Technical Note	
To	Michael Berrie at RP Tyson Construction Ltd.
From	Lise W. Tjellesen, MIOA – Miller Goodall
Ref	103408-2 TN02
Project	Plant Hill Road, Blackley, M9 8LY
Subject	Verification Measurements
Date	28th August 2026
Version	ISSUED – V0

Introduction

1. Miller Goodall Ltd has been appointed by Tyson Construction Ltd. to carry out verification measurements for the residential development at Plant Hill Road, Blackley, M9 8LY, which was granted planning permission (*ref: 137912/FO/2023*) with conditions. Condition 15 states:

   "Prior to first occupation of the residential units, a verification report shall be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved acoustic consultant's report. The report shall also undertake post completion testing to confirm that the internal noise criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the internal noise criteria."

2. This technical note presents the methodology and results of the verification measurements undertaken in two representative dwellings of the development.

3. Prior to the verification measurements, an updated noise impact assessment was prepared and reported in a technical note (*ref. technical note NA103408-2 V1 dated 1 July 2026*), which should be read in conjunction with this current technical note. The updated noise impact assessment reports set out the sound insulation performances of the external building envelope and predicts the internal ambient noise levels (IANL) with the proposed glazing and ventilation.

Criteria

4. Condition 15 refers to the original noise impact assessment1 for acoustic criteria. The report refers to BS 8233:20142 and the Professional Practice Guidance on Planning and Noise: Residential Development3 (ProPG). In accordance with these documents, the following internal ambient and external amenity noise criteria have been adopted:

   - Living room – daytime 07:00 to 23:00 hours 35 $L_{Aeq,16hours}$
   - Bedroom – daytime 07:00 to 23:00 hours 35 $L_{Aeq,16hours}$ and night-time 23:00 to 07:00 hours 30 $L_{Aeq,8hours}$ and 45 $L_{AF,max}$ (not to be exceeded more than 15 times per night).

Survey Methodology

5. Due to the location of the development, the dominant noise source is considered to be road traffic occurring on the surrounding road network, and in specific road traffic on Plant Hill Road, which links Chapel Ln and Victoria Ave (A6104).

6. In order to validate a worst-case scenario, a front facing 1st floor bedroom, and a read facing ground floor living room in separate two-storey residential properties were chosen for the measurements.

7. The measurements were carried out between Thursday 13th August 2026 and Monday 17th August 2026.

8. One sound level meter was set up in the first-floor south-facing bedroom of Plot 9-10, which overlooks Plant Hill Road, and a second sound level meter was set up in the ground-floor north-facing living room of Plot 5-6. The microphones were set at a height of approximately 1.6 m The microphones were at least 1 m from any reflecting surfaces. The rooms were unfurnished and not carpeted. The photographs in Figure 1

[1] Ref. Idom report ENA-22522A-23-34 Environmental Noise Assessment Plant Hill Road, January 2023
[2] British Standard (BS) 8233:2014 “Acoustics - Guidance on sound reduction for buildings”, February 2014, British Standard Institution (BSI)
[3] Professional Practice Guidance on Planning and Noise (ProPG: Planning & Noise) – New Residential Development, May 2017 Association of Noise Consultants (ANC)

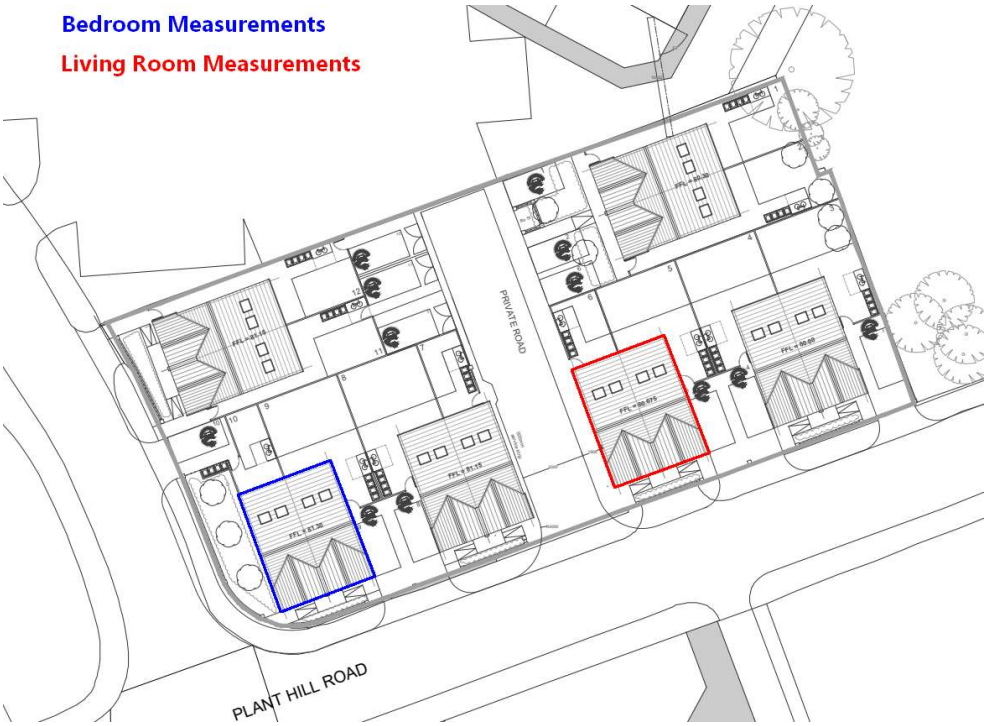
shows the measurement setups in situ with bedroom in Plot 9-10 to the left and living room of Plot 5-6 to the right.

Figure 1: Measurement Setups In-situ



9. **Figure 2** below presents an annotated plan layout showing where the meters were located for the survey.

Figure 2: Monitoring Locations Annotated Plans



Measurement Results

10. **Table 1** presents the $L_{Aeq,T}$ and L_{Afmax} results for day- and night-time periods in the first-floor bedroom, and the daytime only for ground-floor living room.

Table 1: Result Summary

Location	Date	Period	$L_{Aeq,T}$ ***) (dB)	L_{Afmax} (dB)	Criteria (dB)	Comments
First Floor Bedroom, facing Plant Hill Road	13/08/2026	Daytime *)	38	-	35	**OK** see paragraph 12 & 13
		Evening	33			
		Night-time	27	48	30 / 45	**OK /** see paragraph 14 - 16
	14/08/2026	Daytime	37	-	35	**OK** see paragraph 12 & 13
		Evening	34			
		Night-time	28	48	30	**OK /** see paragraph 14 – 16
	15/08/2026	Daytime	35	-	35	**OK**
		Evening	34			**OK**
		Night-time	27	49	30	**OK /** see paragraph 14 - 16
	16/08/2026	Daytime	33	-	35	**OK**
		Evening	31			**OK**
		Night-time	27	48	30	**OK /** see paragraph 13
	17/08/2026	Daytime **)	34	-	35	**OK**
Ground Floor Living Room, facing away from Plant Hill Road	13/08/2026	Daytime / Evening	33 /33	-	35	**OK** See paragraph 17
	14/08/2026		33 / 33			
	15/08/2026		33 / 33			
	16/08/2026		33 / 33			
	17/08/2026		33 / 33			

**) results only for 13:45 to 23:00 – This applies to both measurement locations*
***) results only for 07:00 to 09:45 – This applies to both measurement locations*
****) values are rounded to nearest whole number*

Comments

11. It should be noted that the current state of the rooms, i.e. unfurnished and un-carpeted, results in reverberation times longer than would be the case for a carpeted and furnished room. The resulting measured sound levels are therefore likely to be slightly higher than would be expected once the rooms are furnished and carpeted.

12. According to Bs 8233 and ProPG the daytime period is defined as 16hr from 07:00 – 23:00. This is time period can further be split into 12hr daytime (07:00 – 19:00) and 4hr evening(19:00 – 23:00). The 16hr daytime value for both the 13th and 14th August is 36 dB $L_{Aeq,T}$.

13. It is understood that some landscaping work was taking place externally immediately in front of the development on the 13th and 14th August during daytime. This is reflected in the results (as shown in **Table 1**), which indicates 3 to 5 dB higher values during the 12hr daytime period than during the 4hr evening period. For 15th and 16th August the difference between daytime and evening is 1 to 2 dB and below the criteria. It is therefore reasonable to assume that the 16hr daytime IANLs on the 13th and 14th August would have been acceptable if the external work had not taken place.

14. Based on sample audio recordings carried out by Tyson Construction Ltd It is understood that a number of cars, which could be classified as "modified", i.e. exhibiting higher noise levels than ordinary cars, were passing by during the night-time with regular intervals. This is supported by the fact that L_{Afmax} values spike in clusters throughout the night. Each individual cluster having L_{Afmax} values appearing with intervals of 6 to 10 mins.

15. The 10th event level for L_{Afmax} , as defined in BS 8233 and ProPG, during the night-time is identified to be 48 dB. While this technically exceed the criteria of 45 dB L_{Afmax}, with 3 dB, it should be noted that the majority of the exceedance values are below 48 dB L_{Afmax},. 3 dB is the normally accepted just noticeable difference (JND) in real-life listening environments. Further analysis confirms that the majority of exceedances of the 45 dB $L_{Afmax,}$ criteria are below 48 dB $L_{Afmax,}$ It is therefore considered unlikely that the exceedances are noticeable.

16. It should be noted that if unusual numbers of HGVs, "modified" cars / motorbikes, sirens etc. were passing by during the measurements, this could contribute to the overall exceedances.

17. The measured daytime values for the ground-floor living room, are constant between 32.5 and 33.5 dB $L_{Aeq,T}$ which when rounded to the nearest whole number results in a value of 33 dB $L_{Aeq,T}$.

Conclusion

18. Miller Goodall Ltd has carried out verification measurements for the residential development at Plant Hill Road, Blackley, M9 8LY in order to satisfy condition 15 of the planning permission (*ref: 137912/FO/2023*).

19. Miller Goodall Ltd has also prepared a mitigation scheme which has been documented in a separate technical note (*ref. technical note NA103408-2 V1 dated 1 July 2026)*

20. The verification measurements show that:

    - All 16hr daytime and 8hr night-time criteria are achieved.
    - Exceedance of the 10th event level criteria is identified for the night-time L_{Afmax} values; however, the exceedance can be considered negligible as the majority of the values of the L_{Afmax} occurrences are between 45 dB L_{Afmax} (the criteria) and 48 dB L_{Afmax} (the identified 10th event level) and thus below the JND level.

21. Based on the above, it is recommended that condition 15 can be discharged.