

20171369.1/3001A/R0/GW

30/01/2020

Fraser's Property Ivanhoe Pty Ltd
Shared Services Centre
PO Box 3307
RHODES NSW 2138

Attn: Madison Pellow

Master Plan for Ivanhoe Estate, Macquarie Park - Additional Noise Monitoring**1 INTRODUCTION**

This report presents our additional background noise monitoring results for the proposed Master Plan of Ivanhoe Estate, Macquarie Park following the letter provided by NSW EPA with reference number: DOC19/1078586.

2 THE NEAREST NOISE RECEIVERS

Site investigation indicates that the nearest noise receivers are below:

- Receiver 1 (R1)- Multistorey residential /commercial mixed-use development (under construction) at 137-143 Herring Rd.
- Receiver 2 (R2)- Multistorey residential /commercial mixed-use development immediately across Herring Rd.
- Receiver 3 (R3)- Existing multistorey residential building located adjacent to northern boundary.
- Receiver 4 (R4)- Existing residential dwellings located across Epping Road.
- Receiver 5 (R5)- Commercial building within Morling College. Macquarie Baptist Church is located further west at back of this College. Noise compliance to Morling College will automatically satisfy Baptist Church.
- Receiver 6 (R6)- Commercial building located north eastern to the project site.
- Receiver 7 (R7)- Commercial building located eastern to the project site.

SYDNEY
9 Sarah St
MASCOT NSW 2020
(02) 8339 8000ABN 11 068 954 343
www.acousticlogic.com.au

The information in this document is the property of Acoustic Logic Consultancy Pty Ltd ABN 11 068 954 343 and shall be returned on demand. It is issued on the condition that, except with our written permission, it must not be reproduced, copied or communicated to any other party nor be used for any purpose other than that stated in particular enquiry, order or contract with which it is issued.

Above noise receiver locations have been marked in Figure 1 below and our view indicates that the noise emission to remaining receivers will be acceptable if it achieves criteria at above locations.



Figure 1: Background Noise Monitor Locations

3 NEW BACKGROUND NOISE MONITORING LOCATIONS

Background noise were recorded using by using six Acoustic Research Laboratories Pty Ltd noise loggers. The loggers were programmed to store 15-minute statistical noise levels throughout the unmanned monitoring period. The equipment was calibrated at the beginning and the end of the measurement using a Rion NC-73 calibrator; no significant drift was detected. All measurements were taken on A-weighted fast response mode.

Detailed noise monitor locations are below:

- Location 1- Front yard of residential dwelling at 204 Epping Rd, Macquarie Park. The measured background noise levels were generally not affected by construction activities at project site or neighbouring site.
- Location 2- Middle of western boundary of project site with microphone adjacent to the construction site at 137-143 Herring Rd. the recorded background noise during daytime is affected by construction activities therefore the RBL of evening time should be adopted.
- Location 3- Front yard of residential dwelling at 155 Herring Road, Macquarie Park. The background noise levels were generally not affected by construction activities at the project site during day.
- Location 4- Front yard of residential dwelling at 3 Peach Tree Road, Macquarie Park. The measured background noise levels were generally not affected by construction activities at project site

- Location 5- End of Cobar Way, Macquarie Park. The measured background noise levels were generally not affected by construction activities at project site.
- Location 6- Located within vacant land adjacent to 168 Epping Road, Marsfield. The measured background noise level was not affected by construction noise from the project site.

Site investigation of above noise monitor locations indicates:

- Loggers at location 1 & 6 represent the nearest residential noise Receiver 4
- Logger at location 2 represents the nearest residential noise Receiver 1 & 2.
- Logger at location 3, 4 & 5 represent the nearest residential noise Receiver 3



Figure 2 New Background Noise Monitor Locations

Photos of noise monitors are presented below:



1



2



3



4



5



6

4 MEASUREMENT TIME PERIOD

Unmanned measurements at above locations were conducted between 13th and 28th January 2020.

5 MEASURED RATING BACKGROUND NOISE LEVEL

The measured background noise levels dB(A)_{L₉₀} for day, evening and night-time periods are shown in the table below.

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;
- Evening is defined as the period from 6pm to 10pm; and
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

Weather data of Olympic Park station has been adopted and the weather affected noise data has been excluded in this assessment.

Summarised Rating Background Noise Levels are below:

5.1.1 Logger 1- Front Yard of Residential Dwelling at 204 Epping Rd

Site investigation indicates that the construction noise of project site and neighbouring site was not audible.

Table 1 – Rating Background Noise Levels- Logger 1

Location	Date	ABL		
		Day	Evening	Night
#1	Monday 13 January 2020	-	51	39
	Tuesday 14 January 2020	55	52	39
	Wednesday 15 January 2020	-	-	38
	Thursday 16 January 2020	55	54	-
	Friday 17 January 2020	56	-	41
	Saturday 18 January 2020	54	52	38
	Sunday 19 January 2020	51	53	40
	Monday 20 January 2020	56	-	38
	Tuesday 21 January 2020	55	53	42
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	52	47
	Friday 24 January 2020	56	54	47
	Saturday 25 January 2020	53	52	42
	Sunday 26 January 2020	48	52	45
	Monday 27 January 2020	50	52	42
	Tuesday 28 January 2020	-	-	-
	RBL	54	52	41

5.1.2 Logger 2- Middle of Western Boundary of Project Site

Noise level during day time was affected by construction activities therefore the evening time RBL should be adopted for day time period.

Table 2 – Rating Background Noise Levels- Logger 2

Location	Date	ABL		
		Day	Evening	Night
#2	Monday 13 January 2020	-	43	34
	Tuesday 14 January 2020	50	43	33
	Wednesday 15 January 2020	-	-	34
	Thursday 16 January 2020	48	46	-
	Friday 17 January 2020	51	-	36
	Saturday 18 January 2020	47	43	34
	Sunday 19 January 2020	41	44	33
	Monday 20 January 2020	53	-	34
	Tuesday 21 January 2020	50	43	36
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	42	33
	Friday 24 January 2020	49	46	40
	Saturday 25 January 2020	45	42	34
	Sunday 26 January 2020	40	40	36
	Monday 27 January 2020	42	43	35
	Tuesday 28 January 2020	-	-	-
	RBL	48	43	34

5.1.3 Logger 3 – Front Yard of 155 Herring Road, Macquarie Park

Site investigation indicates that the construction noise of project site and neighbouring site was audible. Evening time RBL should be applied.

Table 3 – Rating Background Noise Levels- Logger 3

Location	Date	ABL		
		Day	Evening	Night
#3	Monday 13 January 2020	-	48	37
	Tuesday 14 January 2020	57	49	37
	Wednesday 15 January 2020	-	-	37
	Thursday 16 January 2020	56	55	-
	Friday 17 January 2020	58	-	38
	Saturday 18 January 2020	52	51	37
	Sunday 19 January 2020	45	50	36
	Monday 20 January 2020	56	-	37
	Tuesday 21 January 2020	56	49	37
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	53	38
	Friday 24 January 2020	56	51	39
	Saturday 25 January 2020	51	48	36
	Sunday 26 January 2020	44	46	37
	Monday 27 January 2020	45	48	36
	Tuesday 28 January 2020	-	-	-
	RBL	56	49	37

5.1.4 Logger 4 – Front Yard of 3 Peach Tree Road, Macquarie Park

Site investigation indicates that the construction noise of project site and neighbouring site was generally not audible.

Table 4 – Rating Background Noise Levels- Logger 4

Location	Date	ABL		
		Day	Evening	Night
#4	Monday 13 January 2020	-	44	36
	Tuesday 14 January 2020	49	44	36
	Wednesday 15 January 2020	-	-	38
	Thursday 16 January 2020	45	42	-
	Friday 17 January 2020	46	-	36
	Saturday 18 January 2020	43	41	36
	Sunday 19 January 2020	39	44	37
	Monday 20 January 2020	47	-	37
	Tuesday 21 January 2020	44	43	38
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	42	38
	Friday 24 January 2020	45	45	42
	Saturday 25 January 2020	46	43	37
	Sunday 26 January 2020	41	42	39
	Monday 27 January 2020	42	45	39
	Tuesday 28 January 2020	-	-	-
	RBL	45	43	37

5.1.5 Logger 5 – End of Cobar Way, Macquarie Park

Site investigation indicates that the construction noise of project site and neighbouring site was not audible.

Table 5 – Rating Background Noise Levels- Logger 5

Location	Date	ABL		
		Day	Evening	Night
#5	Monday 13 January 2020	-	42	39
	Tuesday 14 January 2020	45	42	39
	Wednesday 15 January 2020	-	-	40
	Thursday 16 January 2020	46	44	-
	Friday 17 January 2020	46	-	39
	Saturday 18 January 2020	43	42	39
	Sunday 19 January 2020	40	41	39
	Monday 20 January 2020	47	-	39
	Tuesday 21 January 2020	44	41	39
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	40	37
	Friday 24 January 2020	43	40	36
	Saturday 25 January 2020	40	39	35
	Sunday 26 January 2020	38	38	35
	Monday 27 January 2020	39	39	35
	Tuesday 28 January 2020	-	-	-
	RBL	43	41	39

5.1.6 Logger 6 – Vacant Land Adjacent to 168 Epping Road, Marsfield

Site investigation indicates that the construction noise of project site and neighbouring site was not audible.

Table 6 – Rating Background Noise Levels- Logger 6

Location	Date	ABL		
		Day	Evening	Night
#6	Monday 13 January 2020	-	48	34
	Tuesday 14 January 2020	50	48	34
	Wednesday 15 January 2020	-	-	34
	Thursday 16 January 2020	50	51	-
	Friday 17 January 2020	53	-	37
	Saturday 18 January 2020	50	49	39
	Sunday 19 January 2020	47	49	36
	Monday 20 January 2020	51	-	36
	Tuesday 21 January 2020	49	49	36
	Wednesday 22 January 2020	-	-	-
	Thursday 23 January 2020	-	48	36
	Friday 24 January 2020	50	50	40
	Saturday 25 January 2020	43	48	34
	Sunday 26 January 2020	46	48	36
	Monday 27 January 2020	45	46	34
	Tuesday 28 January 2020	-	-	-
	RBL	50	48	36

5.2 SUMMARISED RBL FOR THE NEAREST NOISE RECEIVERS

RBL for the nearest residential noise receivers are summarised below.

Table 7 – Summarised RBL for the Nearest Residential Receivers

Noise Receiver	Referenced Noise Logger Location	RBL		
		Day	Evening	Night
R1 & R2	Logger 2	43*	43	34
R3	Logger 3/4/5, the lowest RBL is adopted	43	41	37
R4	Logger 1 & 6, the lowest RBL is adopted	50	48	36

*Note: evening time RBL is adopted for daytime

6 NOISE EMISSION CRITERIA

6.1 REQUIREMENTS BY EPA NOISE POLICY FOR INDUSTRY

The Industrial Noise Policy has been superseded by Noise Policy for Industry 2017.

The NPfI 2017 provides guidelines for assessing noise impacts from industrial developments. The recommended assessment objectives vary depending on the potentially affected receivers, the time of day, and the type of noise source. The NPfI has two requirements which both have to be complied with, namely project amenity criterion and an intrusiveness criterion.

6.1.1 Intrusiveness Criterion

The guideline aims to protect against significant changes in noise levels and requires that noise emissions measured using the L_{eq} descriptor not exceed the background noise level by more than 5 dB(A) to the boundary of the nearest residential receivers.

Intrusive criteria based on the minimum RBL recommended by EPA for project site are detailed in table below.

Table 8 – NPfl Intrusiveness Criteria

Receiver	Time of day	Background Noise Level dB(A)L₉₀	Intrusiveness Criteria (Background+5dB(A)) dB(A)L_{eq}
R1 & R2	Day	43	48
	Evening	43	48
	Night	34	39
R3	Day	43	48
	Evening	41	46
	Night	37	42
R4	Day	50	55
	Evening	48	53
	Night	36	41

6.1.2 Project Amenity Criterion

The guideline is intended to limit the absolute noise level from all noise sources to a level that is consistent with the general environment.

The NPfl requires Project Amenity Noise Levels to be calculated below:

$$L_{Aeq, 15 \text{ min}} = \text{Recommended Amenity Noise Level} - 5 \text{ dB(A)} + 3 \text{ dB(A)}$$

Pursuant to the NPfl, the residential receivers in the vicinity would be considered suburban. Corresponding Project Amenity Criteria noise emission goals are presented below.

Table 9 –NPfl Project Amenity Criteria

Type of Receiver	Time of day	Recommended Amenity Noise Level dB(A) L_{eq}	Project Amenity Noise Level dB(A) L_{eq} , 15min
Residential (suburban) (R1 to R4)	Day	50	48
	Evening	45	43
	Night	40	38
Commercial Boundary	when in use	63	

6.1.3 Sleep Arousal Criteria

Section 2.5 of NPfl 2017 recommended the following noise limit to mitigate sleeping disturbance:

Where the subject development/ premises night -time noise levels at a residential location exceed:

- $L_{Aeq, 15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
 - L_{AFmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,
- A detailed maximum noise level even assessment should be undertaken.*

Table 10 - Sleep Arousal Emergence Criteria (Night)

Location	Rating Background Noise Level (Night) - dB(A) L_{90}	Emergence Level
R1 & R2	34	40 dB(A) $L_{eq, 15min}$; 52 dB(A) $L_{max, F}$
R3	37	42 dB(A) $L_{eq, 15min}$; 52 dB(A) $L_{max, F}$
R4	36	41 dB(A) $L_{eq, 15min}$; 52 dB(A) $L_{max, F}$

6.2 SUMMARY OF NOISE EMISSION CRITERIA

The noise emission criteria from plant service project buildings have been summarised below.

Table 11 -Summarised Noise Emission Criteria

Location	Time	Noise Objectives
R1 to R4	Day	48 dB(A) $L_{eq, 15min}$
	Evening	43 dB(A) $L_{eq, 15min}$
	Night	38 dB(A) $L_{eq, 15min}$ 52 dB(A) $L_{max, F}$
Commercial Boundaries	when in use	63 dB(A) $L_{eq, 15min}$

7 LAND USE OTHER THAN RESIDENTIAL

It is noted that the proposed development has educational, childcare, retail and food and beverage premises land uses. No detailed design /operational information available at this stage. It is recommended to condition the criteria listed above and detailed assessment will be carried out once the design/ operational information available.

8 CONCLUSION

Additional background noise monitoring has been carried out following the letter provided by NSW EPA with reference number: DOC19/1078586 for the proposed Master Plan of Ivanhoe Estate, Macquarie Park. Monitors were setup around the nearest residential receivers for 2 weeks' time period and the resulted noise emission criteria is similar as previous report. Detailed background noise data has been graphed and attached to this report.

We trust this information is satisfactory. Please contact us should you have any further queries.

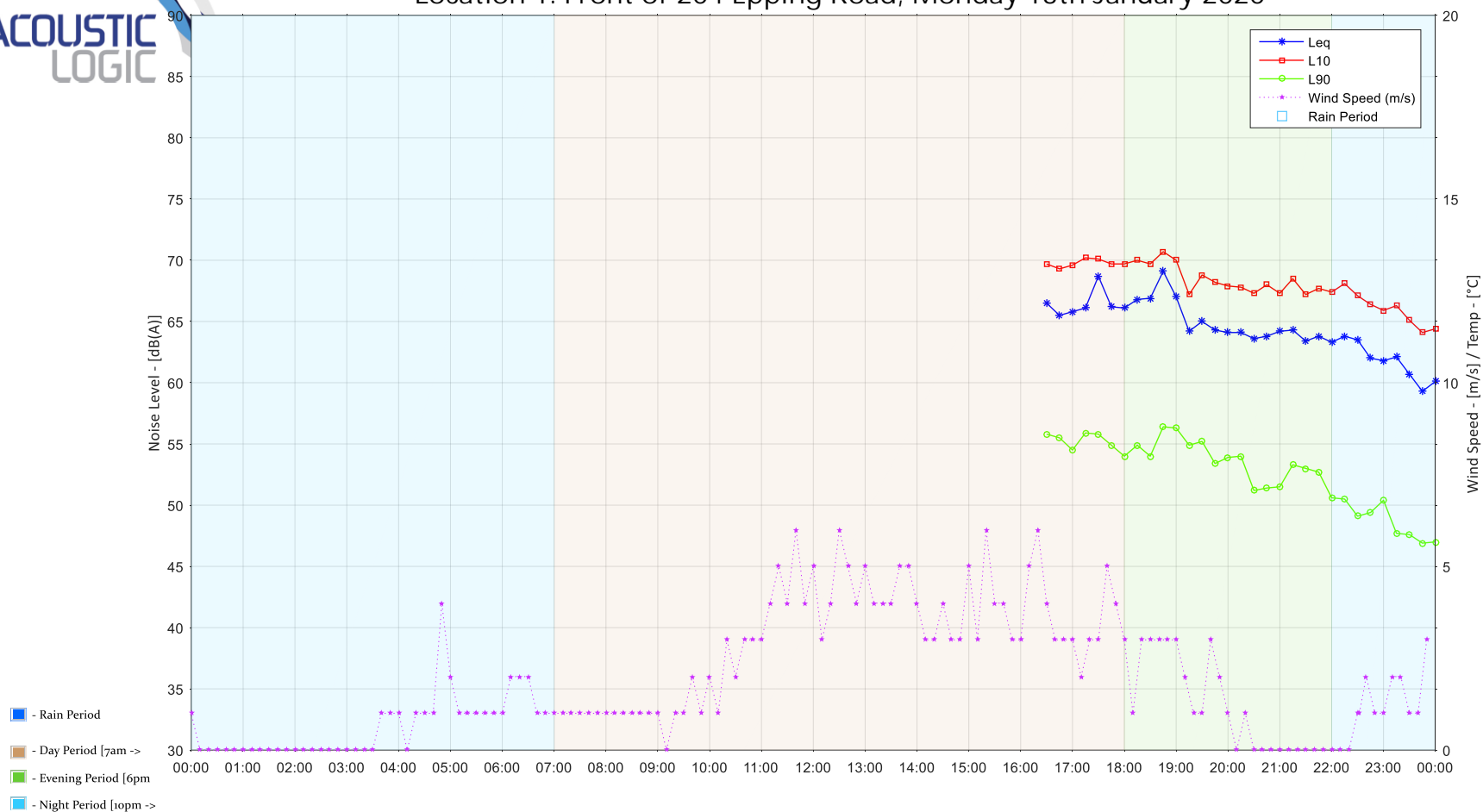
Yours faithfully,

A handwritten signature in black ink, appearing to read 'George Wei', is positioned below the 'Yours faithfully,' text.

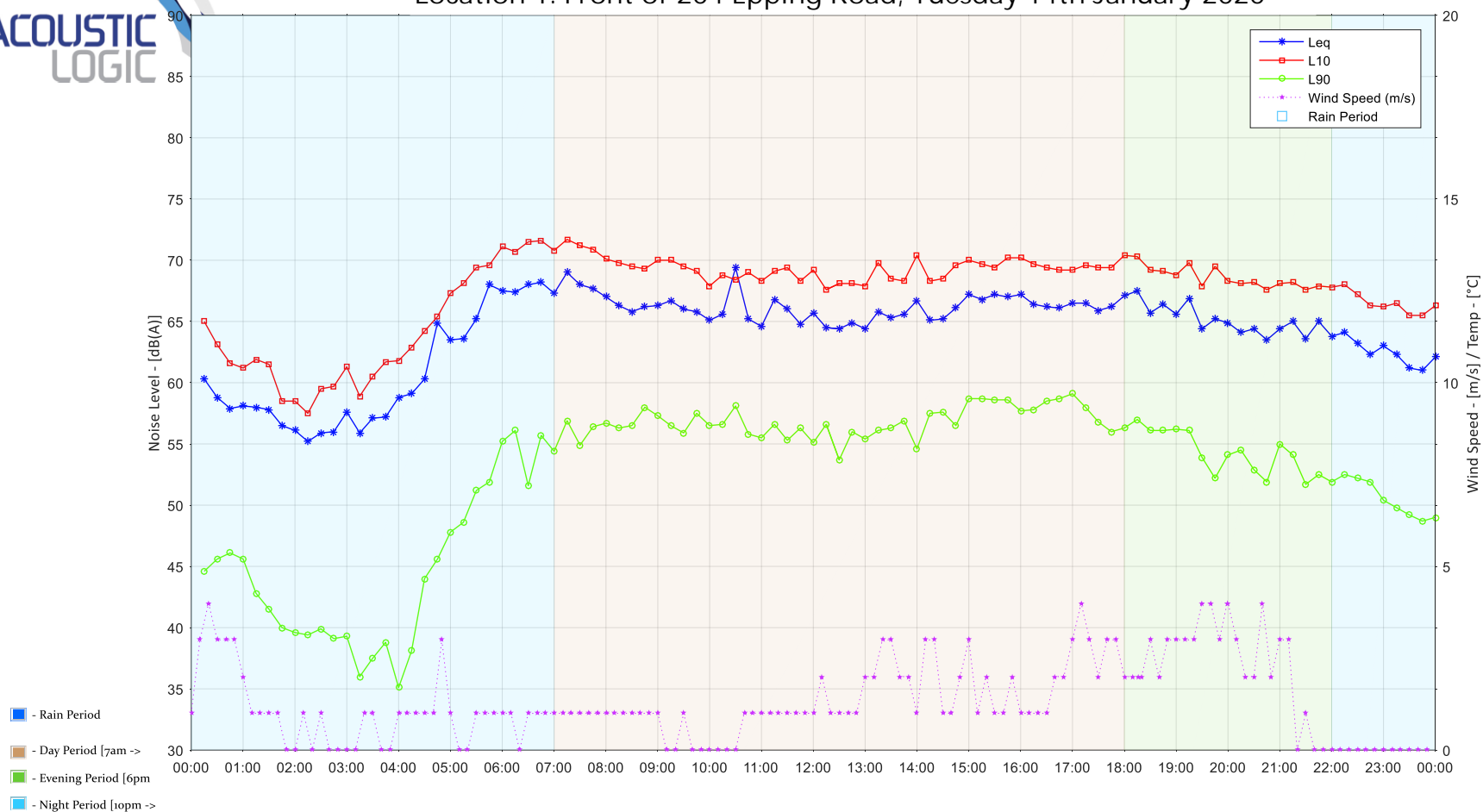
Acoustic Logic Consultancy Pty Ltd
George Wei
Associate Director, MAAS

Appendix 1- Background Noise Monitor Data at Location 1

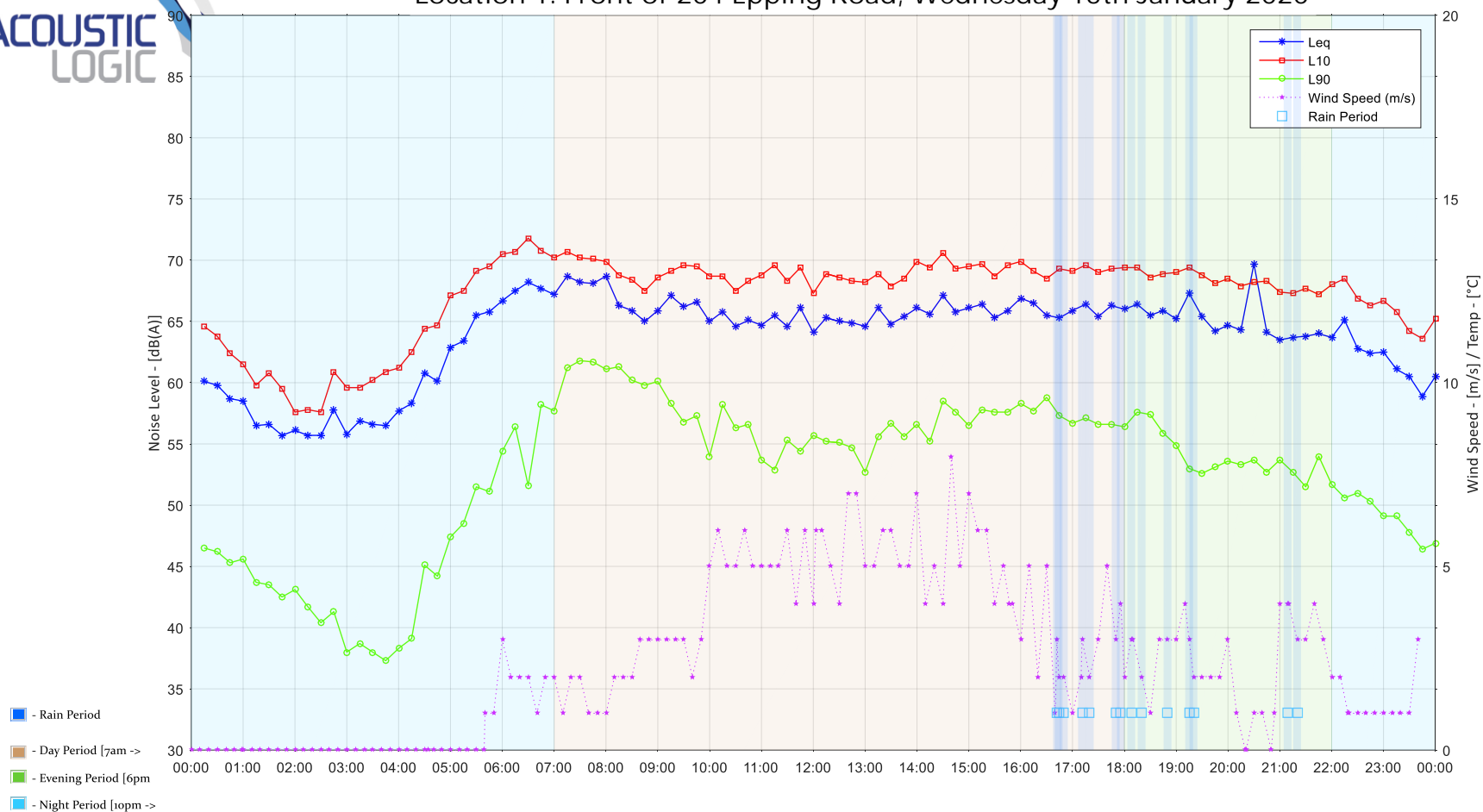
Location 1: Front of 204 Epping Road, Monday 13th January 2020



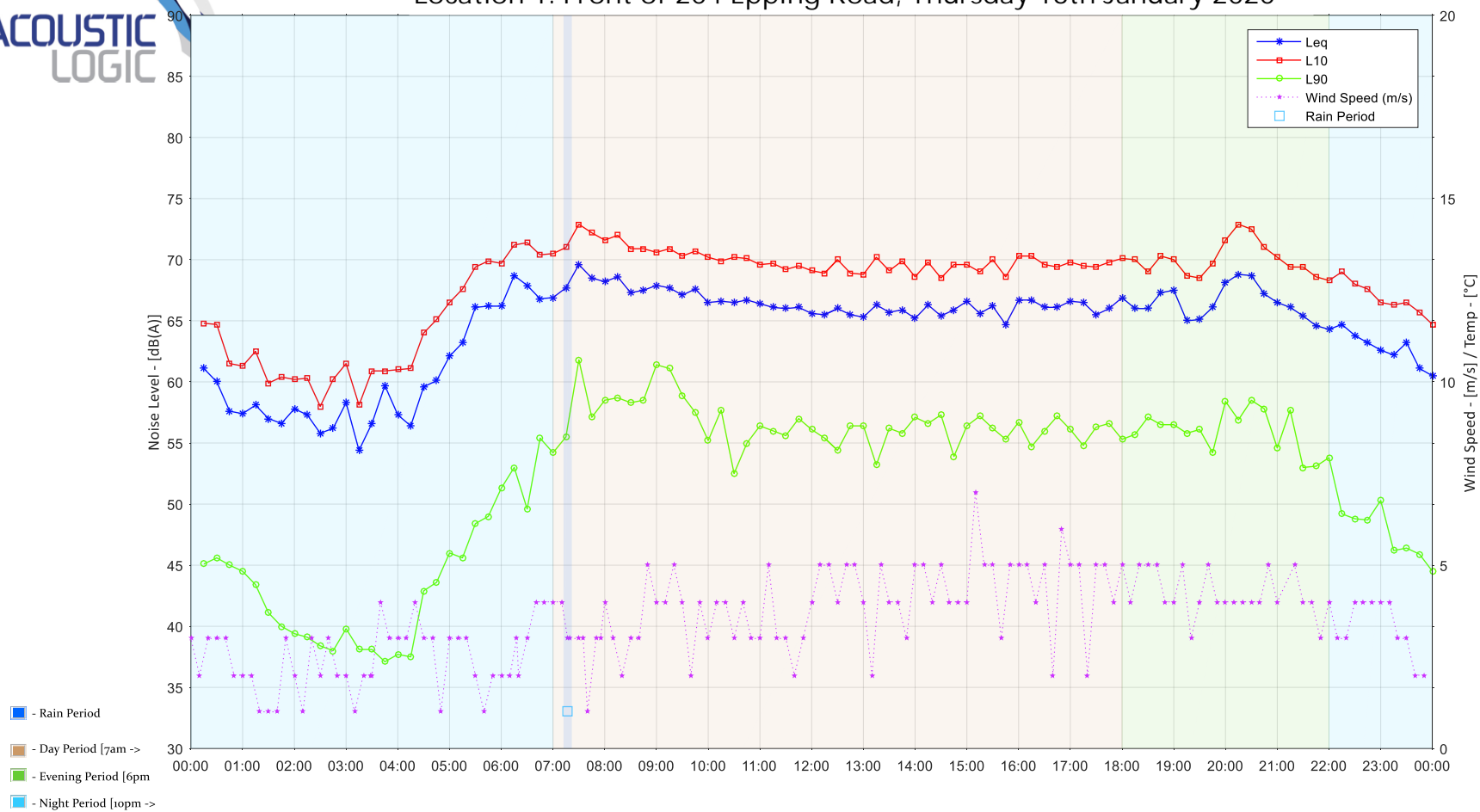
Location 1: Front of 204 Epping Road, Tuesday 14th January 2020



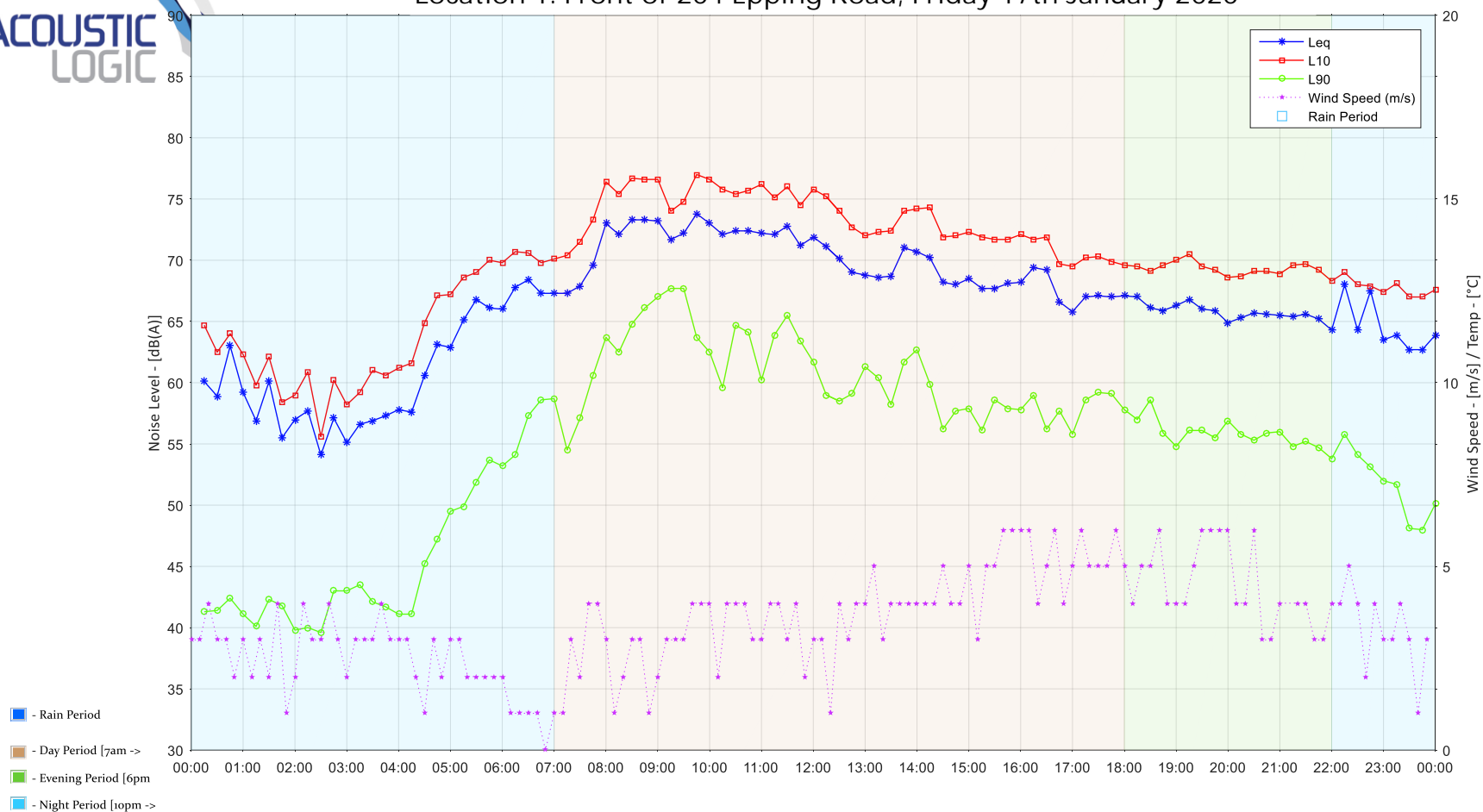
Location 1: Front of 204 Epping Road, Wednesday 15th January 2020



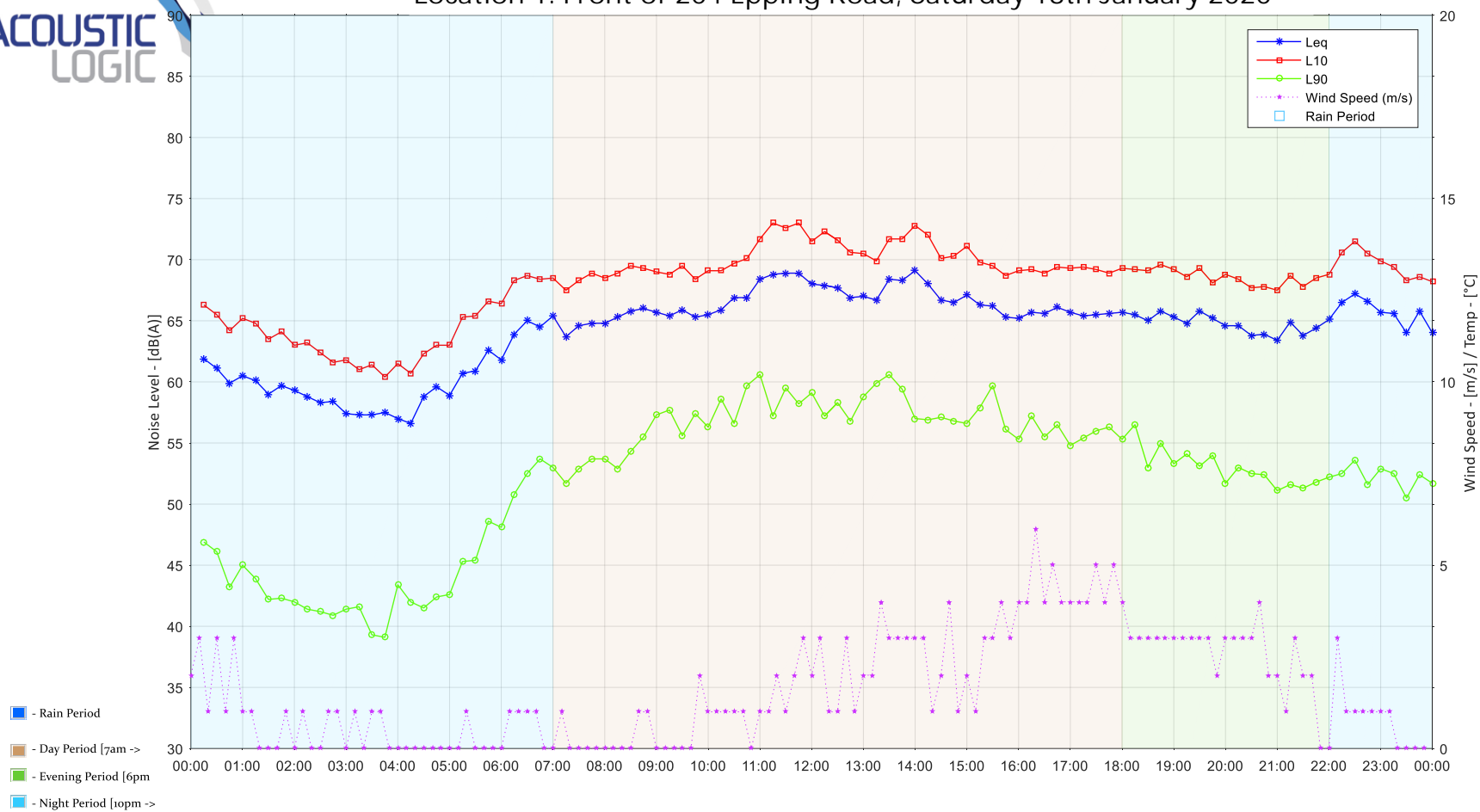
Location 1: Front of 204 Epping Road, Thursday 16th January 2020



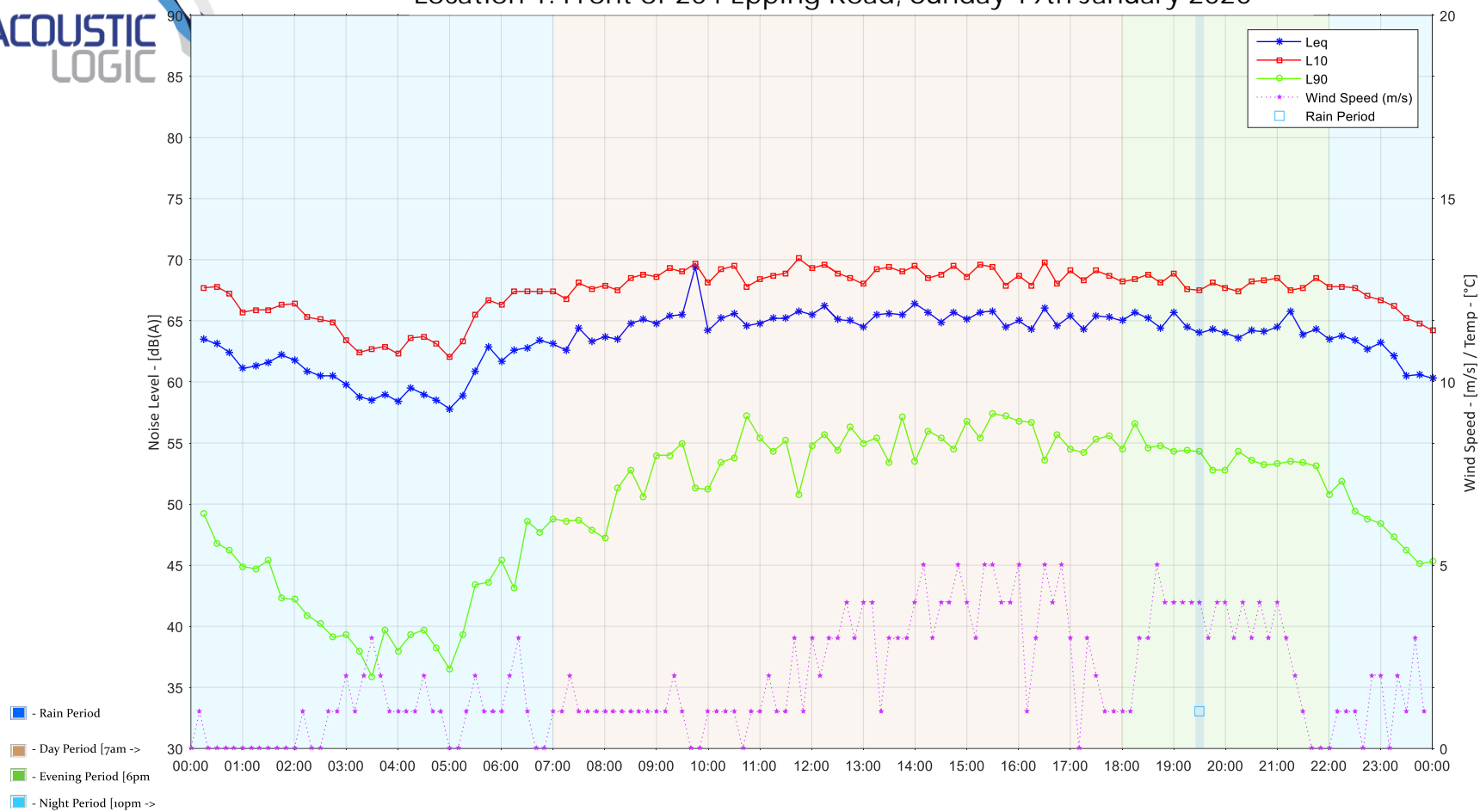
Location 1: Front of 204 Epping Road, Friday 17th January 2020



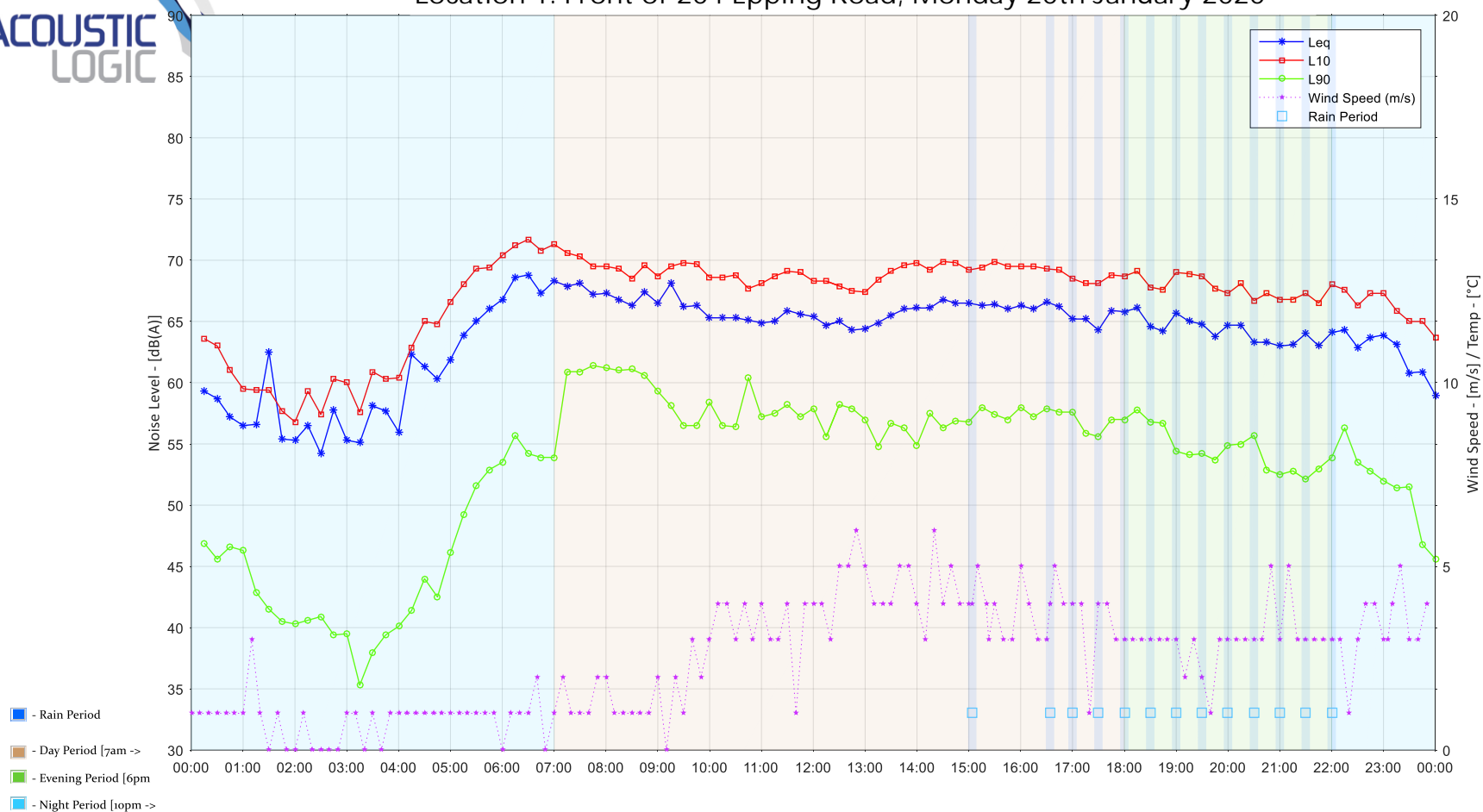
Location 1: Front of 204 Epping Road, Saturday 18th January 2020



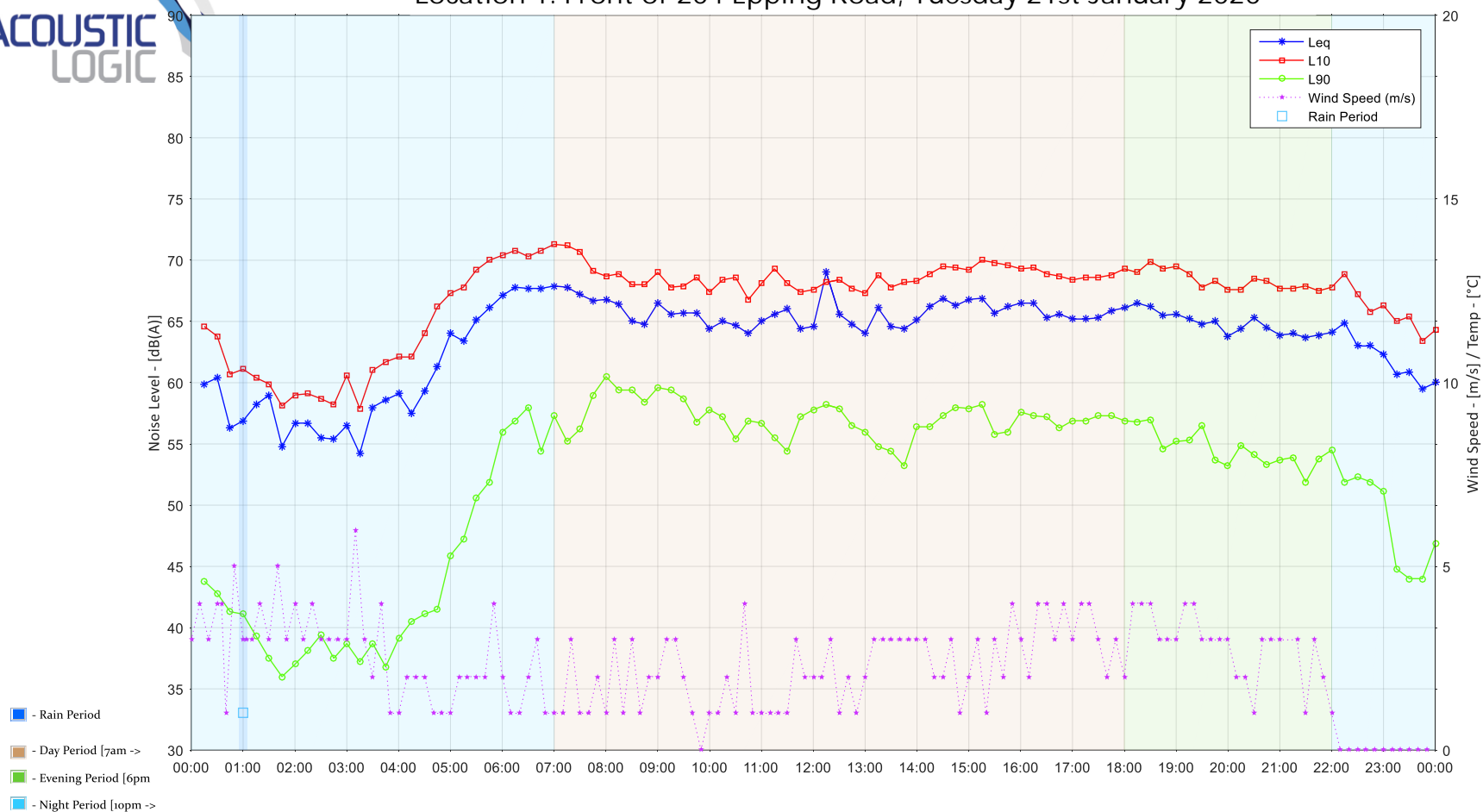
Location 1: Front of 204 Epping Road, Sunday 19th January 2020



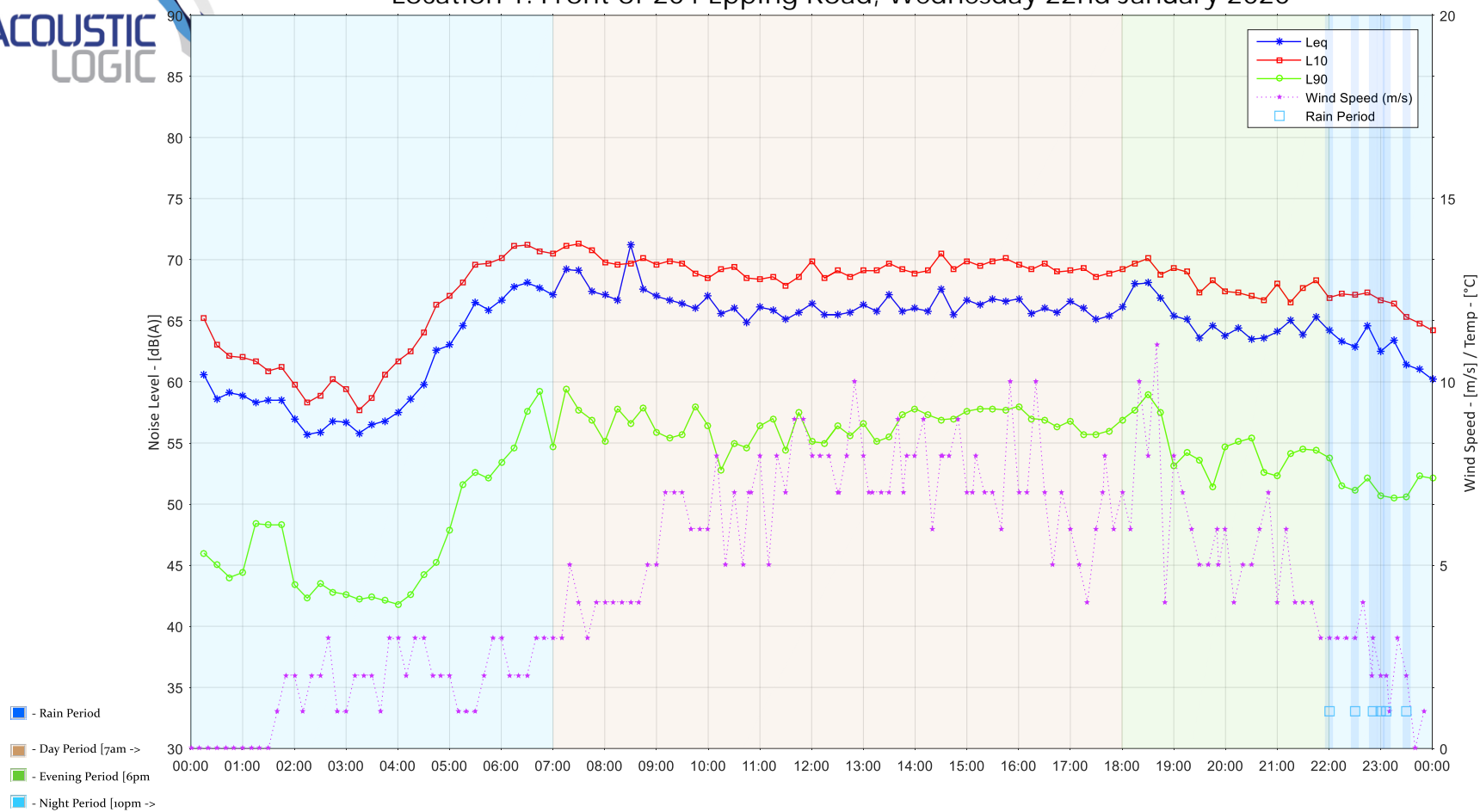
Location 1: Front of 204 Epping Road, Monday 20th January 2020



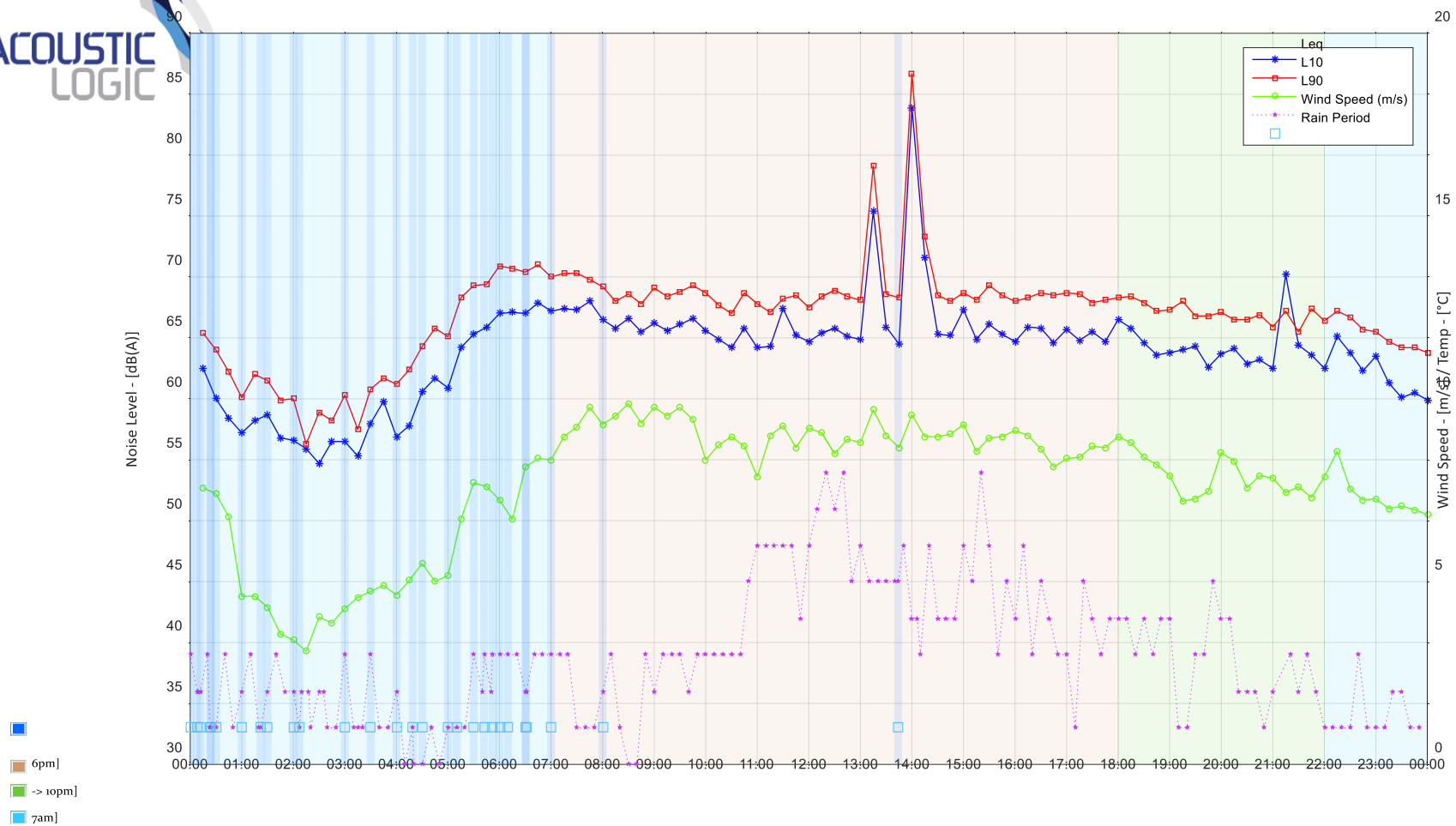
Location 1: Front of 204 Epping Road, Tuesday 21st January 2020



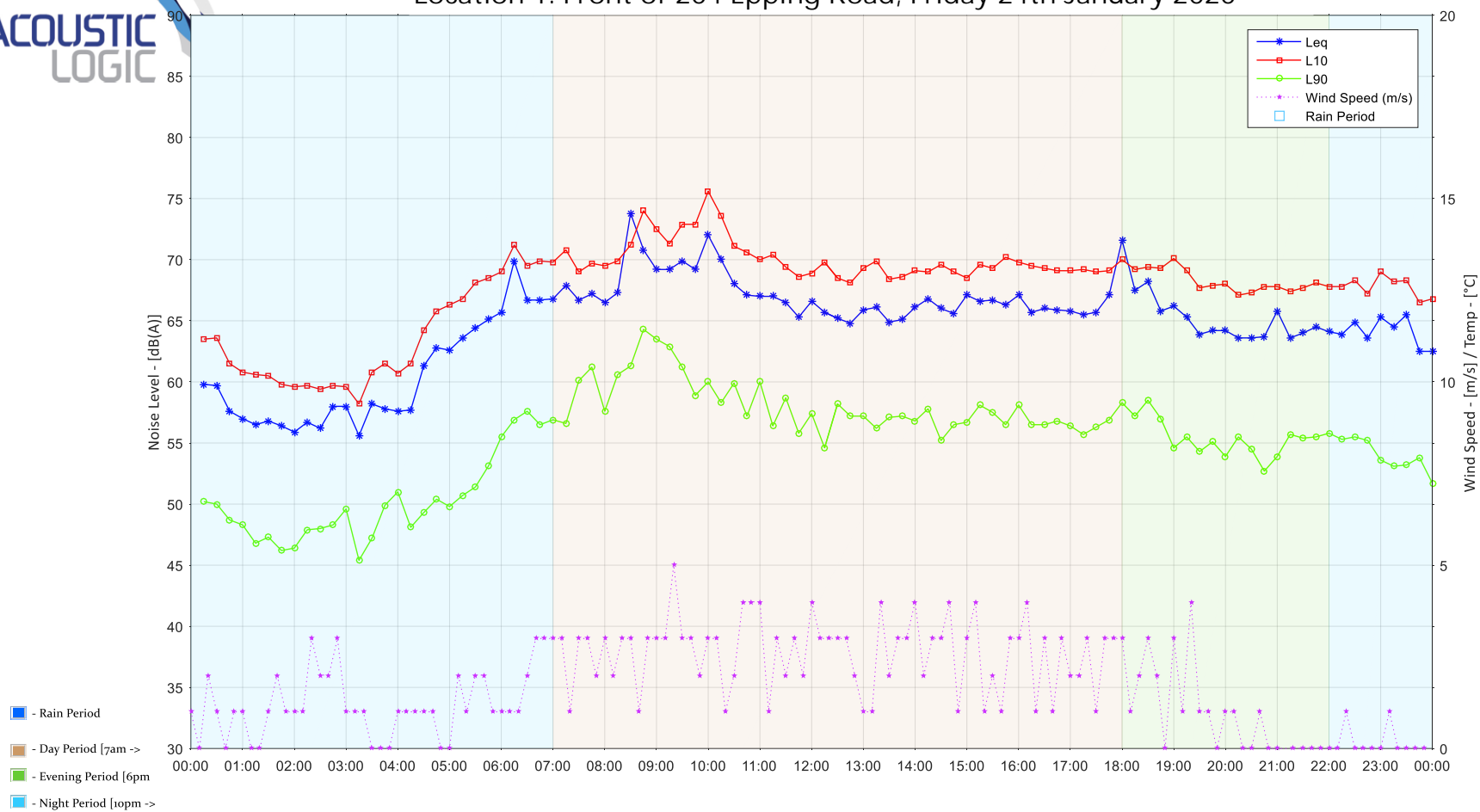
Location 1: Front of 204 Epping Road, Wednesday 22nd January 2020



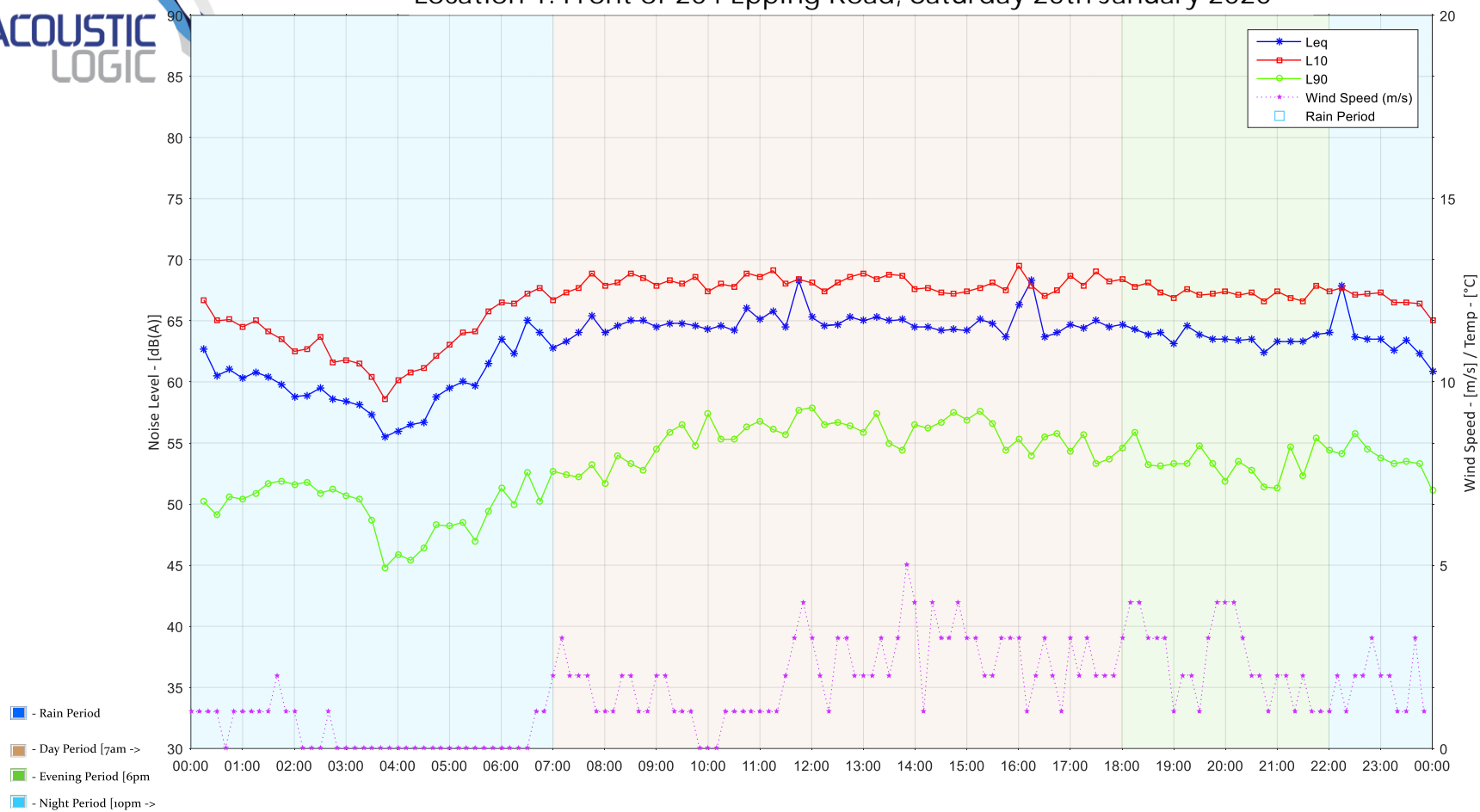
Location 1: Front of 204 Epping Road, Thursday 23rd January 2020



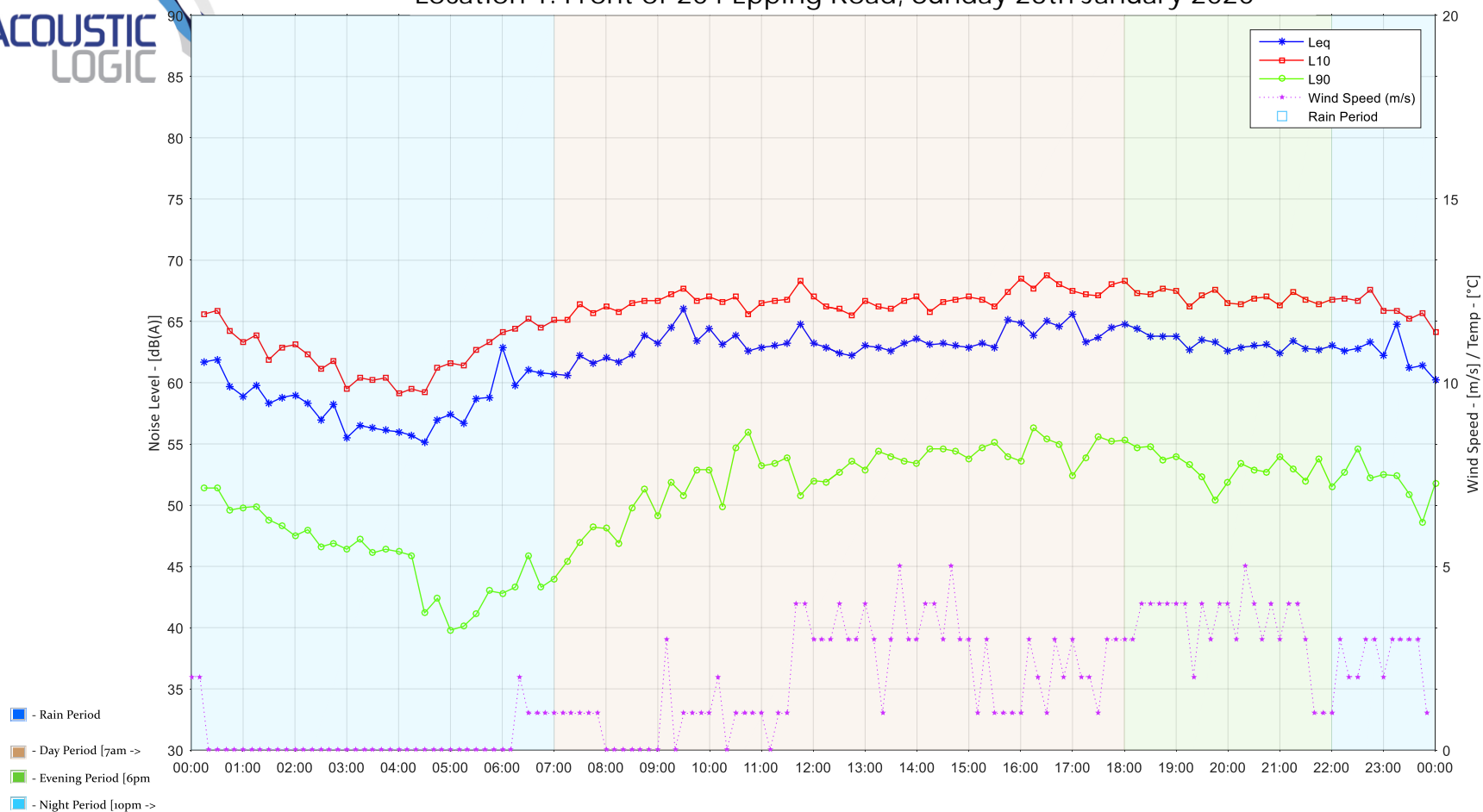
Location 1: Front of 204 Epping Road, Friday 24th January 2020



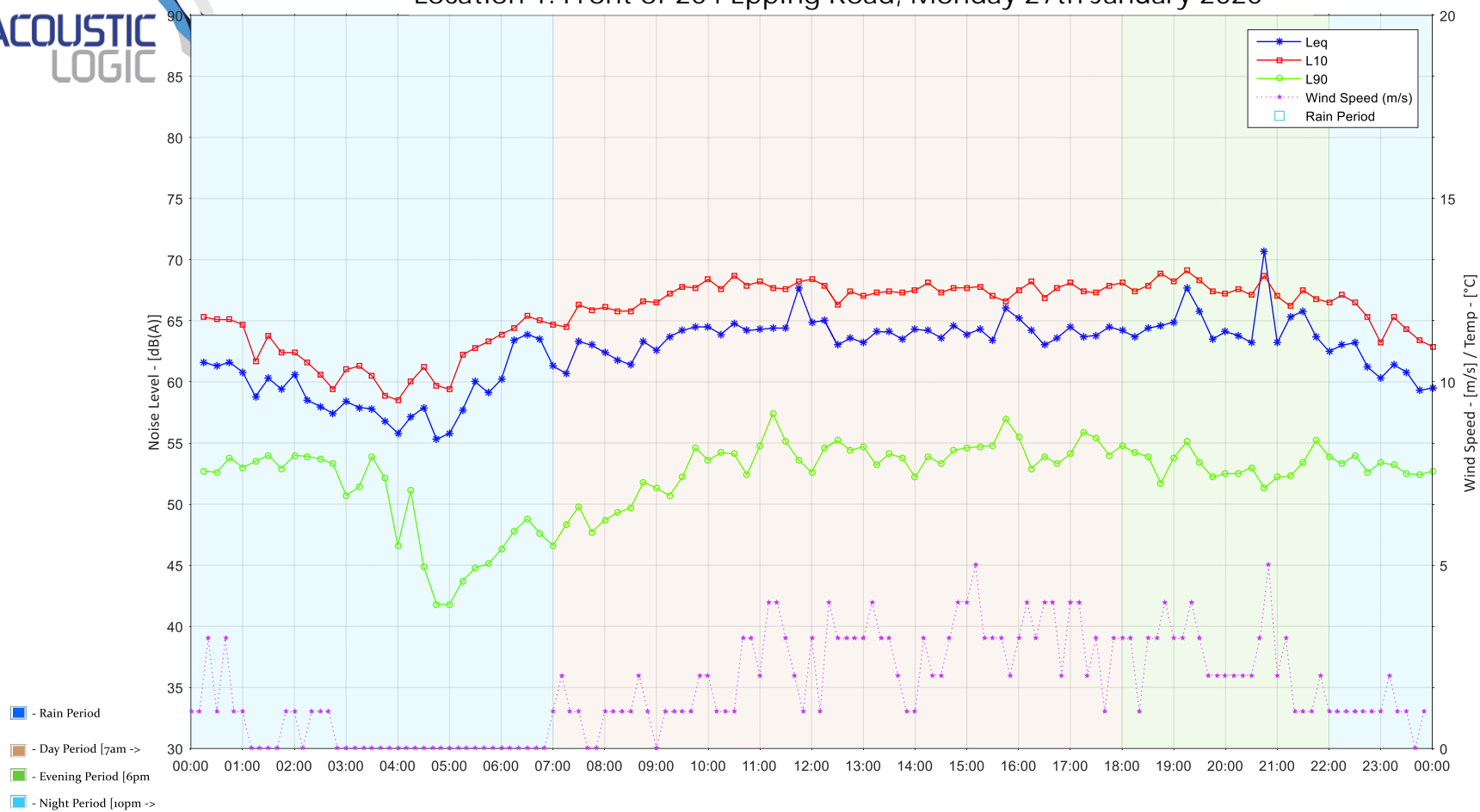
Location 1: Front of 204 Epping Road, Saturday 25th January 2020



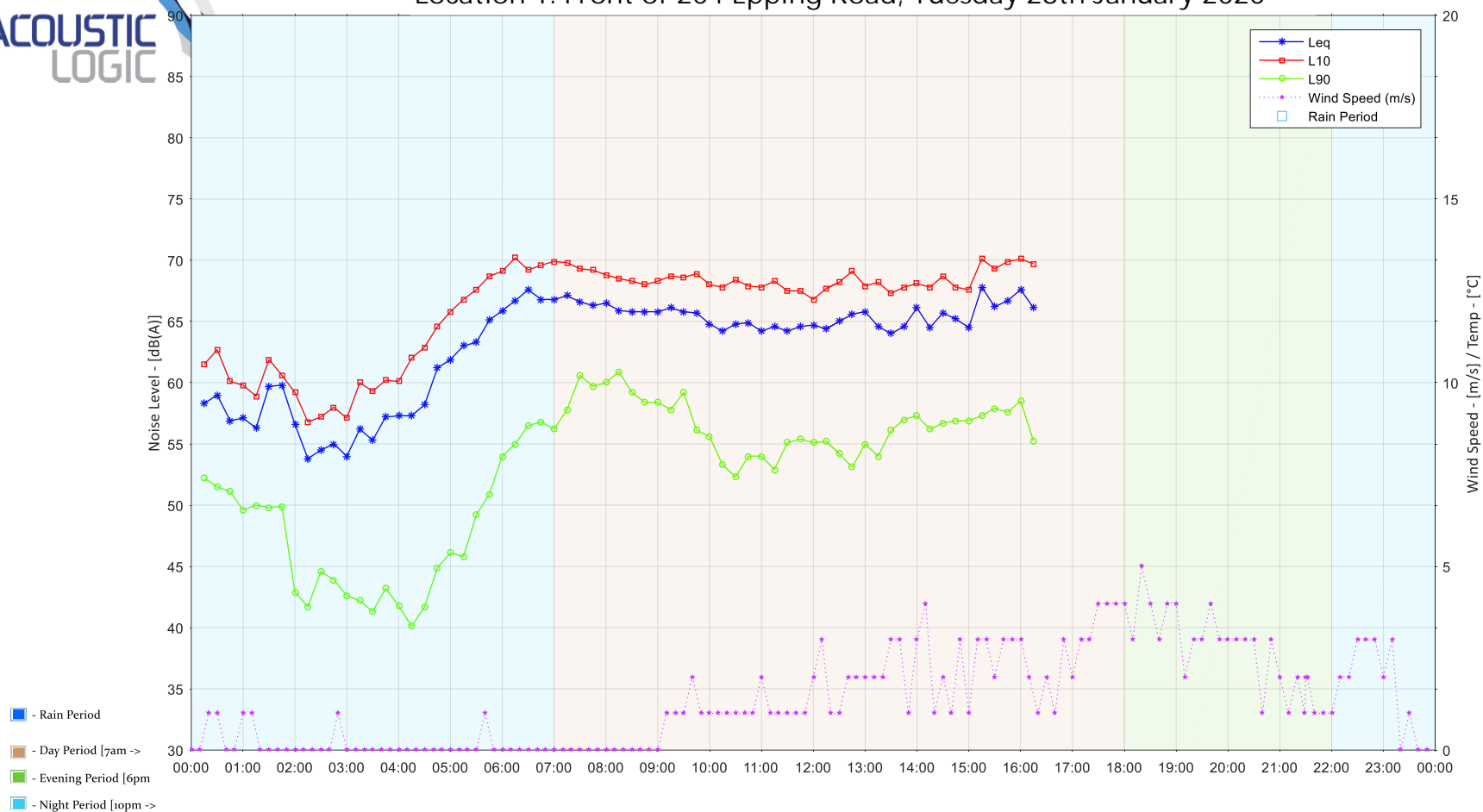
Location 1: Front of 204 Epping Road, Sunday 26th January 2020



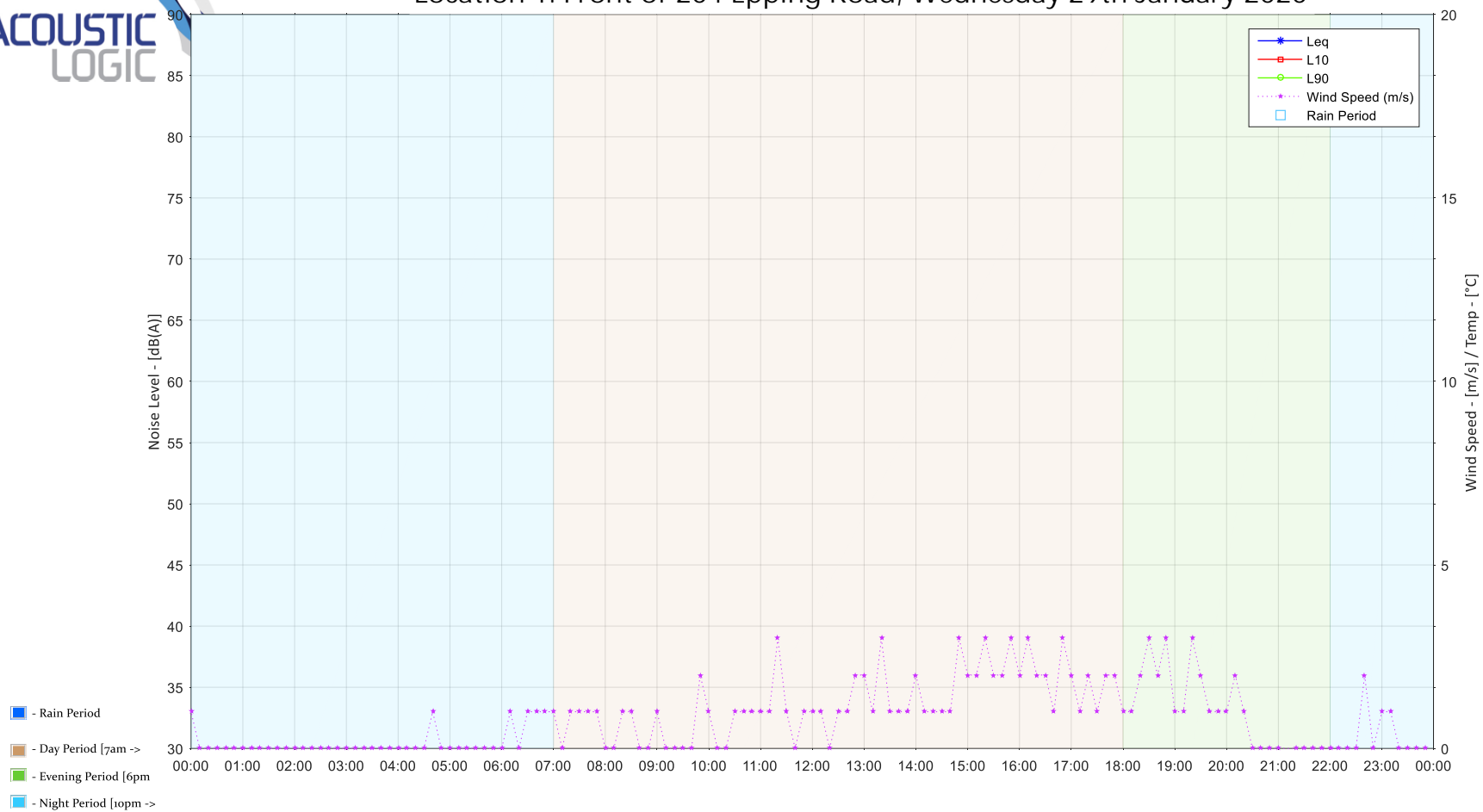
Location 1: Front of 204 Epping Road, Monday 27th January 2020



Location 1: Front of 204 Epping Road, Tuesday 28th January 2020

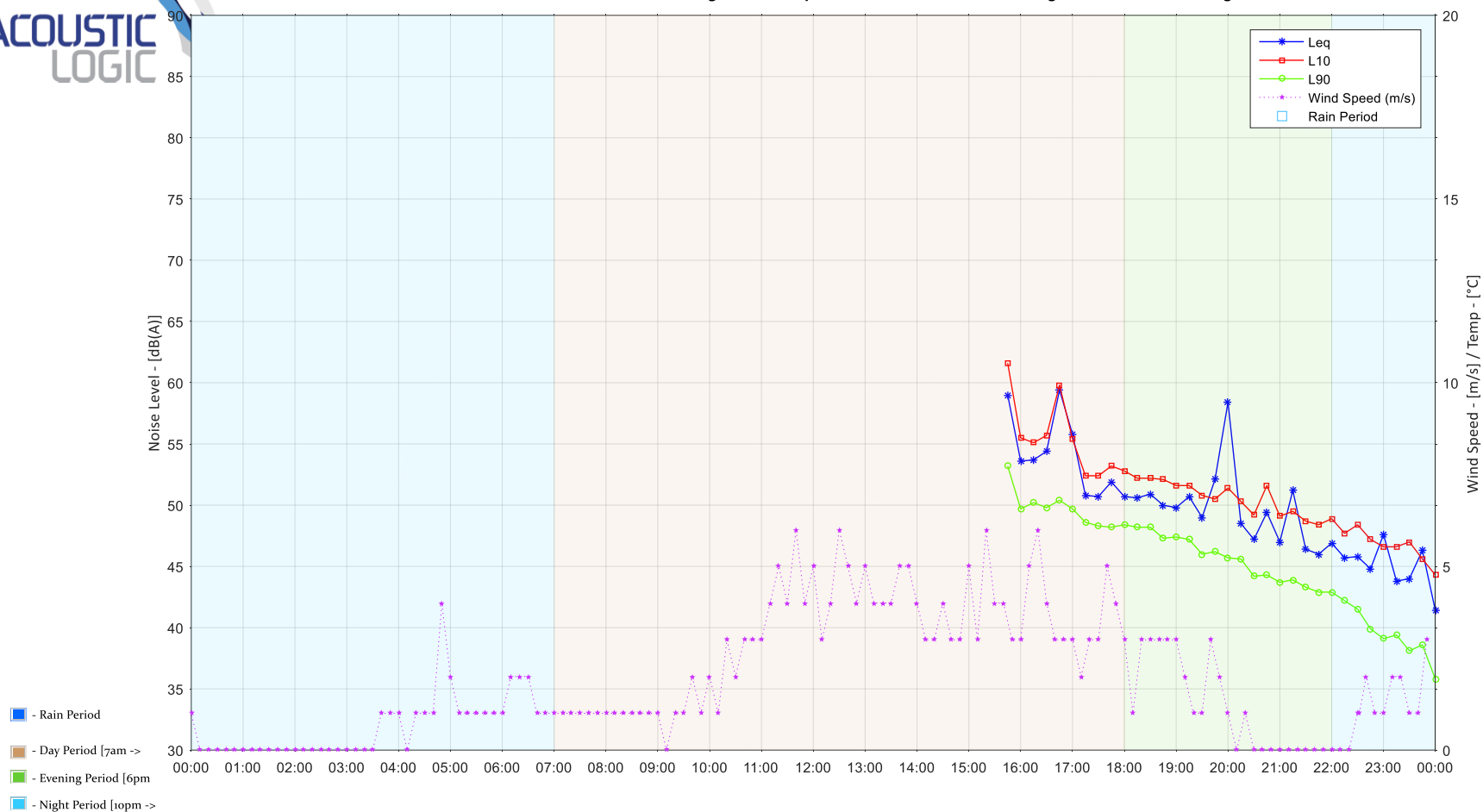


Location 1: Front of 204 Epping Road, Wednesday 29th January 2020

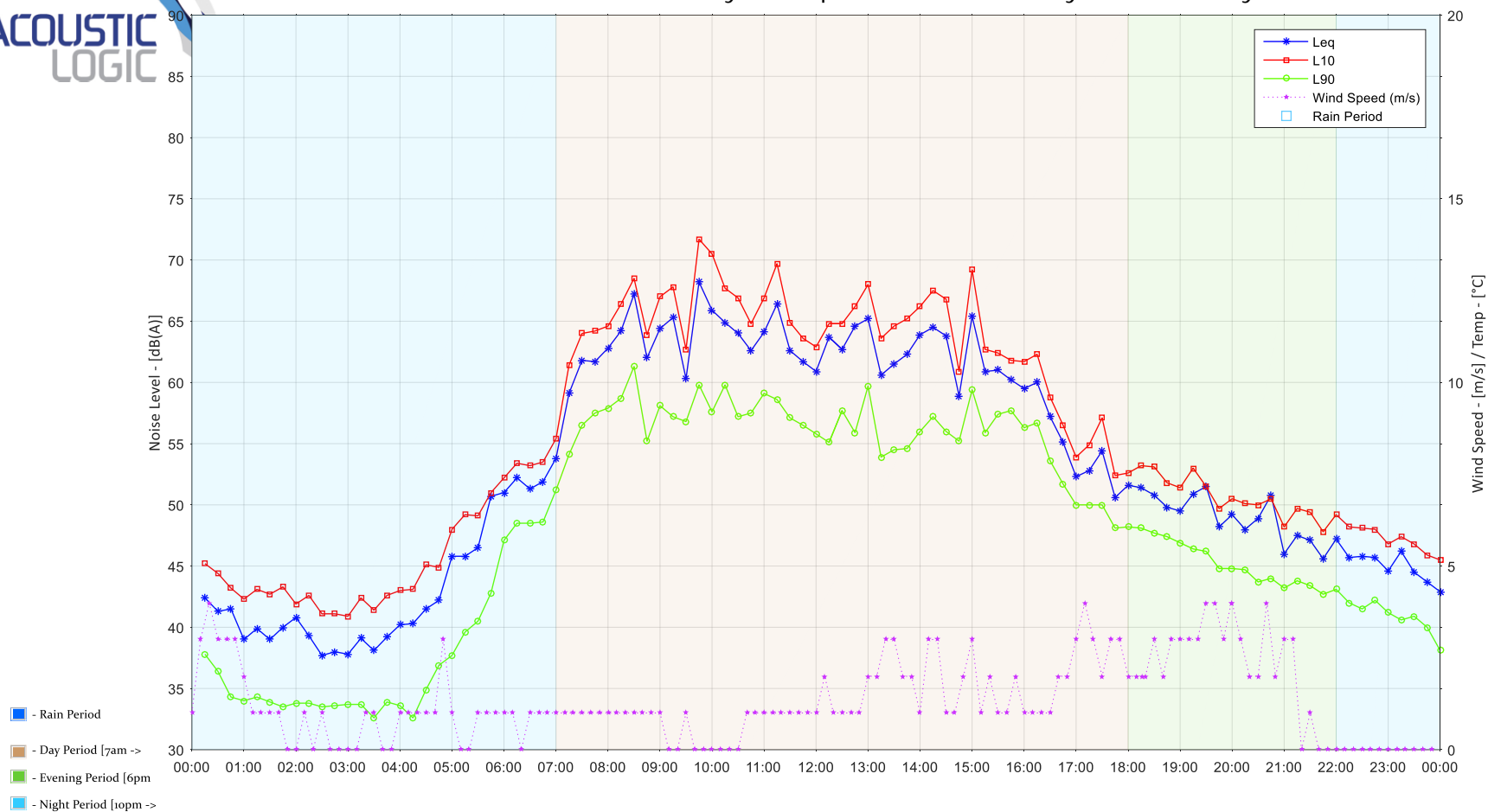


Appendix 2- Background Noise Monitor Data at Location 2

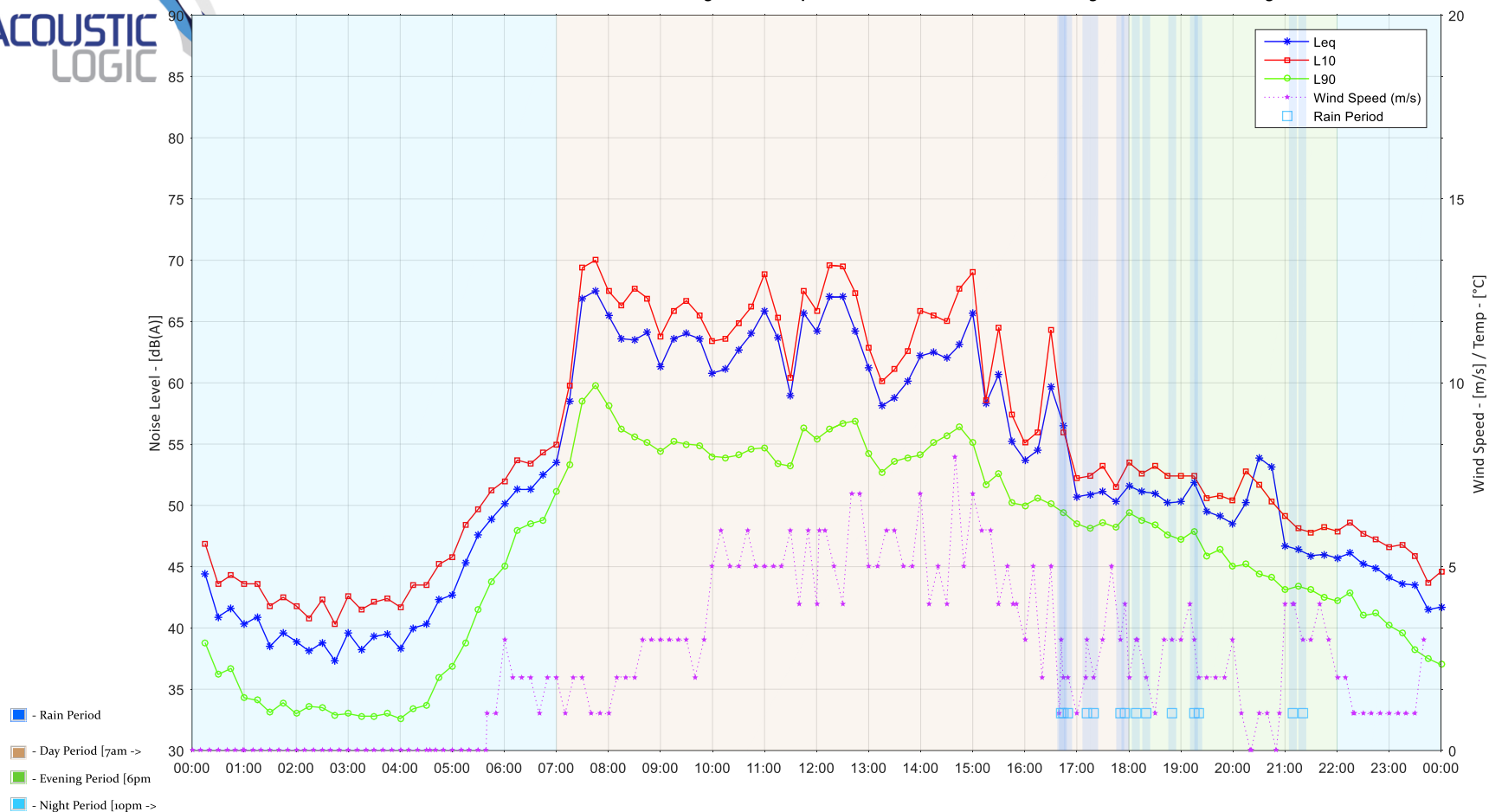
Location 2: Mid-Western Boundary, Macquarie Park, Monday 13th January 2020



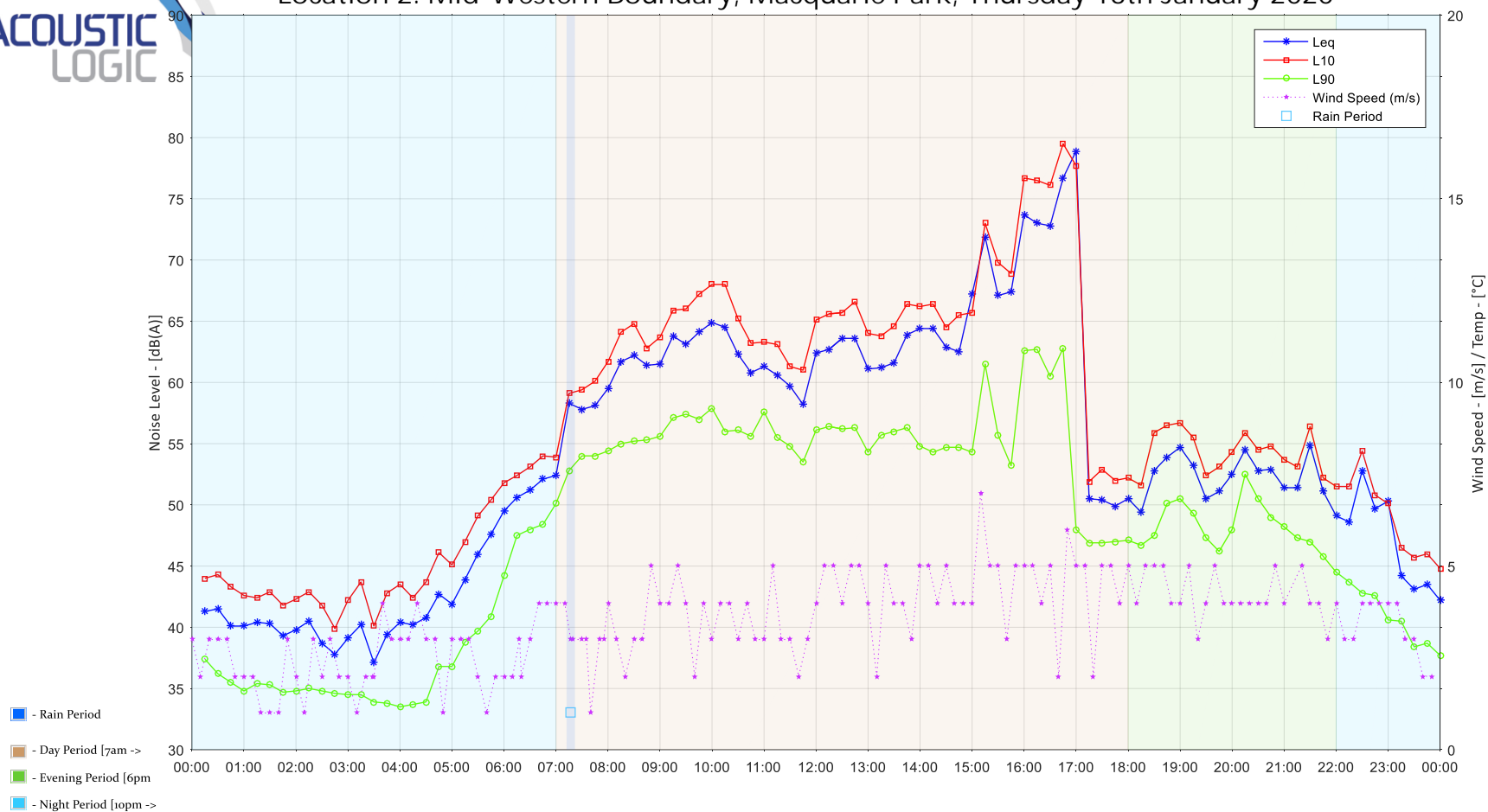
Location 2: Mid-Western Boundary, Macquarie Park, Tuesday 14th January 2020



Location 2: Mid-Western Boundary, Macquarie Park, Wednesday 15th January 2020

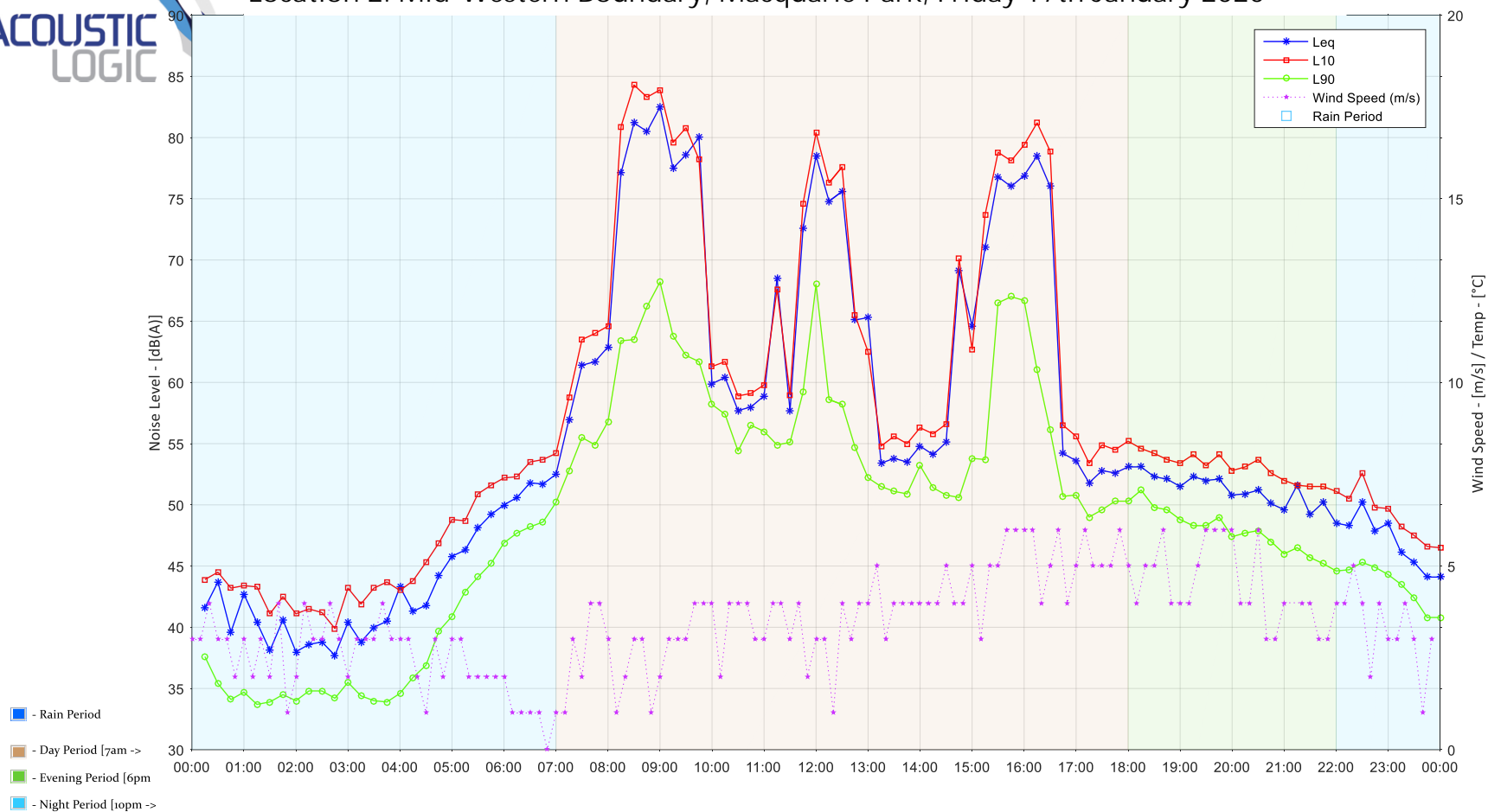


Location 2: Mid-Western Boundary, Macquarie Park, Thursday 16th January 2020

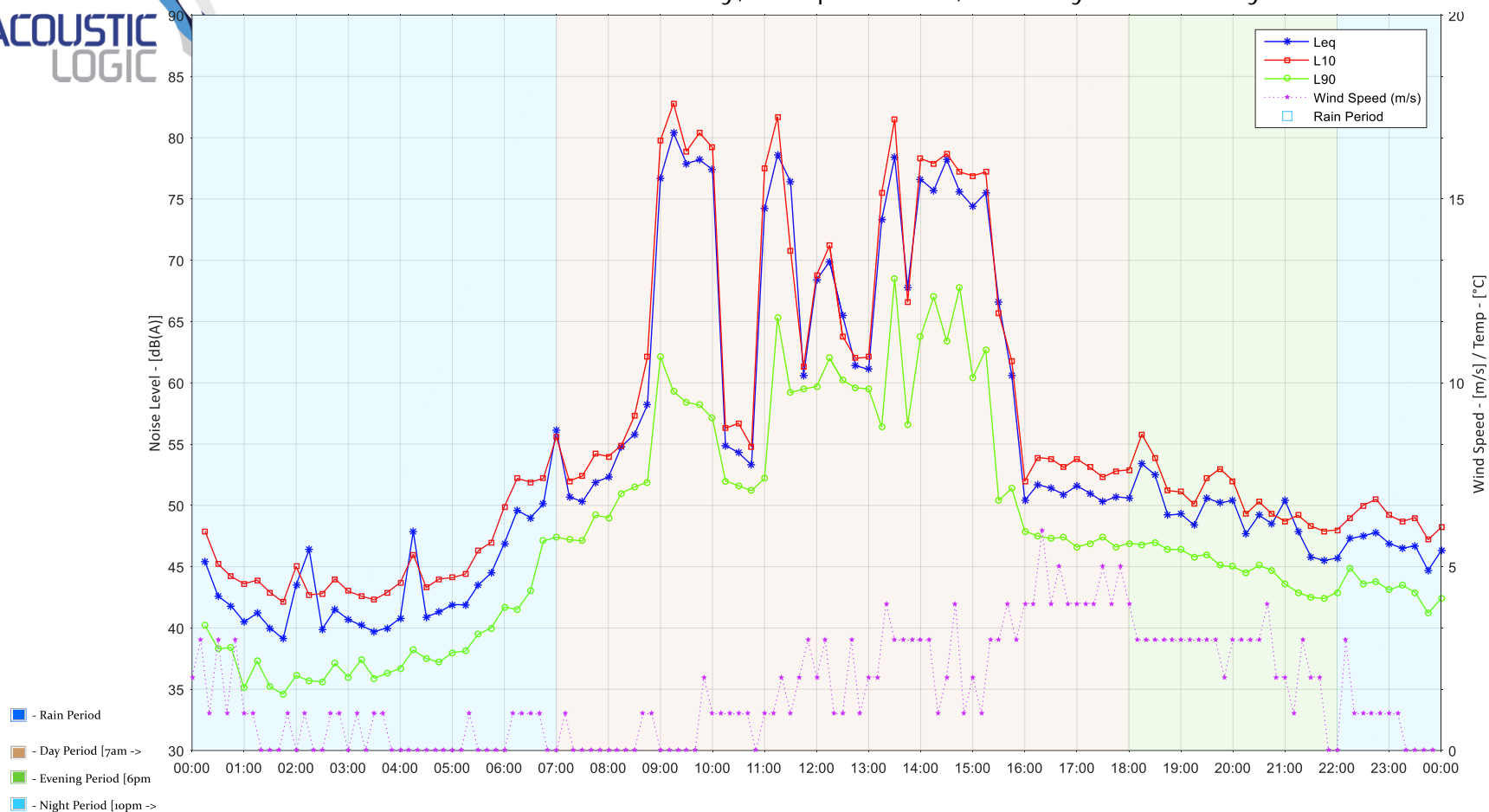




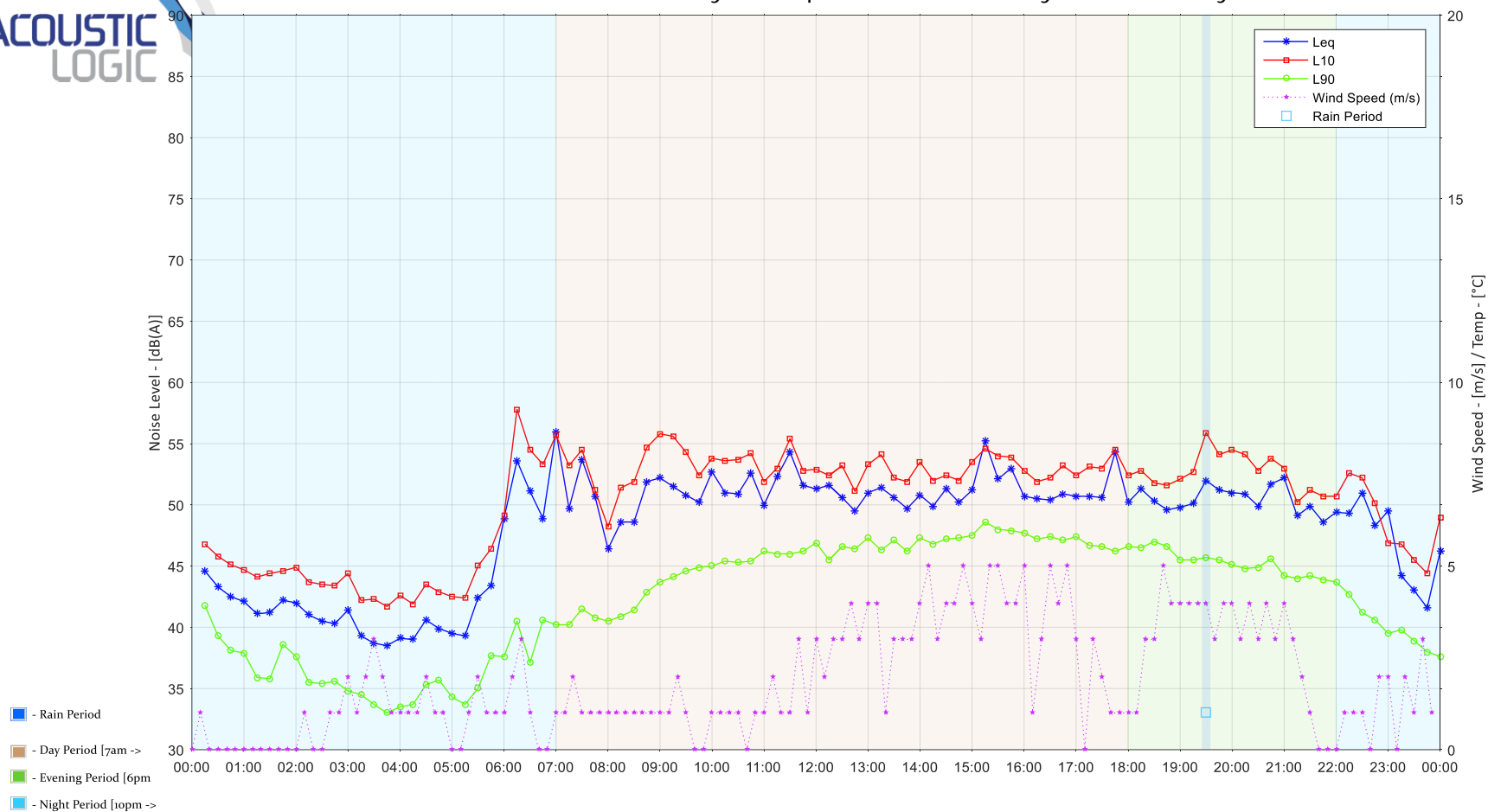
Location 2: Mid-Western Boundary, Macquarie Park, Friday 17th January 2020



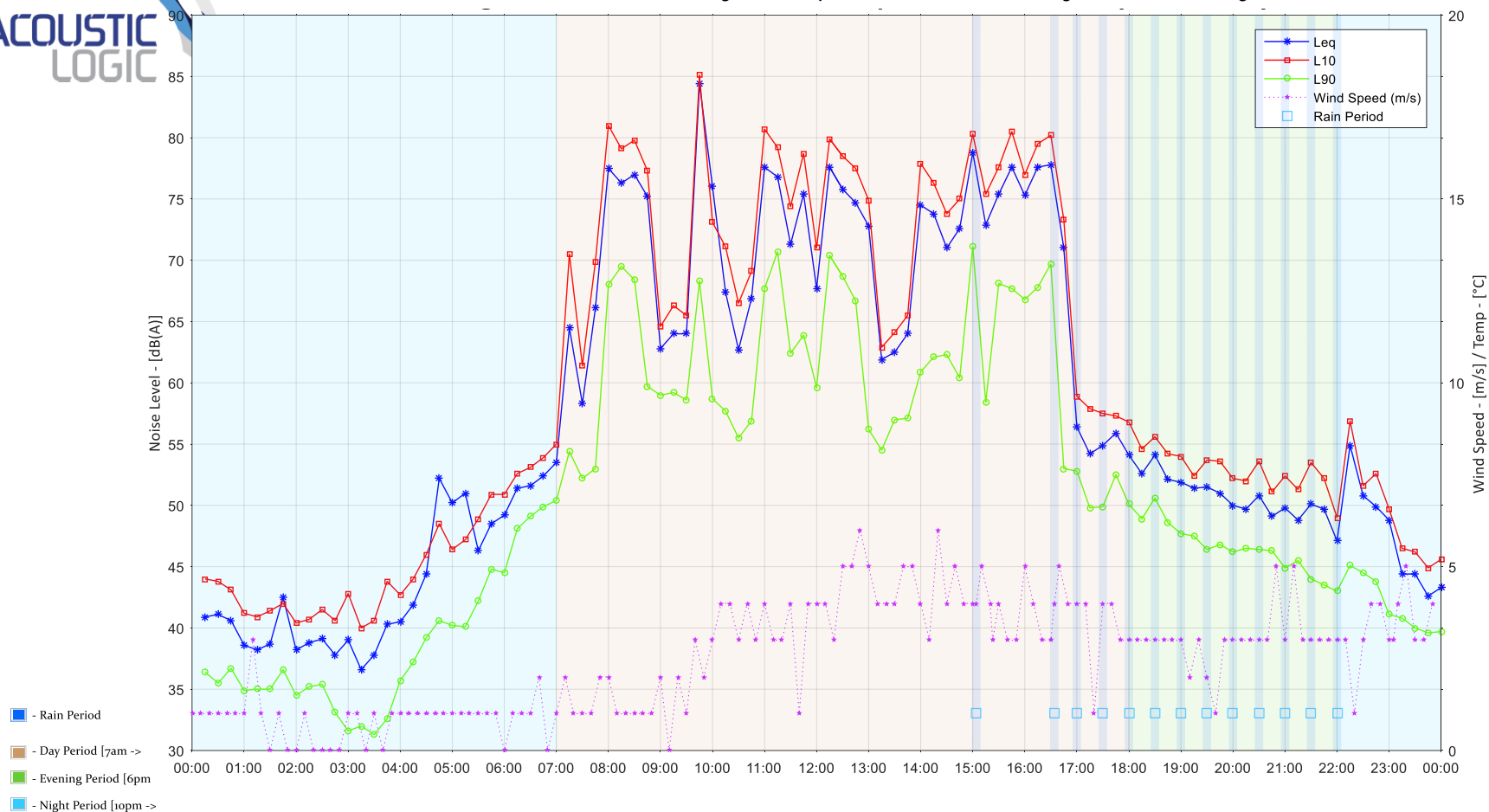
Location 2: Mid-Western Boundary, Macquarie Park, Saturday 18th January 2020



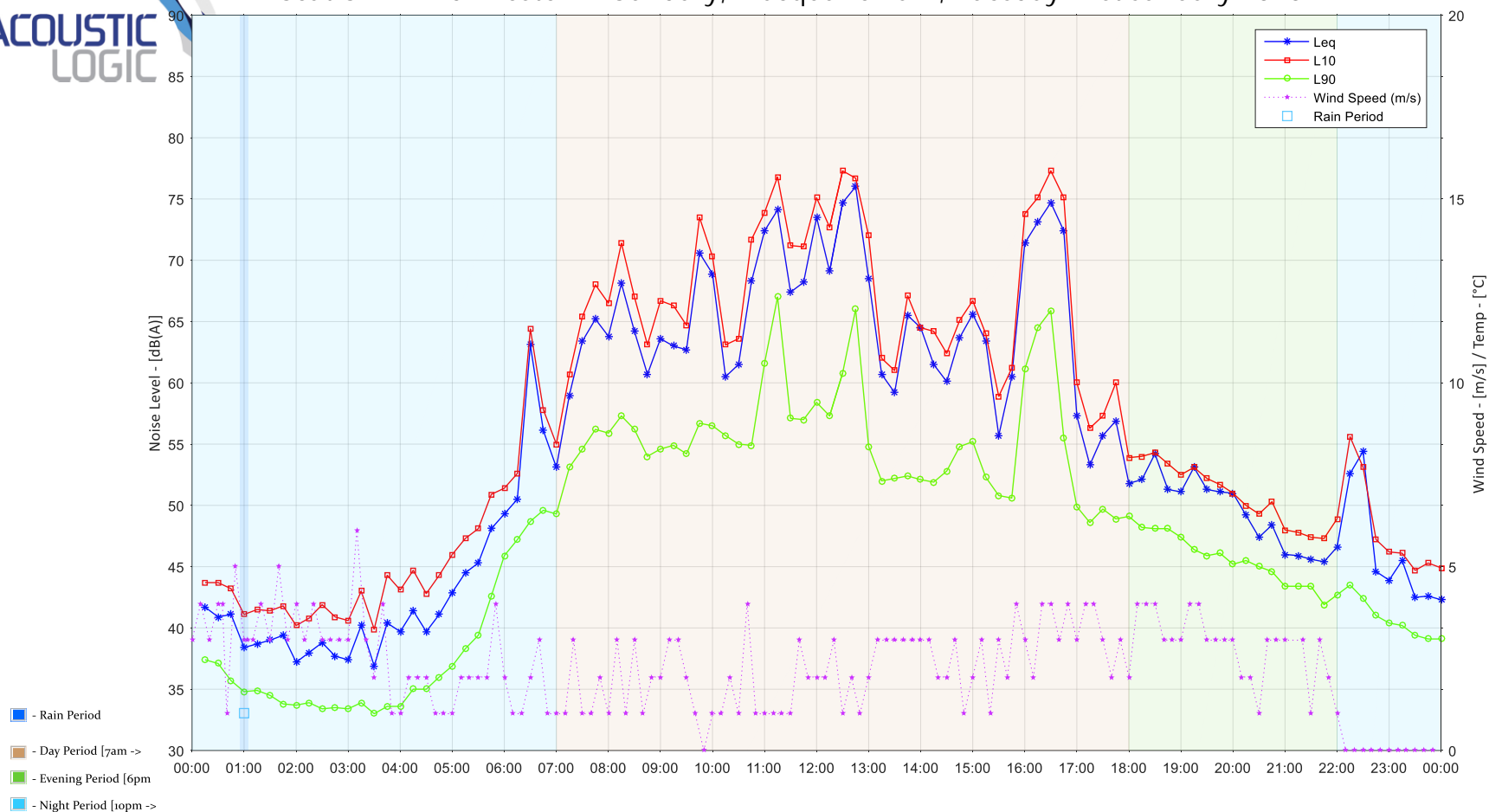
Location 2: Mid-Western Boundary, Macquarie Park, Sunday 19th January 2020



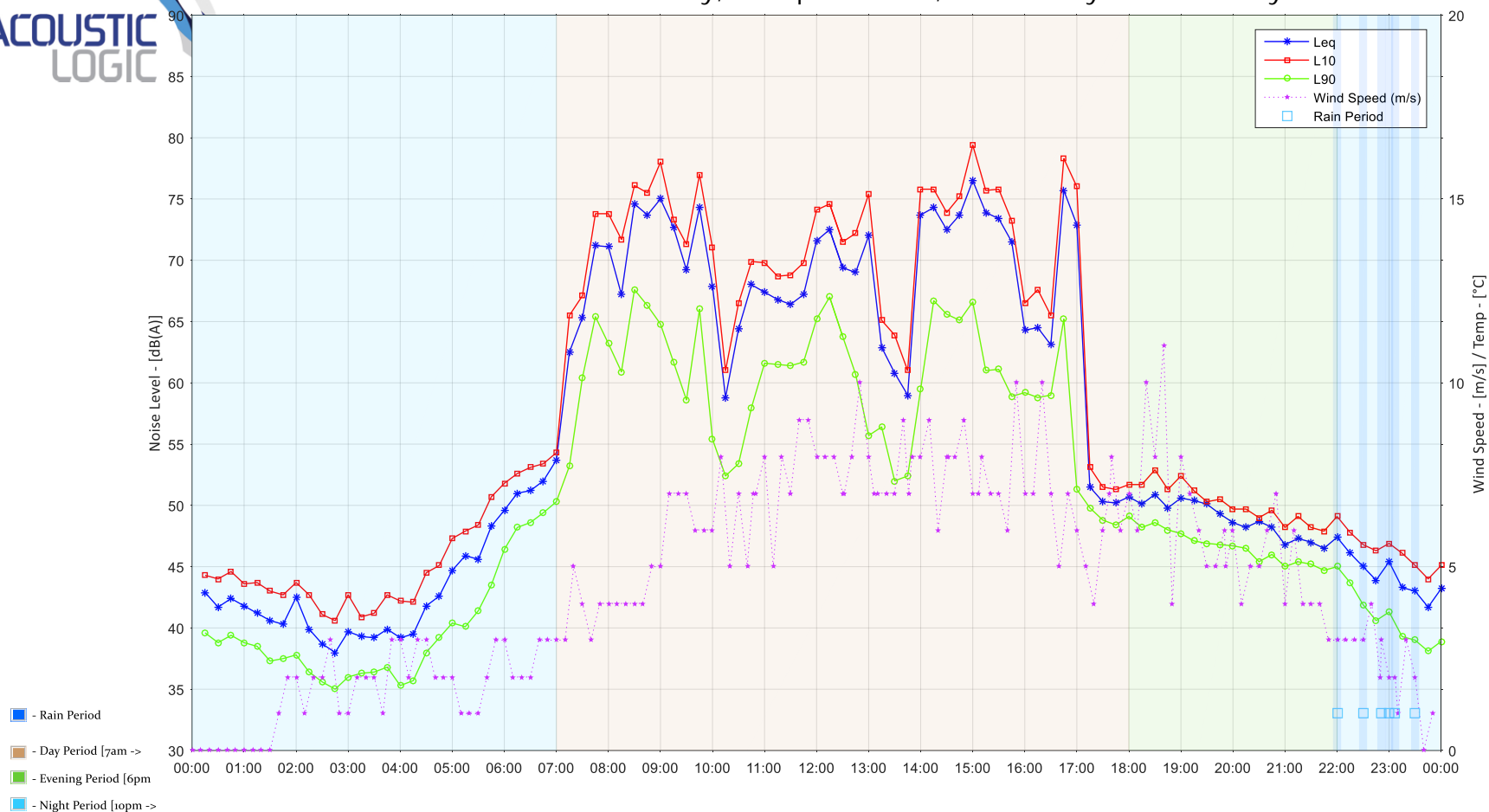
Location 2: Mid-Western Boundary, Macquarie Park, Monday 20th January 2020



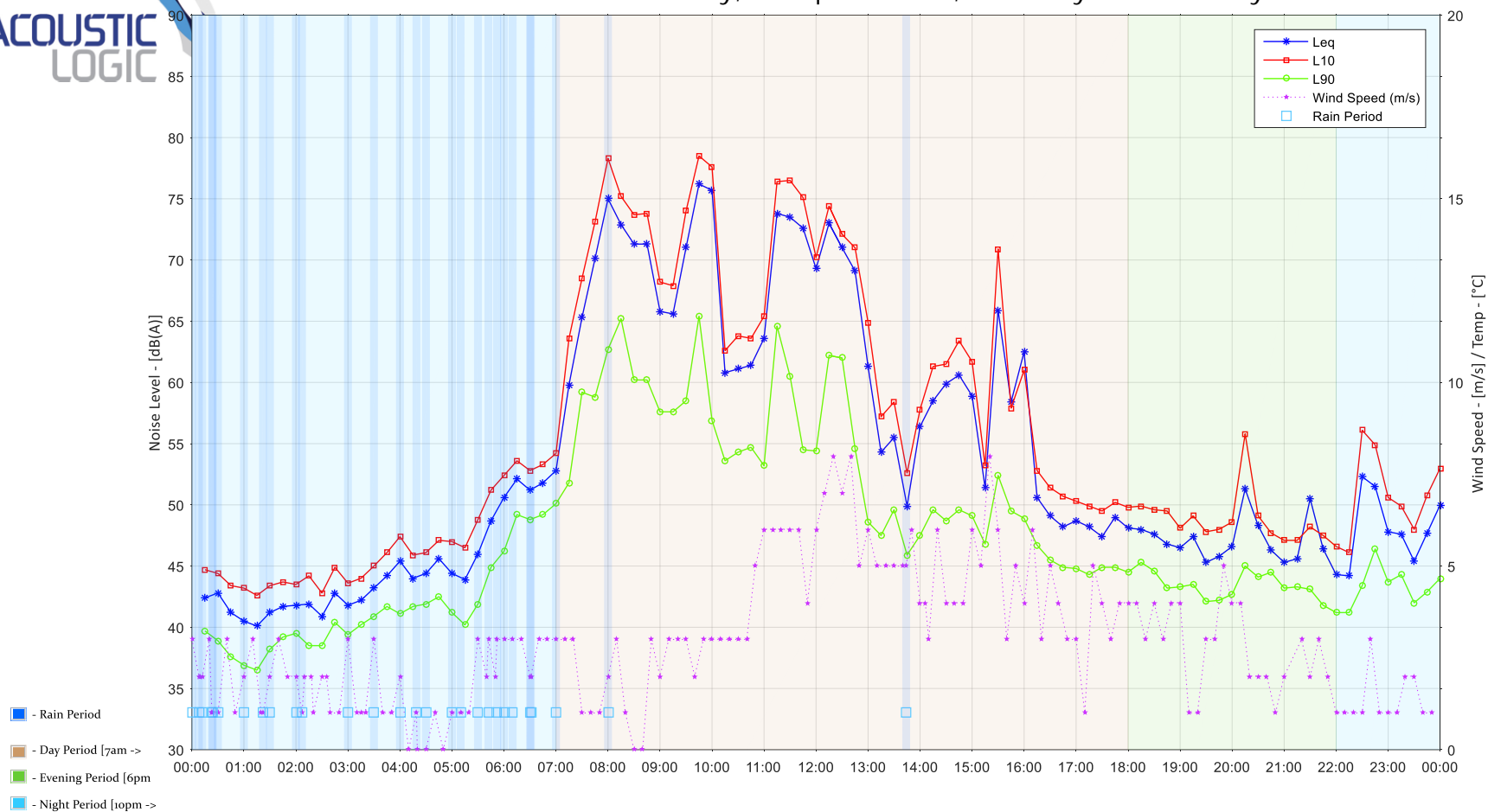
Location 2: Mid-Western Boundary, Macquarie Park, Tuesday 21st January 2020



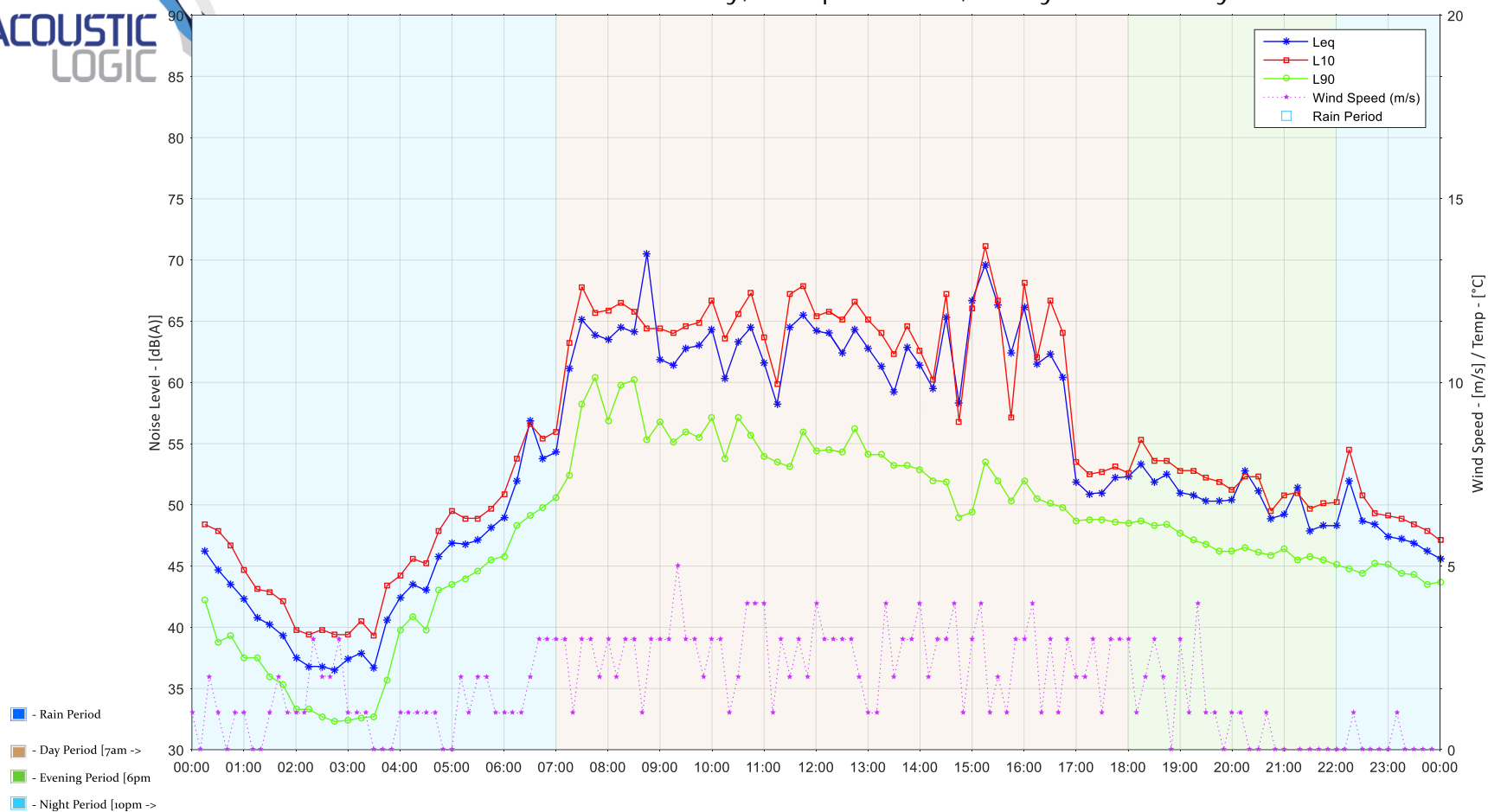
Location 2: Mid-Western Boundary, Macquarie Park, Wednesday 22nd January 2020



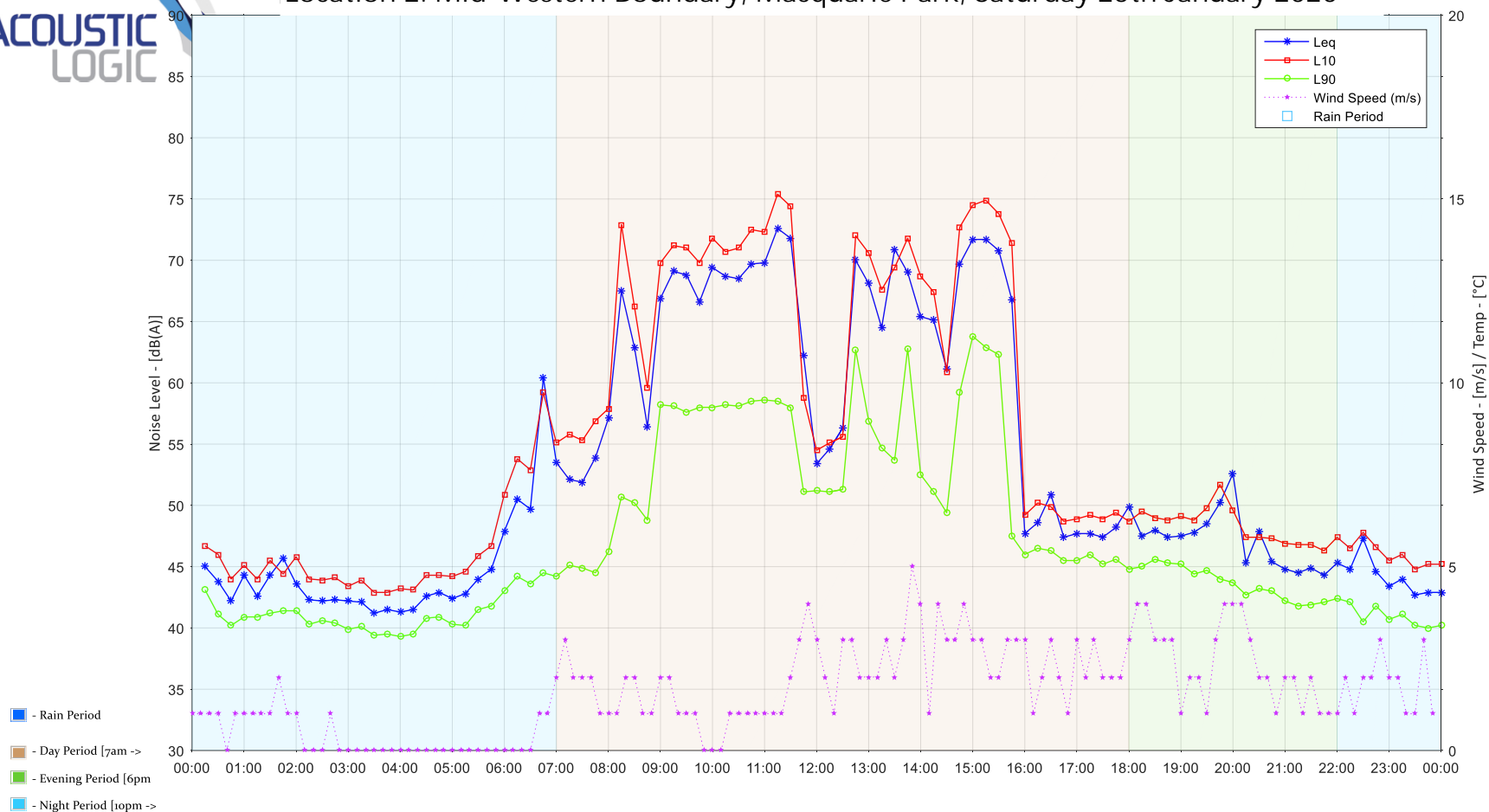
Location 2: Mid-Western Boundary, Macquarie Park, Thursday 23rd January 2020



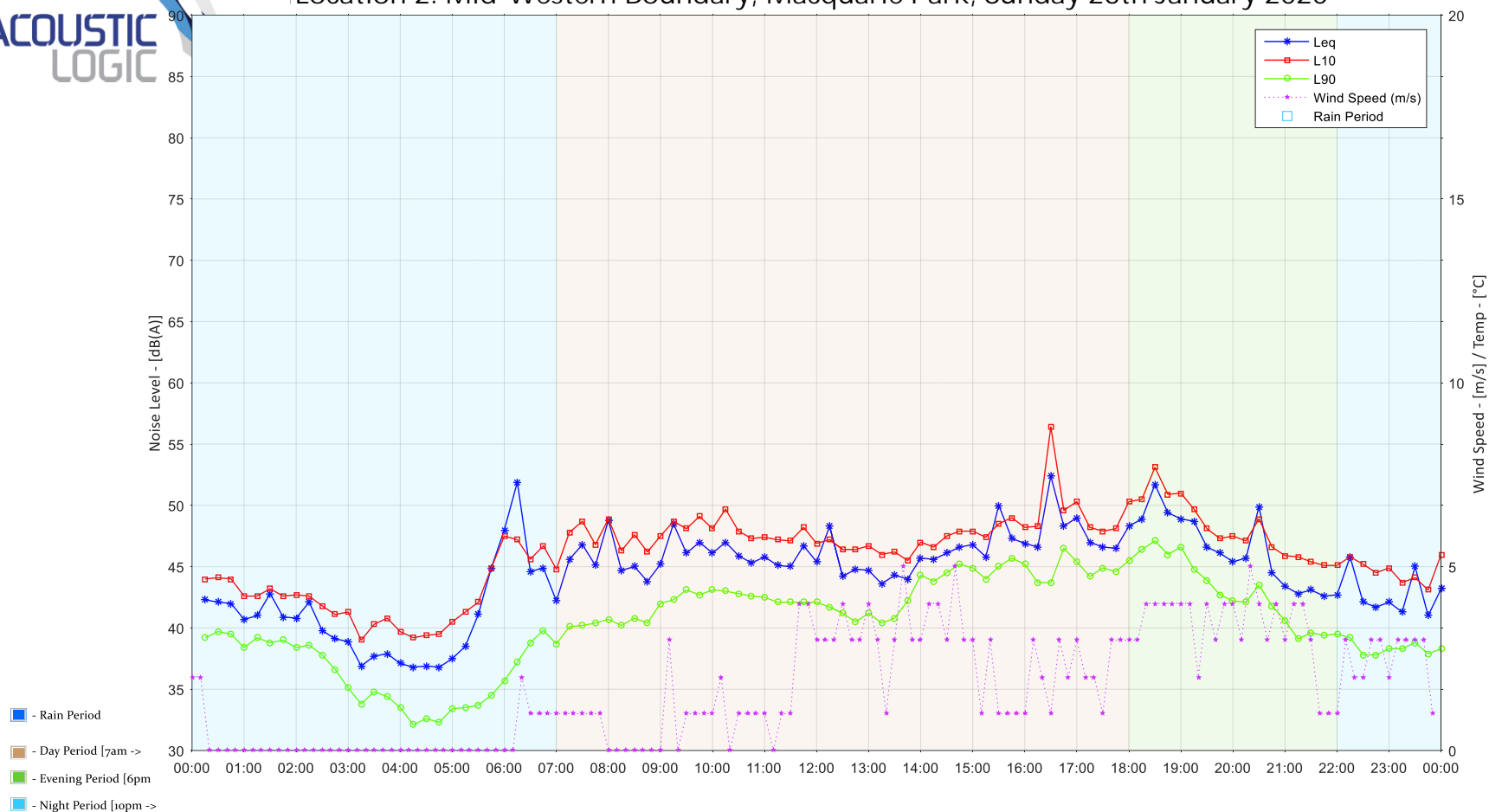
Location 2: Mid-Western Boundary, Macquarie Park, Friday 24th January 2020



Location 2: Mid-Western Boundary, Macquarie Park, Saturday 25th January 2020

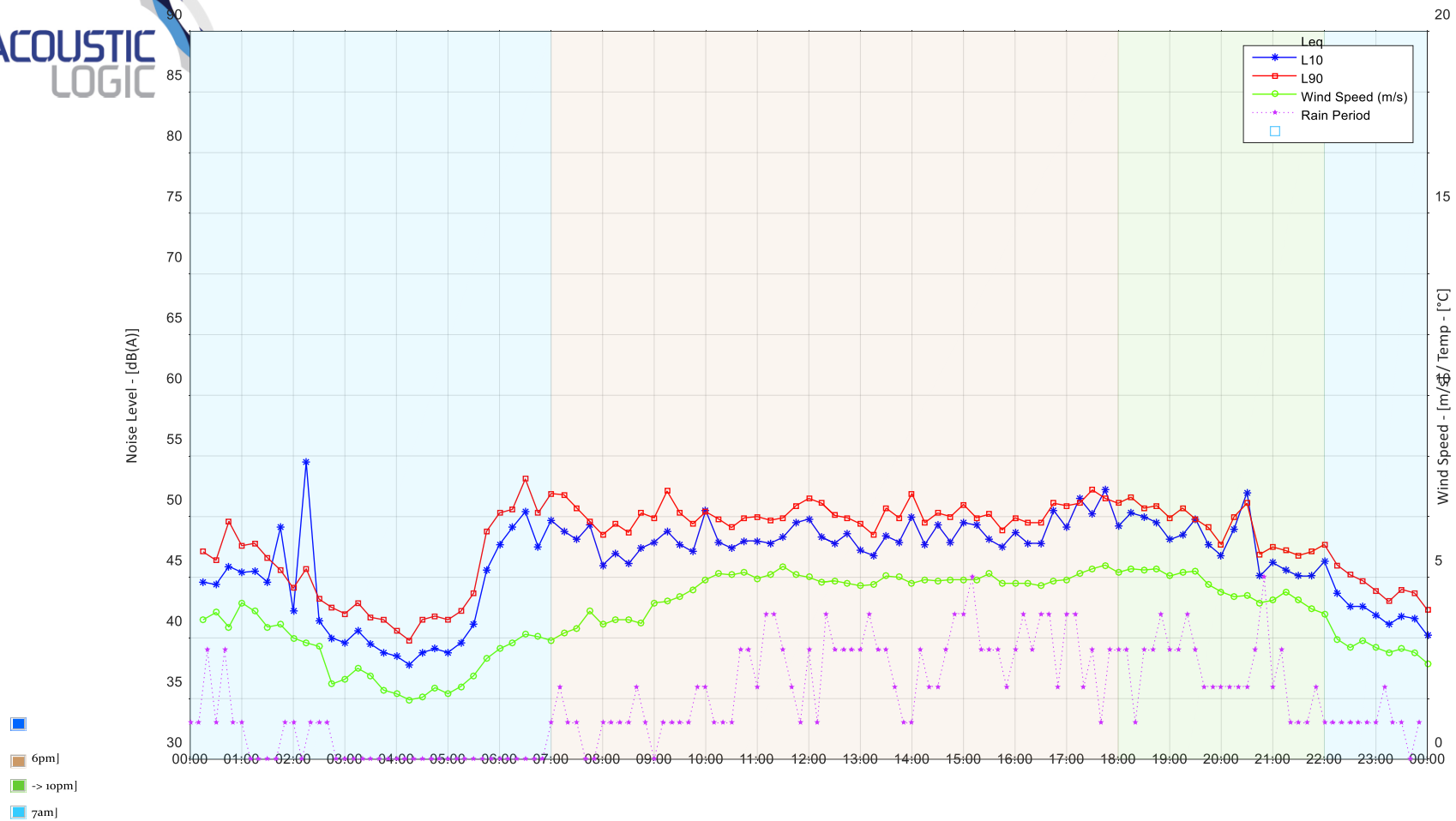


Location 2: Mid-Western Boundary, Macquarie Park, Sunday 26th January 2020



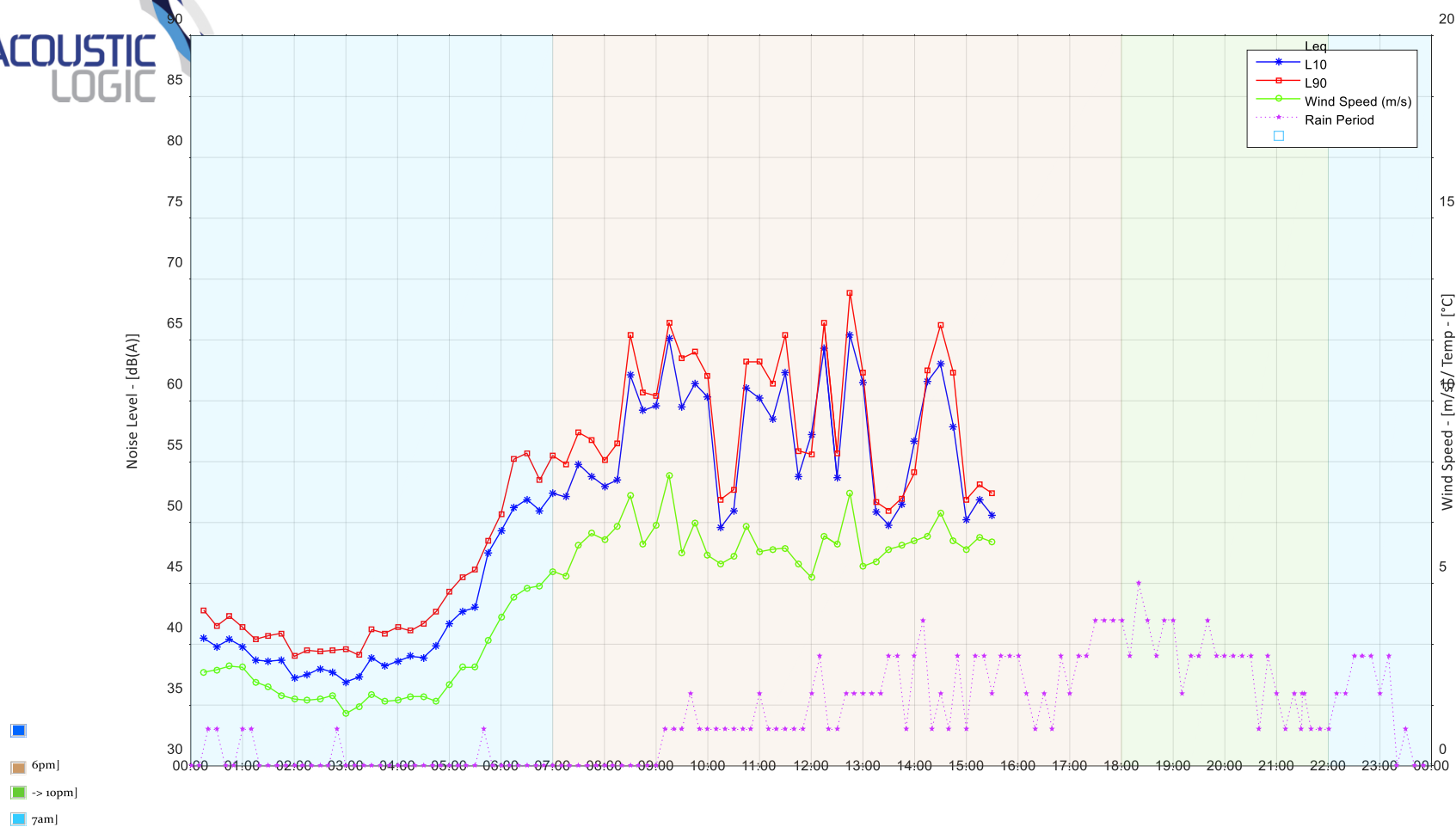


Location 2: Mid-Western Boundary, Macquarie Park, Monday 27th January 2020



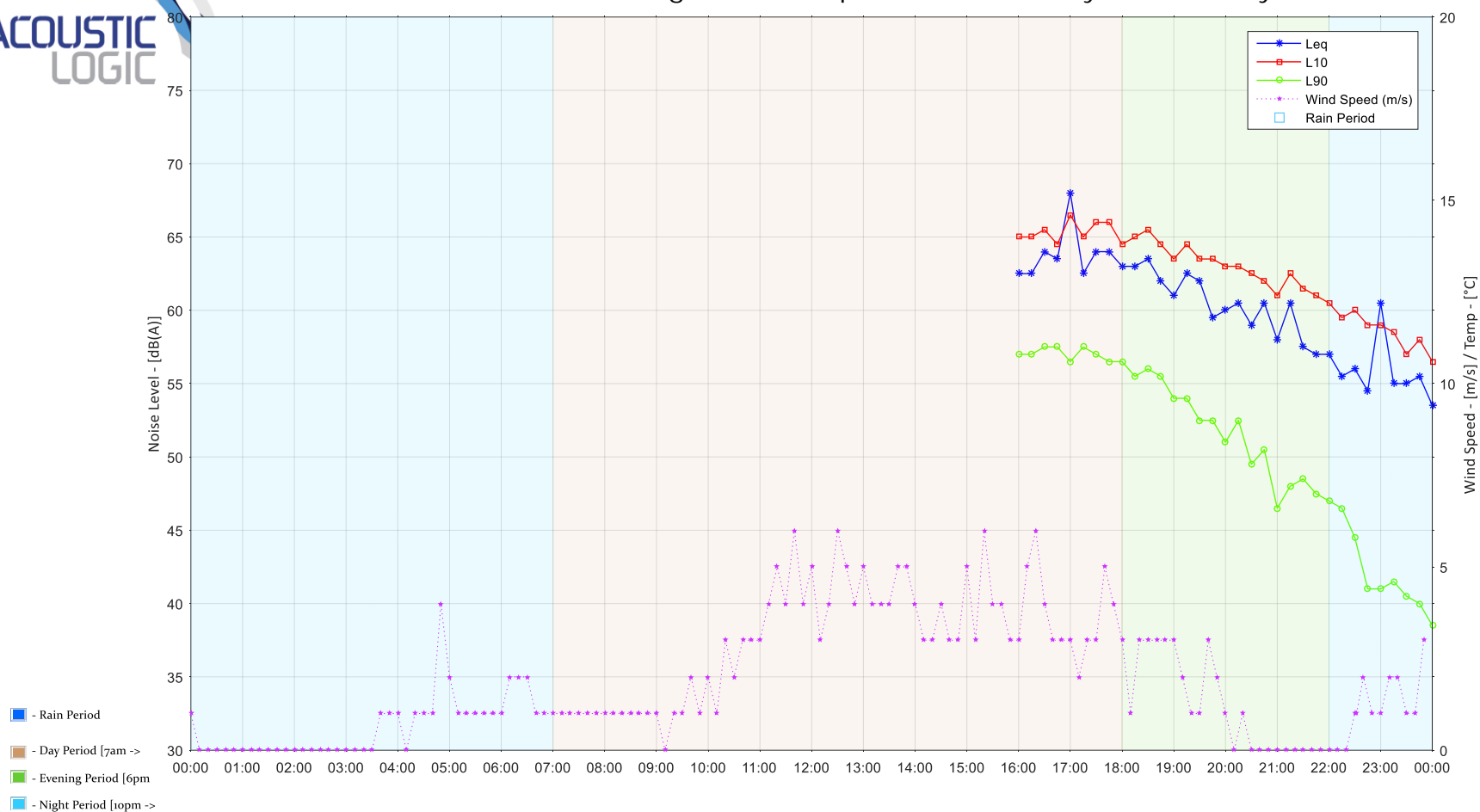


Location 2: Mid-Western Boundary, Macquarie Park, Tuesday 28th January 2020

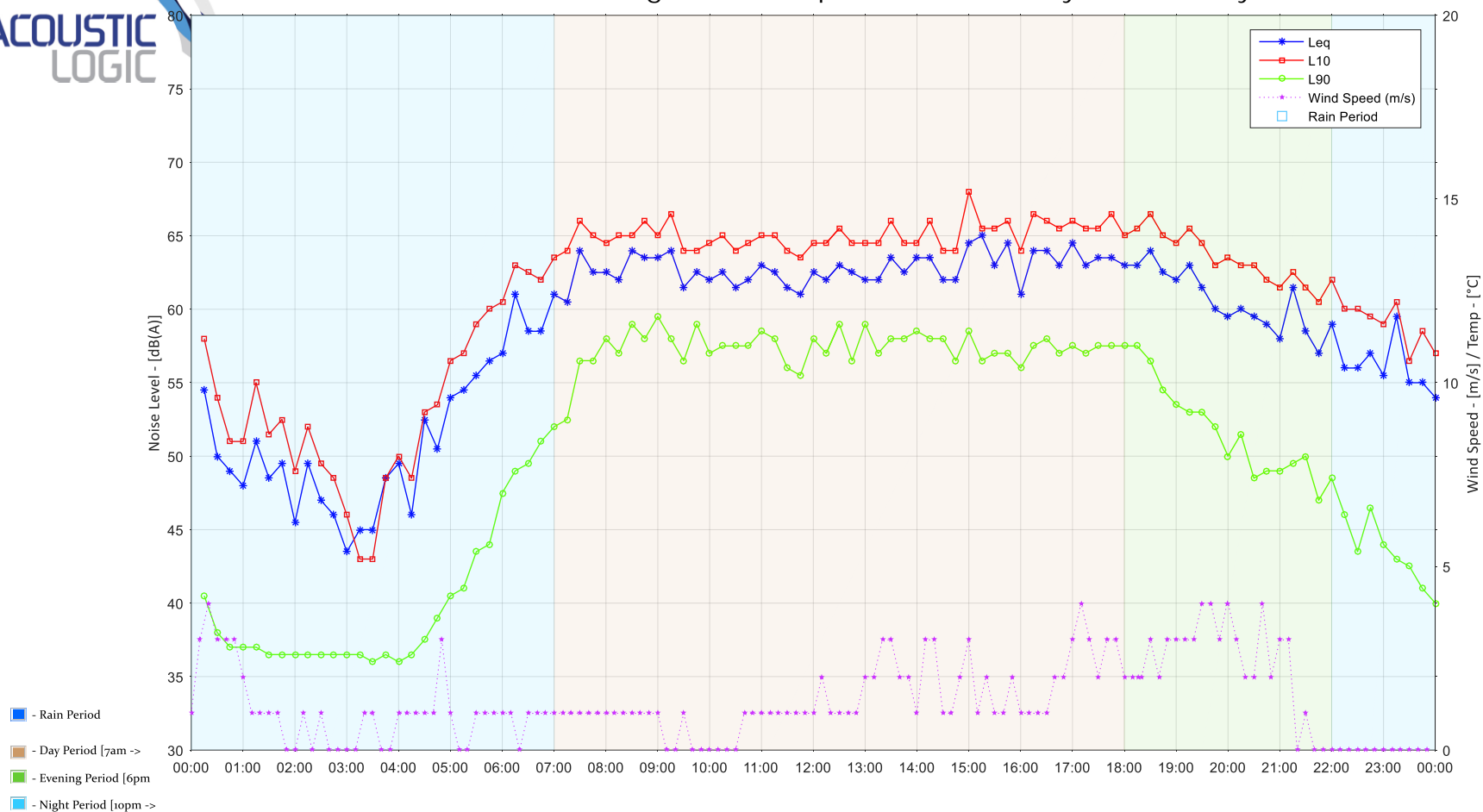


Appendix 3- Background Noise Monitor Data at Location 3

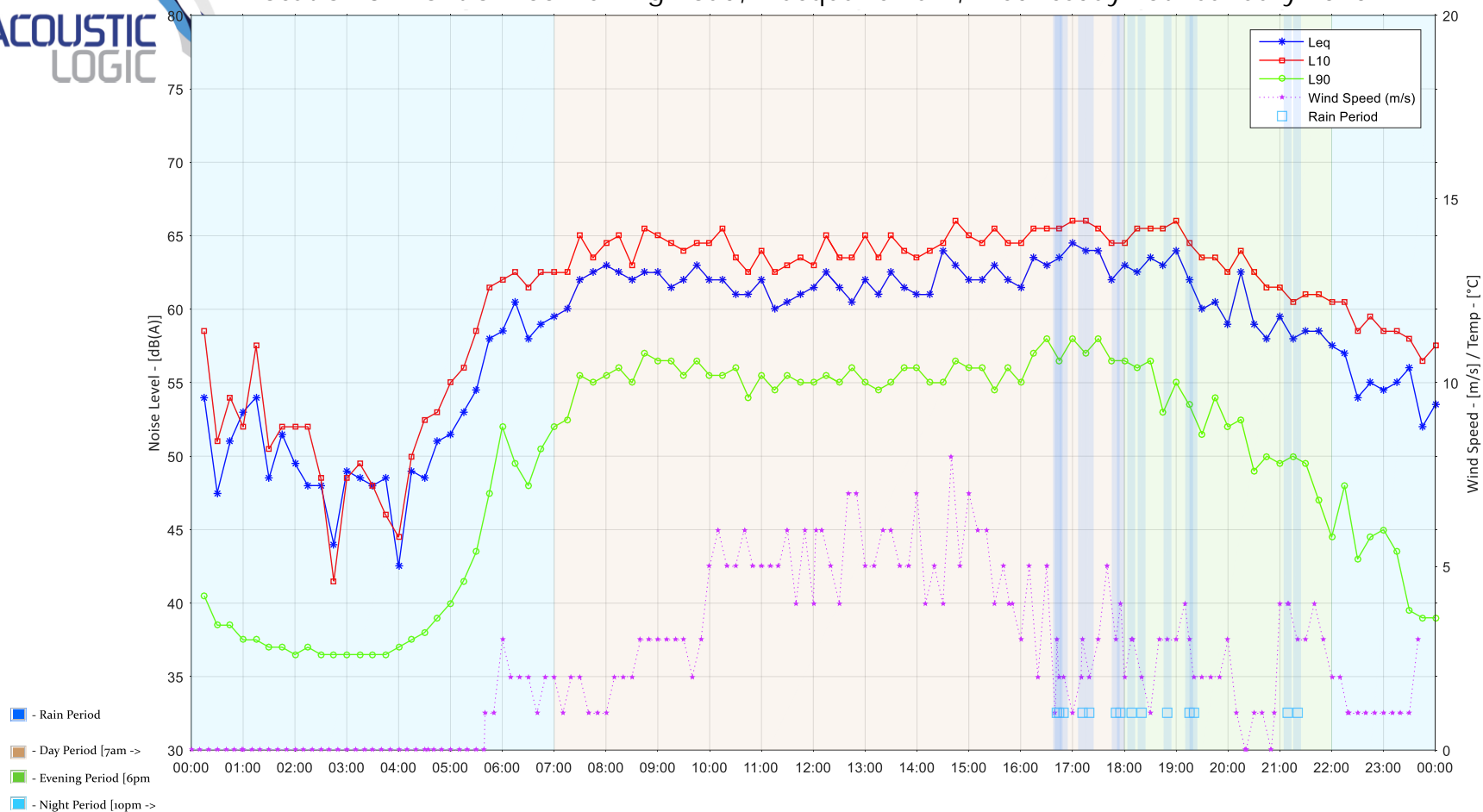
Location 3: Front of 155 Herring Road, Macquarie Park, Monday 13th January 2020



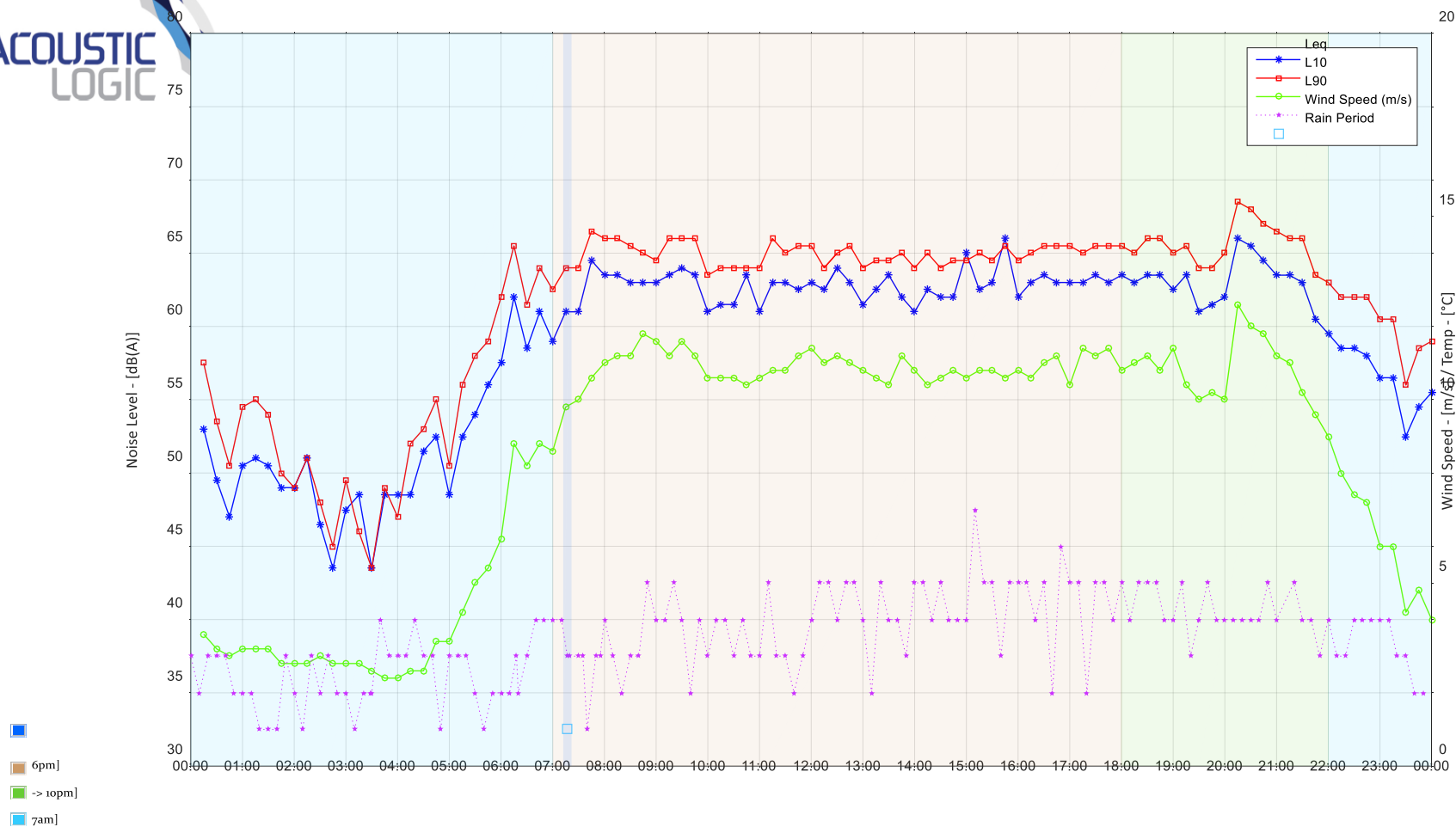
Location 3: Front of 155 Herring Road, Macquarie Park, Tuesday 14th January 2020



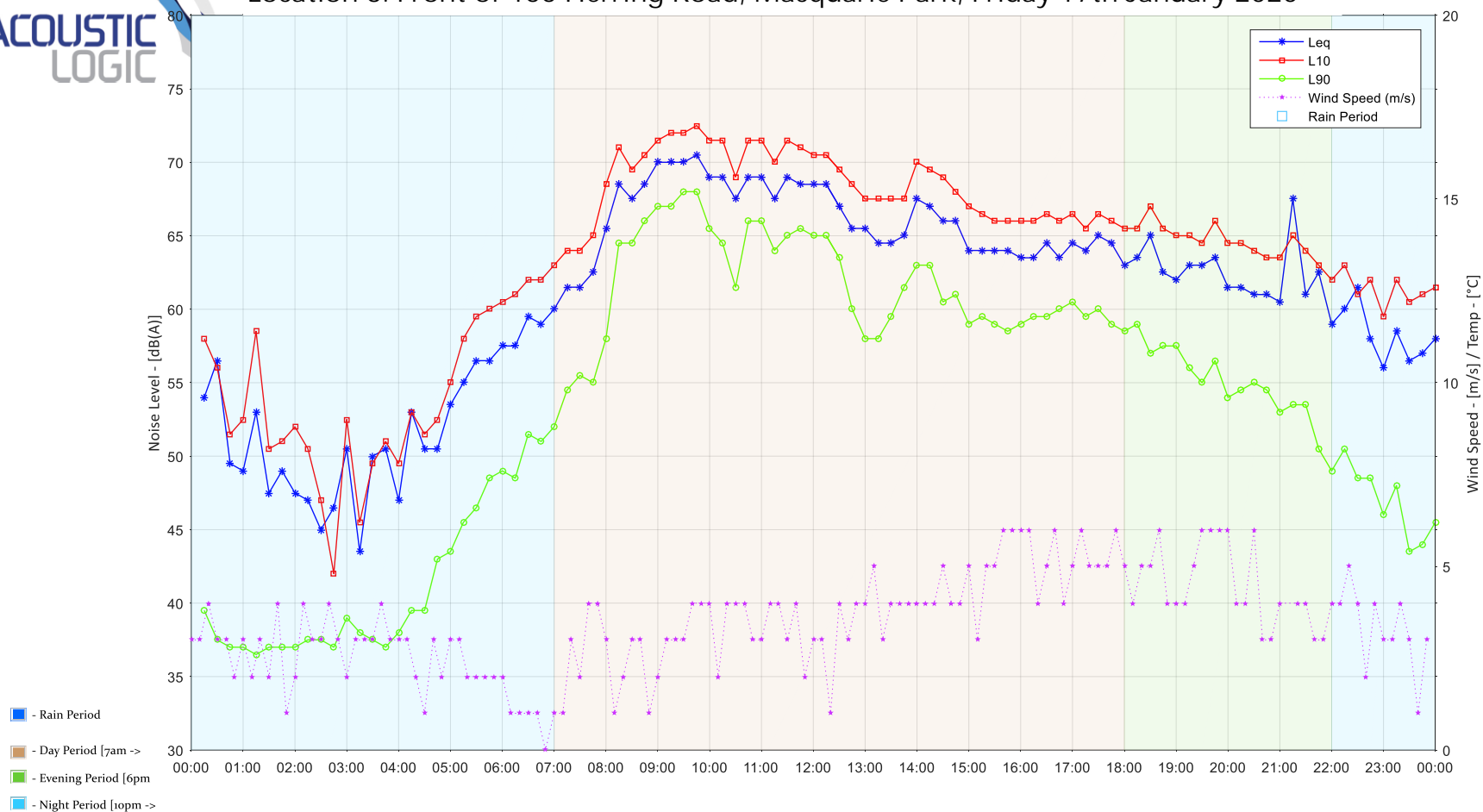
Location 3: Front of 155 Herring Road, Macquarie Park, Wednesday 15th January 2020



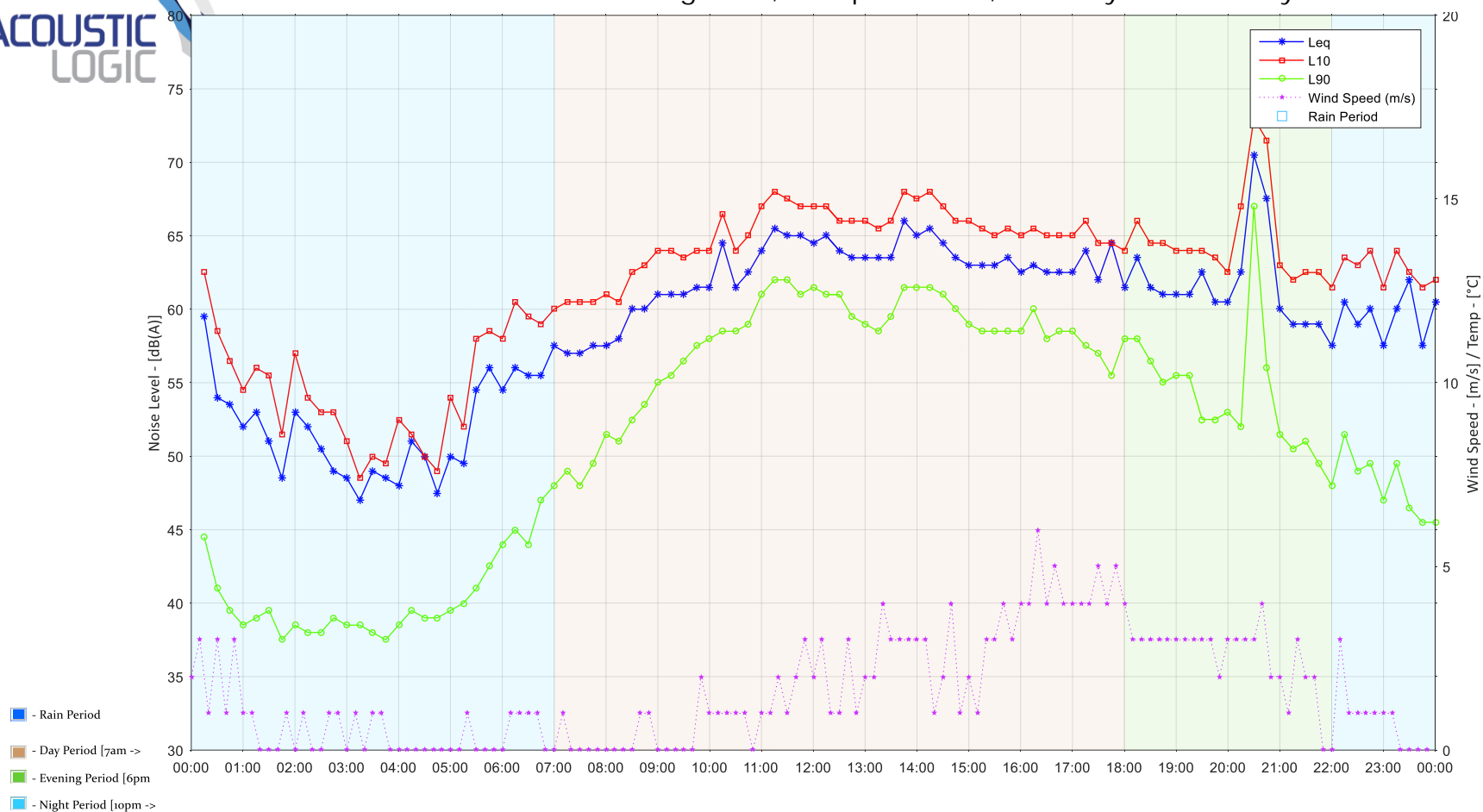
Location 3: Front of 155 Herring Road, Macquarie Park, Thursday 16th January 2020



Location 3: Front of 155 Herring Road, Macquarie Park, Friday 17th January 2020

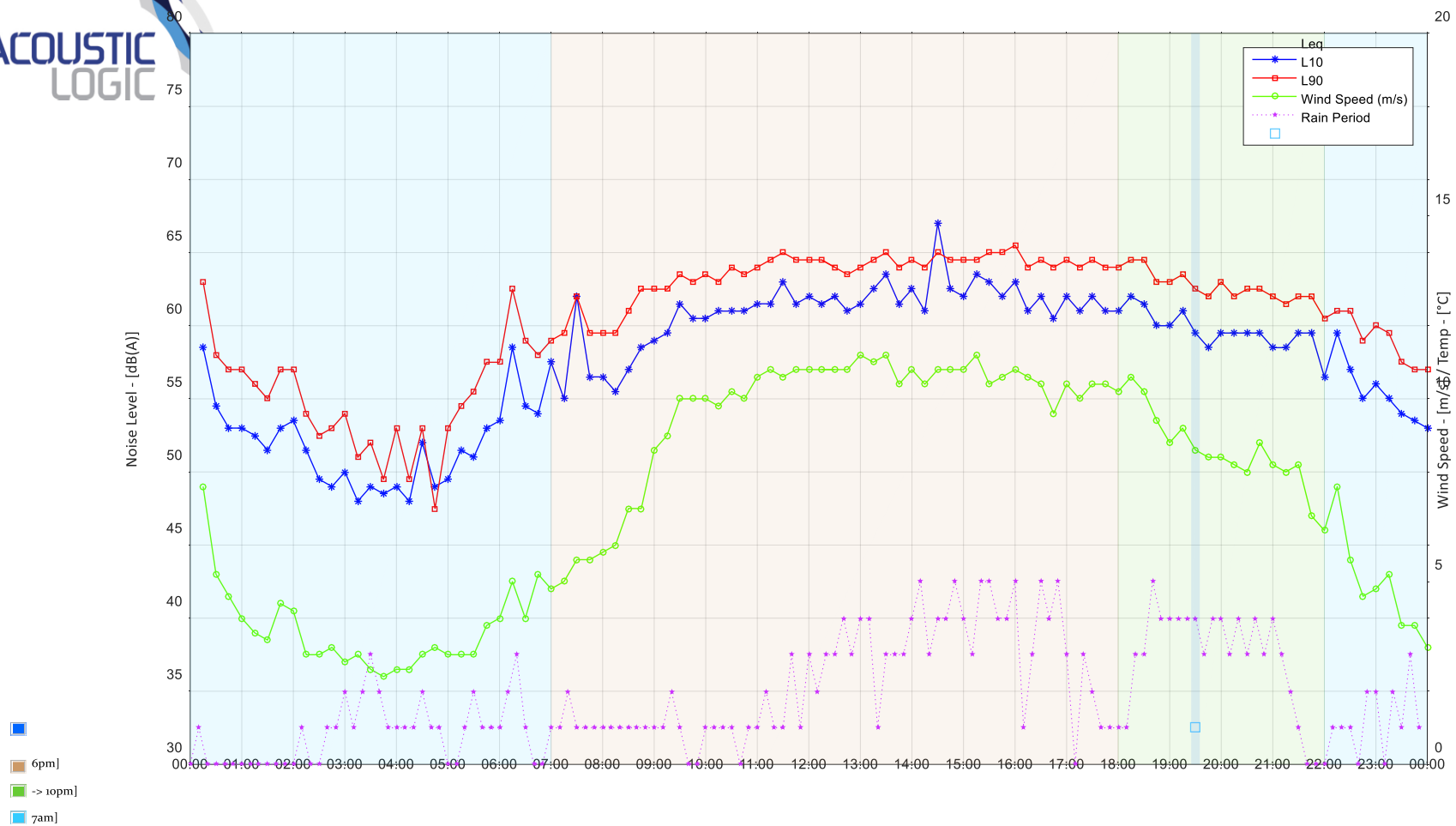


Location 3: Front of 155 Herring Road, Macquarie Park, Saturday 18th January 2020

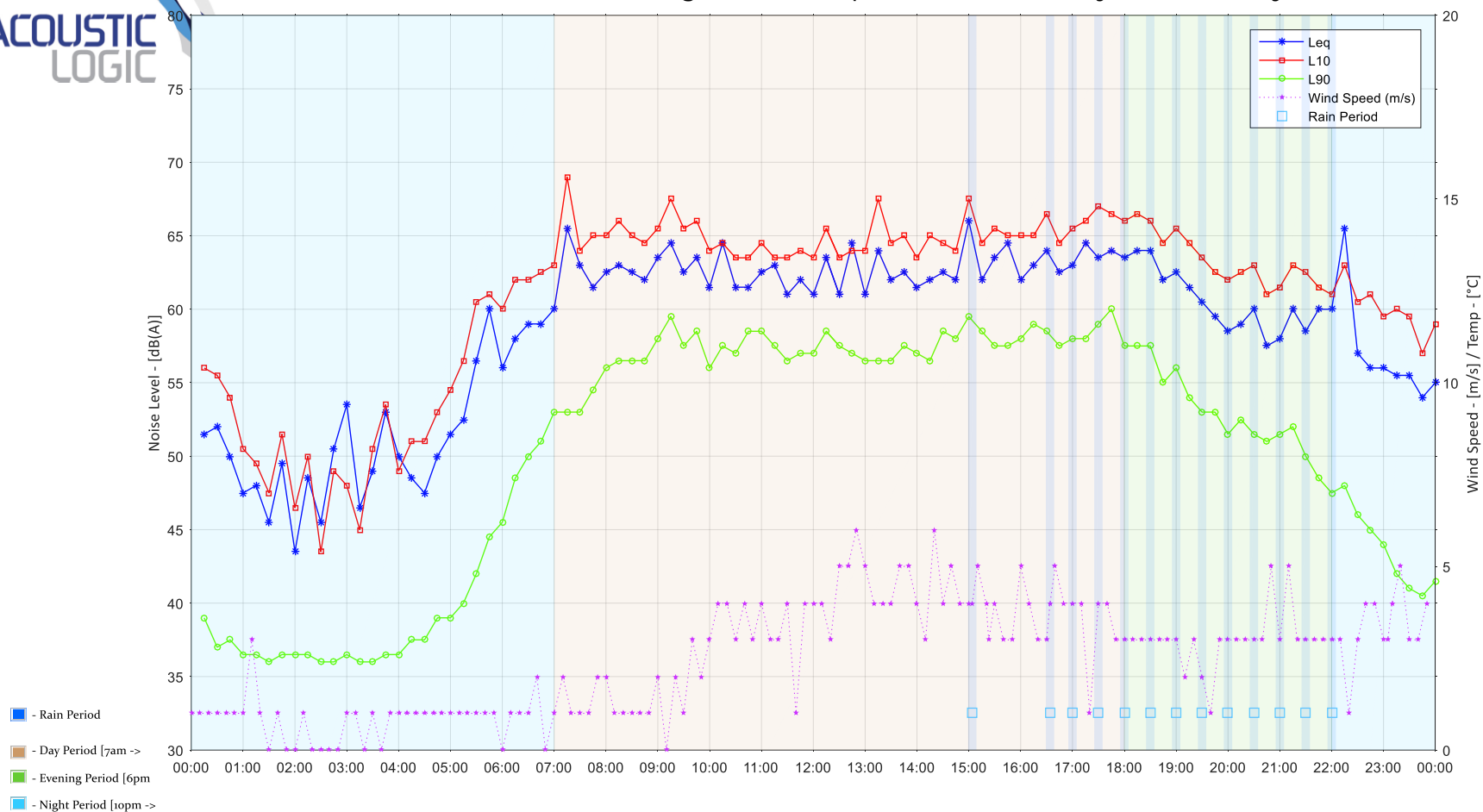




Location 3: Front of 155 Herring Road, Macquarie Park, Sunday 19th January 2020

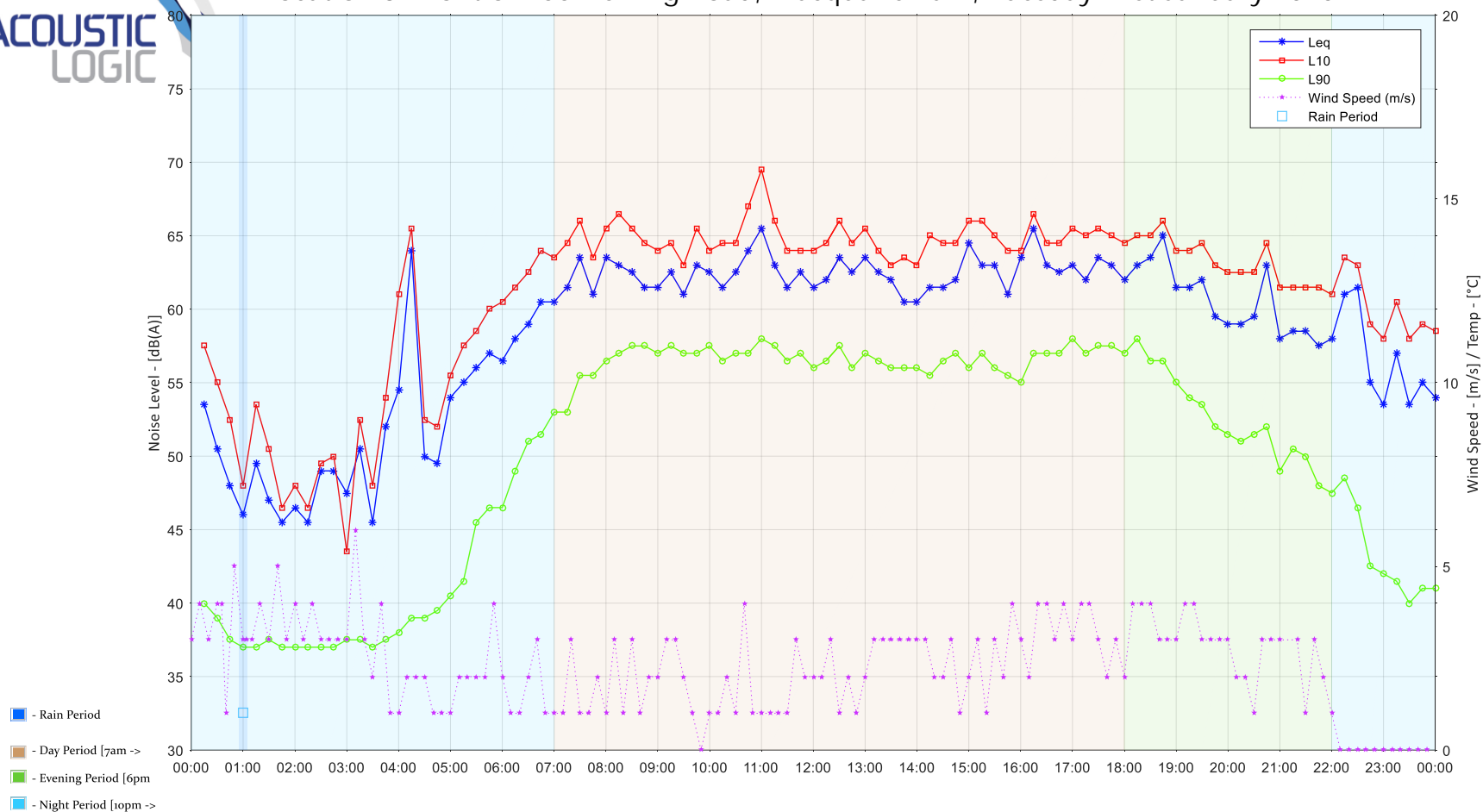


Location 3: Front of 155 Herring Road, Macquarie Park, Monday 20th January 2020

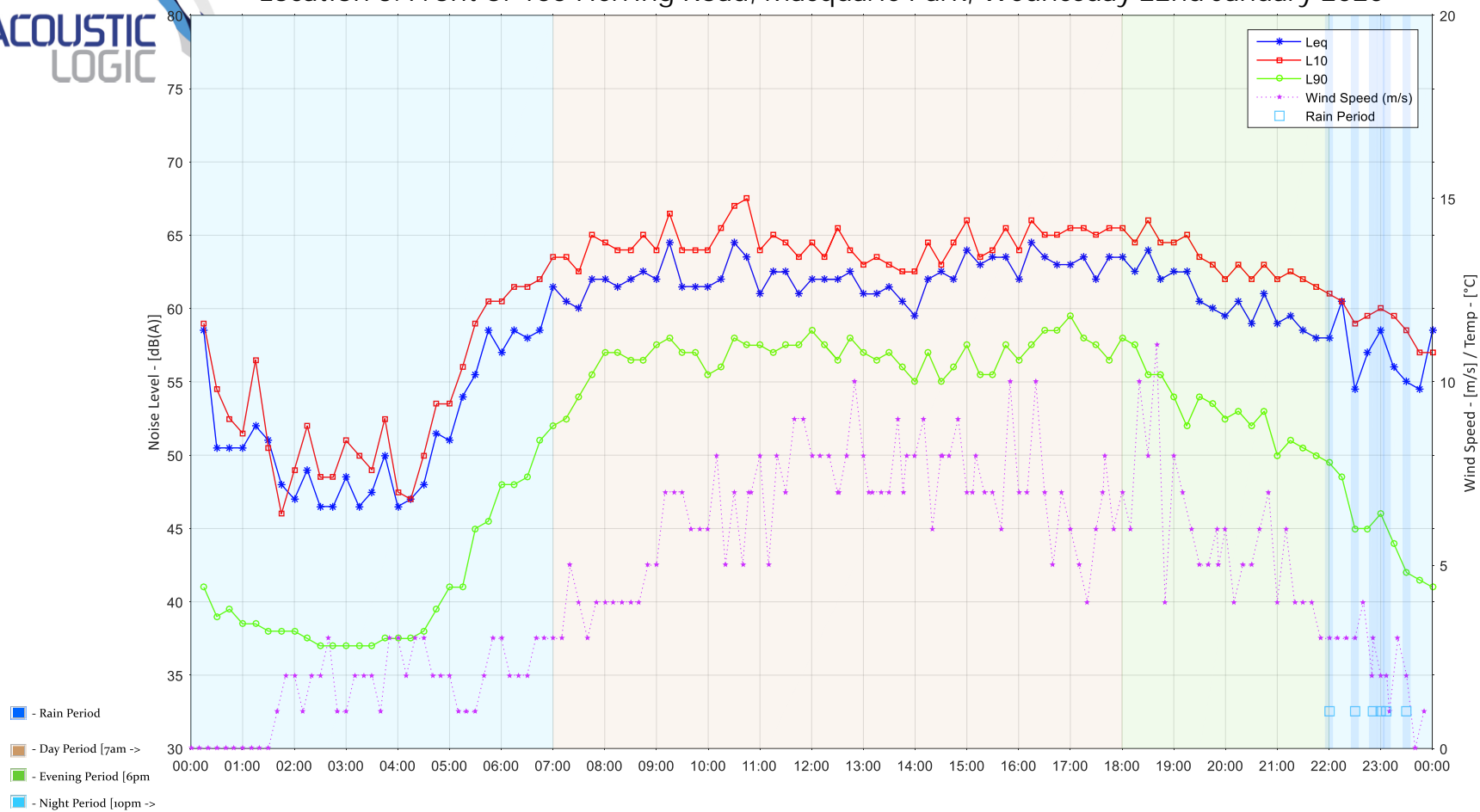




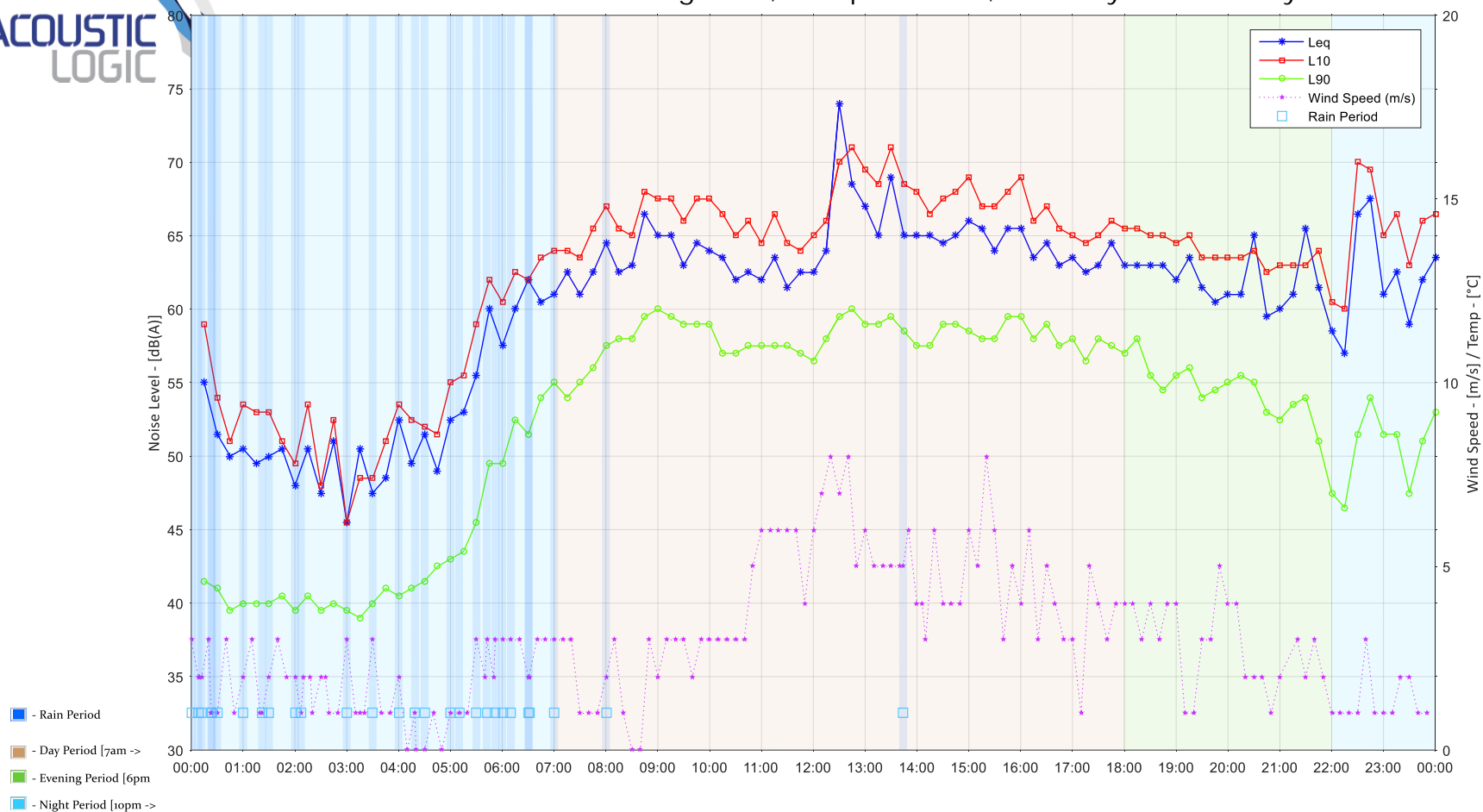
Location 3: Front of 155 Herring Road, Macquarie Park, Tuesday 21st January 2020



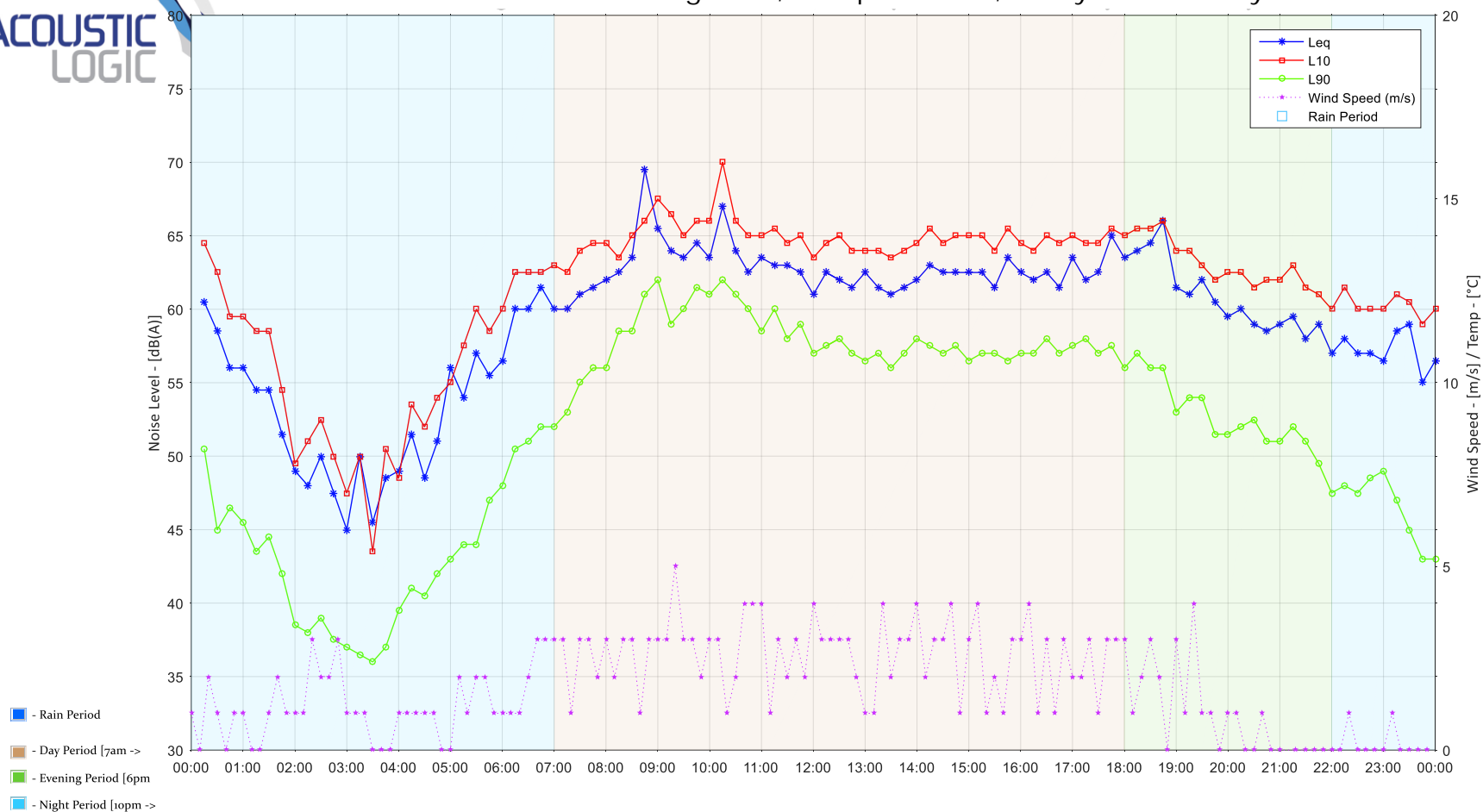
Location 3: Front of 155 Herring Road, Macquarie Park, Wednesday 22nd January 2020



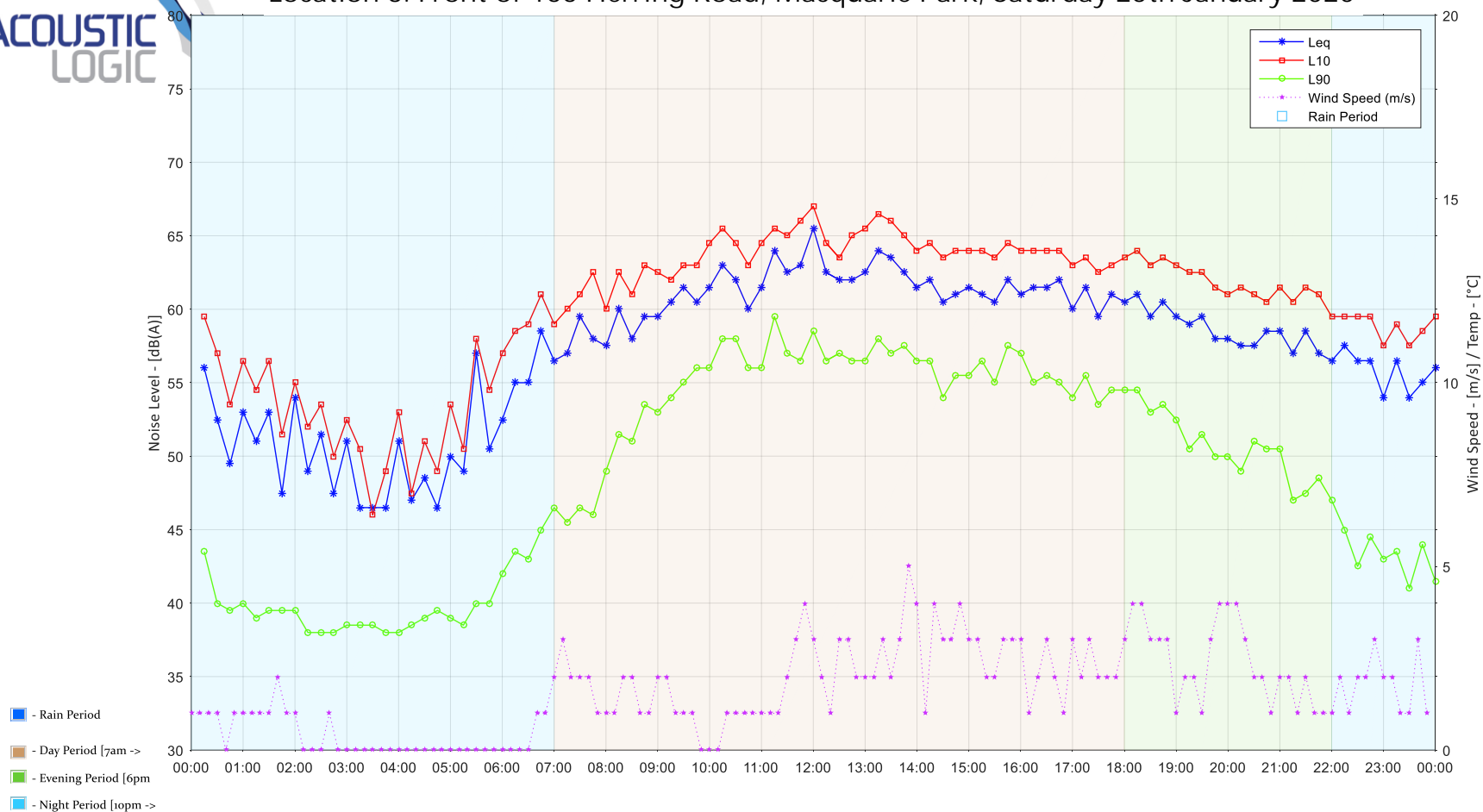
Location 3: Front of 155 Herring Road, Macquarie Park, Thursday 23rd January 2020



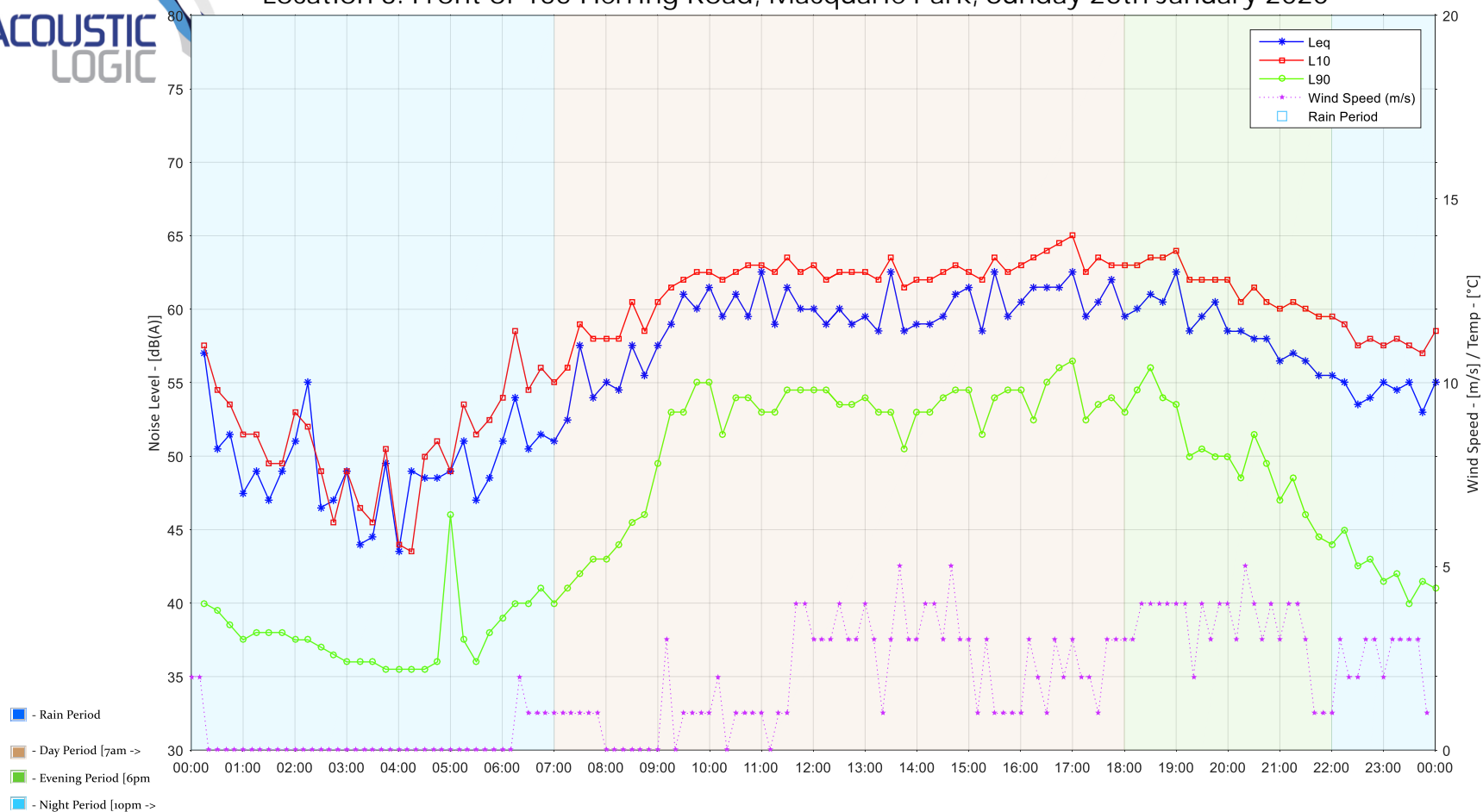
Location 3: Front of 155 Herring Road, Macquarie Park, Friday 24th January 2020



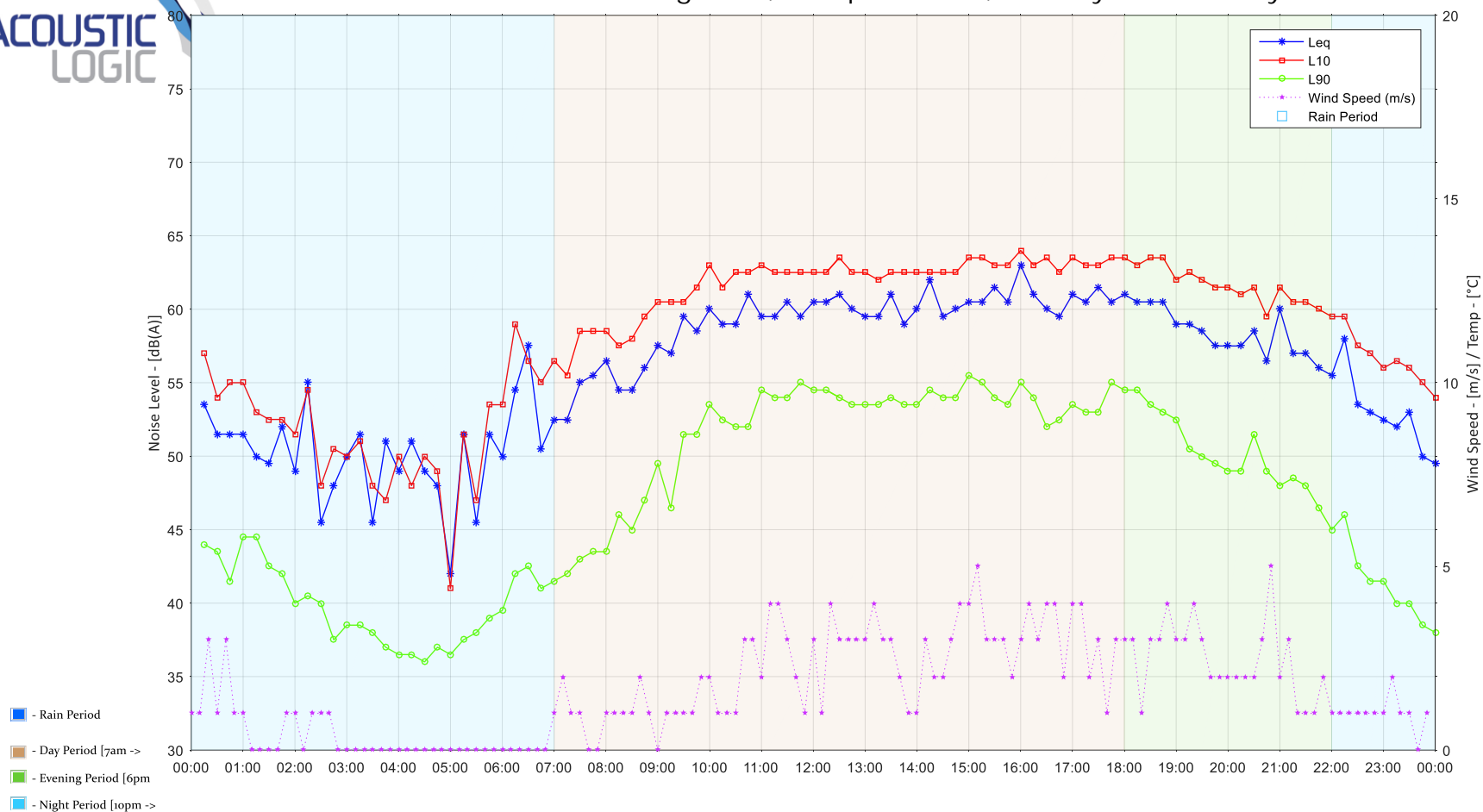
Location 3: Front of 155 Herring Road, Macquarie Park, Saturday 25th January 2020



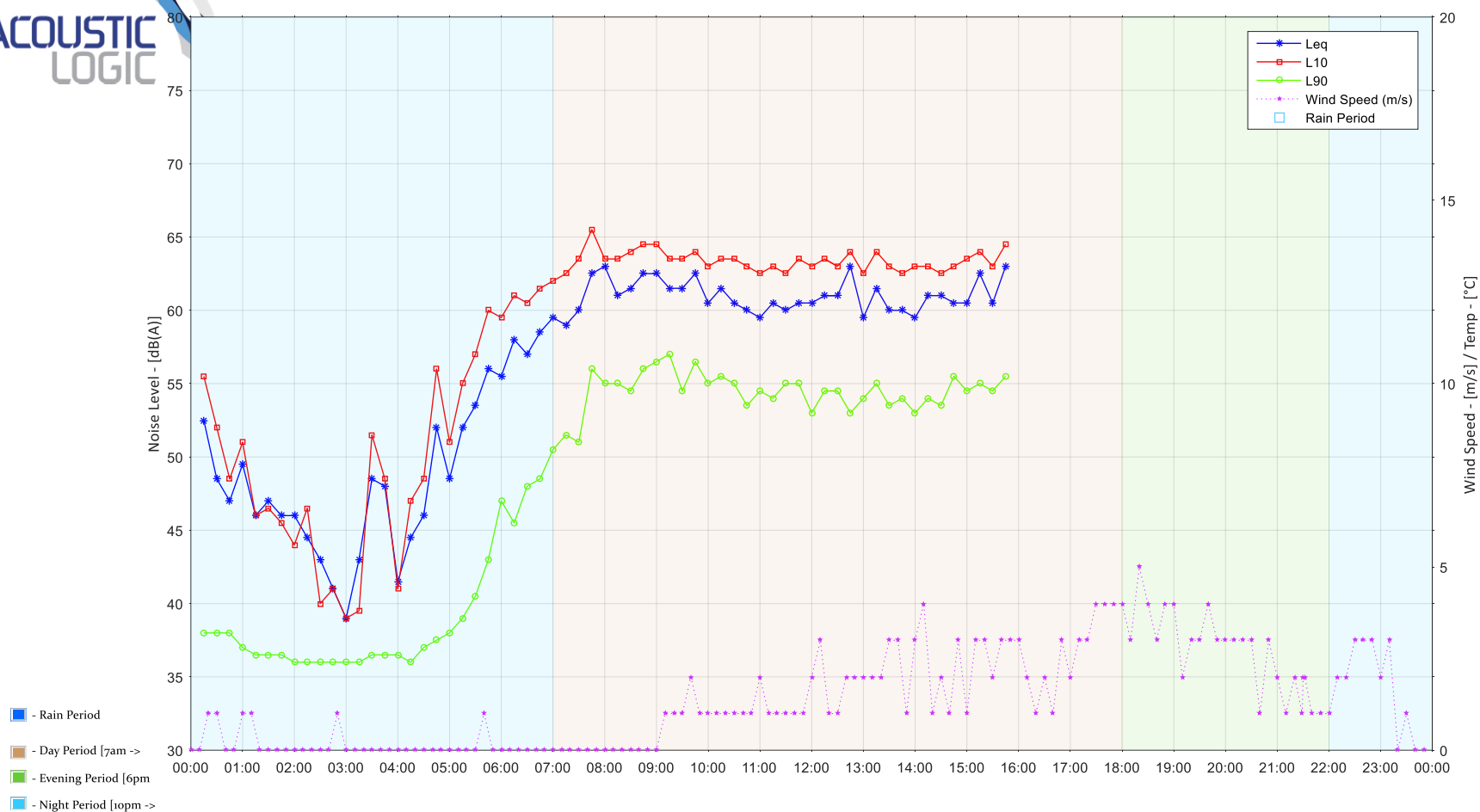
Location 3: Front of 155 Herring Road, Macquarie Park, Sunday 26th January 2020



Location 3: Front of 155 Herring Road, Macquarie Park, Monday 27th January 2020

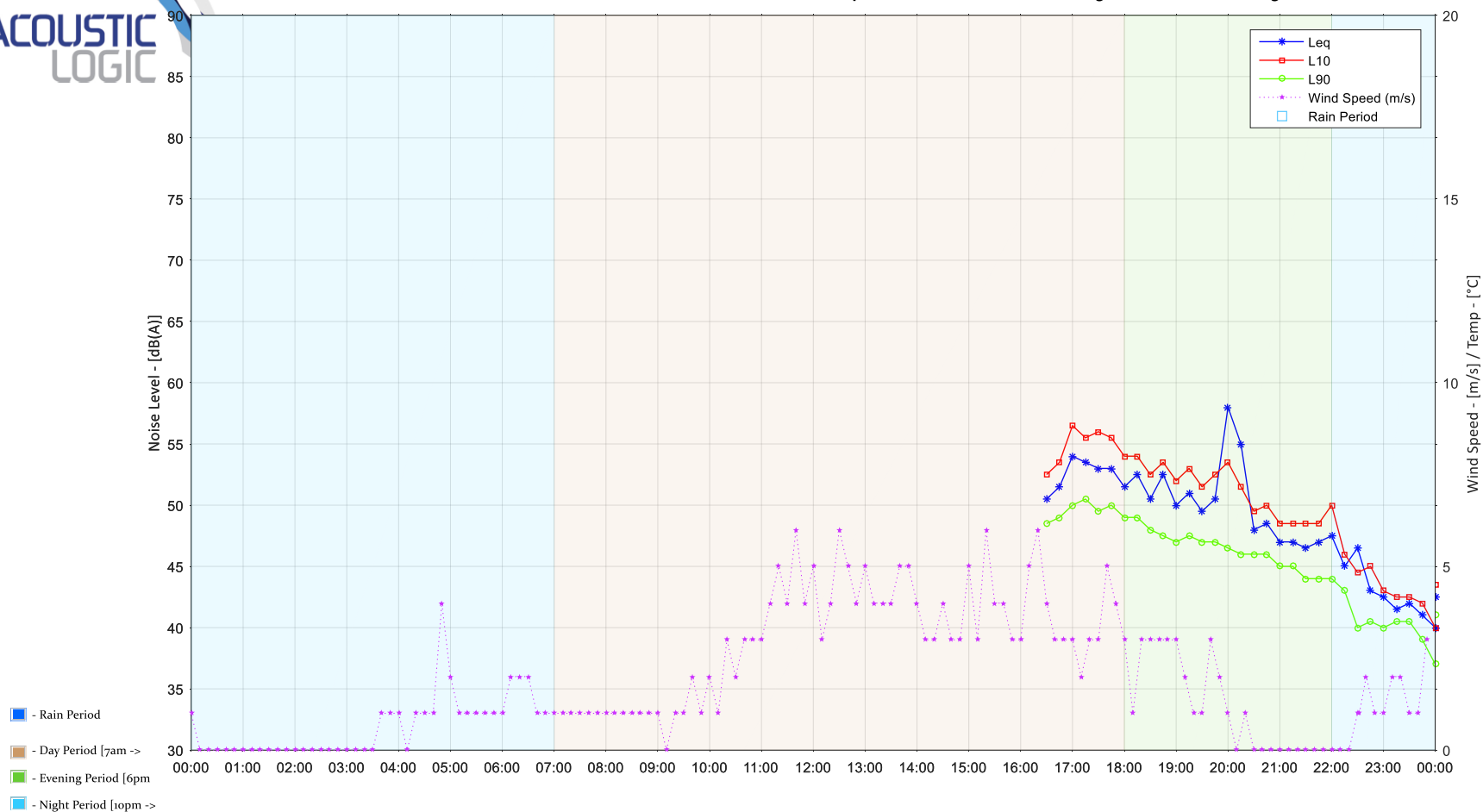


Location 3: Front of 155 Herring Road, Macquarie Park, Tuesday 28th January 2020

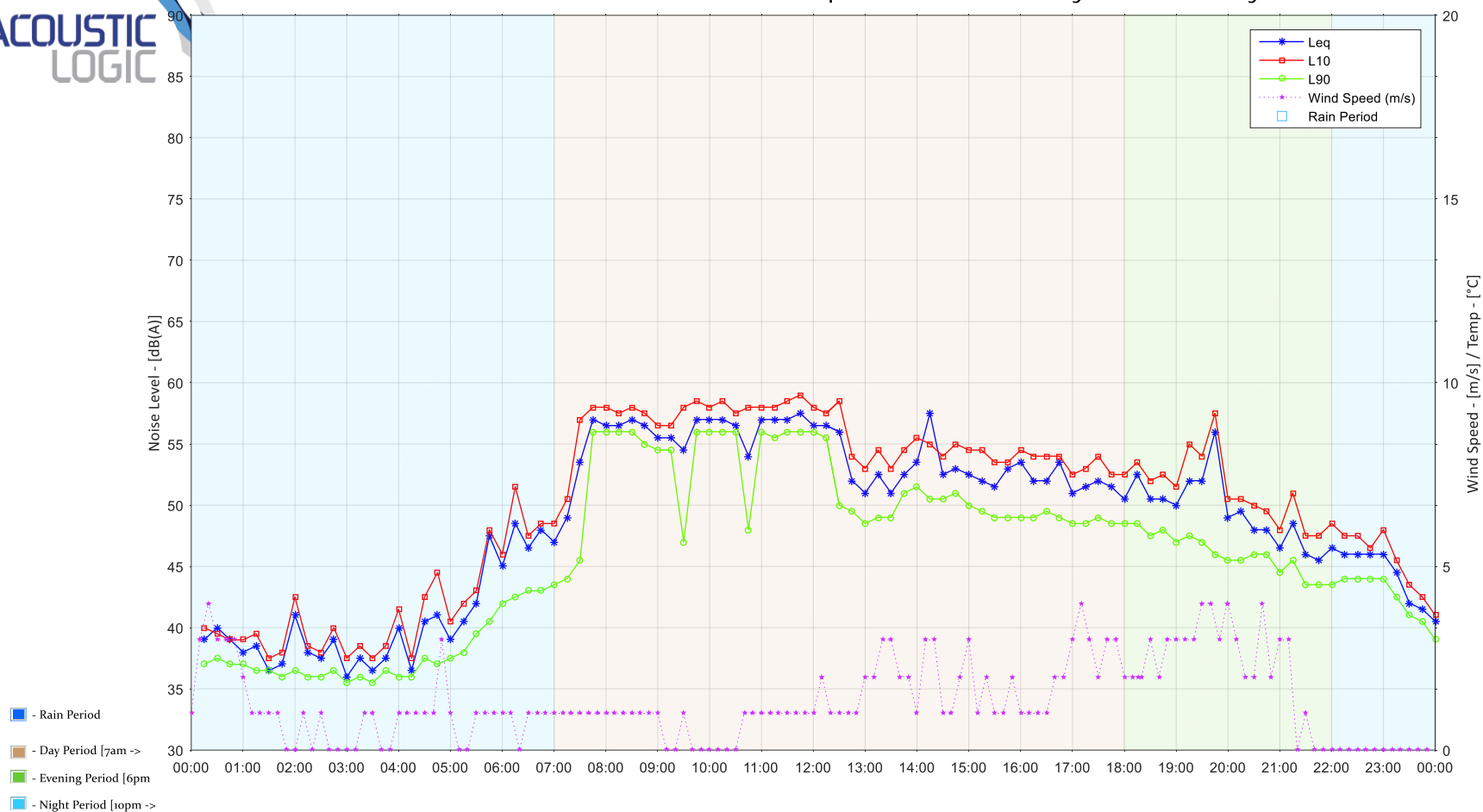


Appendix 4- Background Noise Monitor Data at Location 4

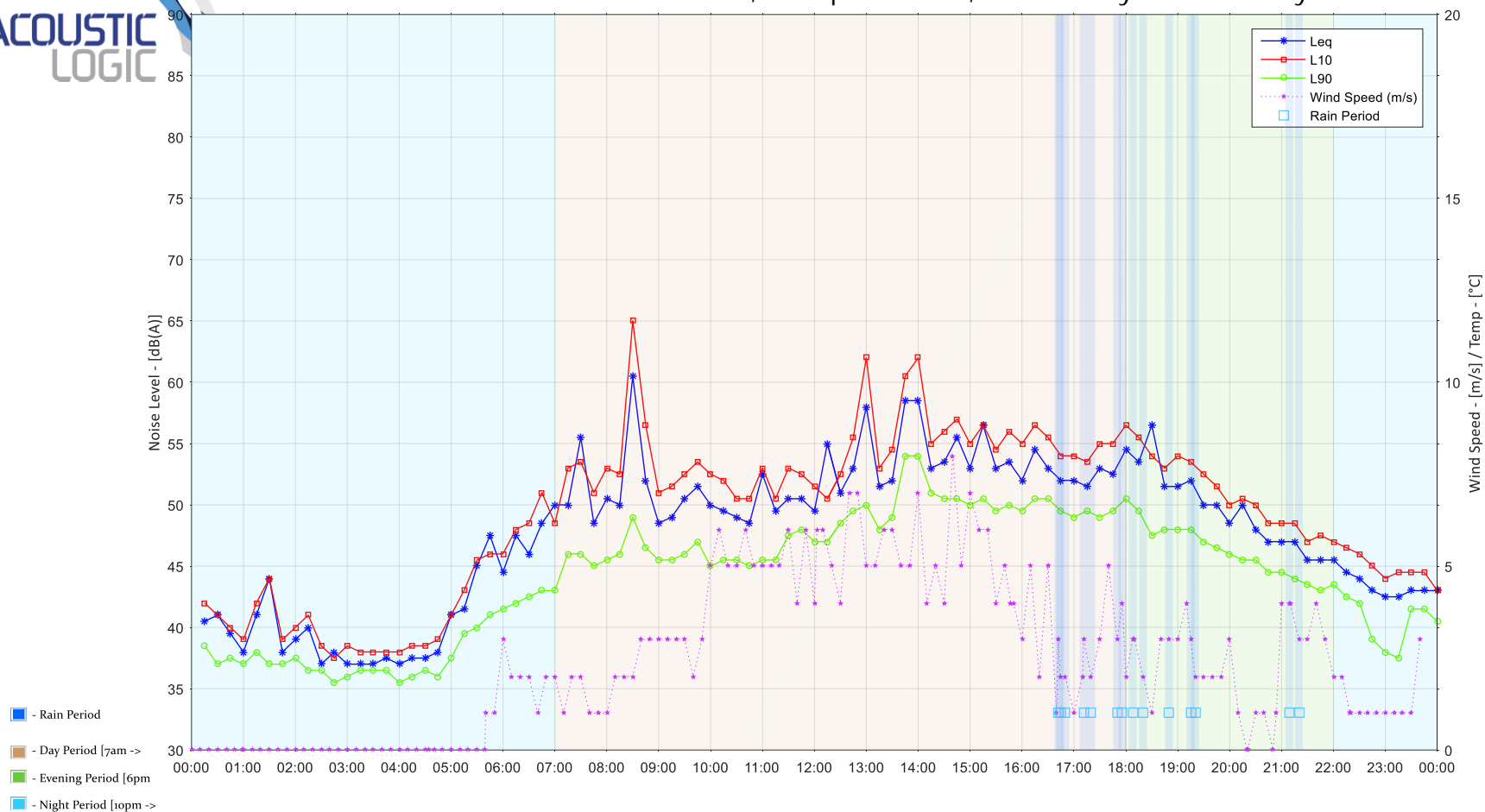
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Monday 13th January 2020



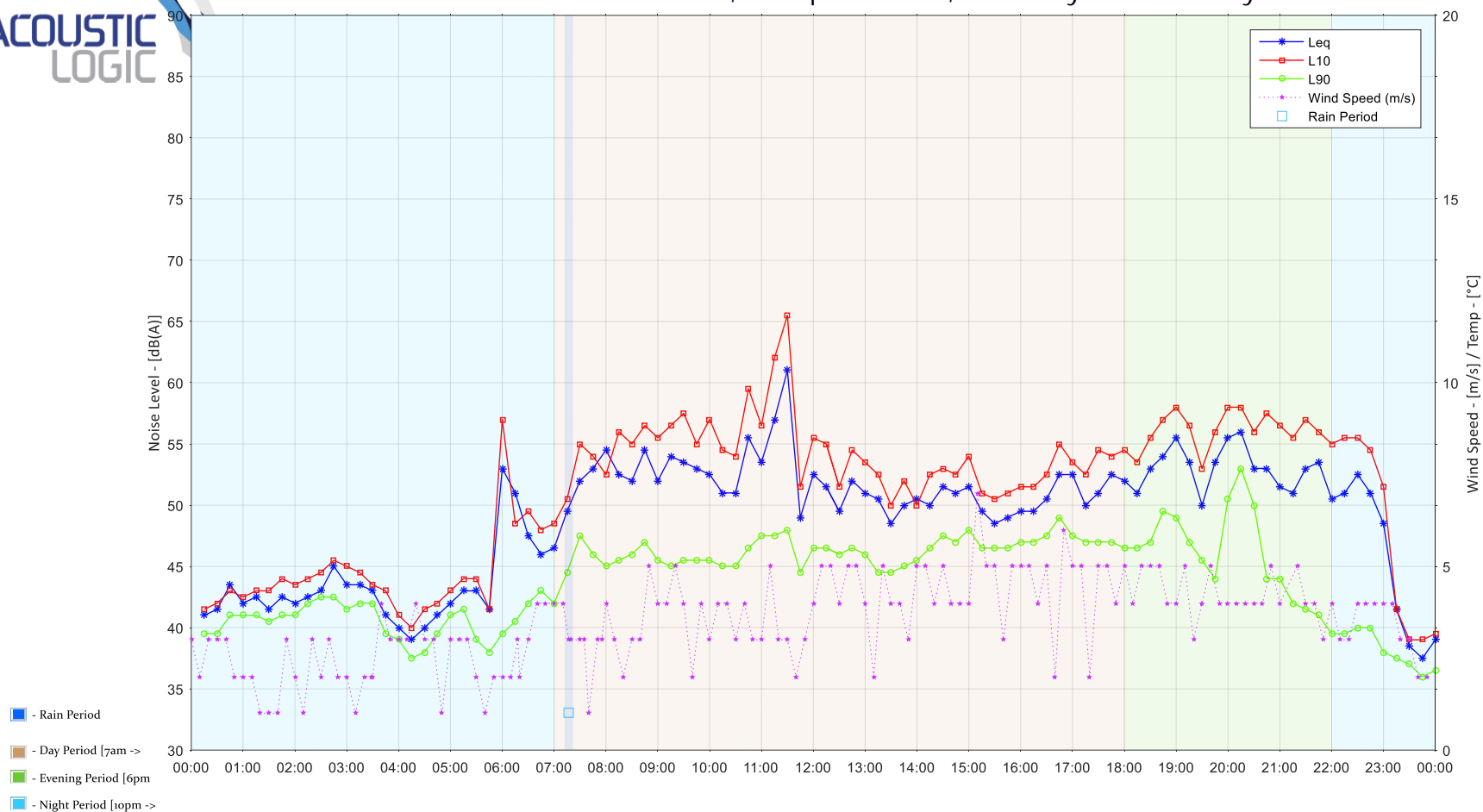
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Tuesday 14th January 2020



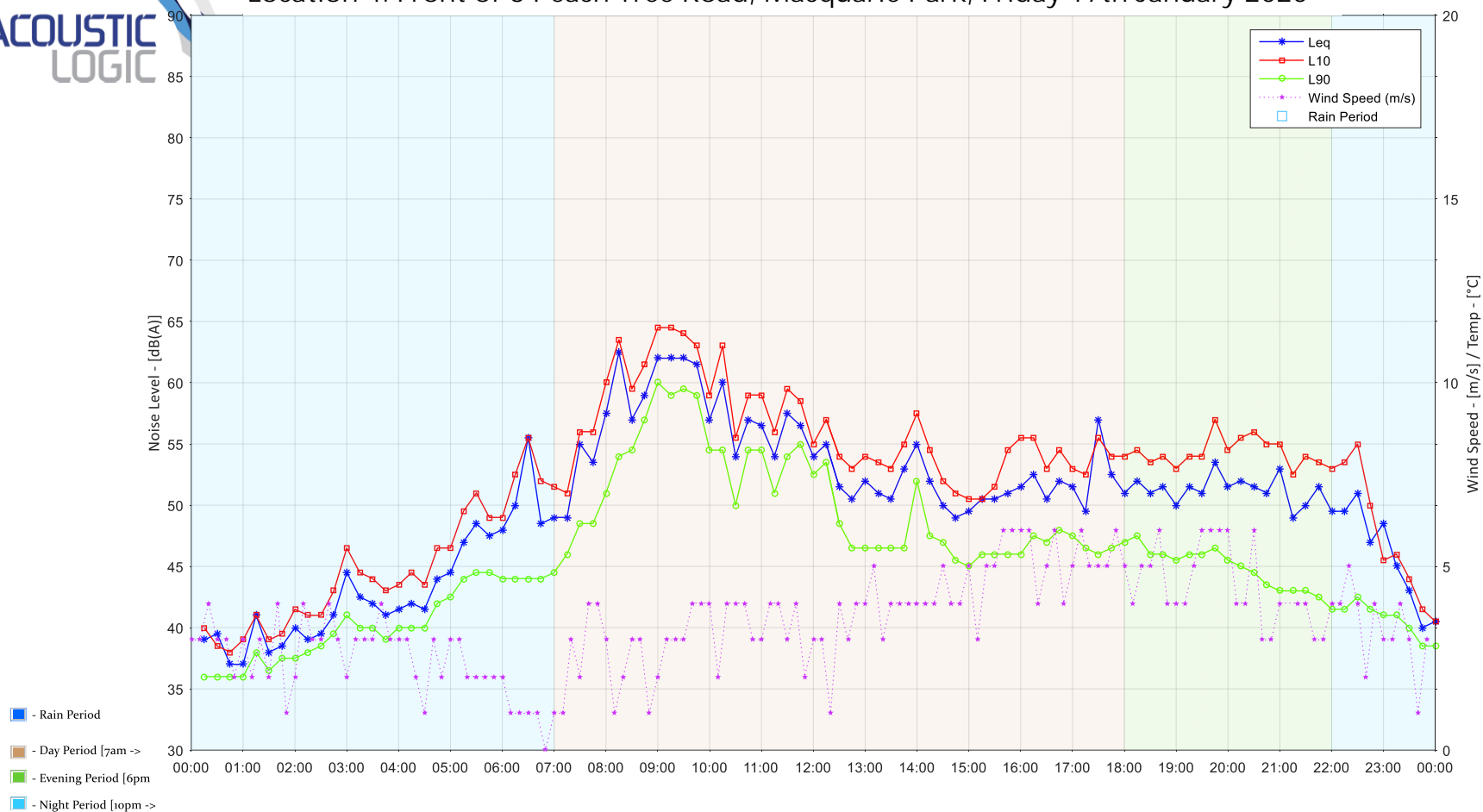
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Wednesday 15th January 2020



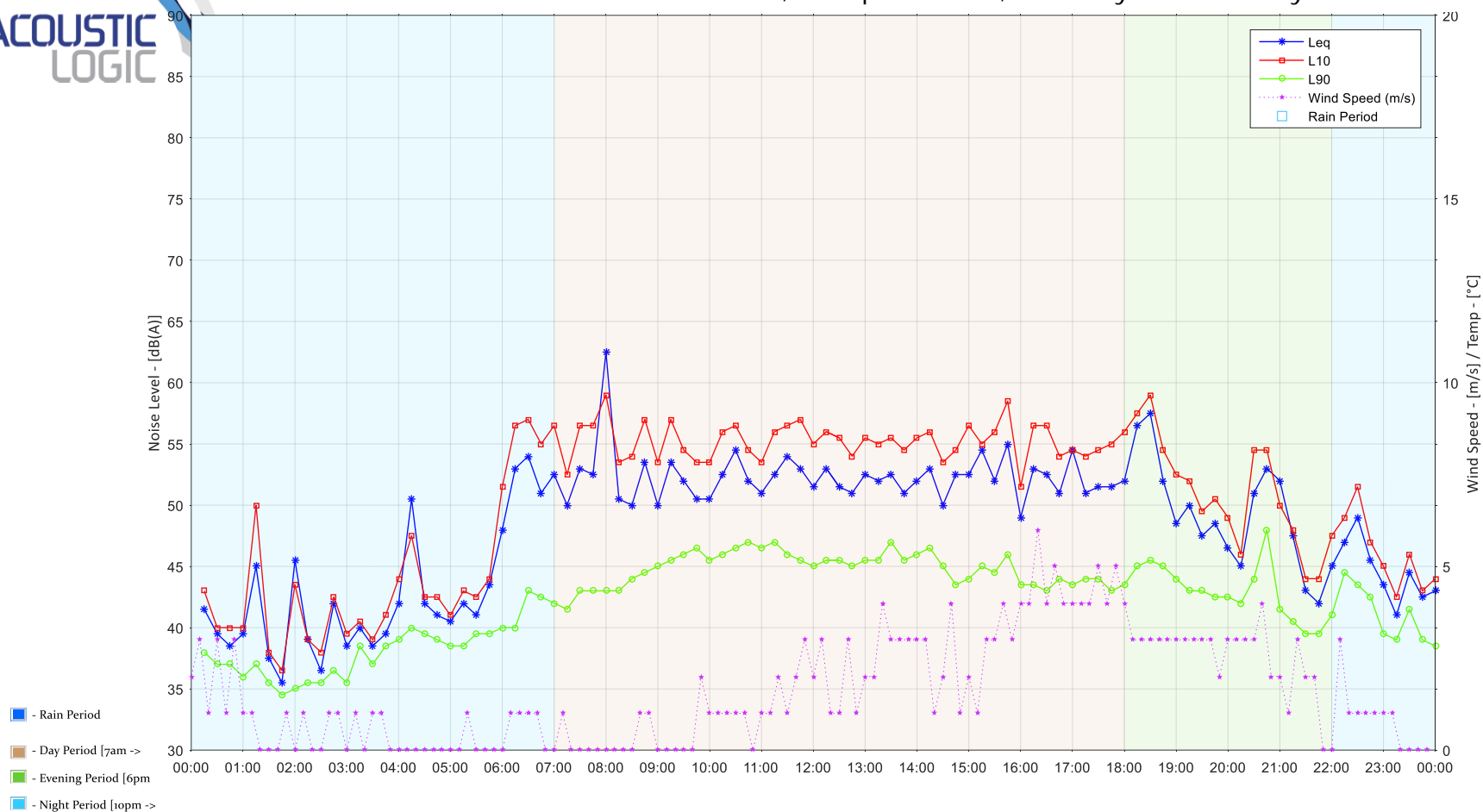
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Thursday 16th January 2020



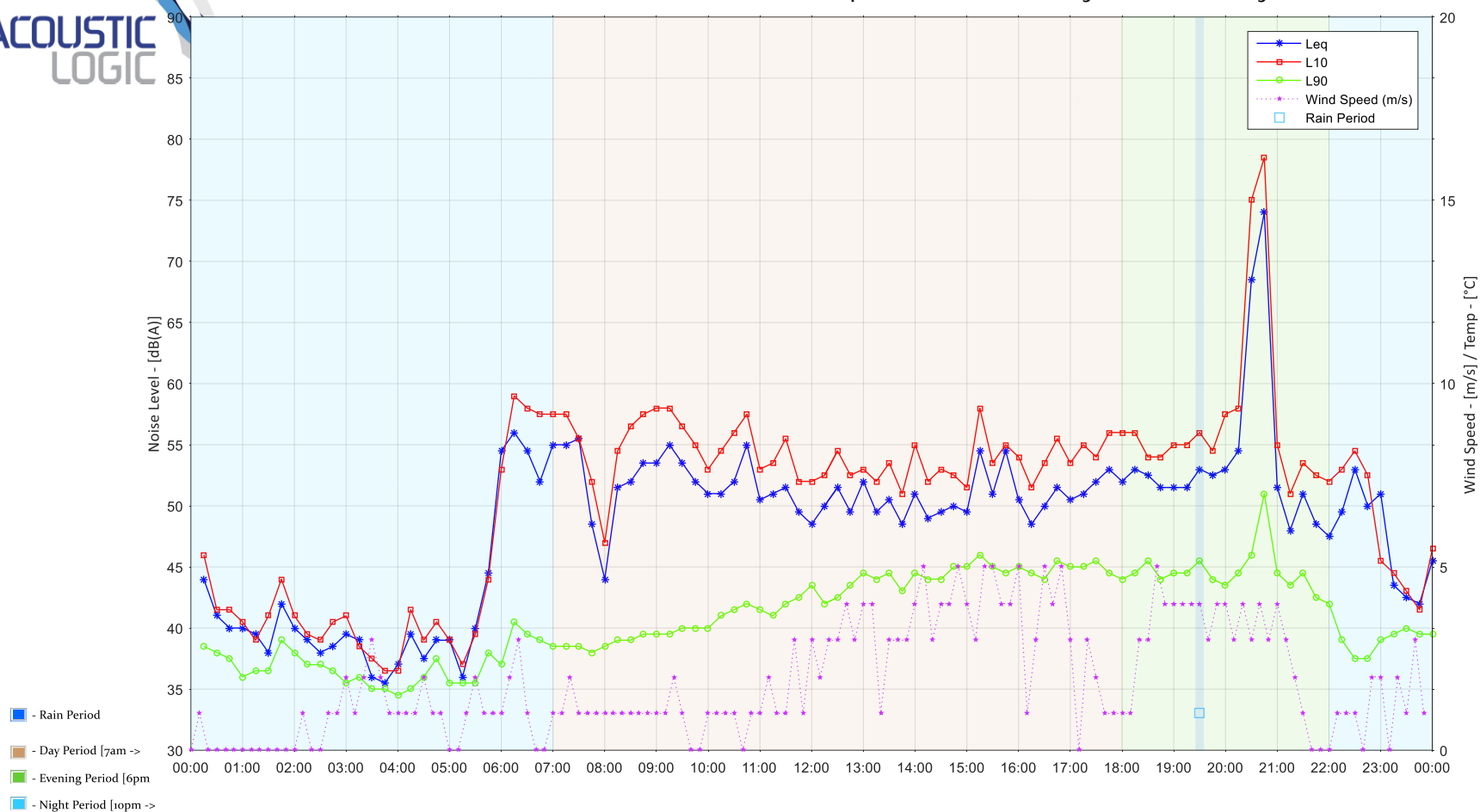
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Friday 17th January 2020



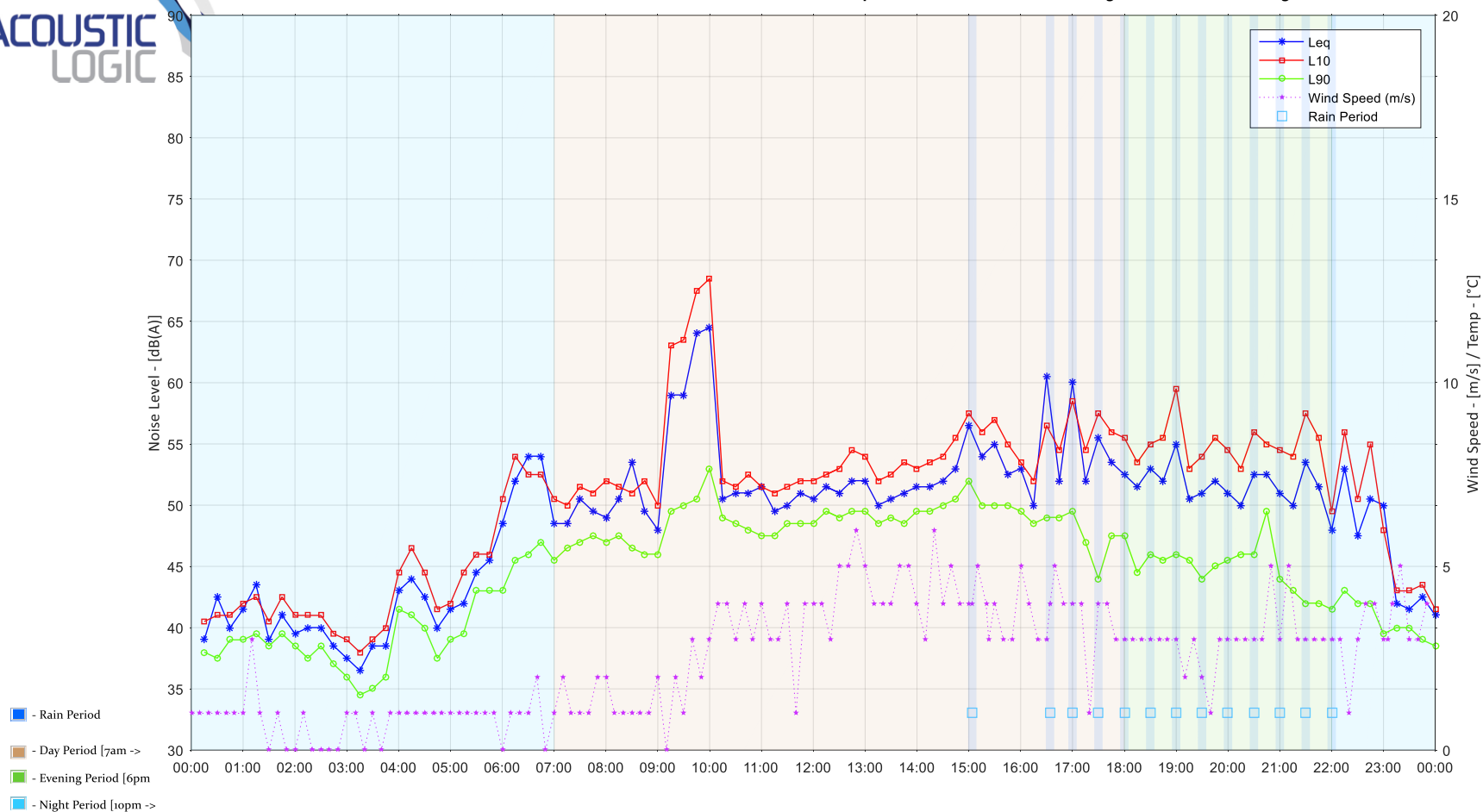
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Saturday 18th January 2020



Location 4: Front of 3 Peach Tree Road, Macquarie Park, Sunday 19th January 2020

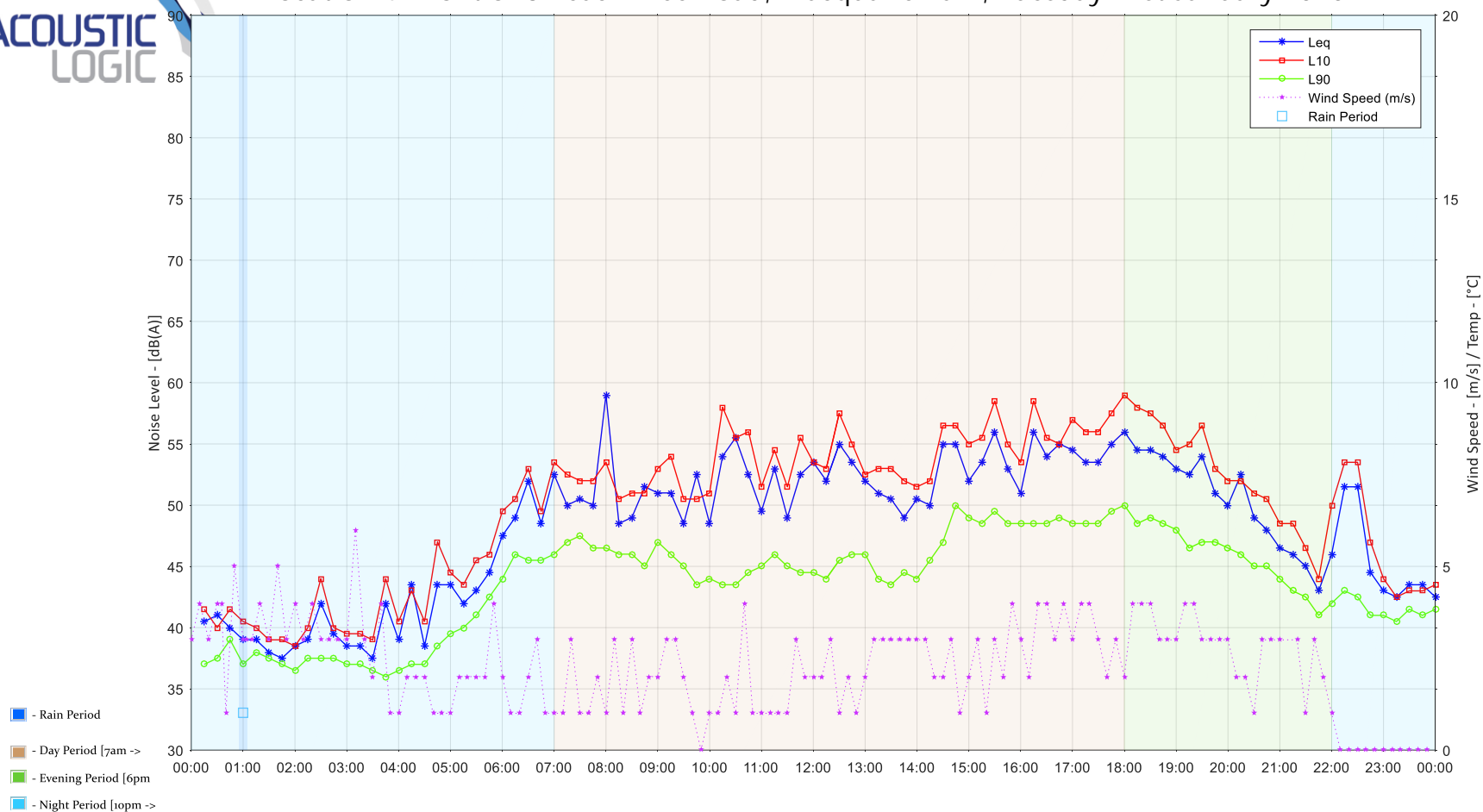


Location 4: Front of 3 Peach Tree Road, Macquarie Park, Monday 20th January 2020

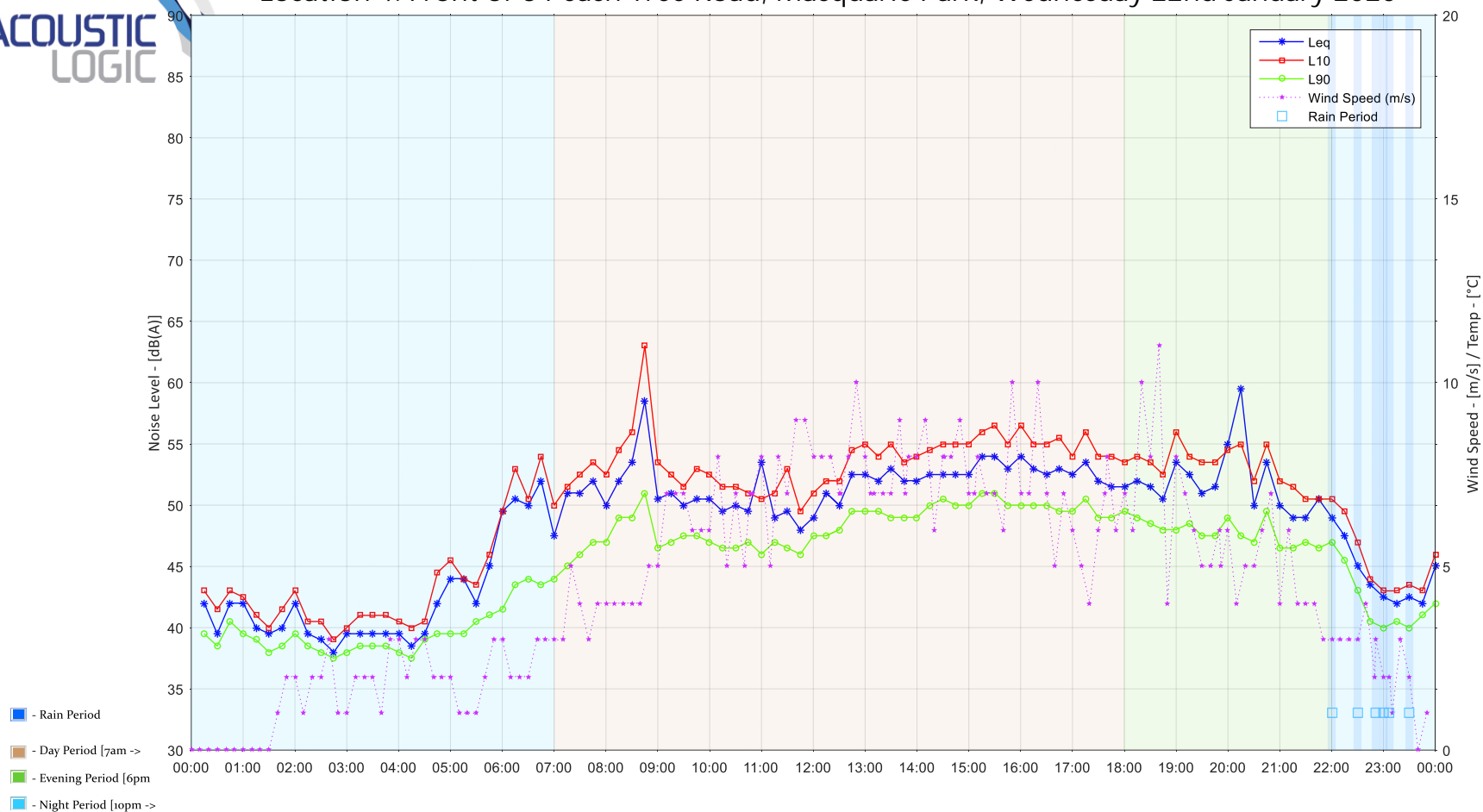




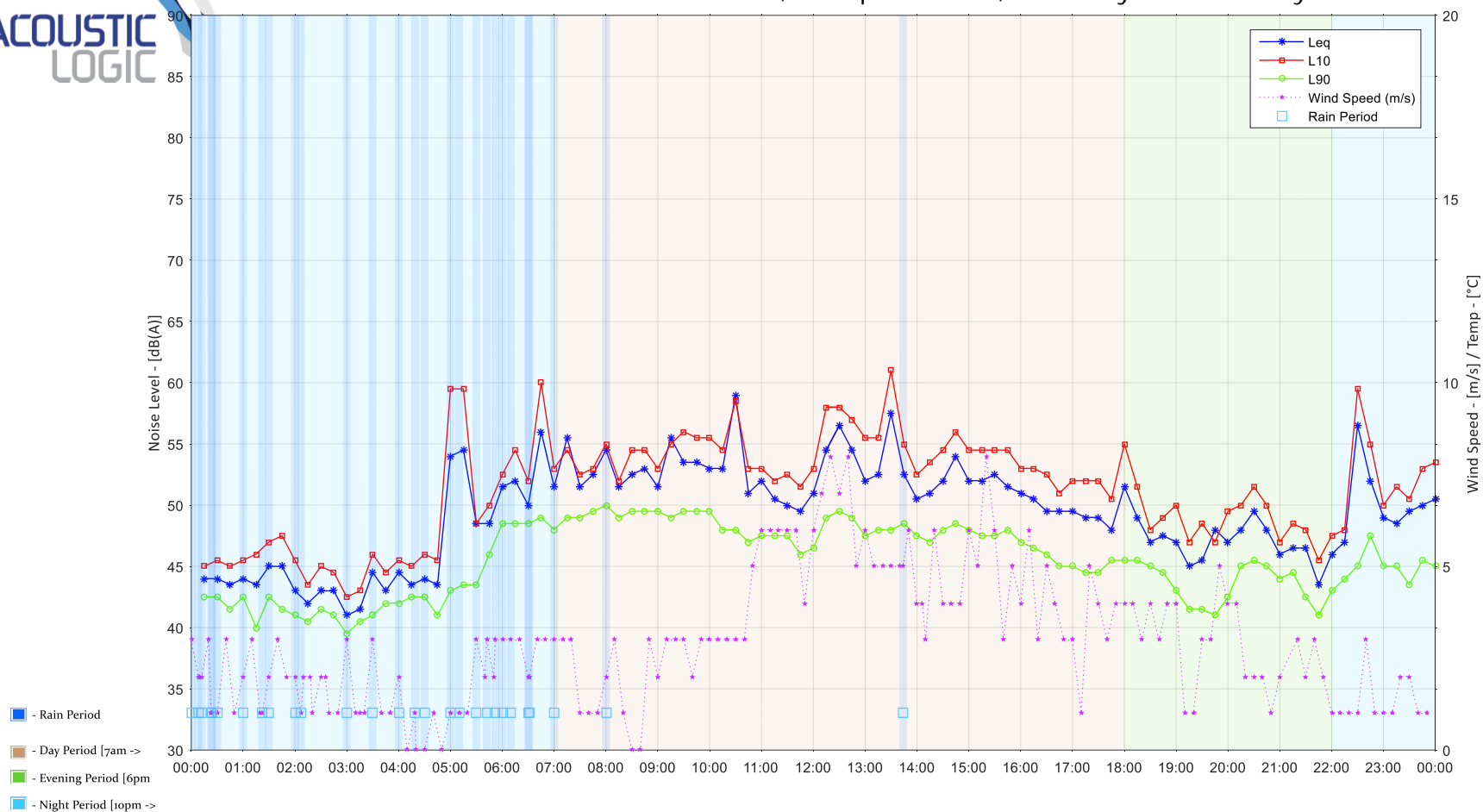
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Tuesday 21st January 2020



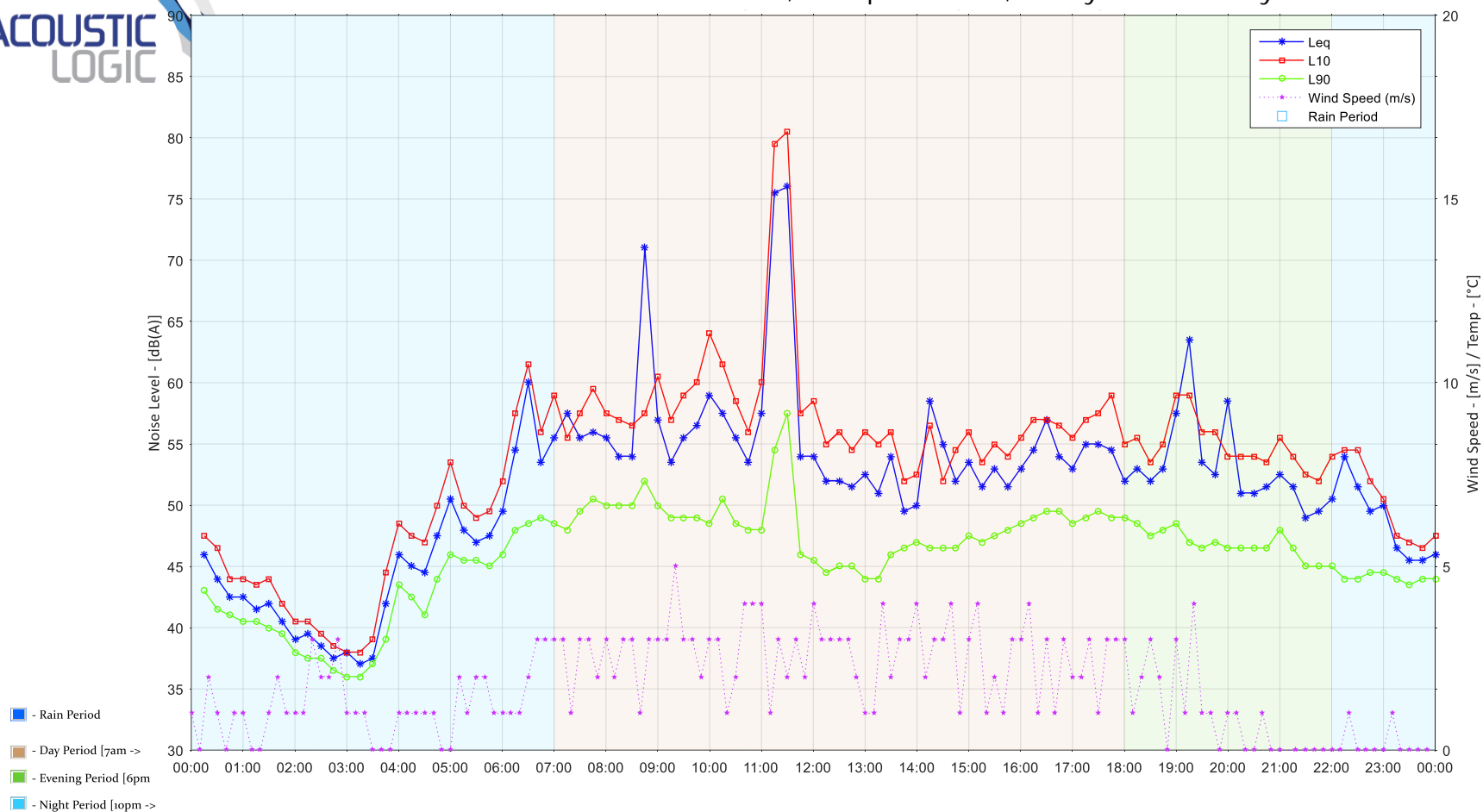
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Wednesday 22nd January 2020



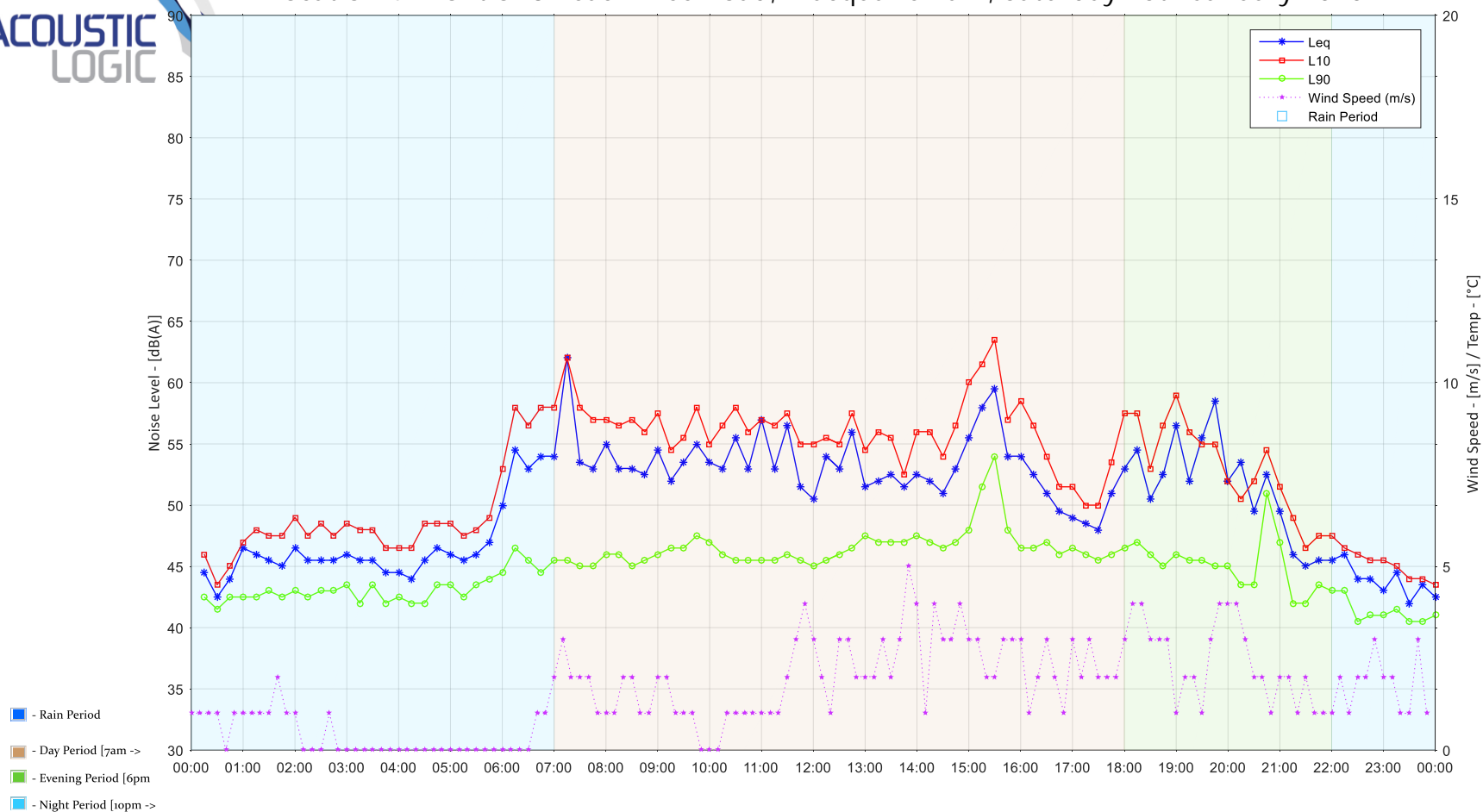
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Thursday 23rd January 2020



Location 4: Front of 3 Peach Tree Road, Macquarie Park, Friday 24th January 2020



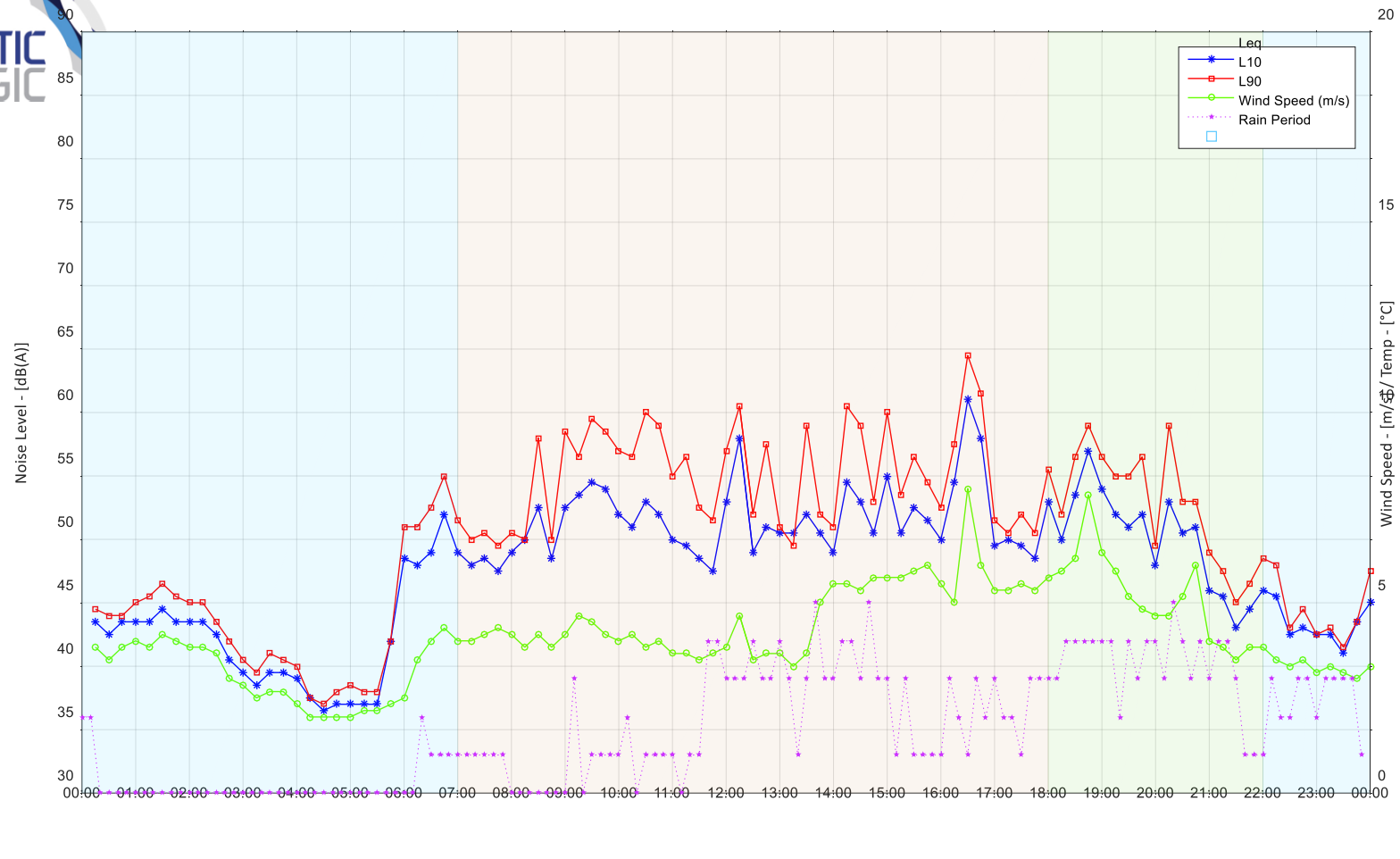
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Saturday 25th January 2020



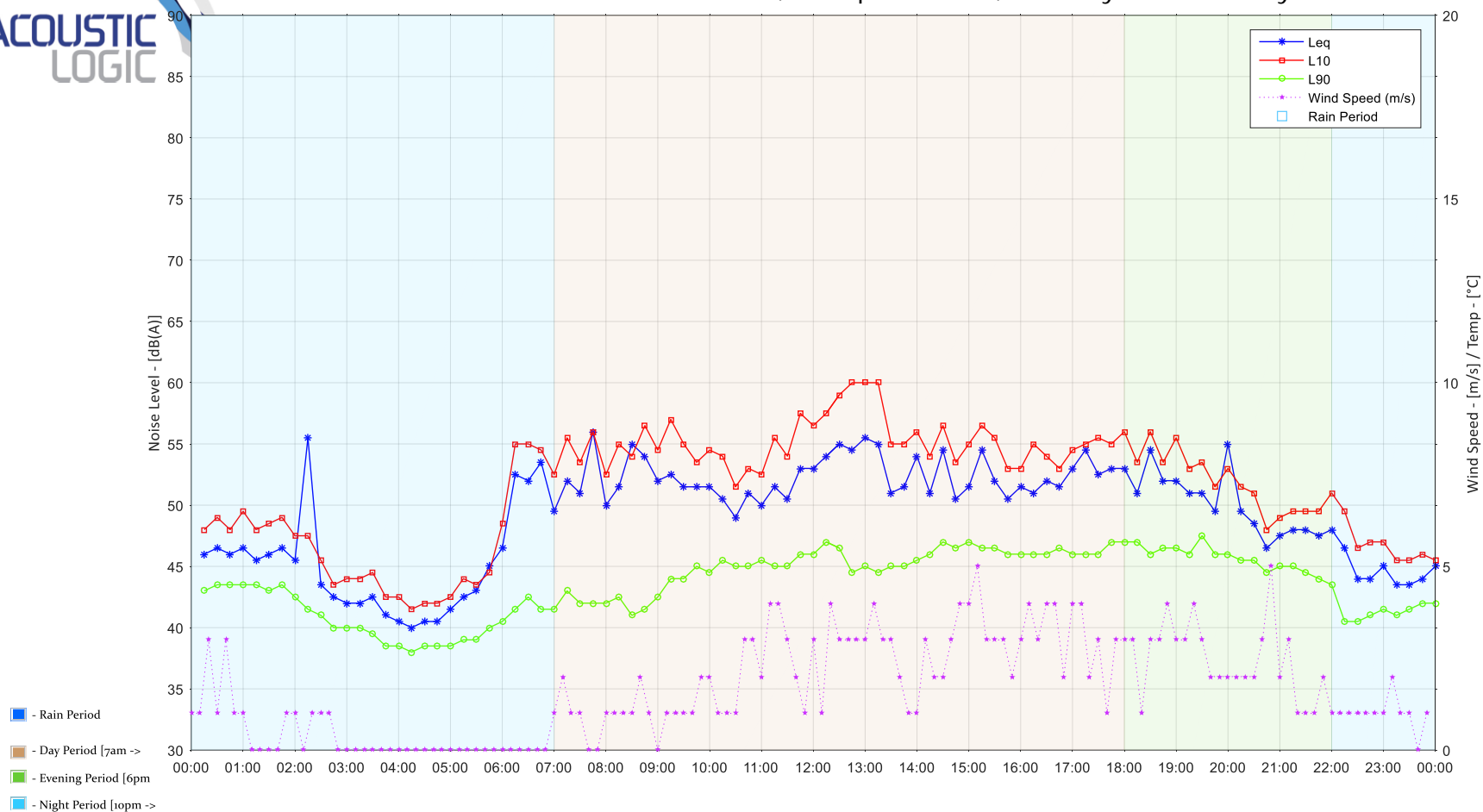
Location 4: Front of 3 Peach Tree Road, Macquarie Park, Sunday 26th January 2020



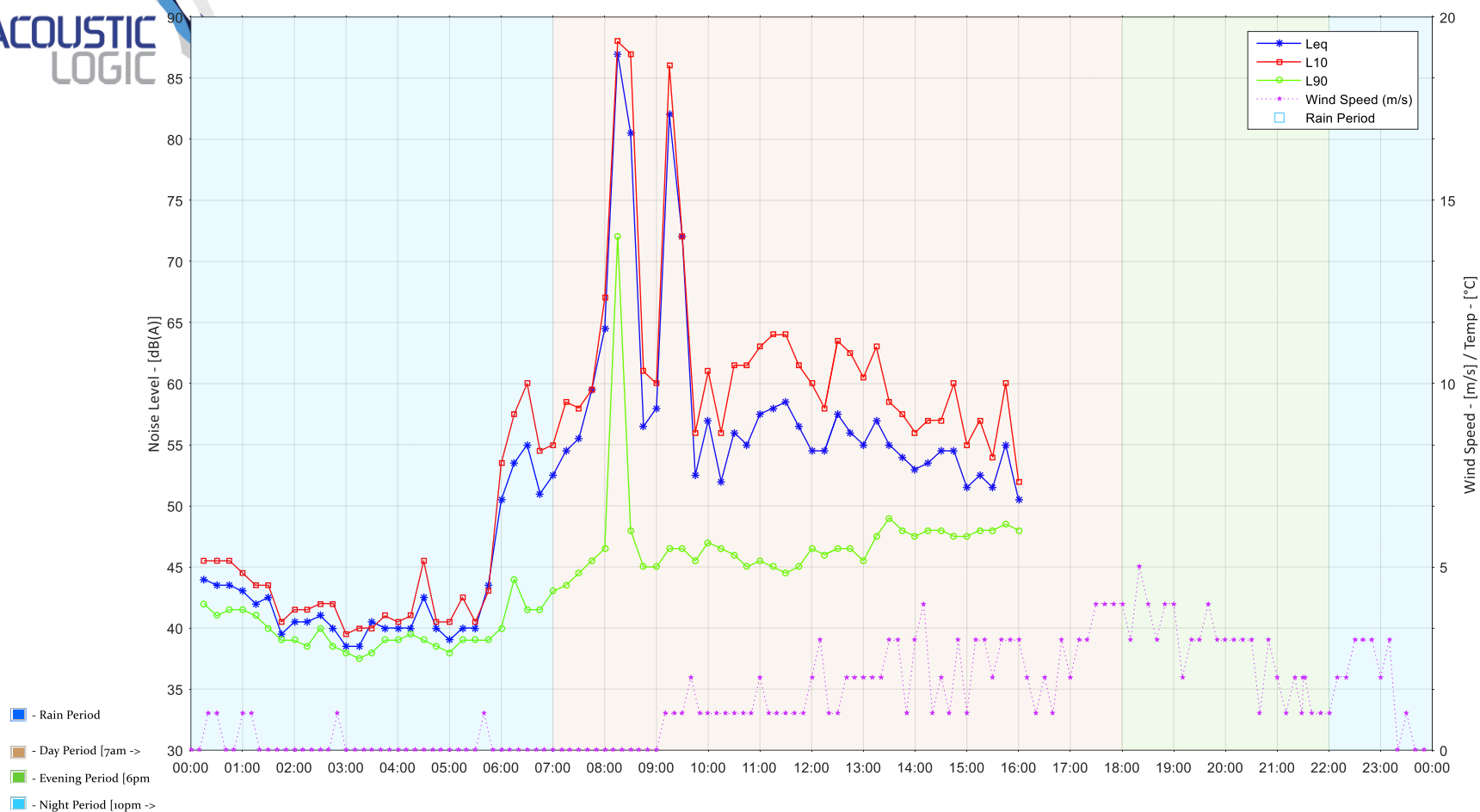
- 6pm]
- -> 10pm]
- 7am]



Location 4: Front of 3 Peach Tree Road, Macquarie Park, Monday 27th January 2020

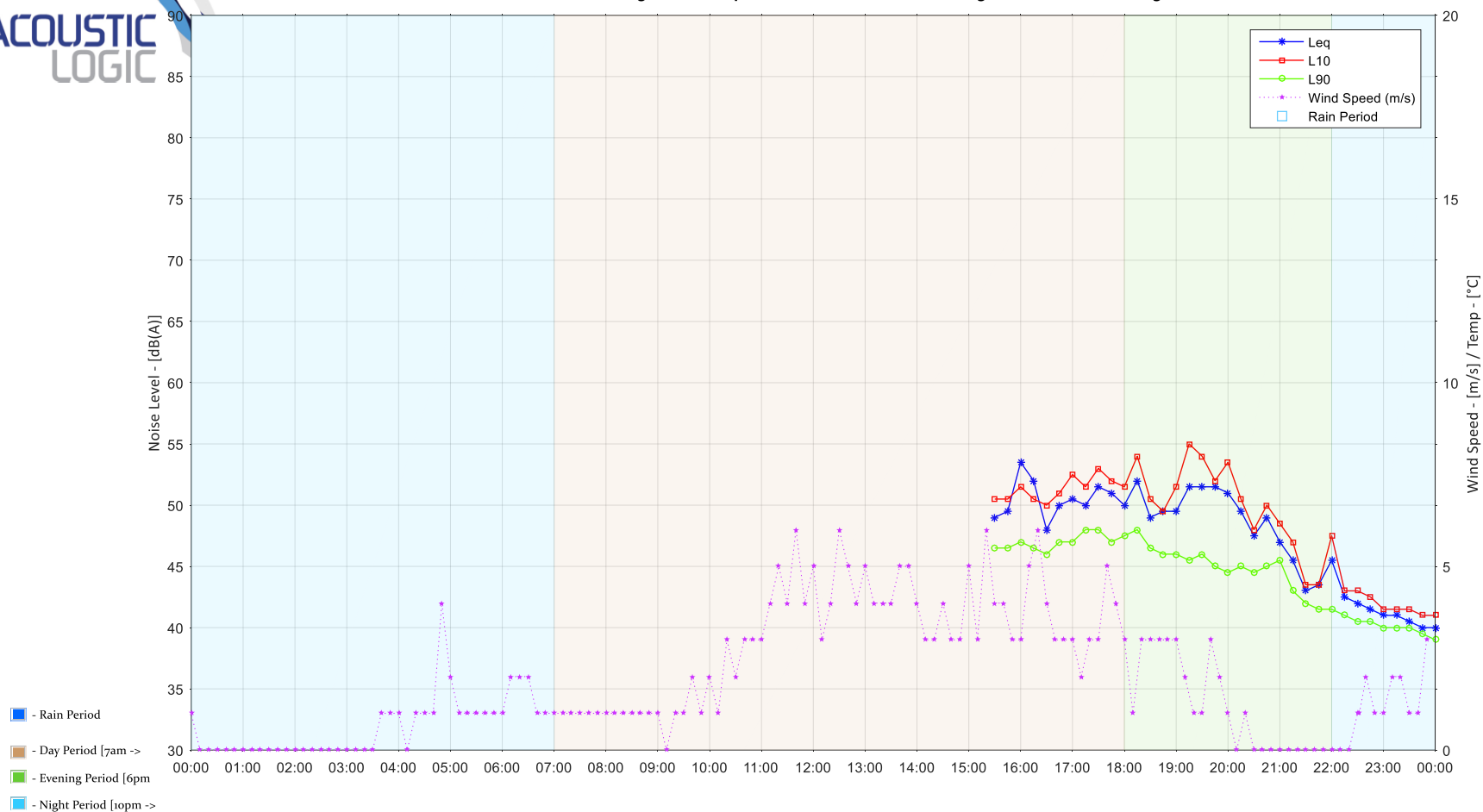


Location 4: Front of 3 Peach Tree Road, Macquarie Park, Tuesday 28th January 2020

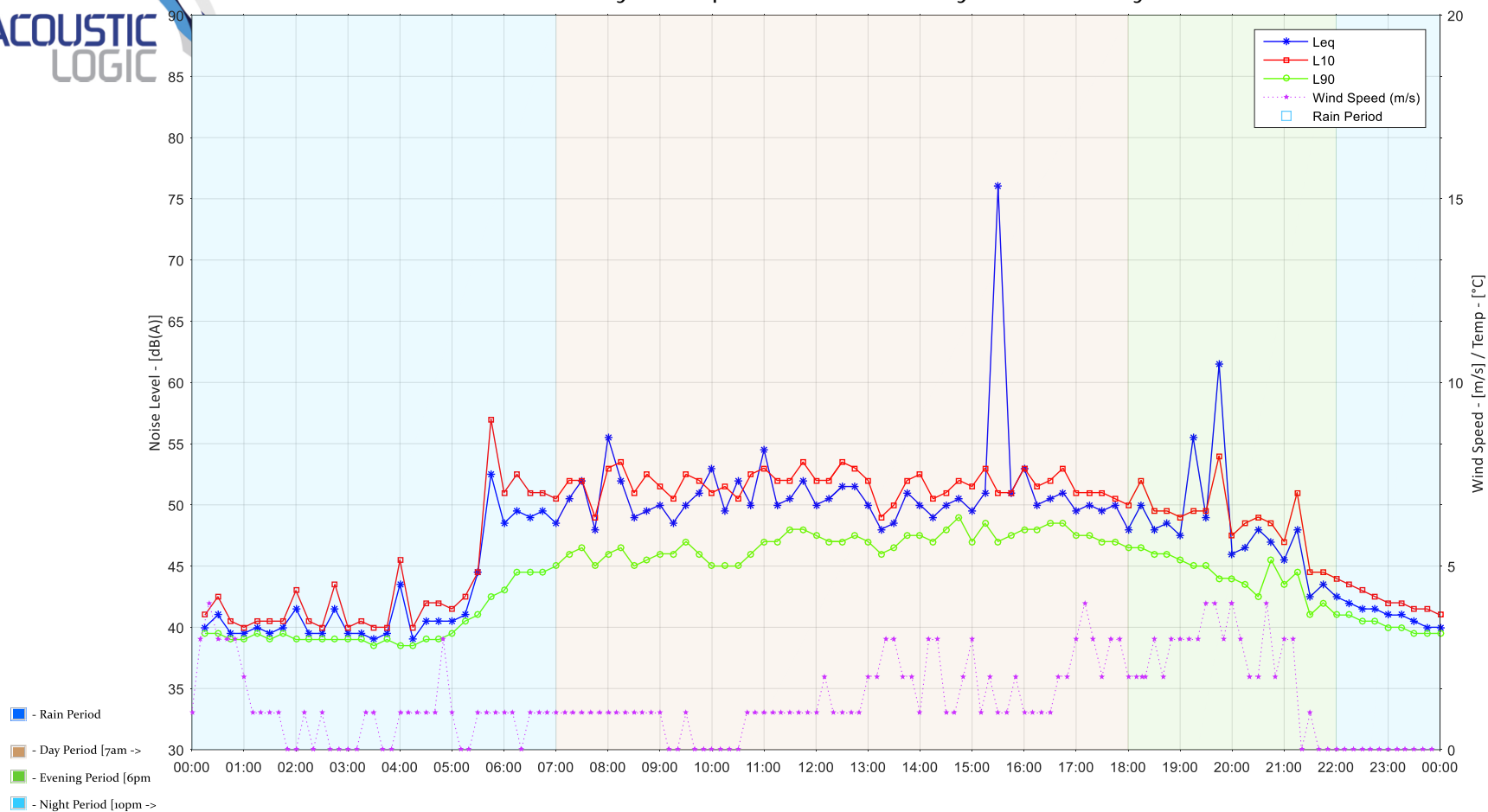


Appendix 5- Background Noise Monitor Data at Location 5

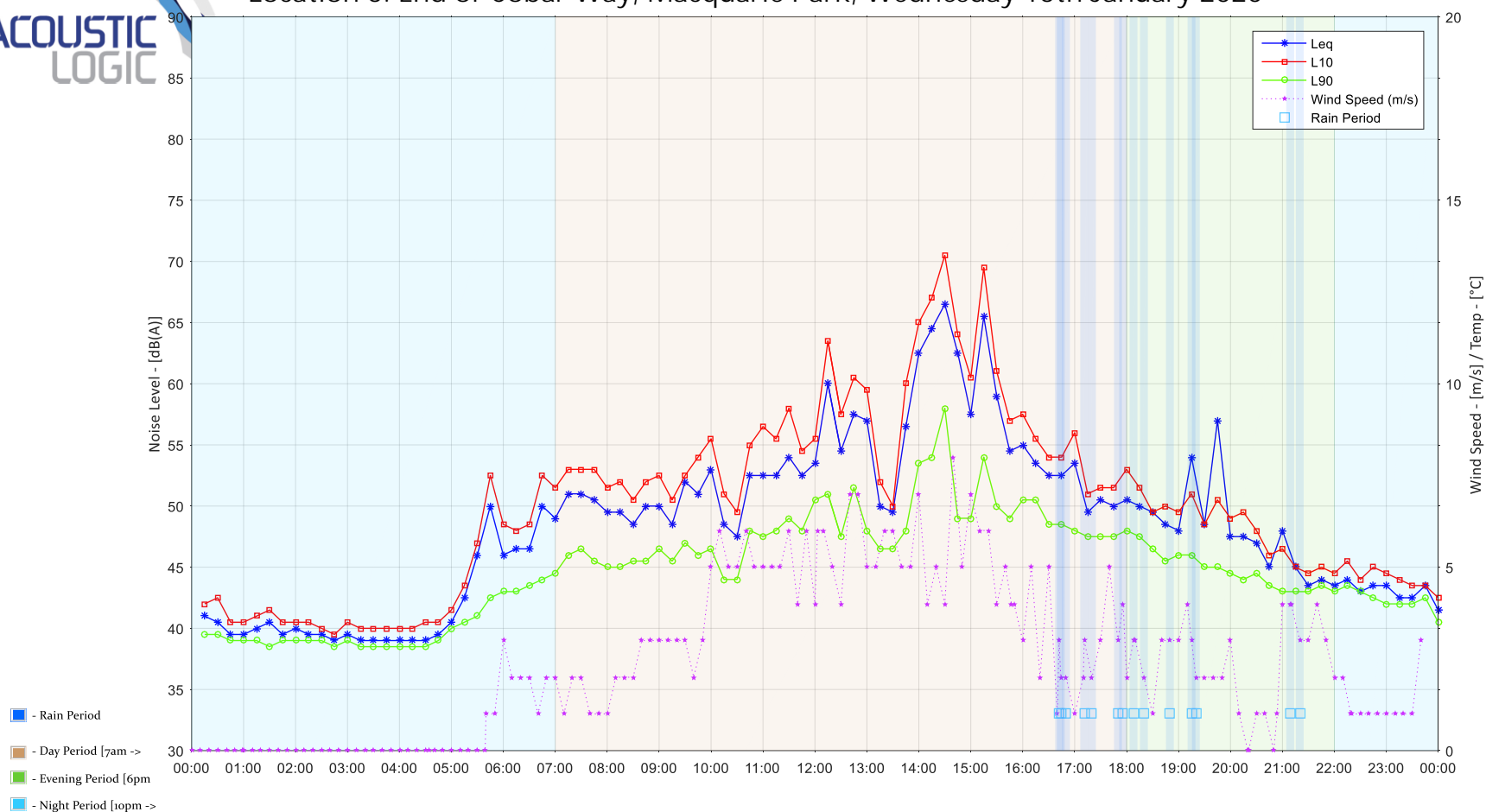
Location 5: End of Cobar Way, Macquarie Park, Monday 13th January 2020



Location 5: End of Cobar Way, Macquarie Park, Tuesday 14th January 2020

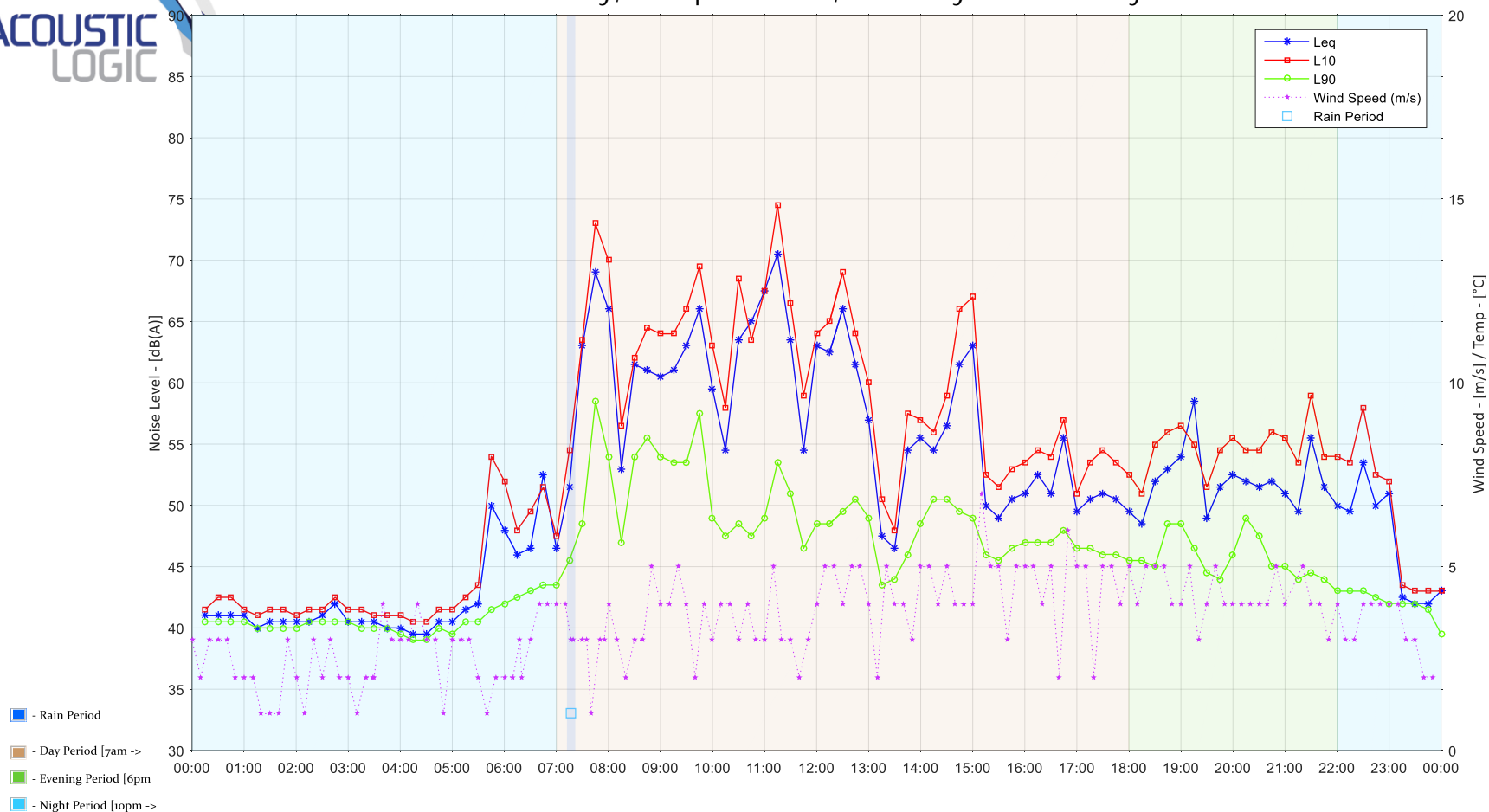


Location 5: End of Cobar Way, Macquarie Park, Wednesday 15th January 2020



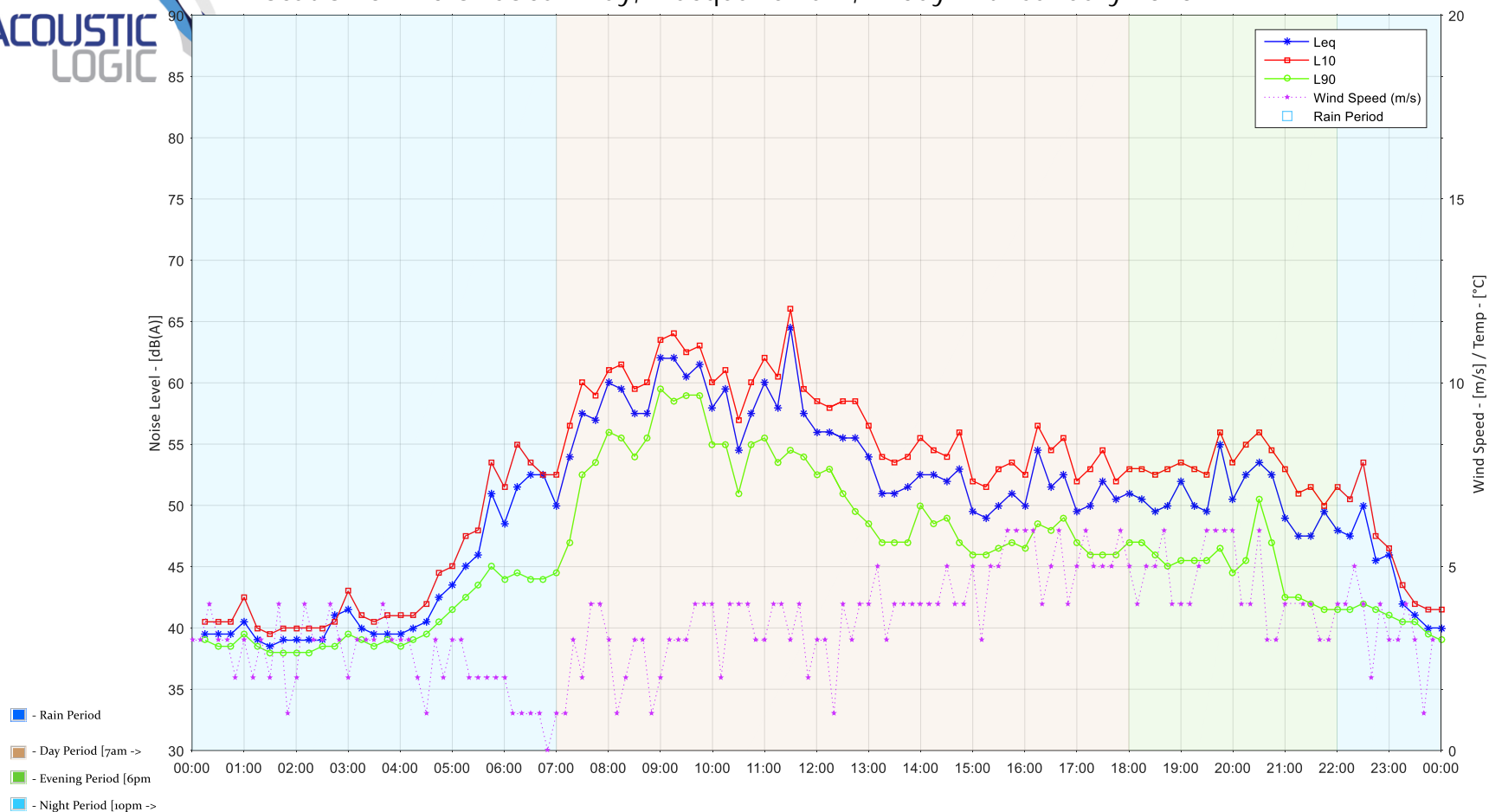


Location 5: End of Cobar Way, Macquarie Park, Thursday 16th January 2020

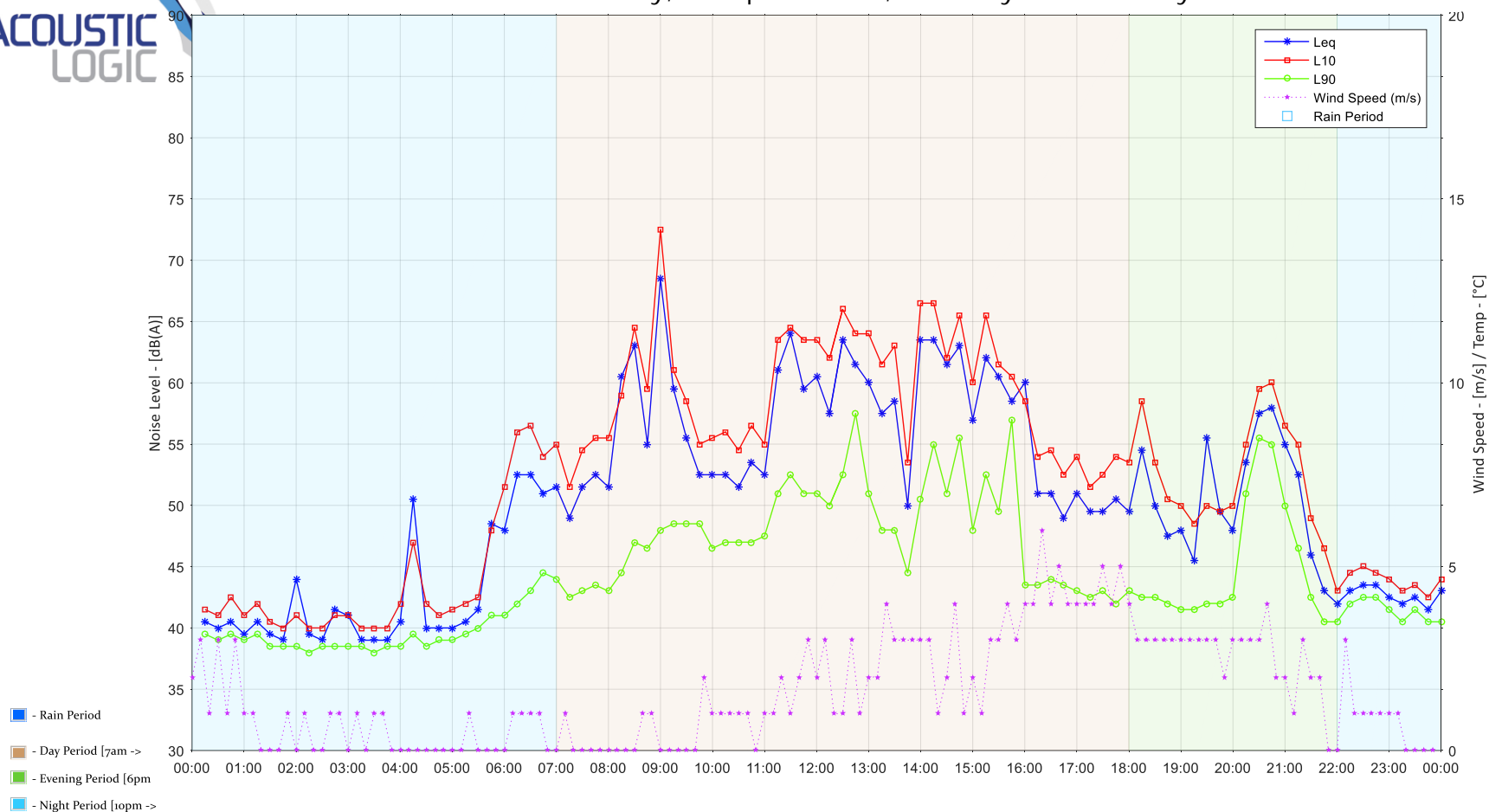




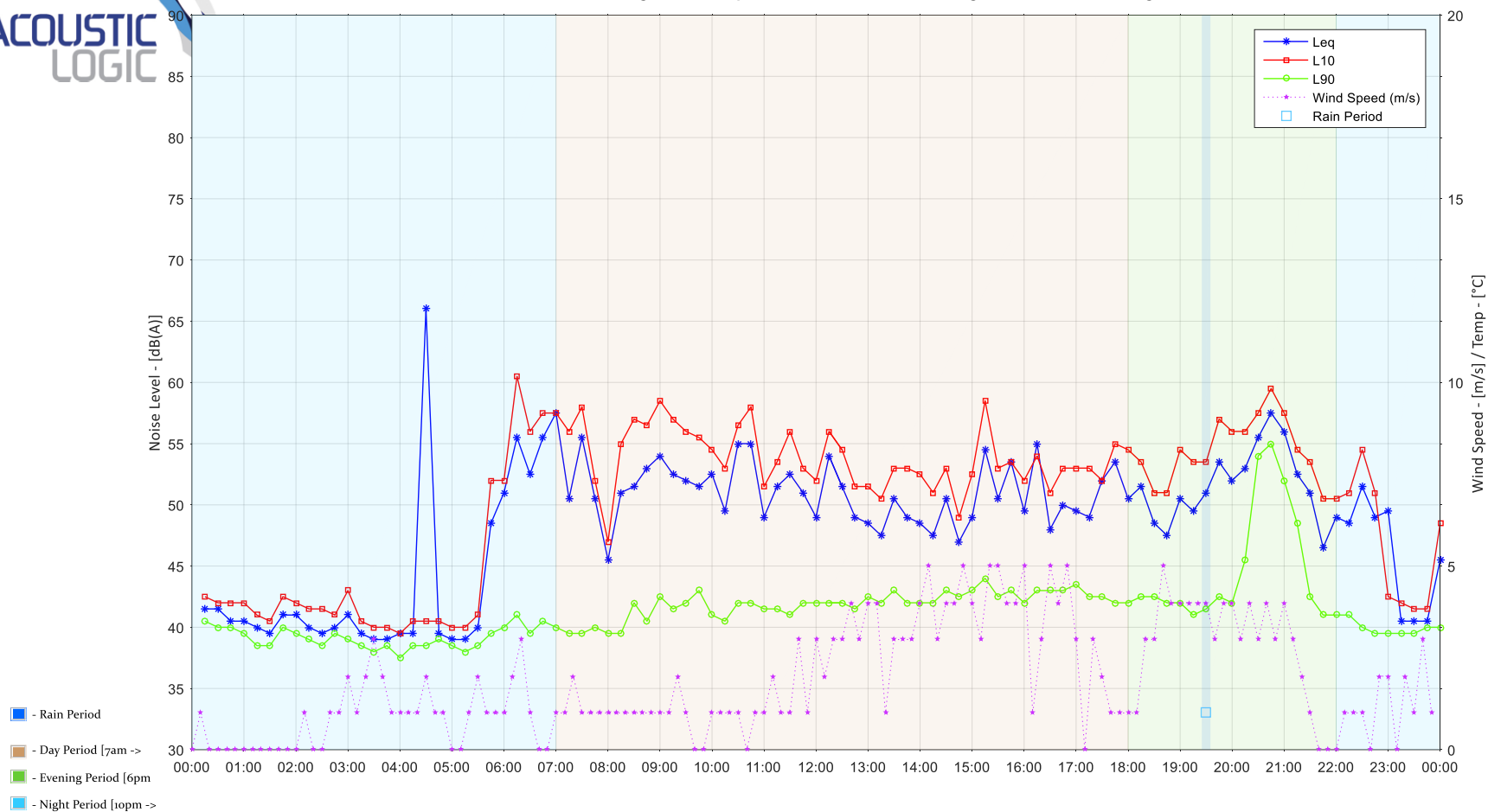
Location 5: End of Cobar Way, Macquarie Park, Friday 17th January 2020



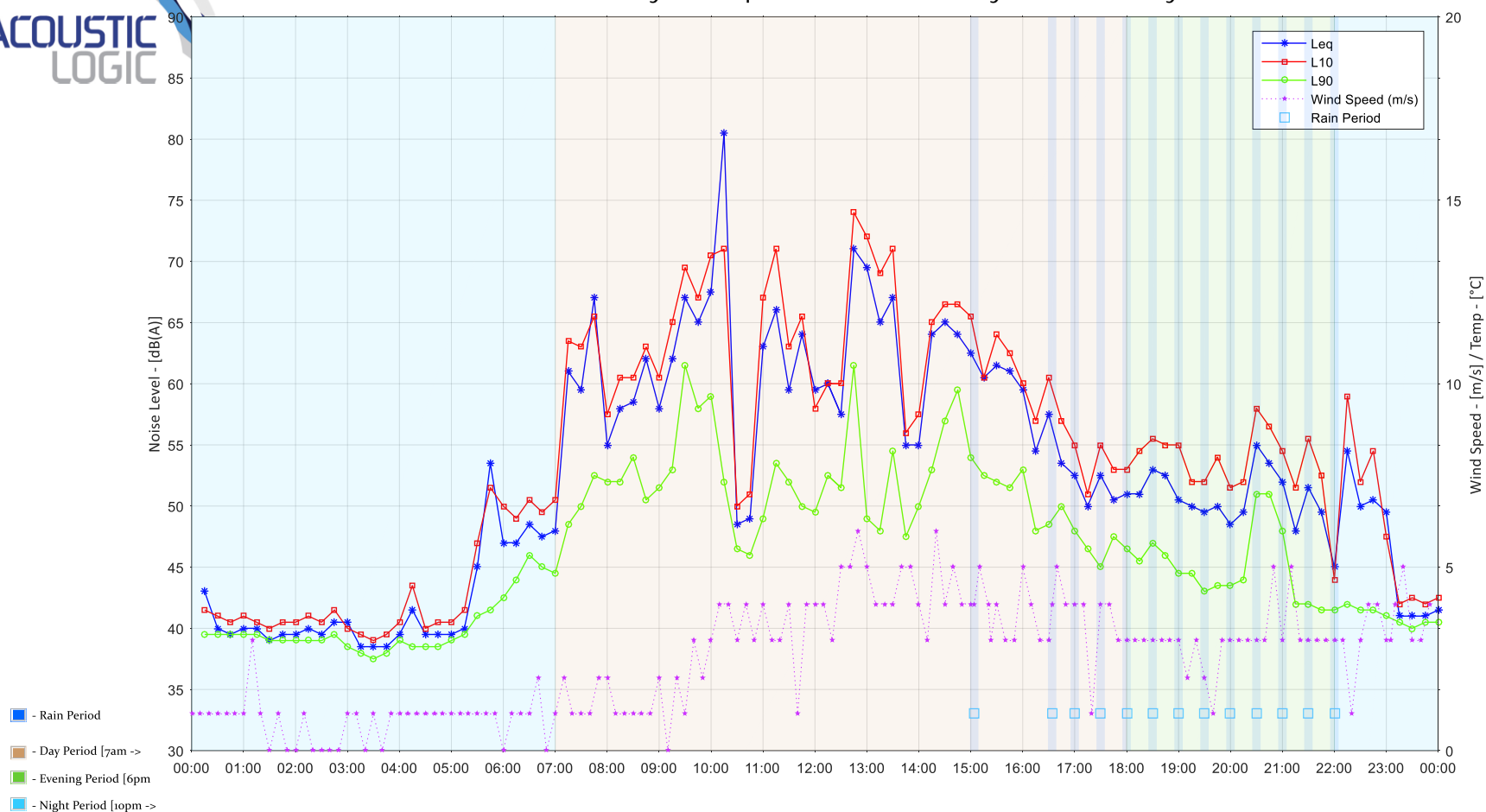
Location 5: End of Cobar Way, Macquarie Park, Saturday 18th January 2020



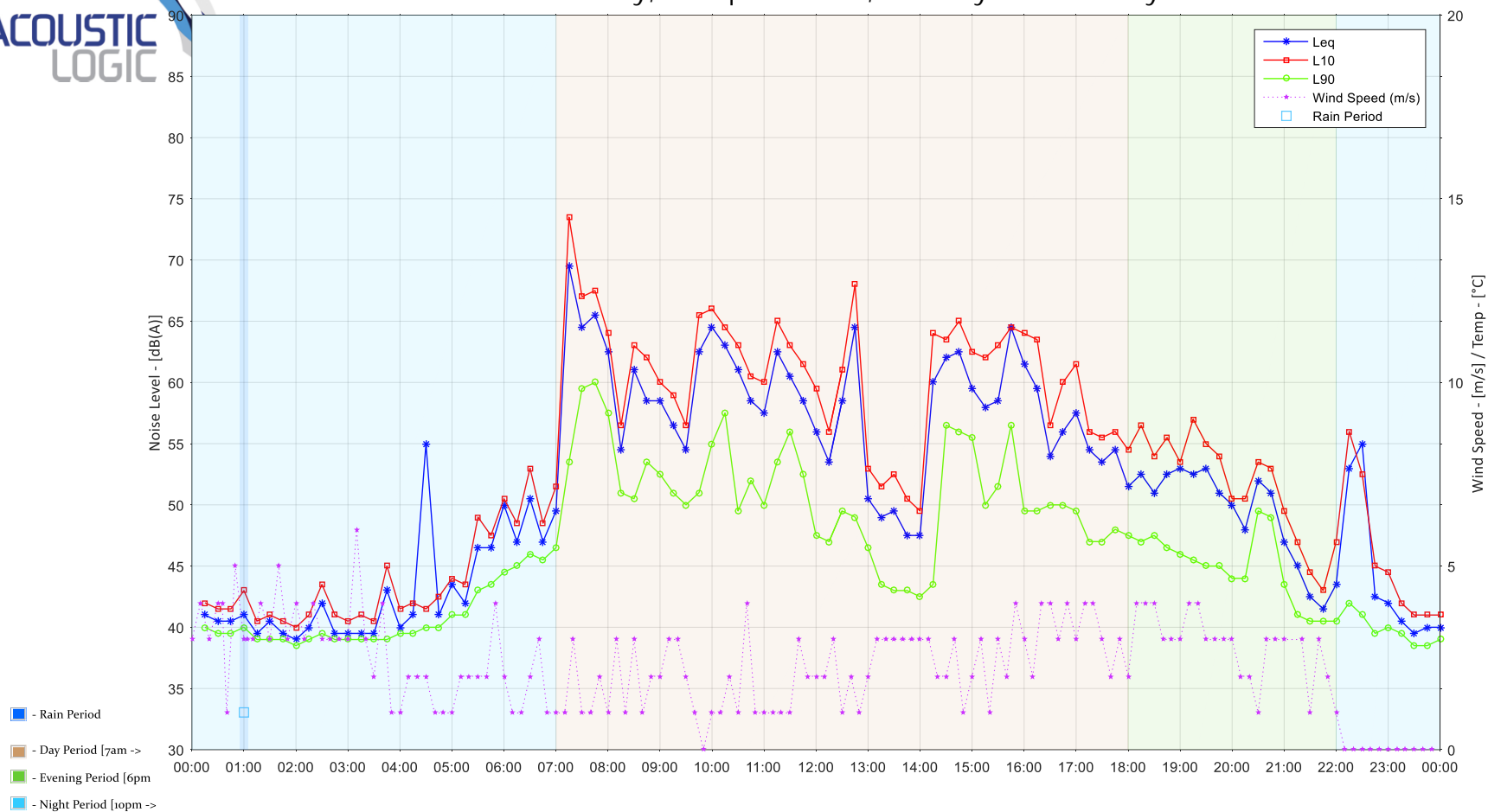
Location 5: End of Cobar Way, Macquarie Park, Sunday 19th January 2020



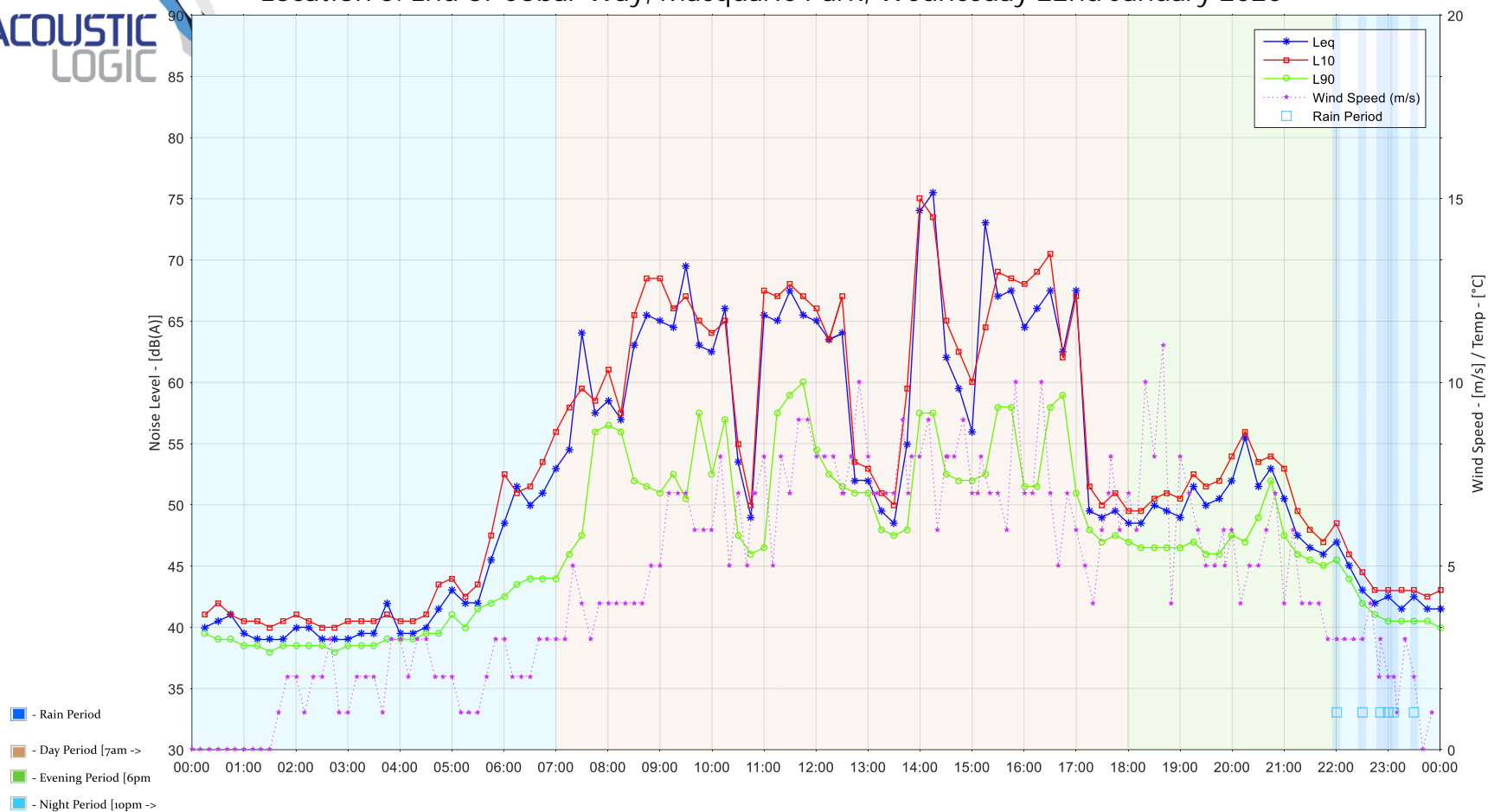
Location 5: End of Cobar Way, Macquarie Park, Monday 20th January 2020



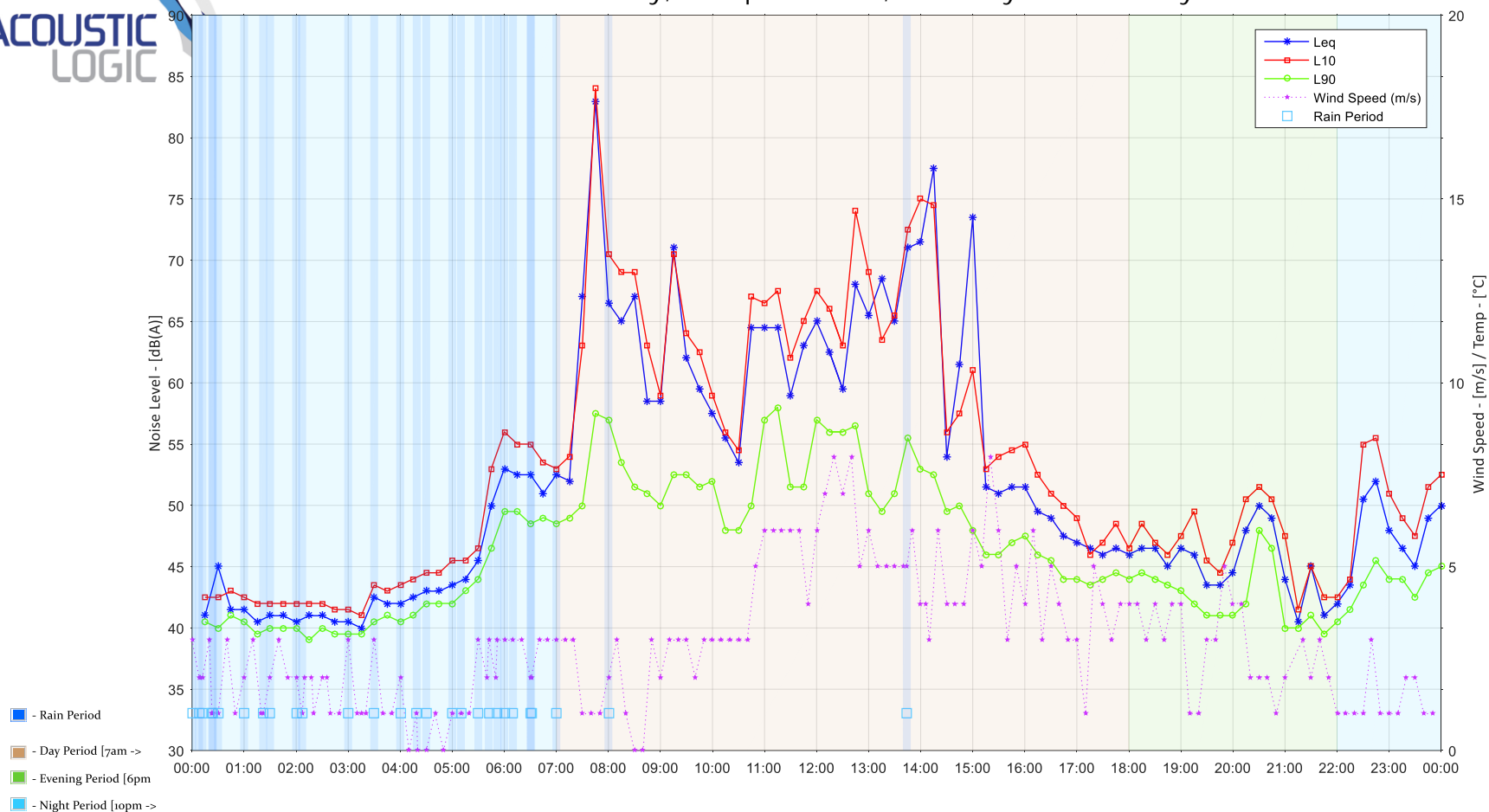
Location 5: End of Cobar Way, Macquarie Park, Tuesday 21st January 2020



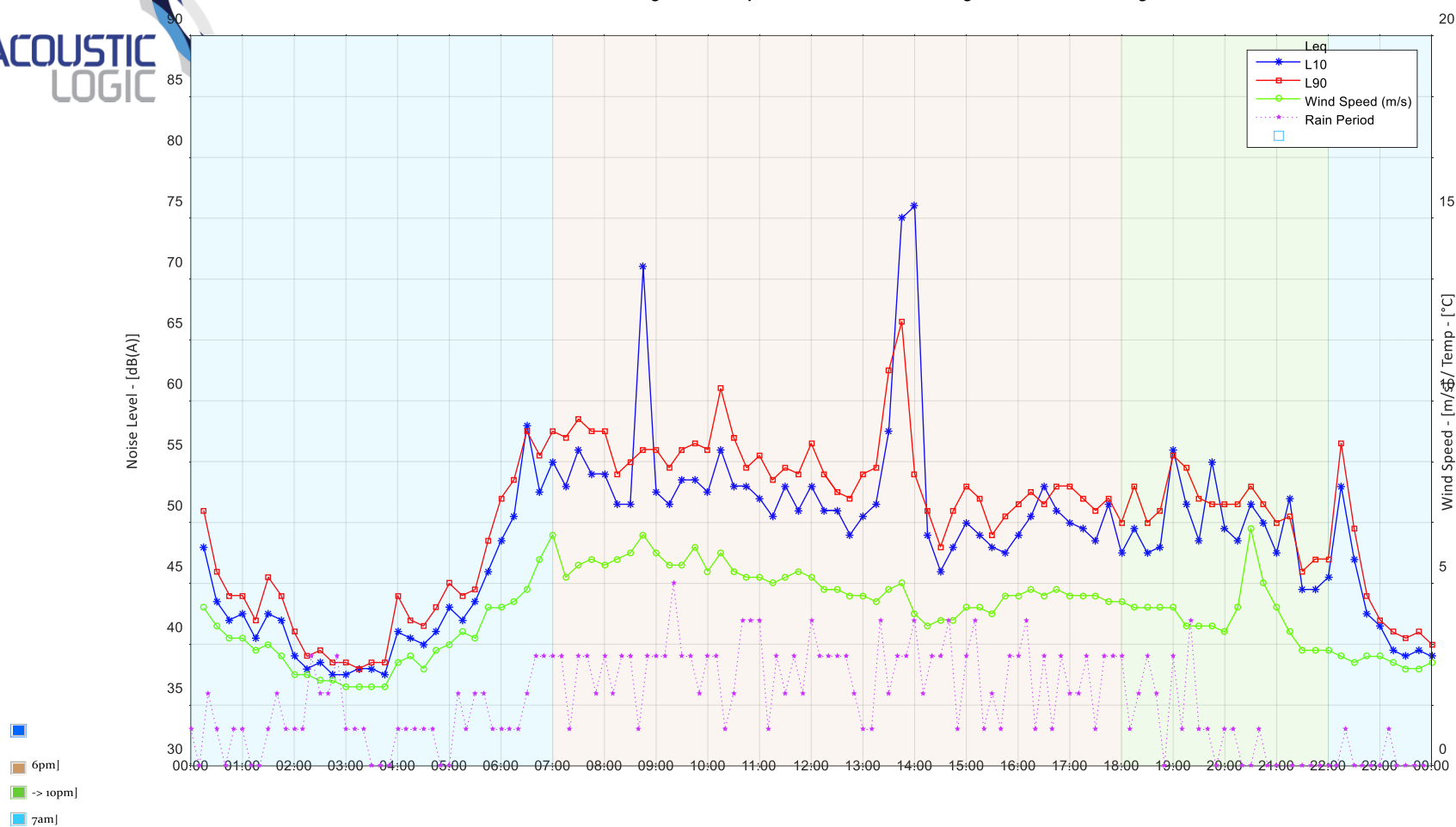
Location 5: End of Cobar Way, Macquarie Park, Wednesday 22nd January 2020



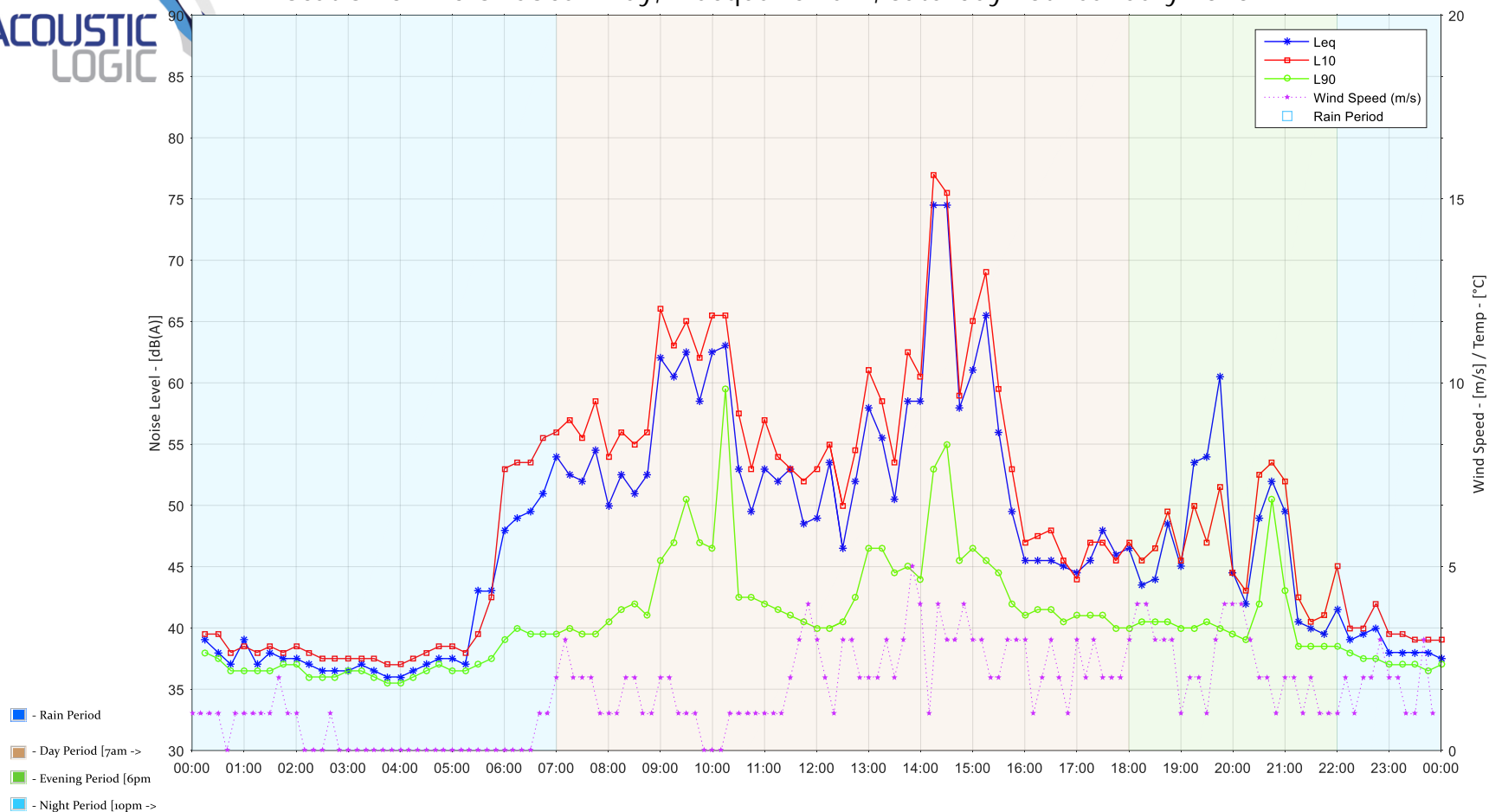
Location 5: End of Cobar Way, Macquarie Park, Thursday 23rd January 2020



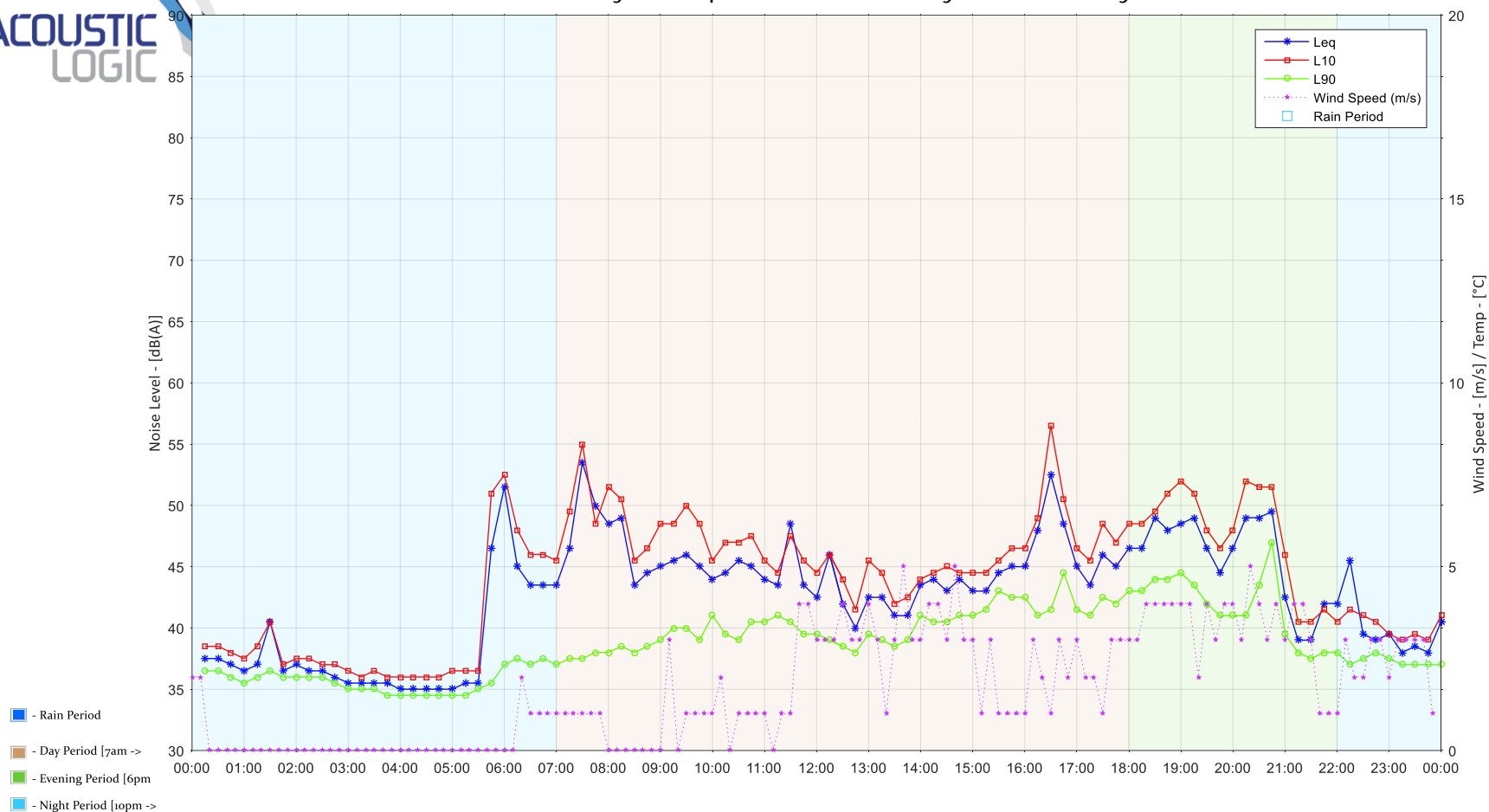
Location 5: End of Cobar Way, Macquarie Park, Friday 24th January 2020



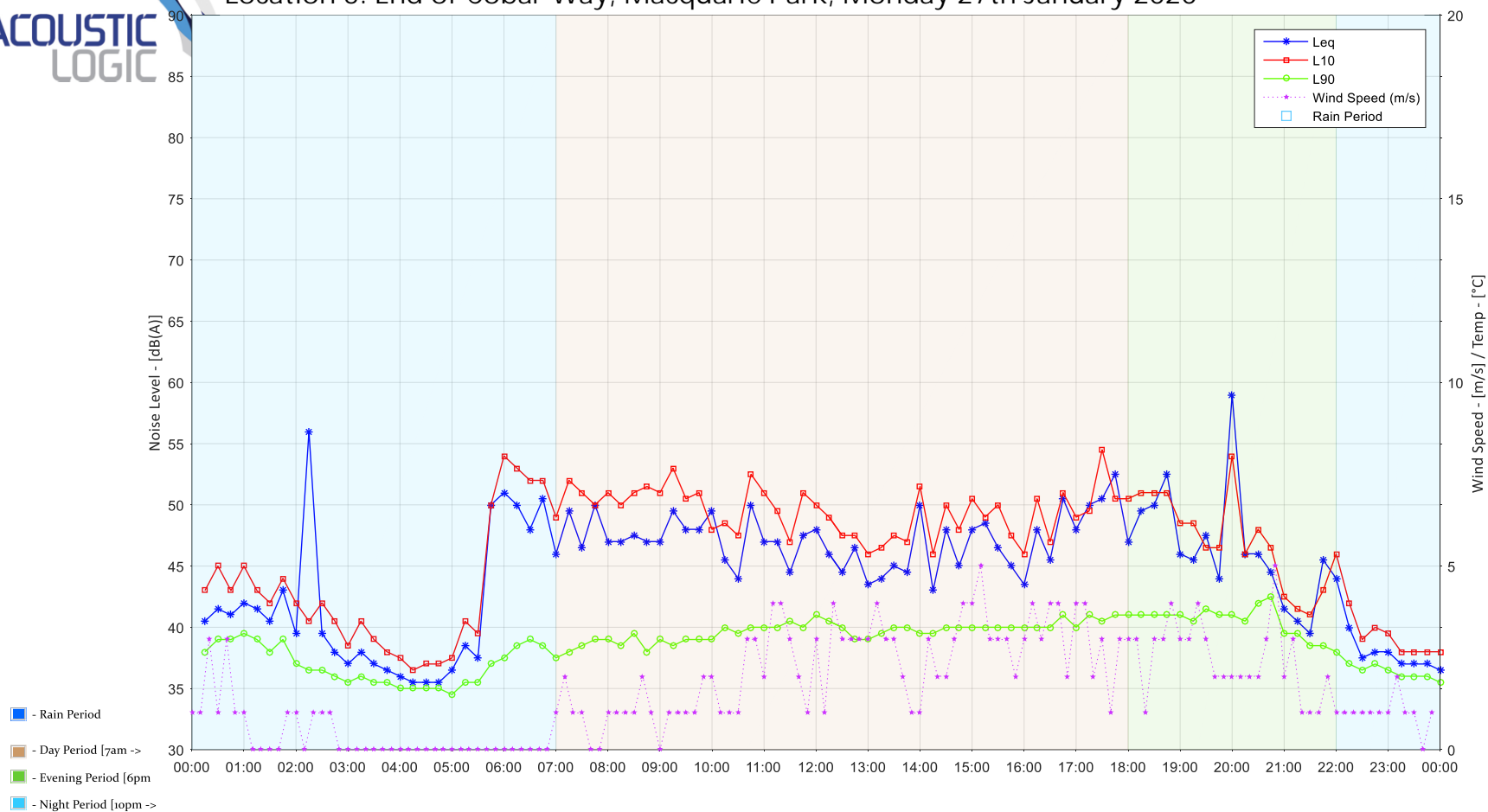
Location 5: End of Cobar Way, Macquarie Park, Saturday 25th January 2020



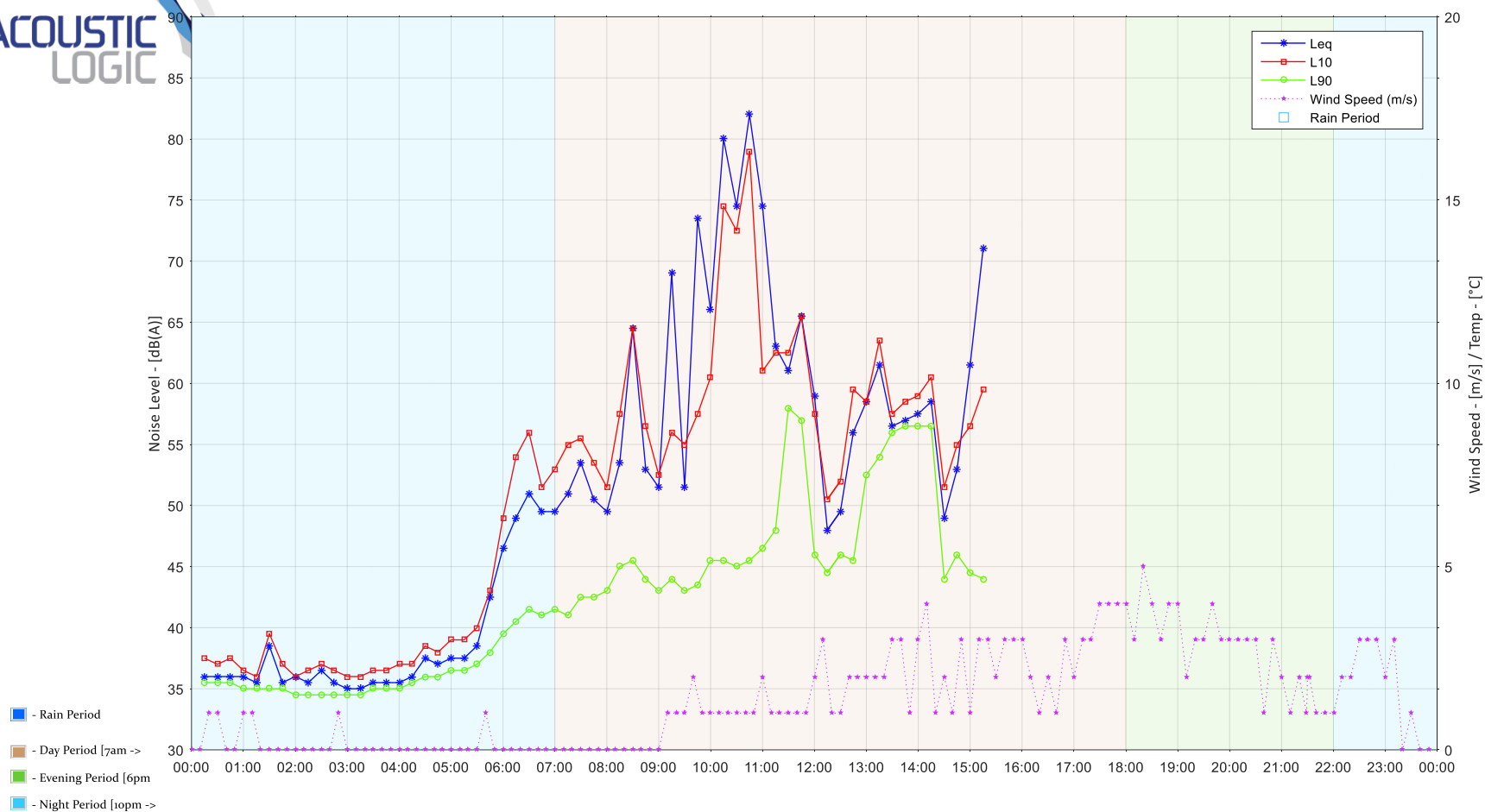
Location 5: End of Cobar Way, Macquarie Park, Sunday 26th January 2020



Location 5: End of Cobar Way, Macquarie Park, Monday 27th January 2020



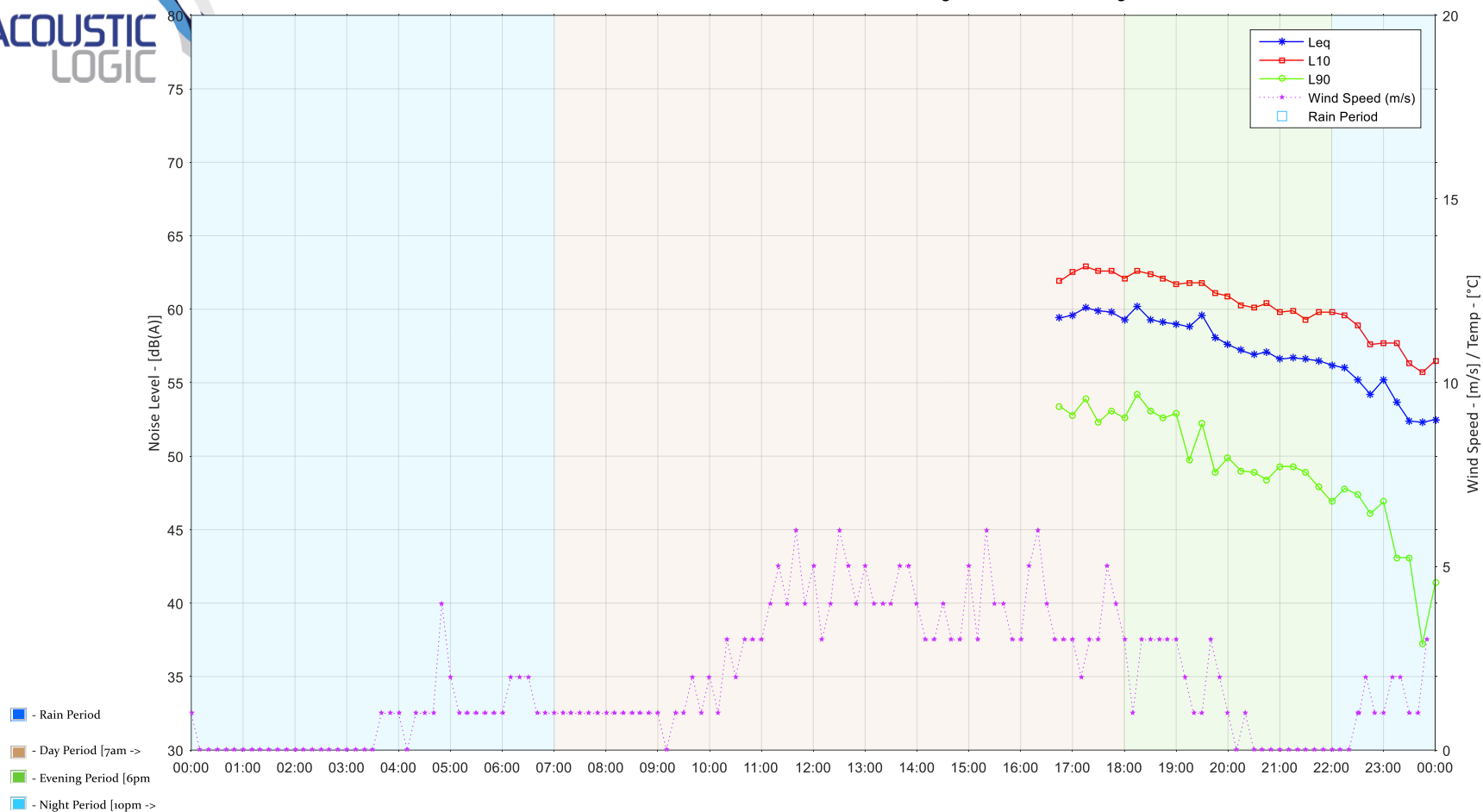
Location 5: End of Cobar Way, Macquarie Park, Tuesday 28th January 2020



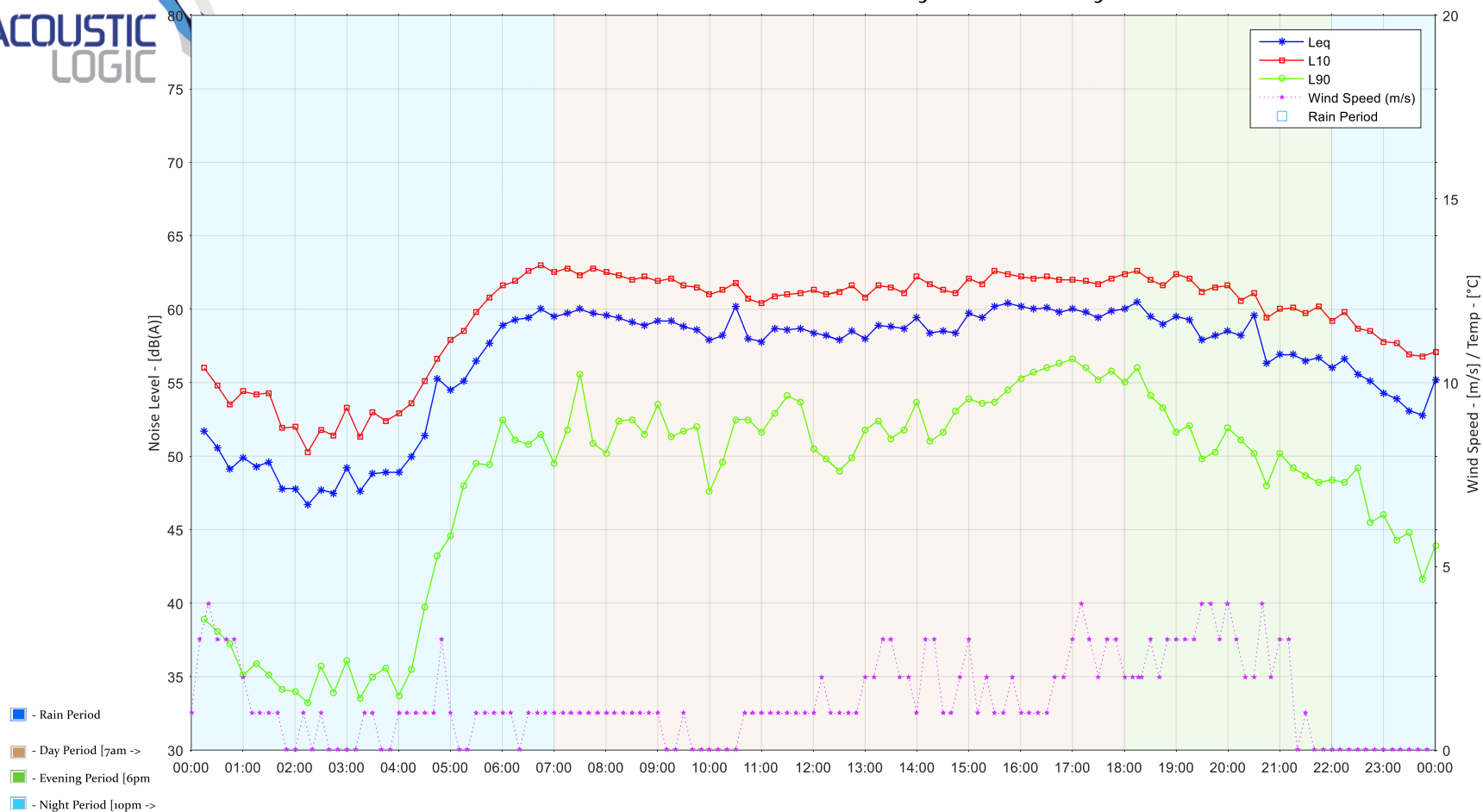
Appendix 6- Background Noise Monitor Data at Location 6



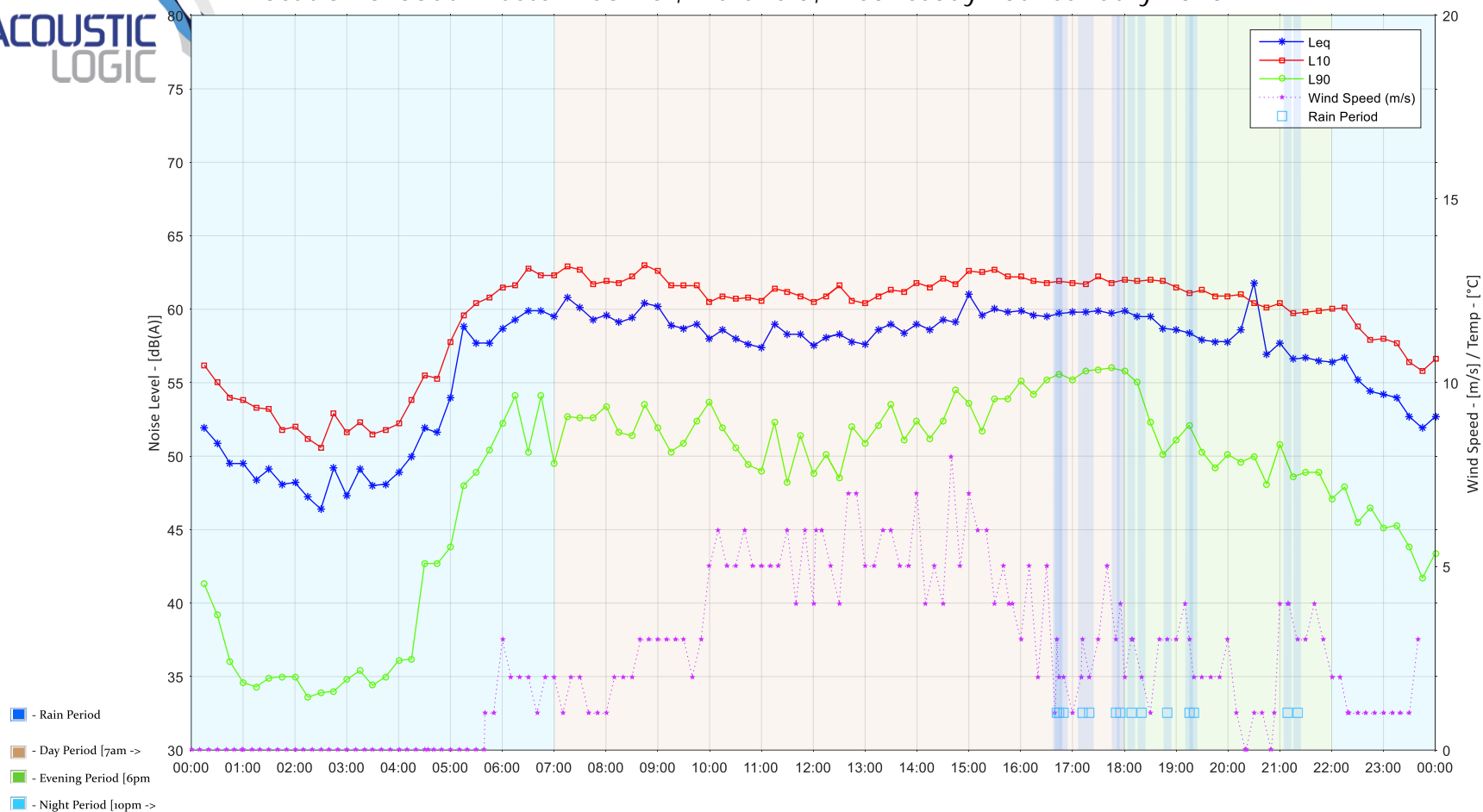
Location 6: South-Eastern Corner, Marsfield, Monday 13th January 2020



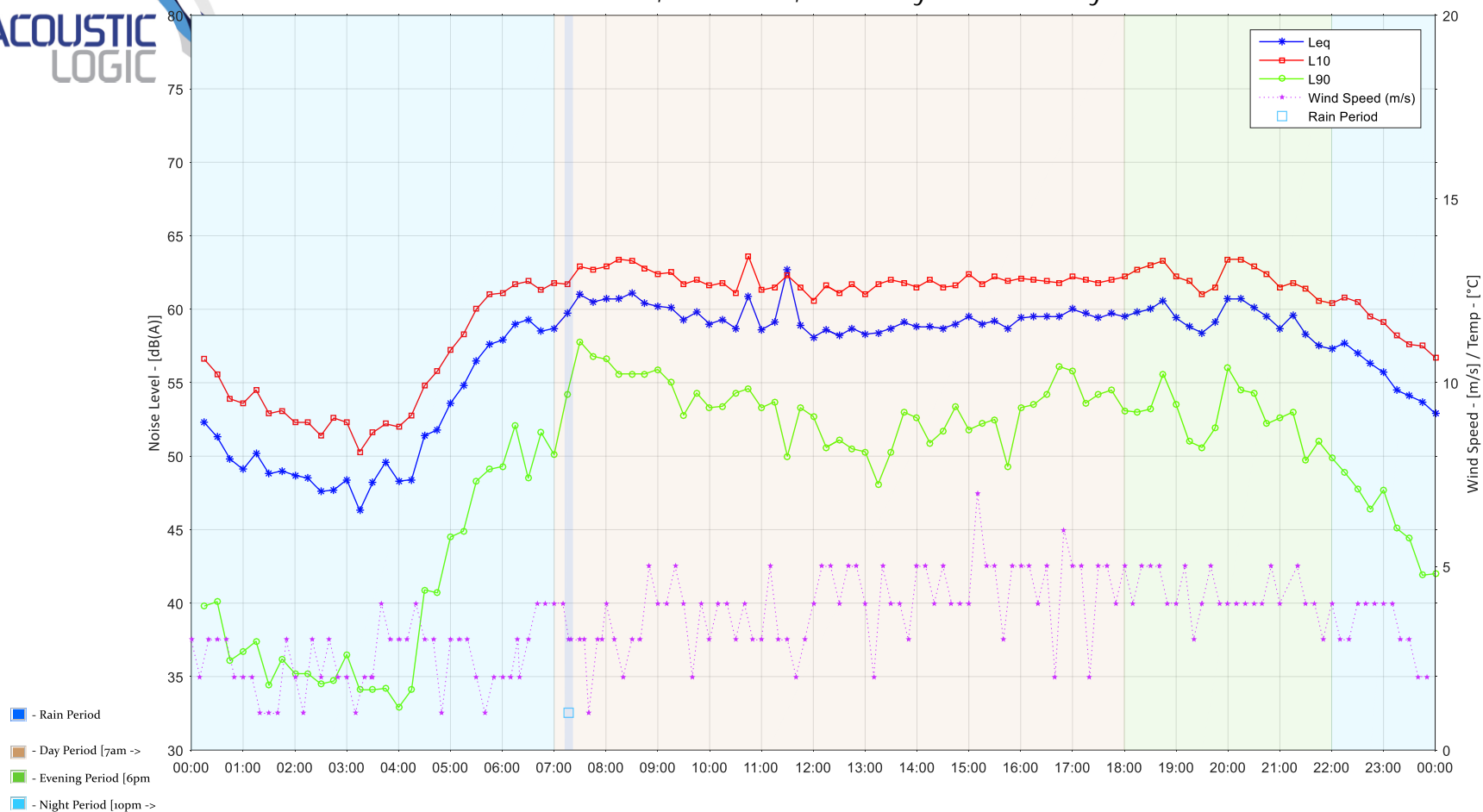
Location 6: South-Eastern Corner, Marsfield, Tuesday 14th January 2020



Location 6: South-Eastern Corner, Marsfield, Wednesday 15th January 2020

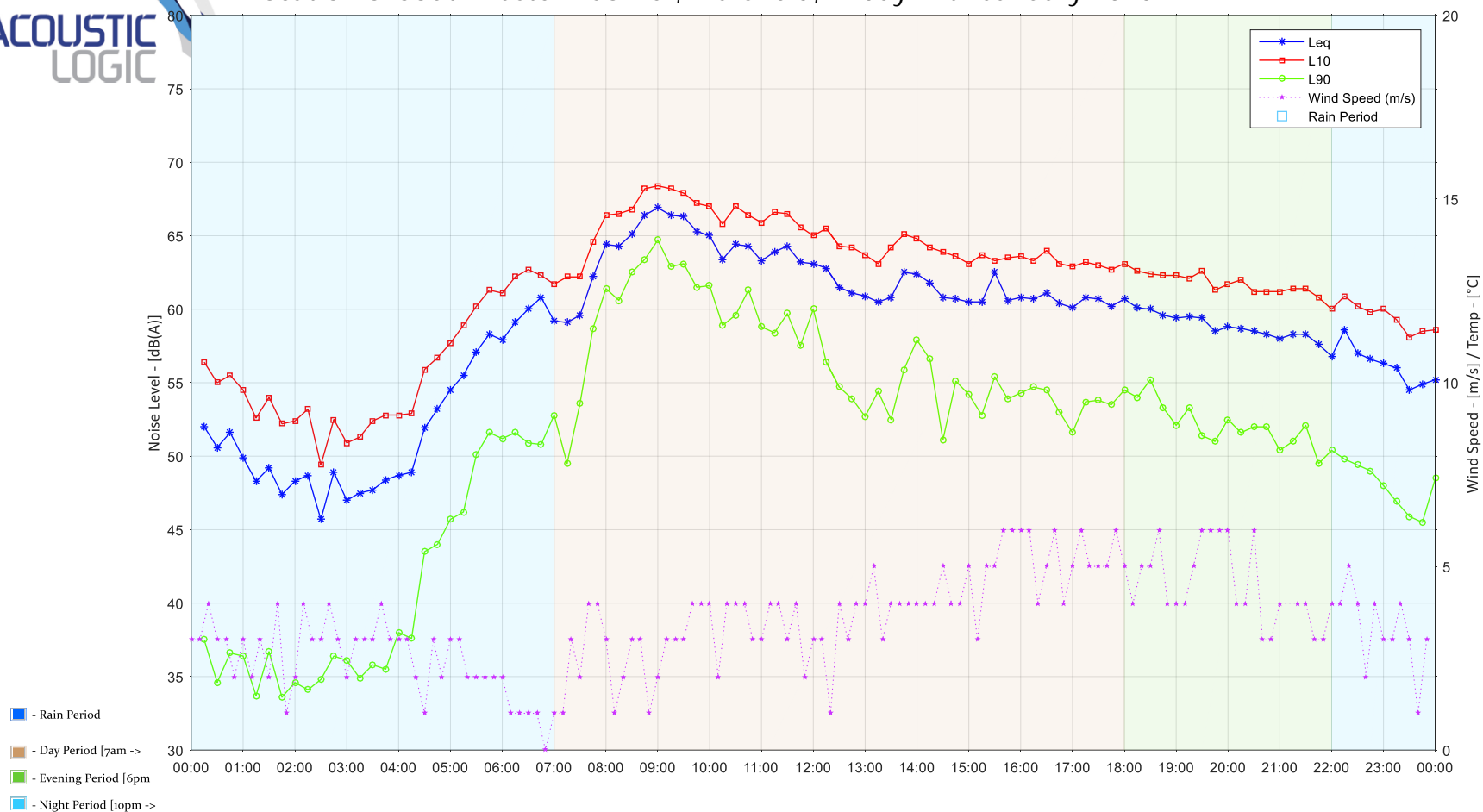


Location 6: South-Eastern Corner, Marsfield, Thursday 16th January 2020

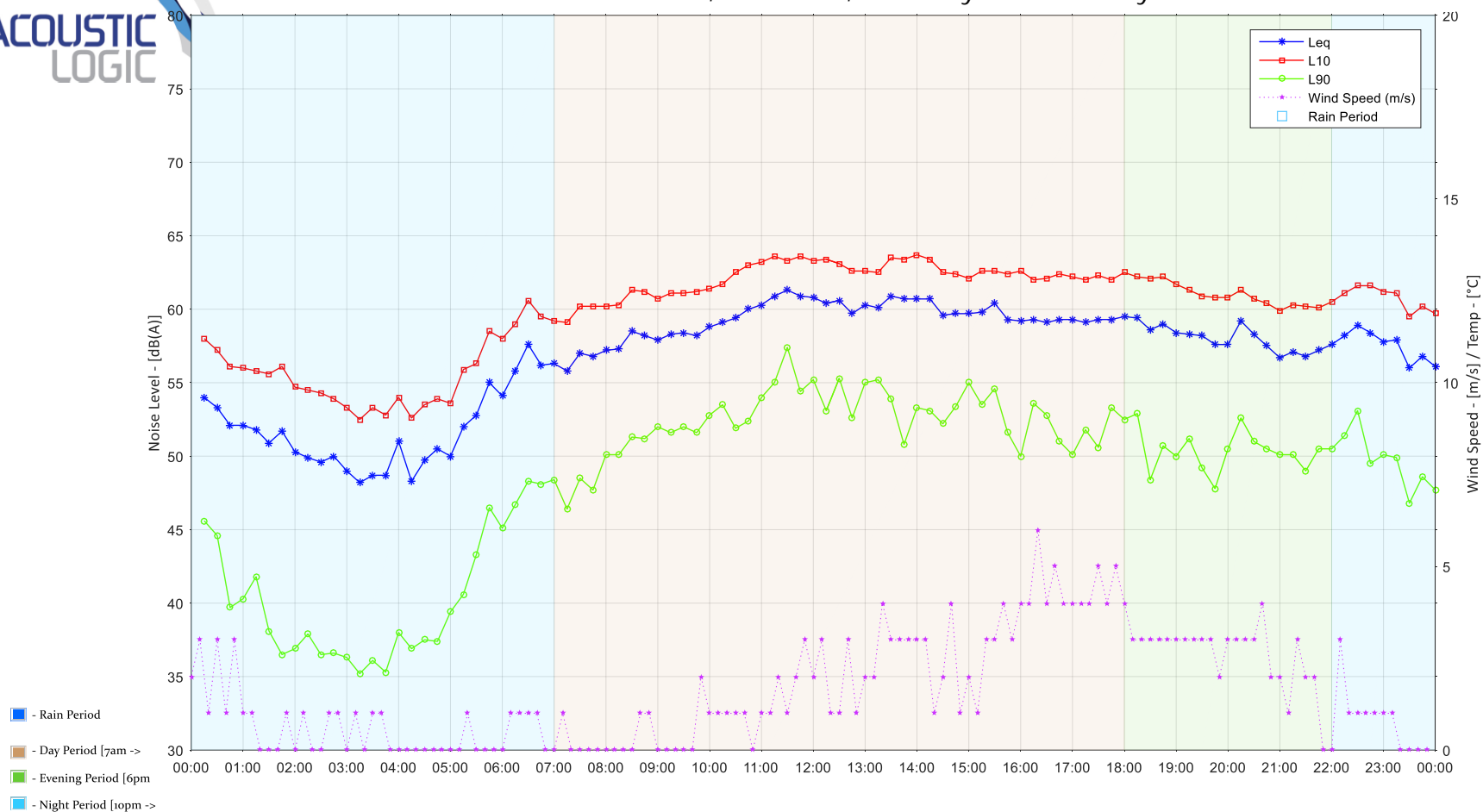




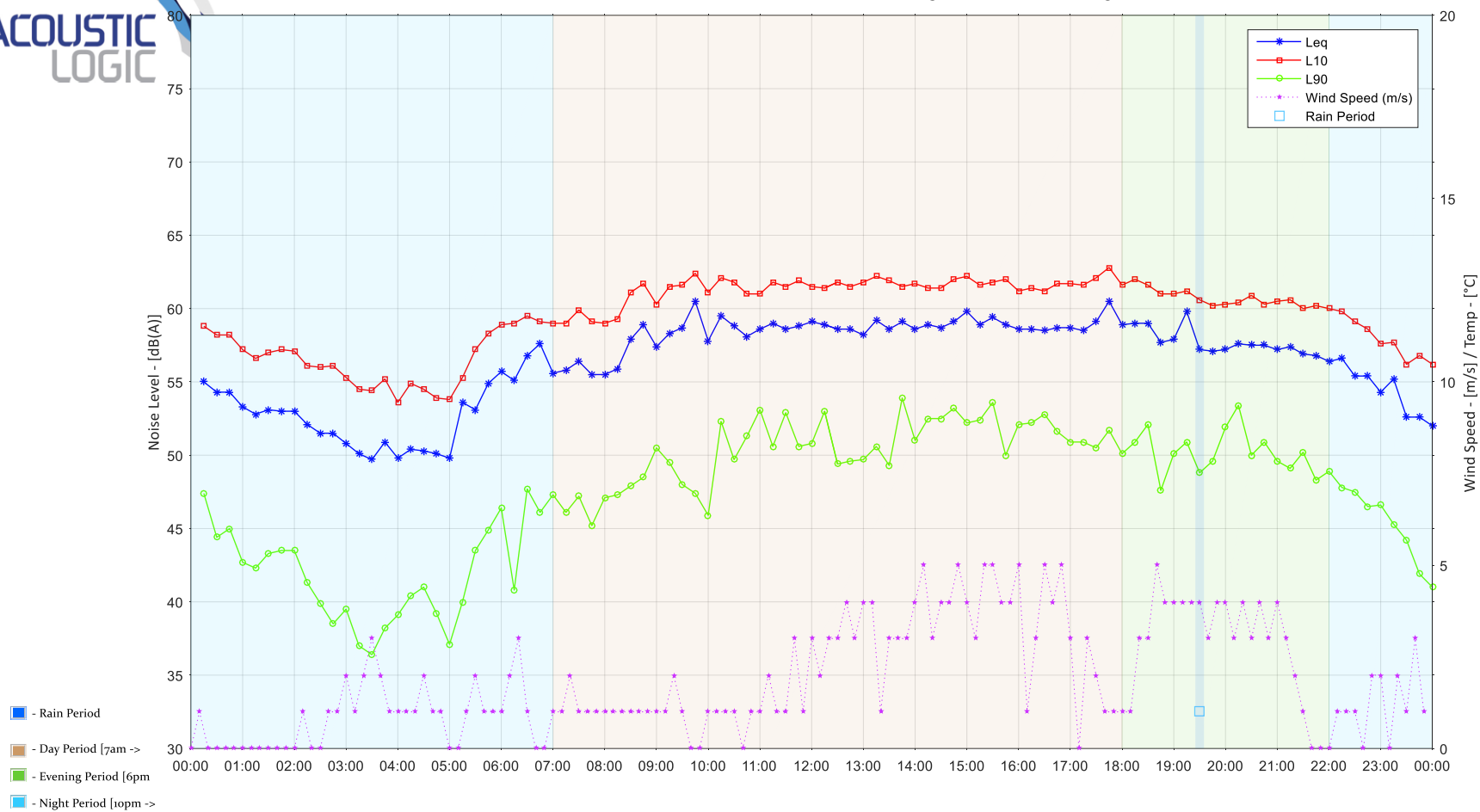
Location 6: South-Eastern Corner, Marsfield, Friday 17th January 2020



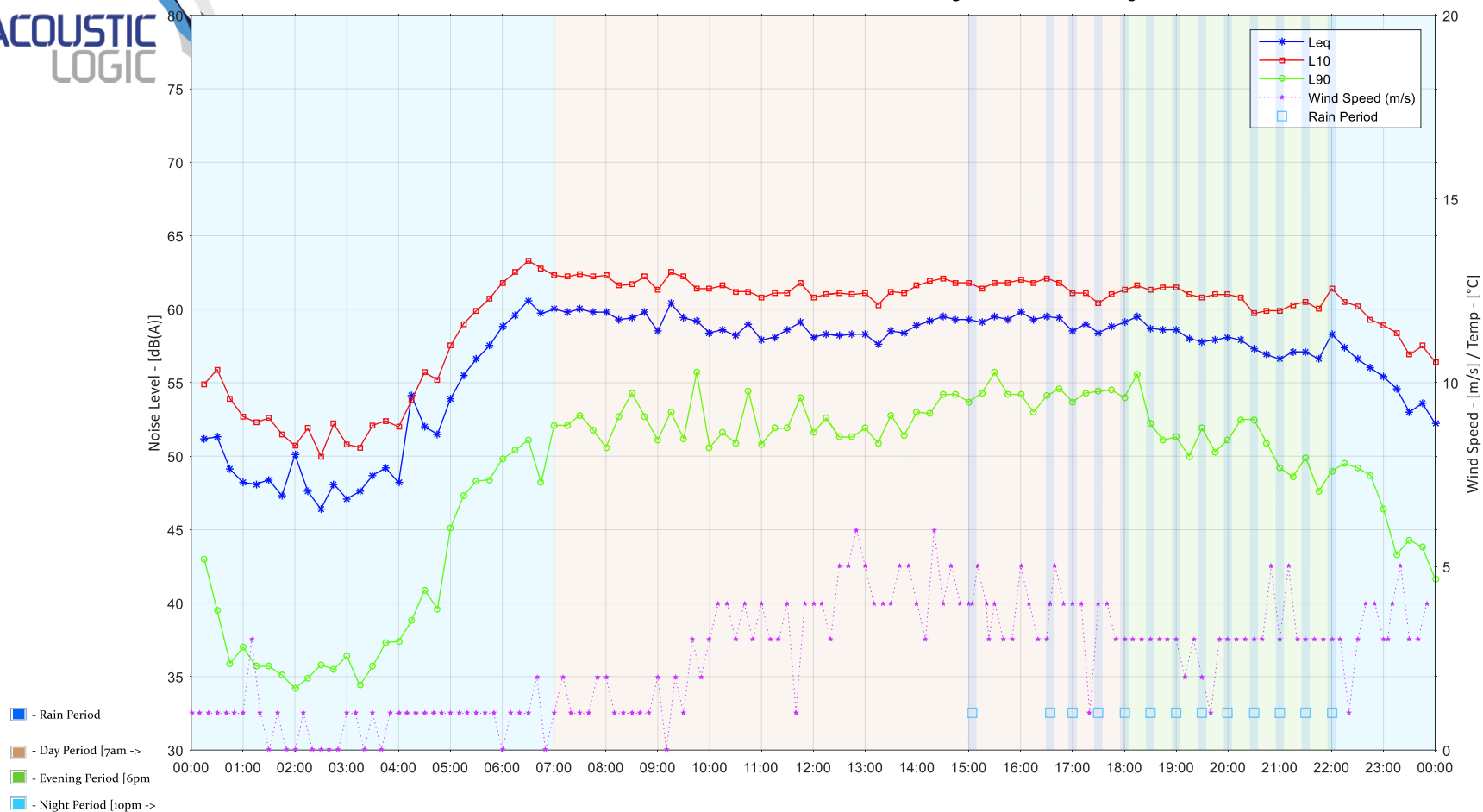
Location 6: South-Eastern Corner, Marsfield, Saturday 18th January 2020



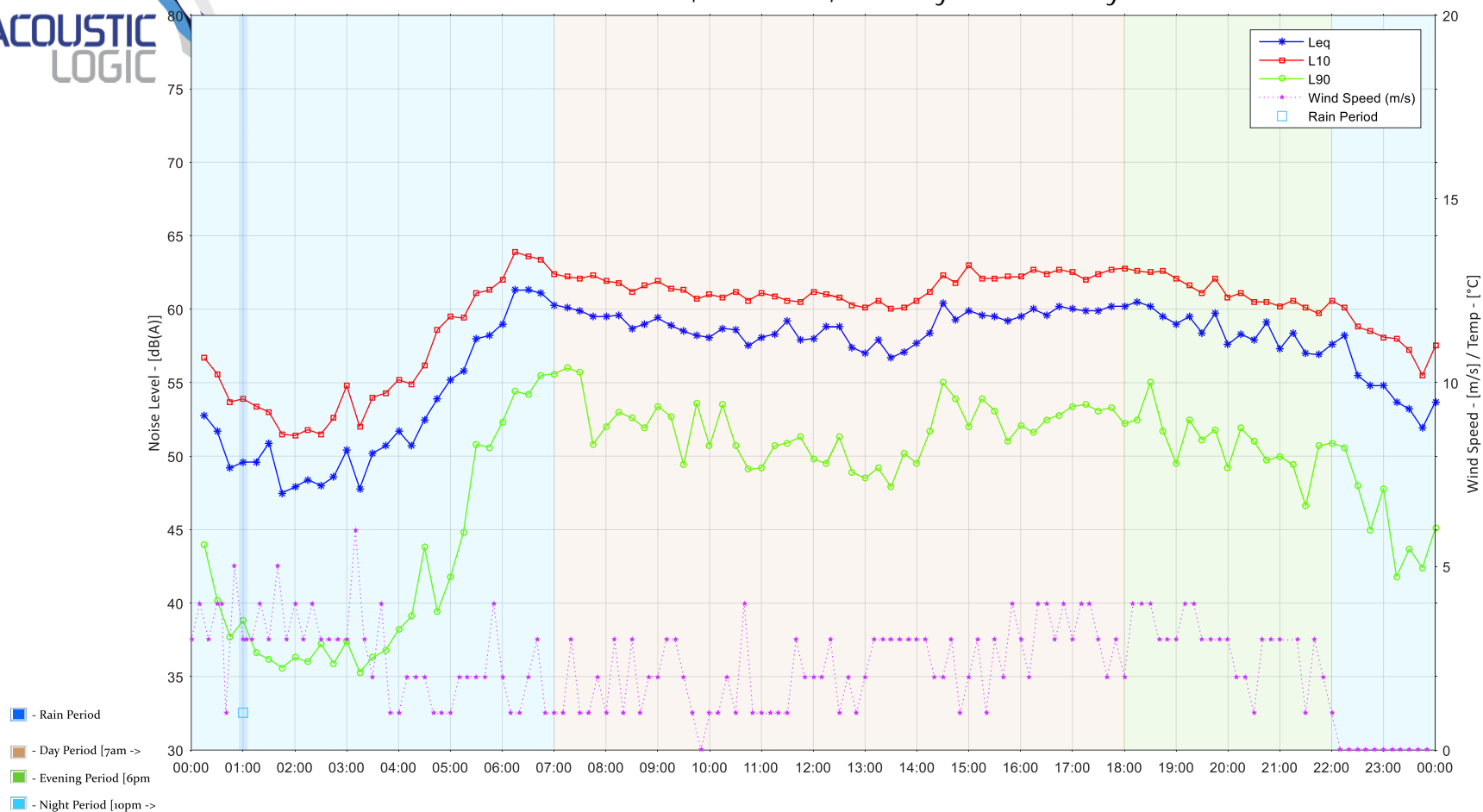
Location 6: South-Eastern Corner, Marsfield, Sunday 19th January 2020



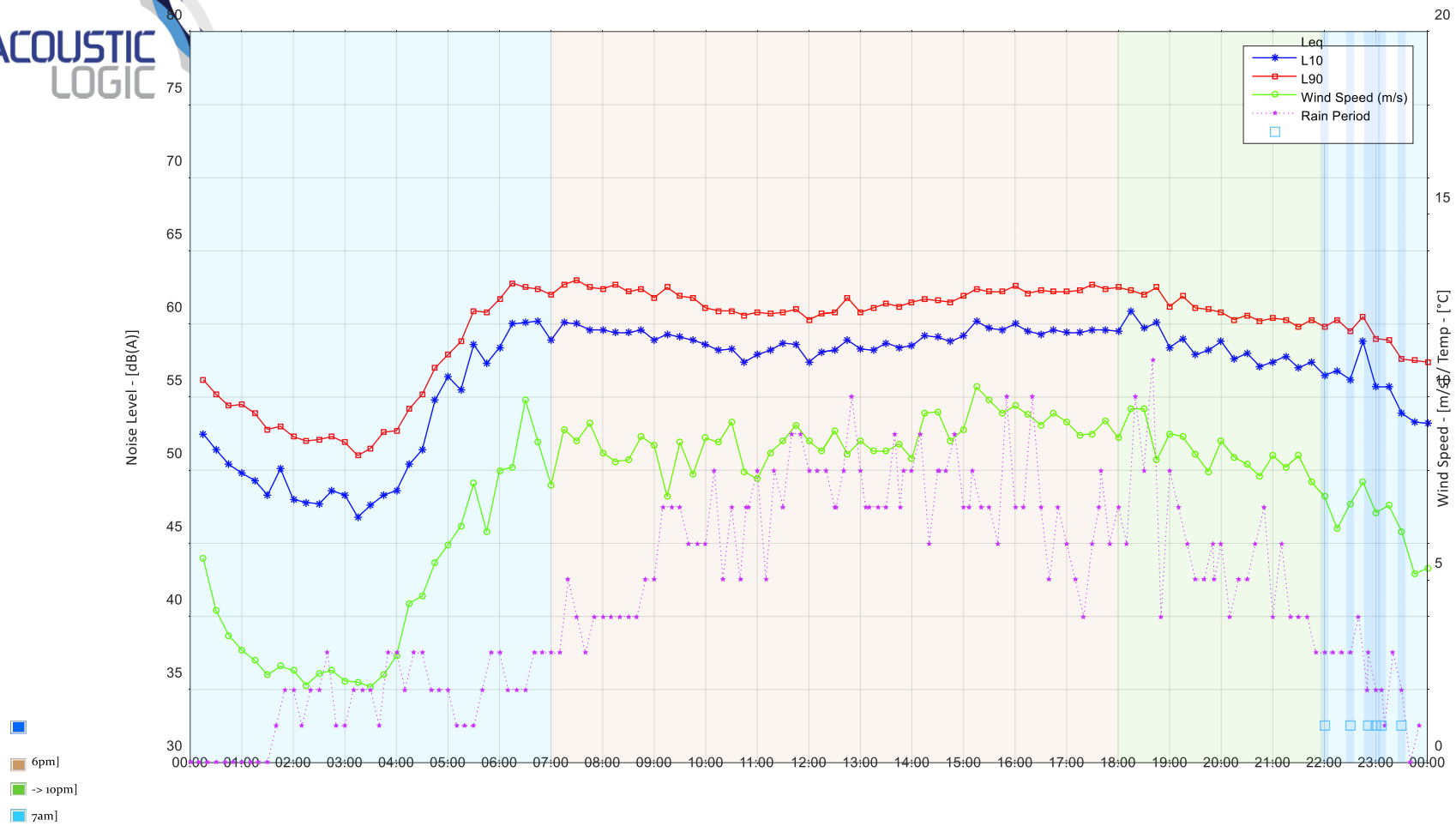
Location 6: South-Eastern Corner, Marsfield, Monday 20th January 2020



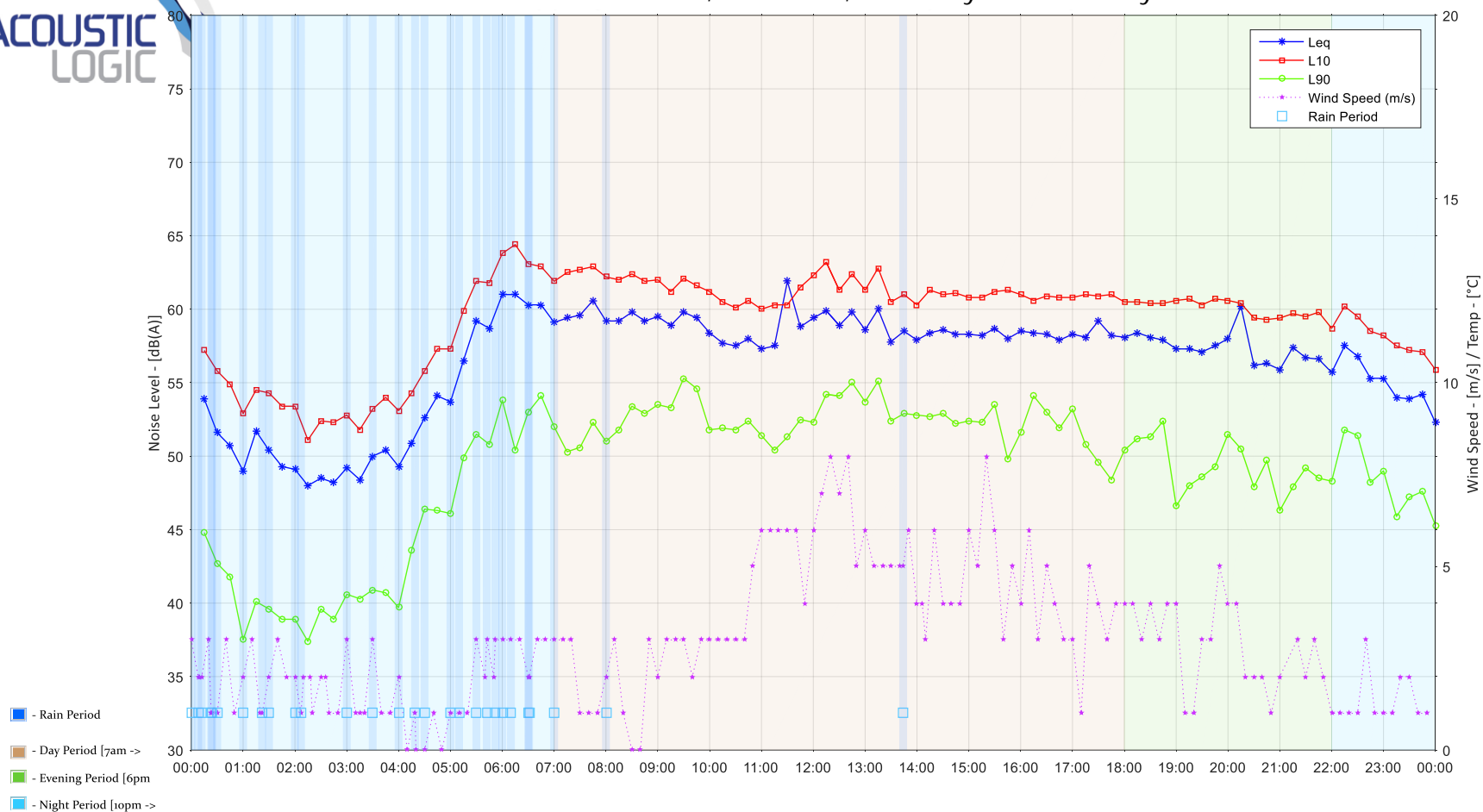
Location 6: South-Eastern Corner, Marsfield, Tuesday 21st January 2020



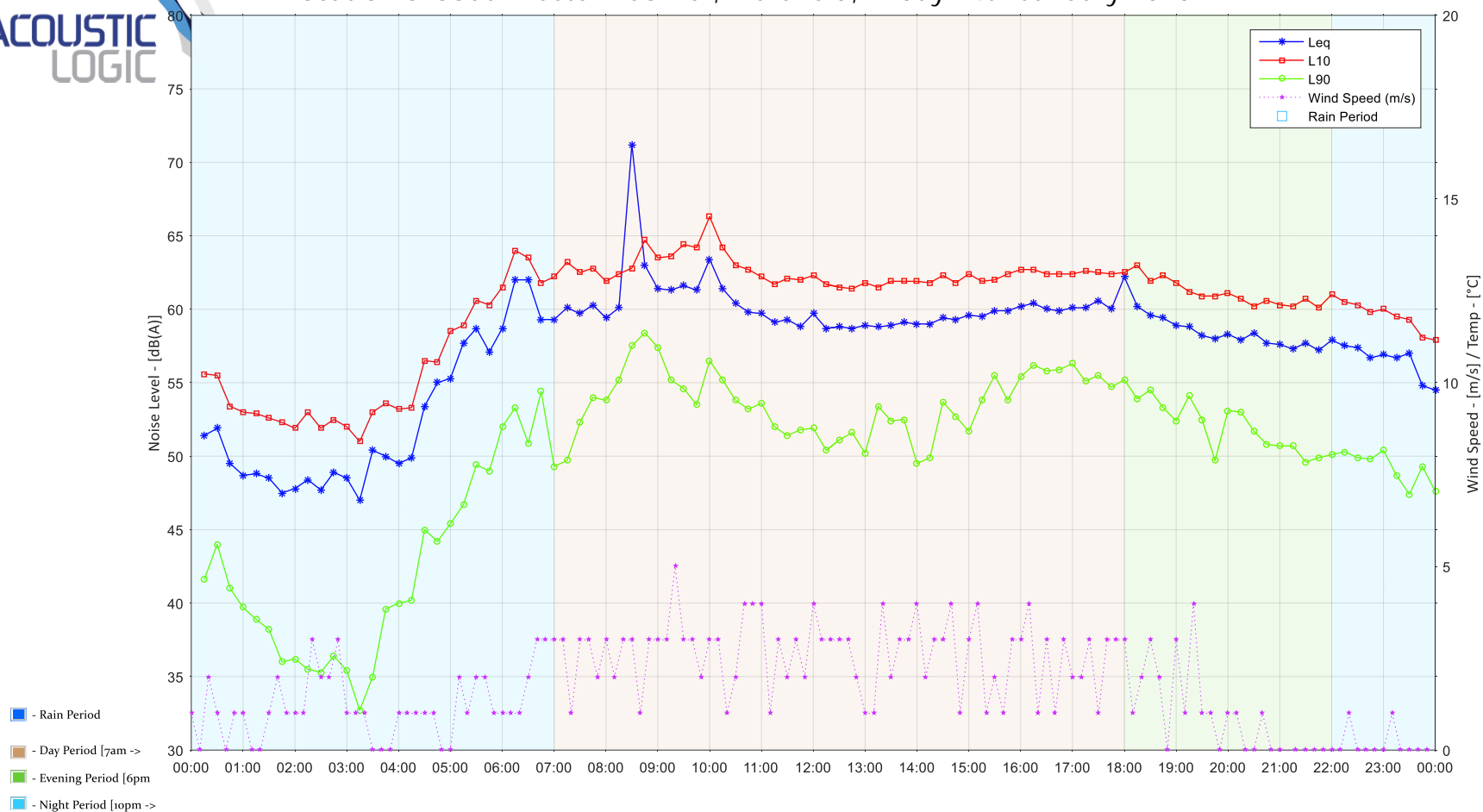
Location 6: South-Eastern Corner, Marsfield, Wednesday 22nd January 2020



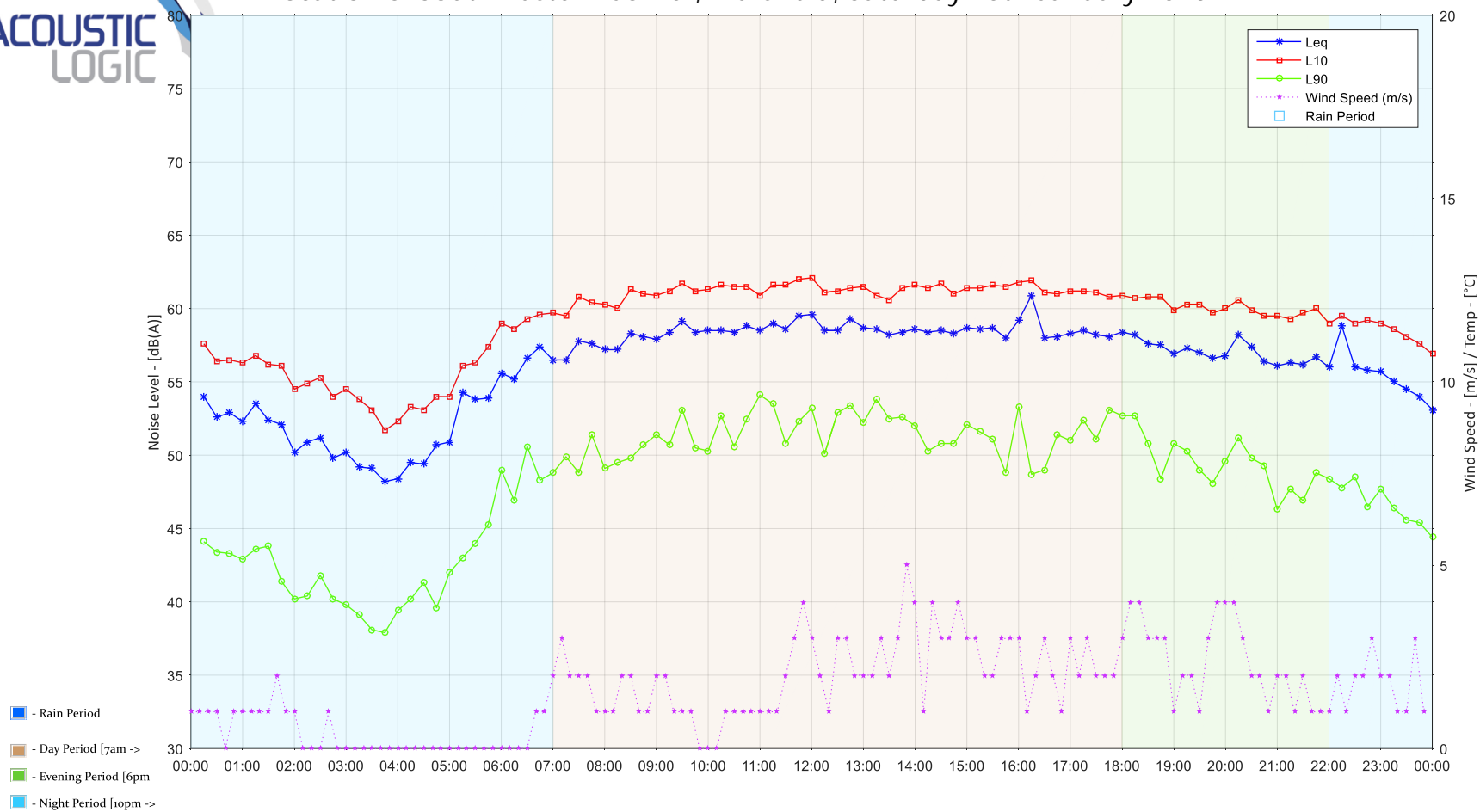
Location 6: South-Eastern Corner, Marsfield, Thursday 23rd January 2020



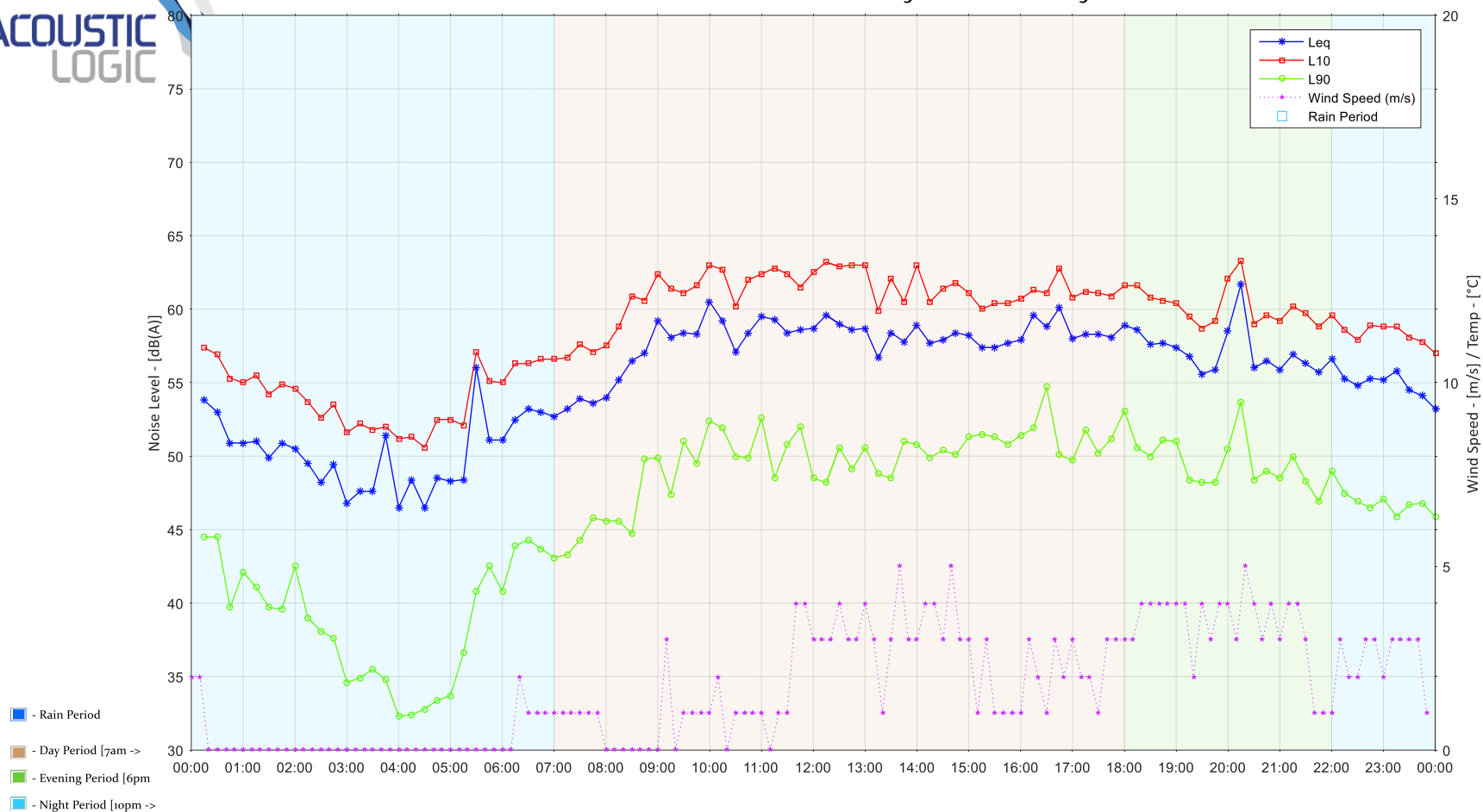
Location 6: South-Eastern Corner, Marsfield, Friday 24th January 2020



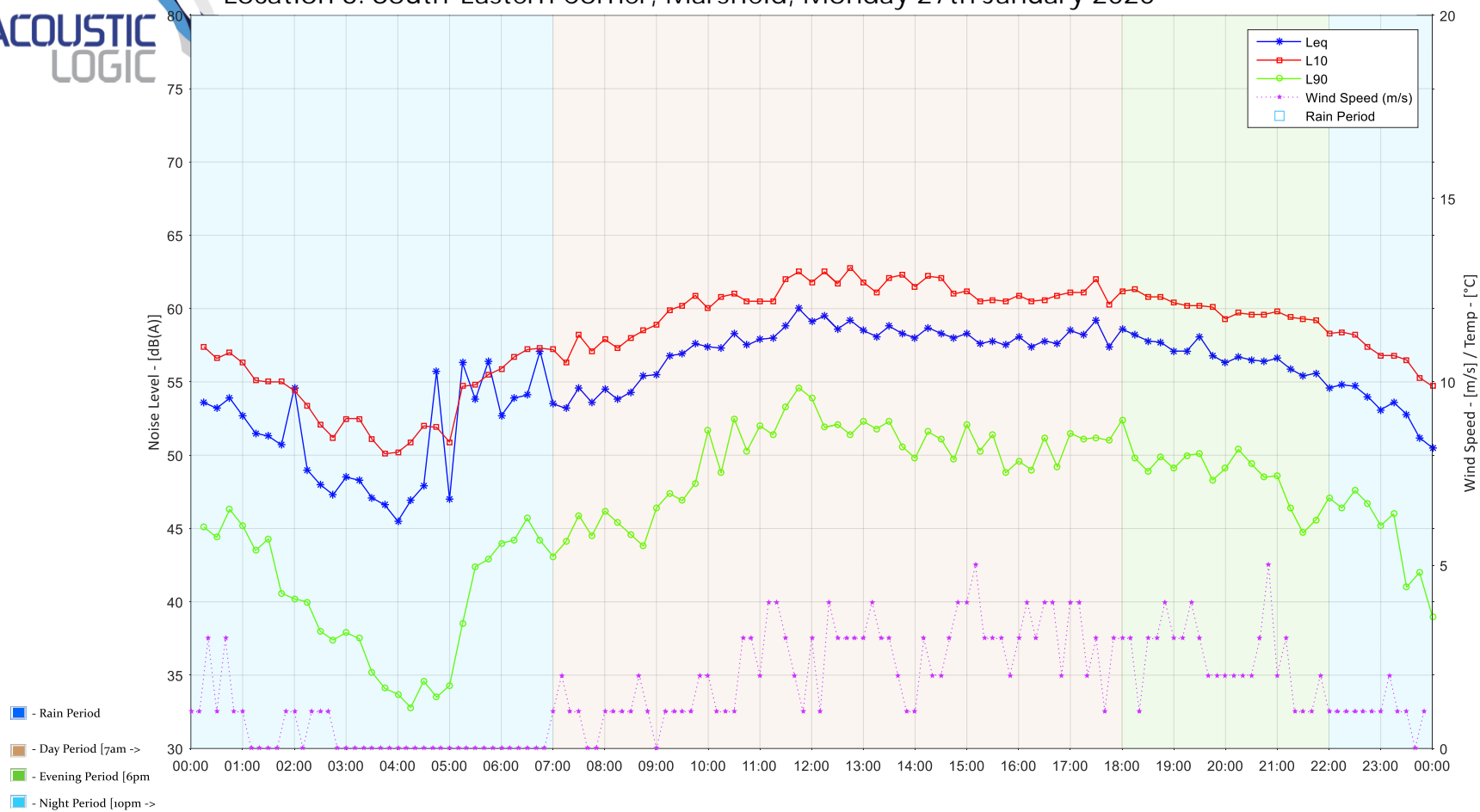
Location 6: South-Eastern Corner, Marsfield, Saturday 25th January 2020



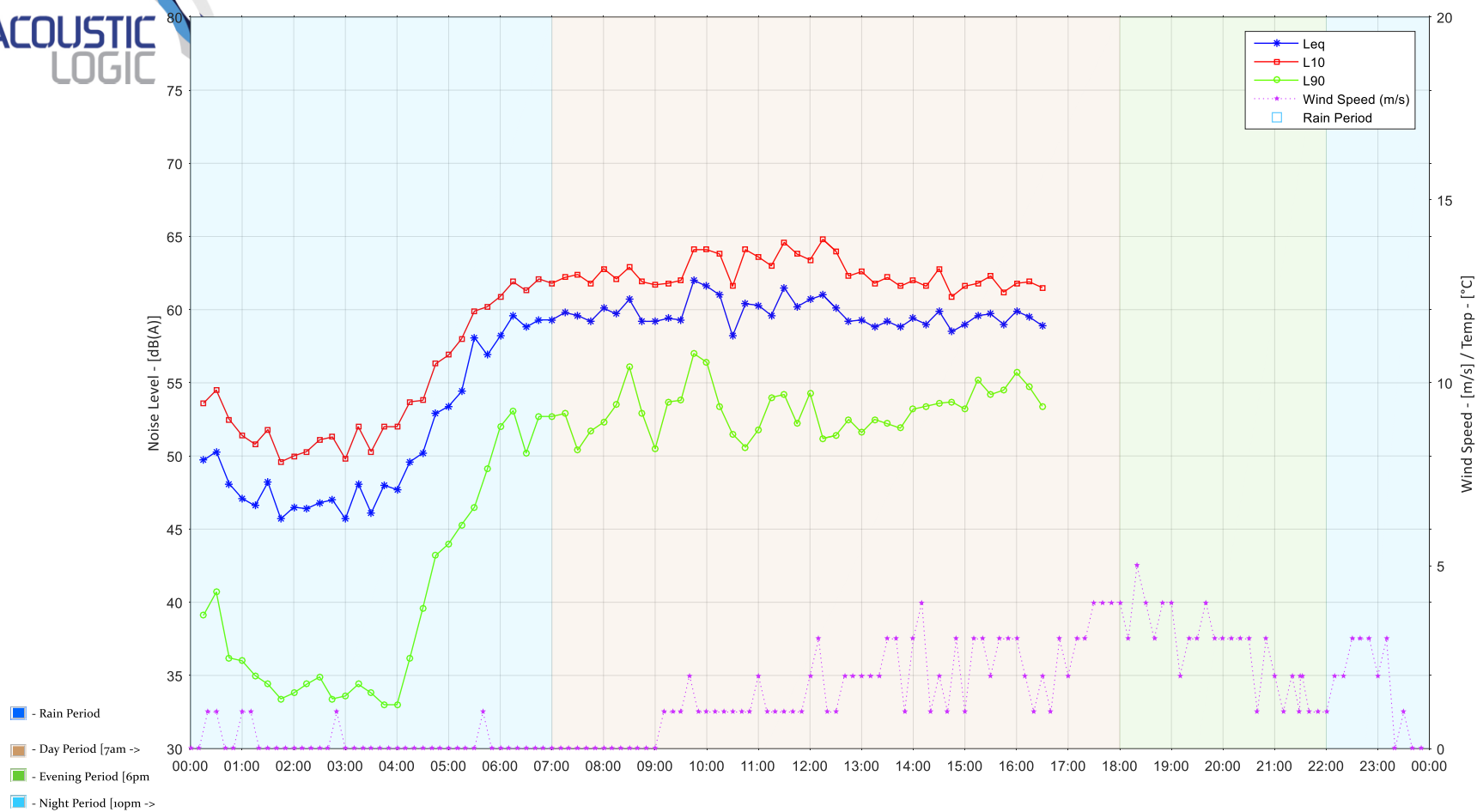
Location 6: South-Eastern Corner, Marsfield, Sunday 26th January 2020



Location 6: South-Eastern Corner, Marsfield, Monday 27th January 2020



Location 6: South-Eastern Corner, Marsfield, Tuesday 28th January 2020



Location 6: South-Eastern Corner, Marsfield, Tuesday 29th January 2020

