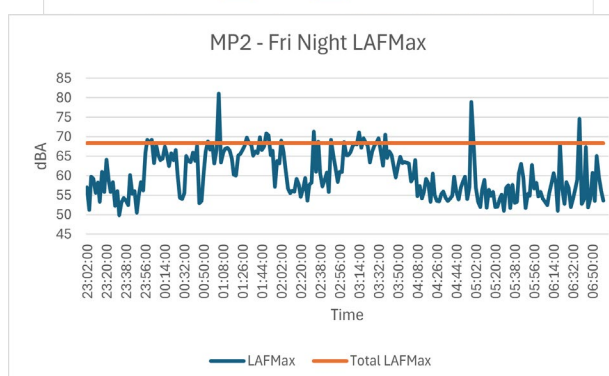
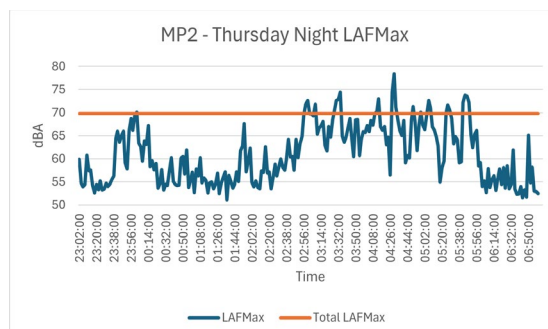
Night time L_{Aeq} Noise Survey Data





Night time L_{Max} (F) Noise Survey Data





APPENDIX F – Secondary Glazing Performance Data



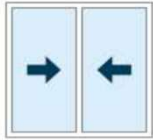
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TEL: 0114 294 5018

Acoustic Performance Results

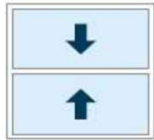
Secondary Glazing	Primary Window 4mm Float Glass				Primary Window 6mm Float Glass				Primary Window 4mm Float Glass				Primary Window 6mm Float Glass			
	150mm Glass to Glass				150mm Glass to Glass				200mm Glass to Glass				200mm Glass to Glass			
	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS	SS2	HHU	BVS	HTBVS
4mm Toughened	48*	48*	47*	46*	51*	50*	50*	47*	49	50	49	47	51*	51	51	48
6mm Toughened	49*	49*	48*	46*	51*	50*	50*	47*	50*	51*	51*	47*	51*	52*	52*	48*
6.4mm Acoustic Laminate	50*	50*	49*	47*	52	51*	52*	48*	51*	52	53	48	52*	53*	54*	50
8.8mm Acoustic Laminate	NA	50*	NA	47*	NA	51*	NA	48*	NA	52*	NA	48*	NA	53*	NA	49
10.8mm Acoustic Laminate	NA	51*	NA	NA	NA	52*	NA	NA	NA	53*	NA	NA	NA	54	NA	NA
4/12/6.4mm Sealed Unit	NA	51*	NA	NA	NA	52*	NA	NA	NA	53*	NA	NA	NA	53	NA	NA

Key:

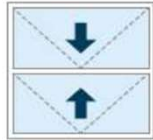
SS2



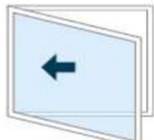
BVS



HTBVS



HHU



Clearview Secondary Glazing Windows have been tested at Chiltern Dynamics in accordance with BS EN ISO 10140-2 Laboratory measurement of airborne sound insulation of building elements'

The table shows results for secondary glazing windows set at a 150mm and 200mm cavity with 4mm or 6mm float glass in the primary window. Chiltern Dynamics Lab is UKAS Accredited No. 1762

* Sound reduction figures predicted by Chiltern Dynamics using the basis of actual laboratory test results.
Sound Reduction measured in dB.

Product Key:

SS2: = Classic 2 pane Horizontal Slider

HHU: = Forte Hinge Unit

BVS: = Classic Balanced Vertical Slider

HTBVS: = Forte Balanced Vertical Slider