MATTHEW PALAVIDIS
VICTOR FATTORETTO
MATTHEW SHIELDS

20210014.8/1304A/R0/LA

13/04/2022

Platino Properties Pty Ltd
Suite 11
Level 2
20 Young Street
NEUTRAL BAY NSW 2089

Attn: Simon Militano

5 Skyline Pl, Frenchs Forest (Stage 2) - B7 Zoning Future Use Acoustic Assessment

1 INTRODUCTION

This letter has been prepared to assess the concerns of Northern Beaches Council regarding the potential of acoustic impacts on the proposed Seniors and Disability Housing development to be located at 5 Skyline Place, French's Forest, that may result from future business park uses within B7 Zoning. Council's concerns pertaining the proposal are presented below.

> ***"Not Consistent***
>
> *The siting of a residential development within a business park shall create inherent acoustic issues for occupants. Land uses permitted with consent in the B7 zone include, but are not limited to childcare centres, hardware and building supplies, light industry self- storage units and warehouses and distribution centres. These land uses generate more noise than residential development and frequently (if approved) operate 24/7.*
>
> *The siting of the building in a business park creates an inappropriate relationship between land uses which will impact on the living conditions of occupants."*

SYDNEY
9 Sarah St
MASCOT NSW 2020
(02) 8339 8000

ABN 98 145 324 714
www.acousticlogic.com.au

Executive Summary

This letter presents our assessment of the worst acoustic scenarios which would potentially result from future uses in the B7 zone in the vicinity of the subject site. This assessment is based on modelling of hypothetical scenarios, as follows:

- A Child Care Centre located along eastern, southern and western of the project site.
- 24-hour distribution centres during the evening and night time periods, based upon conservative assumptions, as well as approved operational conditions of a similar use within the same business park, along eastern, southern and western of the project site. A Statement of Environmental Effects for a warehouse facility located at Lot 1 DP 220769, 8 Rodborough Road, Frenchs Forest Frenchs Forest (Amazon Distribution centre – 24/7 operations) has been referenced in this report to provide an example of the likely conditions that would be placed on any hypothetical future distribution centre approved within the B7 zoned Frenchs Forest Business Park.

Acoustic Logic notes that Stage 1 of the development, located directly to the North of the proposed site for Stage 2, has already been approved and determined by Council, and the contents of this letter relate to the Development Application for Stage 2 of the proposal.

Noise generation from worst-case scenarios, inclusive of operation approved by council for similar worst-case use, within the surrounding locality of the proposed residential development have been shown to be able to comply with relevant local, state and Australian statutory noise requirements provided appropriate service road design and locations. Hence, it has been shown within this report that the approval of 5 Skyline Place (Ref: REV2021/0045) does not significantly impact the ability of businesses to perform these operations noting previous council previous approval conditions on similar sites within the same B7 zone.

AL considers the acoustic impact of the project site on the operational potential of future B7 land uses in the surrounding business park as manageable.

2 REFERENCED DOCUMENTS

2.1 BACKGROUND INFORMATION USED

The assessment is based on the following drawings, reports, and other information:

- Seniors Living Section 82A architectural drawings, provided by PA Studio, dated 11/10/2021.
- Statement of Environmental Effects for a warehouse facility located at Lot 1 DP 220769, 8 Rodborough Road, Frenchs Forest

2.2 PLANNING GUIDELINES

The following planning instruments and guidelines have been used in the assessment:

- Northern Beaches Council – *'Warringah Development Control Plan 2011'*
- Northern Beaches Council – *'Warringah Local Environment Plan 2011'*
- Australian and New Zealand AS/NZS 2107:2016 - *'Recommended design sound levels and reverberation times for building interiors'*
- NSW EPA – '*Noise Policy for Industry (NPfI) 2017'*
- NSW EPA – '*Road Noise Policy 2011'*

3 SITE DESCRIPTION AND THE PROPOSAL

The site of the proposed development is located at 5 Skyline Place, Frenchs Forest. Stage 2 of the proposed development is to consist of the following:

- One eight-storey mixed-use building and one seven-storey mixed-use building, as well as a three-storey communal building servicing the residents of the development.
- 5 individual retail tenancies maintained on the ground floor of the development.
- Open communal spaces.

An aerial site map with assumed assessment locations is presented in Figure 1 below.

Figure 1: Aerial Site Map with Measurement Locations (Sourced from SixMaps)

4 AMBIENT NOISE SURVEY

Background noise levels have been measured through long-term noise monitoring previously conducted for the development by this office (Ref: 20210014.1/2501A/R0/KNM).

4.1 MEASUREMENT EQUIPMENT

Long-term noise monitoring was undertaken with noise monitors provided Acoustic Research Laboratories Pty Ltd. The loggers were programmed to store 15-minute statistical noise levels throughout the monitoring period and was calibrated at the beginning and the end of each measurement using a Rion NC-73 calibrator; no significant drift was detected. All measurements were taken on A-weighted fast response mode.

Attended measurements were undertaken to supplement the unattended noise monitoring. Measurements were conducted using a Norsonic 140 Sound Analyser. The analyser was set to fast response and calibrated before and after the measurements using a Norsonic Sound Calibrator type 1251. No significant drift was noted.

4.2 MONITOR LOCATIONS

Please refer to Figure 1.

4.3 MEASUREMENT PERIOD

The monitoring periods are as follows:

Conducted for Stage 2 (Monitor 1)

- Monitoring period was 11/01/2021 to 17/01/2021.

Previously conducted by Wood & Grieve (Monitor 2)

- Monitoring period was 17/01/2018 to 24/01/2018.

4.4 MEASURED BACKGROUND NOISE LEVELS

NSW EPA's RBL assessment procedure requires determination of background noise level for each day (the ABL) then the median of the individual days as set out for the entire monitoring period.

Appendix A and B provide detailed results of the unattended noise monitoring. Adverse weather affected data was excluded from the assessment.

Based on the monitoring and measurements, the Rating Background Noise Levels (lowest 10^{th} percentile noise levels during operation time period) are established for the surrounding receivers and are presented in the table below.

Table 1 - Rating Background Noise Levels (Ref: 20210014.1/2501A/R0/KNM)

Time of Day	Rating Background Noise Level dB(A)$L_{90(Period)}$	
	Monitor 1	**Monitor 2**
Day (7:00am-6:00pm)	50	41
Evening (6:00pm-10:00pm)	44	36
Night (10:00pm-7:00am)	33	35

5 EXTERNAL NOISE EMISSION CRITERIA FOR THE FUTURE DEVELOPMENT AROUND THE PROJECT SITE

Noise emissions from the project site will be assessed against the requirements of the following:

- Northern Beaches Council – *'Warringah Development Control Plan 2011'*
- Northern Beaches Council – *'Warringah Local Environment Plan 2011'*
- Association of Australasian Acoustical Consultants (AAAC) – '*Guideline for Childcare Centre Acoustic Assessment 2020*'.
- NSW EPA – '*Noise Policy for Industry (NPfI) 2017*'

5.1 WARRINGAH DCP / LEP 2011

Warringah DCP / LEP 2011 states the following requirements in relation to noise emissions.

D3 Noise

Requirements

1. Noise from combined operation of all mechanical plant and equipment must not generate noise levels that exceed the ambient background noise by more than 5dB(A) when measured in accordance with the NSW Industrial Noise Policy at the receiving boundary of residential and other noise sensitive land uses.

5.2 ASSOCIATION OF AUSTRALASIAN ACOUSTICAL CONSULTANTS (AAAC) – 'GUIDELINE FOR CHILDCARE CENTRE ACOUSTIC ASSESSMENT 2020'

The Association of Australasian Acoustic Consultants 2020 specifies the following for noise emission criteria for childcare facilities play areas:

"***Background Greater than 40 dB(A)*** *– The contributed $L_{eq,15min}$ noise level emitted from an outdoor play and internal activity areas shall not exceed the background noise level by more than 5 or 10 dB at the assessment location, depending on the usage of the outdoor play area. AAAC members regard that a total time limit of approximately 2 hours outdoor play per morning and afternoon period should allow for an emergence above the background of 10 dB (i.e. background +10 dB if outdoor play is limited to 2 hours in the morning and 2 hours in the afternoon…*

Commercial Receptors *– The cumulative Leq,15min noise level emitted from the use and operation of the child care centre shall not exceed 65 dB(A) from all activities (including outdoor play), when assessed at the most affected point on or within any commercial boundary."*

5.3 EPA NOISE POLICY FOR INDUSTRY (NPFI)

The EPA NPfI provides guidelines for assessing noise impacts from 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 must both be complied with, namely an amenity criterion and an intrusiveness criterion.

5.3.1 Intrusiveness Criterion

The guideline is intended to limit the audibility of noise emissions at residential receivers and requires that noise emissions measured using the L_{eq} descriptor not exceed the background noise level by more than 5 dB(A).

To be conservative, the lower background noise levels out of the two noise monitors (as presented in Table 1) have been adopted to determine the project intrusiveness noise level below.

Table 7 - NPfI Project Intrusiveness Criteria

Receiver	Time of Day	Background Noise Level dB(A)$L_{90(Period)}$	Project Intrusiveness Noise Level dB(A)$L_{eq(15min)}$
Residential Receivers	Day (7:00am-6:00pm)	41	46
	Evening (6:00pm-10:00pm)	36	41
	Night (10:00pm-7:00am)	33	38

5.3.2 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 (e.g. cumulative noise from project site and other developments).

The EPA's NPI sets out acceptable noise levels for different residential areas, being rural, suburban and urban. When determining types of residential receiver, the NPI considers the land zoning, existing noise levels and environmental noise characteristics of the area being assessed. Based on the measured noise levels and environmental noise characteristics, the 'Suburban' classification is most appropriate and has been selected.

The NPI requires project amenity noise levels to be calculated in the following manner;

Project Amenity Noise Level dB(A)$L_{eq(15min)}$ = Recommended Amenity Noise Level – 5 dB(A) + 3 dB(A)

Table 8 - NPfI Project Amenity Criteria

Receiver	Time of Day	Recommended Amenity Noise Level dB(A)$L_{eq(15min)}$	Project Amenity Noise Level dB(A)$L_{eq(15min)}$
Residential Receivers	Day (7:00am-6:00pm)	55	53
	Evening (6:00pm-10:00pm)	45	43
	Night (10:00pm-7:00am)	40	38
Commercial Receivers (Building 3)	When in use	65	63

5.3.3 Sleep Disturbance Criterion

The NPfI recommends the following noise limits to mitigate sleeping disturbance:

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

- *$L_{eq,15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or*
- *L_{Fmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,*

  a detailed maximum noise level even assessment should be undertaken.

The following sleep emergence noise objectives then apply.

Table 9 - Sleep Disturbance Criteria for Residential Receivers

Residential Receiver	Rating Background Noise Level (Night) dB(A)L_{90}	Emergence Level
Residential Receivers (R1)	33	40 dB(A) $L_{eq(15min)}$; 52 dB(A) L_{Fmax}

If there are noise events that could exceed the emergence levels detailed in the table above, then an assessment of sleep arousal impact is required to be carried out, taking into account the level and frequency of noise events during the night, existing noise sources, etc. This more detailed sleep arousal test is conducted using the guidelines in the EPA Road Noise Policy. Most relevantly, the Road Noise Policy states:

For the research on sleep disturbance to date it can be concluded that:

- *Maximum internal noise levels below 50-55dB(A) are unlikely to awaken people from sleep.*
- *One to two noise events per night with maximum internal noise levels of 65-70dB(A) are not likely to affect health and wellbeing significantly.*

5.4 SUMMARISED NOISE EMISSION CRITERIA

Table 10 - Summary of Noise Emission Criteria

Receiver	Time of Day	AAAC Guideline for Childcare Assessment	Project Intrusiveness dB(A)$L_{eq(15min)}$	Project Amenity dB(A)$L_{eq(15min)}$	Sleep Disturbance
5 Skyline Place, Frenchs Forest Building 1 and 2	Day (7:00am-6:00pm)	51 (2 x 2hr Outdoor Play Time Periods)	**46**	53	N/A
	Evening (6:00pm-10:00pm)	n.a.	**41**	43	N/A
	Night (10:00pm-7:00am)		**38**	**38**	**40 dB(A)$L_{eq, 15min}$; 52 dB(A) L_{Fmax}**
5 Skyline Place, Frenchs Forest Building 3	When in Use	65	N/A	**63**	N/A

The project noise trigger levels have been selected (and bolded above) as the lower out of the intrusiveness and amenity criteria.

6 EXTERNAL NOISE INTRUSION INTO THE PROPOSED DEVELOPMENT

As established within the introduction of this letter, Northern Beaches Council notes concerns regarding the possible inability of future B7 zoning land uses that may be developed in the surrounding areas of the development to comply with the noise criteria that would be set for the 'Senior Living' residential development. As such, this letter examines hypothetical worst-case scenarios for the residents of the proposed residential development, for future development of the land uses listed within Council's statement, namely Childcare centres, hardware and building supplies, light industry self- storage units and warehouses and distribution centres to assess whether the proposed development would restrict these potential uses should they be proposed in the vicinity in the future. This section presents the results of a noise emission assessment conducted by this office to assess possible acoustic treatments to that may be required by future permissible uses within the B7 zone to achieve relevant statutory requirements for development in sensitive proximity to the senior housing development.

6.1 OPERATIONAL NOISE EMISSION ANALYSIS

The following noise intrusion assessment focuses on the hypothetical worst-case scenarios for each individual period of the day, The worst noisy activities are below:

- A childcare centre during the day,
- 24hr distribution centre during the evening and night-time periods.

Assessment for the above noise sources has been conducted at the three locations nominated within Figure 1.

Calculations were undertaken taking into account the location of measurements, orientation of windows, barrier effects *(where applicable)*, the total area of glazing, facade transmission loss and room sound absorption characteristics. In this way the likely interior noise levels due to the operation of the proposed land-uses can be predicted.

6.1.1 Information and Assumptions used in Assessment Methodology

Noise emissions from the operation of the hypothetical B7 zone land uses have been predicted based on the following assumptions and information available to this office.

6.1.1.1 Childcare Centre Assumptions

- Section 4 of the AAAC *'Guideline for Childcare Centre Acoustic Assessment 2020'* provides the following typical range of effective sound power levels for groups of 10 children playing, summarised below.

Table 4 – Effective Sound Power Levels for Groups of 10 Children Playing

Age Range	Number of Children	Sound Power Level
0 to 2	10	78 dB(A)
2 to 3		85 dB(A)
3 to 6		87 dB(A)

- The sound power level for outdoor play area assessments will be the equivalent to the sound power levels as represented within the table above.
- Typical operational hours of Childcare Centres are 7:00am to 6:00pm, Monday to Friday and closed on Saturday and Sunday, and these hours will be used within this assessment.

- AL assumes an operational capacity of 30 children aged 0-2 years old, 30 children of the ages 2-3 and 40 children of ages 3-6 within the Childcare on an operating day, conservative for this type of development in the experience of this office.
- For the sake of a conservative assessment, it is assumed that all children will be playing outside at one given time, with the outdoor play area facing towards the residential development for all three assessment locations.

6.1.1.2 Distribution Centre Assumptions

- The assumptions for a hypothetical 24/7 distribution centre have been based on the conditions of development consent imposed by Northern Beaches Council for the DA for the change of operational hours to the Amazon Distribution Centre located at 8 Rodborough Road, Frenchs Forest, a site maintained within the same business park as the proposed residential development at 5 Skyline Place (Ref: DA2020/1464). The approved change of hours allowed to the development to operate in 24-hour capacity. As part of the lodgement for Development Application, AECOM completed a Statement of Environmental Effects, whereby proposed operation was assessed for noise effects to surrounding sensitive receivers (Ref: 60635760). As this 24hr centre is equivalent in concept to the worst-case evening and night possible land uses within B7 zoning, AL will use the proposed operation nominated within the Statement of Environmental Effects to assess noise generation potential from the three assessment locations.
- It is noted that 6 delivery trucks and 350 delivery vans service the Distribution Centre within a given 24-hour period.
- It is noted that delivery trucks operate between the hours of 5am and 9pm, and that all delivery vans operate between the hours of 8am and 6:30pm.
- AL assumes that in a worst 15-min period, there are 16 delivery van movements and no truck movements during the evening, and one articulated truck movement and no delivery van movements during the night time.
- AL assumes the use of two forklifts servicing the operation of the loading dock at a given worst-period. Forklifts have been modelled using a sound power level of 97dB(A) and have been assumed to be moving for 50% of the time within a given period.
- AL assumes that trucks manoeuvring between the service road and Loading Dock are travelling at a maximum of 10km/h. Large trucks have been nominated to have a sound power level of 105dB(A), and small trucks/vans have been modelled with a sound power level of 94dB(A), typical of these vehicles in the experience of this office.
- AL has modelled a Truck air brake release of 114dB(A) L_{max} sound power level, typical of this event in the experience of this office.
- It is assumed that for assessment location 1, a new service road is constructed to east of the lot to service the Distribution Centre, having the warehouse situated between the service road and the residential development. This is considered an applicable assumption as it would allow for the service road to service only the distribution centre from Frenchs Forest Road, increasing warehouse efficiency.
- It is assumed that for assessment location 2, truck and van movements are considered to be from Warringah Road, as opposed to Frenchs Forest Road. This is considered an applicable assumption due to Warringah Road's increased connectivity when compared with Frenchs Forest Road, hence increasing warehouse efficiency.
- The existing service road for assessment location 3 has been used to model vehicle movements.

6.1.2 Predicted Maximum Façade External Noise Levels

The following table presents the maximum façade external noise levels for each individual time period for the residential development based upon the assumed operations presented above. The table references the naming convention presented within Figure 2 below.

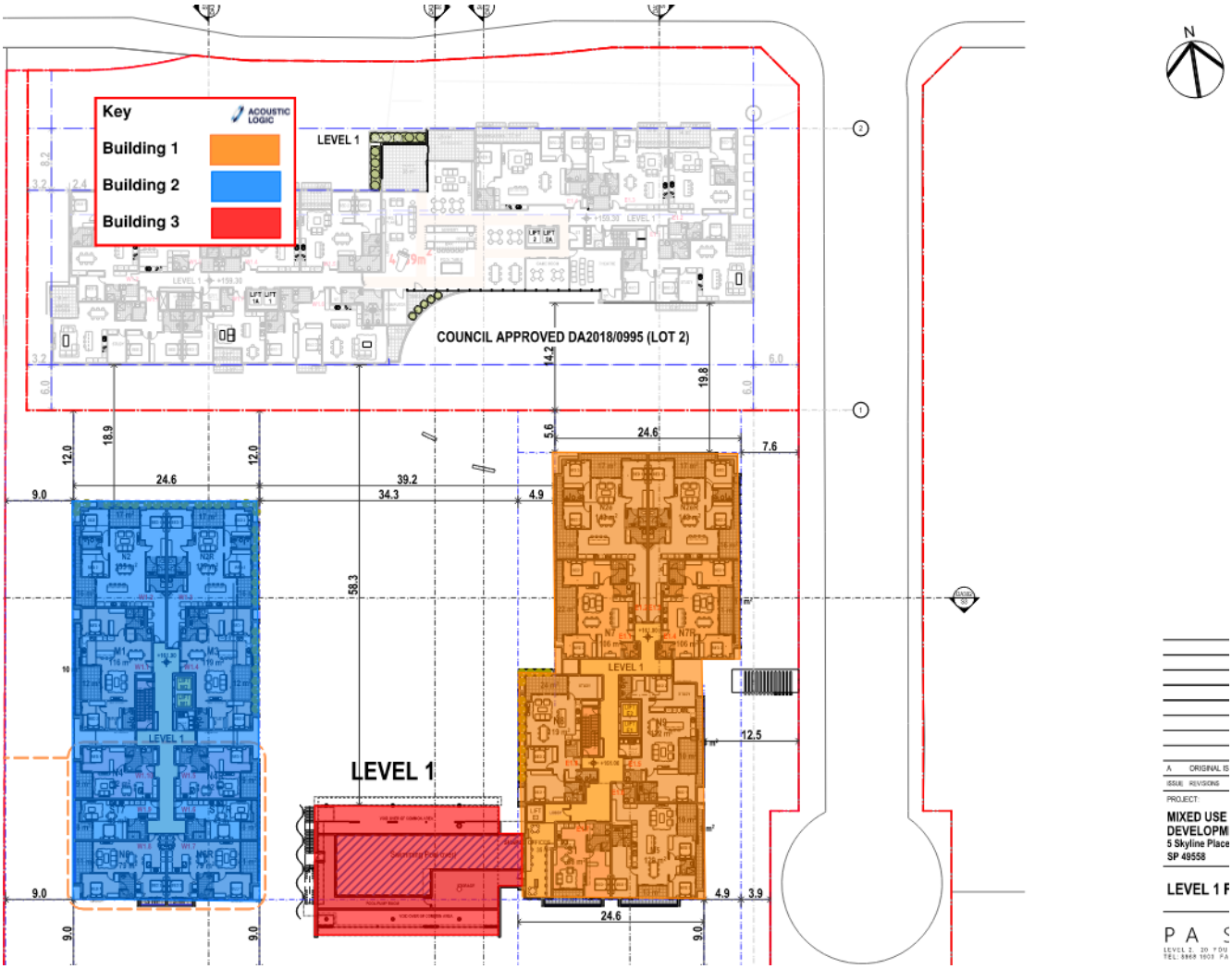


Figure 2: Tower Naming Convention

Table 5 – Predicted External Noise Levels

Building Number (Refer to Figure 2)	Assessment Location (Refer to Figure 1)	Façade	Time Period	Predicted Maximum External Noise Level dB(A) $L_{eq(15min)}$	Project Trigger Noise Level dB(A) $L_{eq(15min)}$	Complies
1	1	Northern	Day (7am-6pm)	47	51	Yes
			Evening (6pm-10pm)	32	41	
			Night (10pm-7am)	32	38	
		Eastern	Day (7am-6pm)	50	51	
			Evening (6pm-10pm)	35	41	
			Night (10pm-7am)	35	38	
	2	Southern	Day (7am-6pm)	49	51	
			Evening (6pm-10pm)	37	41	
			Night (10pm-7am)	36	38	
		Western	Day (7am-6pm)	46	51	
			Evening (6pm-10pm)	34	41	
			Night (10pm-7am)	33	38	
2	3	Northern	Day (7am-6pm)	47	51	
			Evening (6pm-10pm)	37	41	
			Night (10pm-7am)	35	38	
	2	Eastern	Day (7am-6pm)	46	51	
			Evening (6pm-10pm)	34	41	
			Night (10pm-7am)	33	38	
		Southern	Day (7am-6pm)	49	51	
			Evening (6pm-10pm)	37	41	
			Night (10pm-7am)	36	38	
	3	Western	Day (7am-6pm)	50	51	
			Evening (6pm-10pm)	40	41	
			Night (10pm-7am)	38	38	
3	2	Northern	When in use	45	63	
		Eastern		48		
		Southern		51		
		Western		48		

7 SLEEP DISTRUBANCE ASSESSMENT

7.1 DISTRIBUTION CENTRE- SLEEP DISTURBANCE (INTERMITTENT) NOISE ASSESSMENT

Short duration noise events are assessed with reference to EPA Sleep Disturbance Guidelines if used between 10pm - 7am.

The sleep disturbance assessment is conducted with reference to the guidelines set out in section 5.3.1.2.3.

The assessment is based on the following assumptions:

- Truck air brake release (night-time peak noise event for a 24hr Distribution Centre) - 114dB(A) L_{max} sound power level.
- Recommended building controls detailed in Section 7.

The NSW EPA document '*Road Noise Policy 2011*' states the following with regards to sleep arousal:

"Maximum internal noise levels below 50-55 dB(A) are unlikely to awaken people from sleep."

As above, a sleep disturbance internal noise criteria of 50 dB(A)L_{max} has been adopted for this assessment. The following table presents a worst-case internal noise level for each assessment location for Stage 2.

Table 6 – Distribution Centre – L_{max} Assessment (Internal Noise Test)

Receiver Location	Assessment Location (Refer to Figure 1)	Activity	Maximum Predicted Internal Noise Level dB(A)$L_{(max)}$	Internal Sleep Arousal Criteria dB(A)L_{max}	Complies
Tower 1 Eastern façade	1	Air Brake Release	43	50	**Yes**
Tower 1 Southern façade	2		46	50	
Tower 2 Southern façade				50	
Tower 2 Western façade	3		45	50	

8 REVIEW OF AECOM REPORT FOR WAREHOUSE FACILITY AT LOT 1 DP220769, 8 RODBOROUGH RD, FRENCHS FOREST

AL has reviewed the Statement of Environmental Effects prepared by AECOM for the change of operational hours for the Amazon Distribution Centre located at 8 Rodborough Road, Frenchs Forest, and notes the following with respect to the Skyline Place development:

- The approved location for the distribution centre is connected directly to Warringah Road, an arterial road with significant connectivity to surrounding areas. This is noted as similar connectivity would be required for efficiency at any of the assessment locations maintained within this letter, and hence the most feasible location for this type of land use surrounding Skyline Place would be Assessment Location 2.
- The approved distribution centre has been shown to be compliant with regulatory requirements at nearest sensitive receivers during all individual periods, without any further acoustic treatment or restrictions on trade or operation. If this site was to be translated to the assessment locations within this report, however, as established within Section 6, acoustic treatment would be required to meet criteria, as established within this report.
- AL notes that 6 large truck movements within the period of 5am-9pm have been allotted within the assessment prepared by AECOM, however, do not suggest that truck deliveries are to be made based upon a set schedule. This inherently means that trucks do not need to operate within the night period, and instead could operate only during the day and evening periods in practice. By this understanding, the methodology of assessment of night-time articulated truck movements is conservative based upon the operation of the distribution centre.

9 DISCUSSION

As presented within Sections 6 and 7, it has been shown that worst-case scenarios from an environmental noise perspective for permissible uses within a B7 zone have been shown to be able to meet compliance with local, state and Australian statutory requirements at the property boundary of the proposed development for seniors housing at 5 Skyline Place, Frenchs Forest Stage 2. With regards to Council's concerns regarding the approval of the proposed development due to noise requirements for future uses, we note the following:

- There are numerous approved/already existing residential and hotel/motel developments within the locality of the proposed development. This is inclusive of the already approved Stage 1 development for 5 Skyline Place, the approved construction of hotel accommodation at 5 Frenchs Forest Road and the residential dwellings maintained across Frenchs Forest Road. It is noted by Acoustic Logic that any development, irrespective of the approval of Stage 2, at any of the assessment locations would need to meet noise requirements at these locations. As such, the development of Stage 2 would not drastically alter the level of treatment required for business operation at the assessment locations.

- With reference to the locality context analysis prepared by PA Studio Architects for the development, it is clear that developments within the immediate vicinity of 5 Skyline Place show characterisation of specialisation in health and high-technology industry, as opposed to the high noise generation potential land uses assessed within the report. This idea is supported within both the Greater Sydney Region Plan (2018), as well as the North District Plan (2056). AL notes that noise and vibration requirements for medical facility receivers are, similarly with residential land uses, restrictive for neighbouring developments and may also require various treatments to the land uses assessed within this report.

10 CONCLUSION

This letter presents an acoustic assessment of potential noise impacts associated with various B7 land uses which may be developed surrounding the proposed 'Senior Living' residential development at 5 Skyline Place, Frenchs Forest. The findings are summarised below:

- AL have modelled hypothetical worst-case scenarios for B7 zoning uses, namely childcare centres during the day period, and 24-hour distribution centres during the evening and night-time periods, based upon conservative assumptions, as well as approved operational conditions of a similar use (Amazon 24 Hour Distribution Centre) within the same business park, at three different locations surrounding the residential development proposed at 5 Skyline Place, Frenchs Forest.

- Noise generation from worst-case scenarios, inclusive of operation approved by council for similar worst-case use, within the surrounding locality of the proposed development have been shown to be able to comply with relevant local, state and Australian statutory noise requirements provided appropriate service road design and locations.

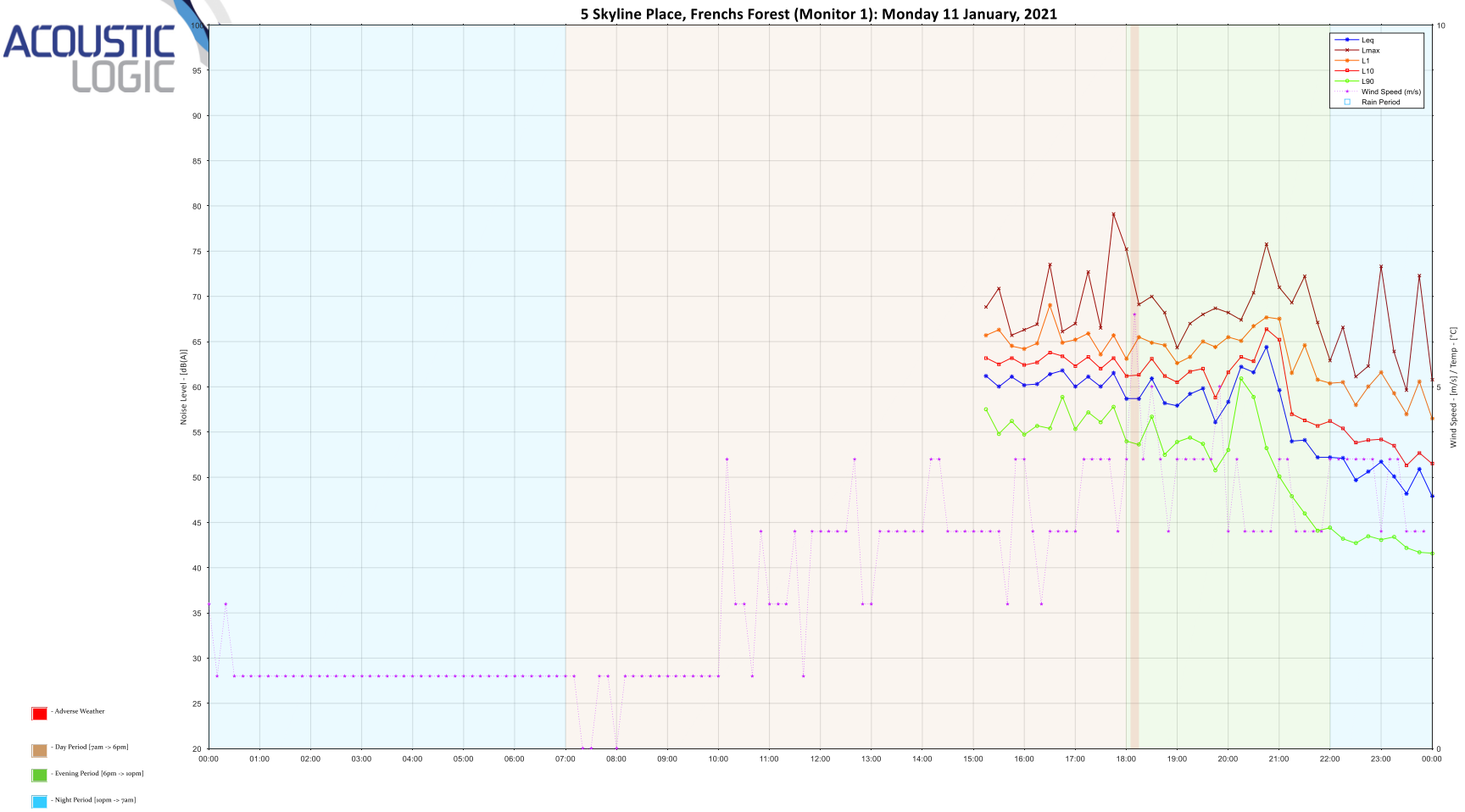
- AL considers the acoustic impact of the project site on the operational potential of future B7 land uses in the surrounding business park as manageable.

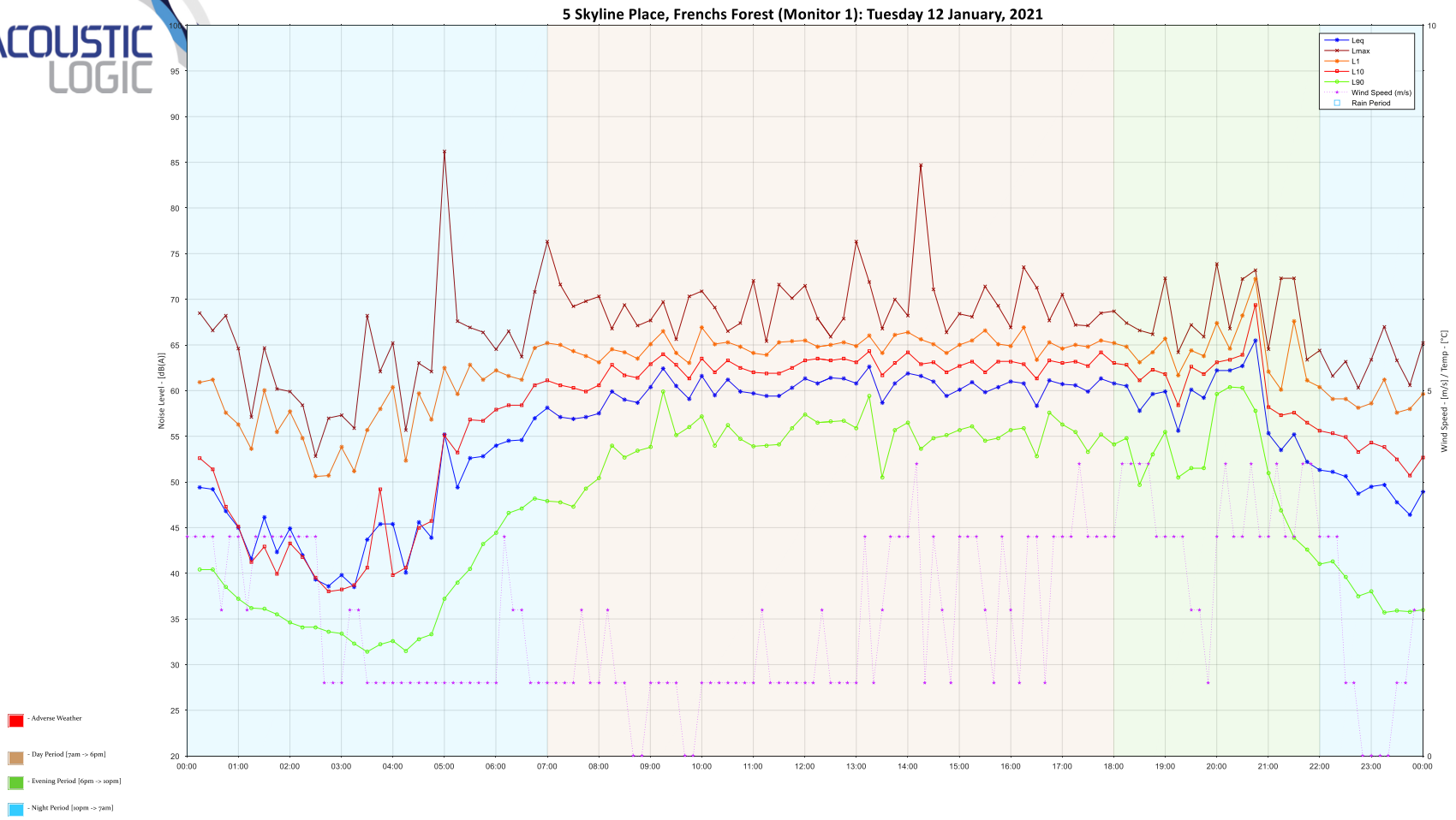
We trust this information is satisfactory. Please contact us should you have any further queries.

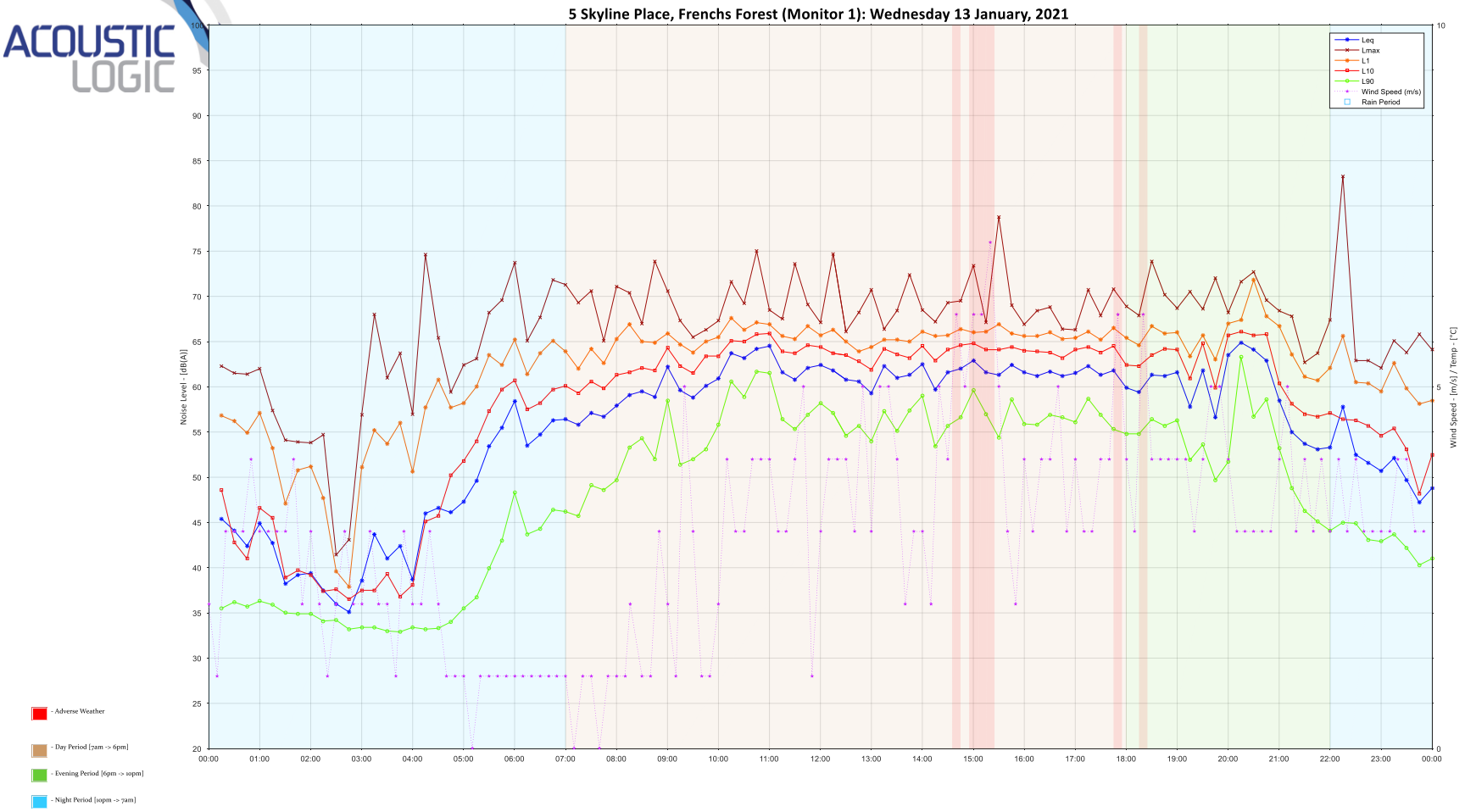
Yours faithfully,

Acoustic Logic Pty Ltd
Lachlan Abood

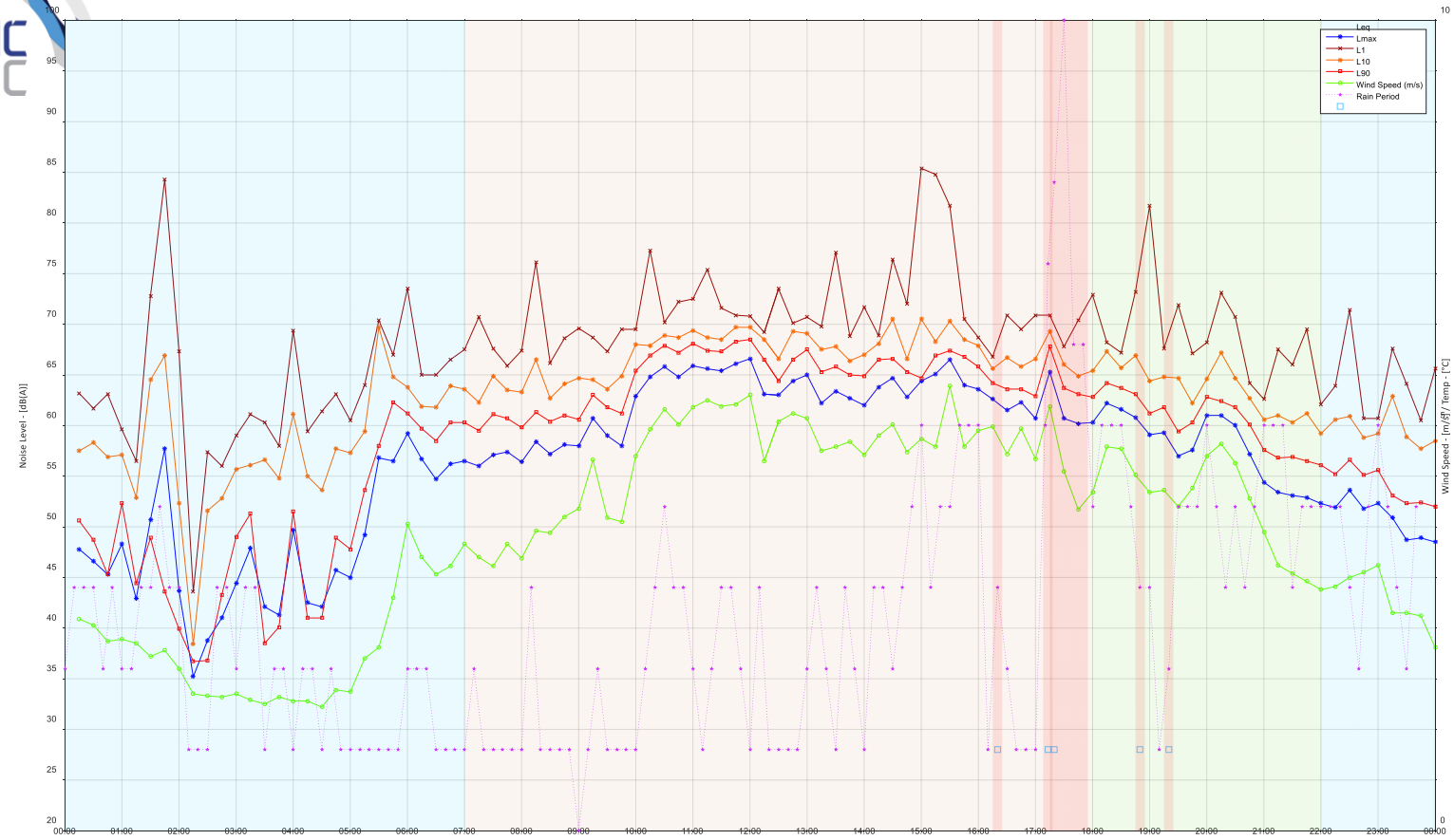
APPENDIX A – UNATTENDED MONITORING – 5 SKYLINE PLACE

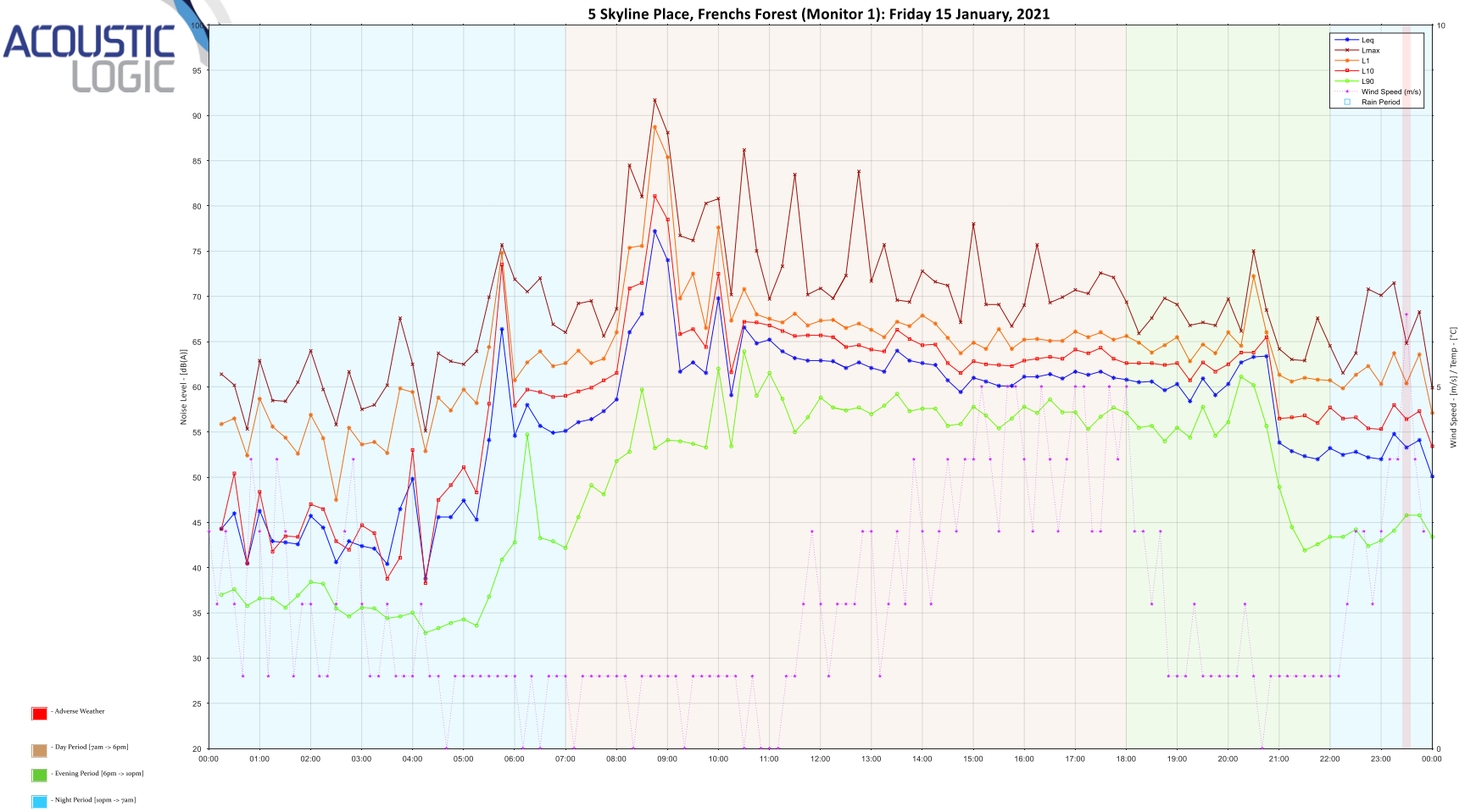

5 Skyline Place, Frenchs Forest (Monitor 1): Monday 11 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

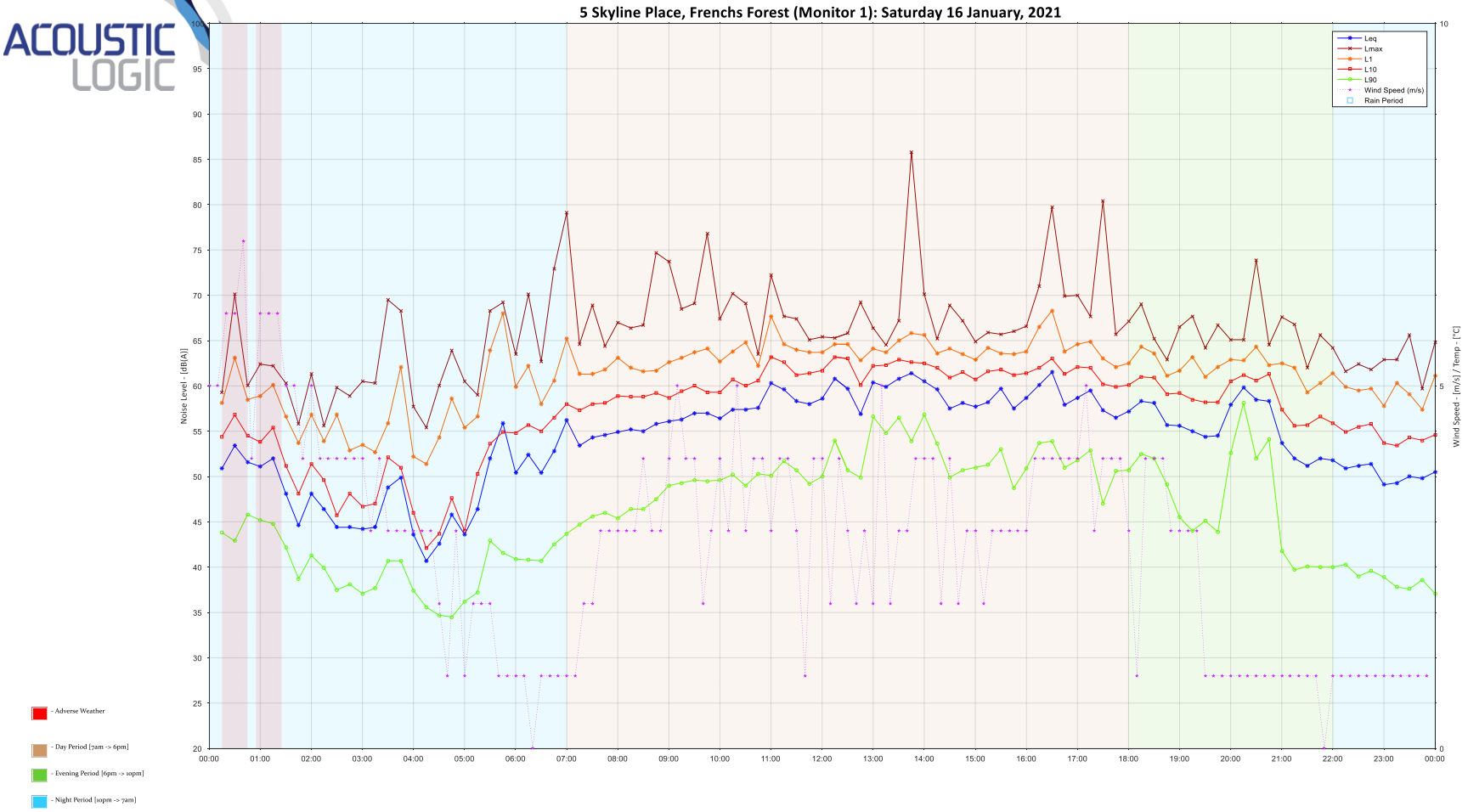

5 Skyline Place, Frenchs Forest (Monitor 1): Tuesday 12 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

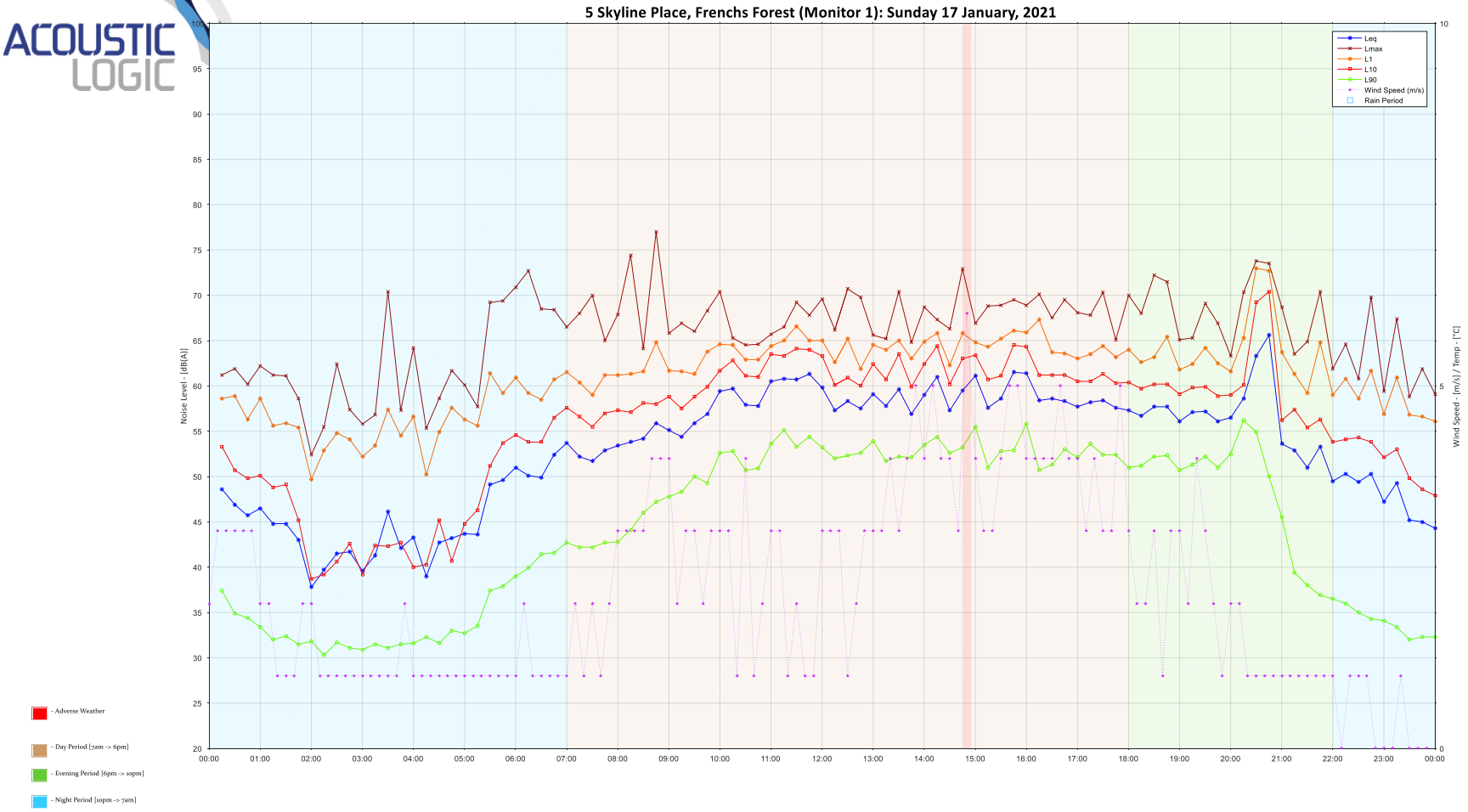

5 Skyline Place, Frenchs Forest (Monitor 1): Wednesday 13 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

5 Skyline Place, Frenchs Forest (Monitor 1): Thursday 14 January, 2021

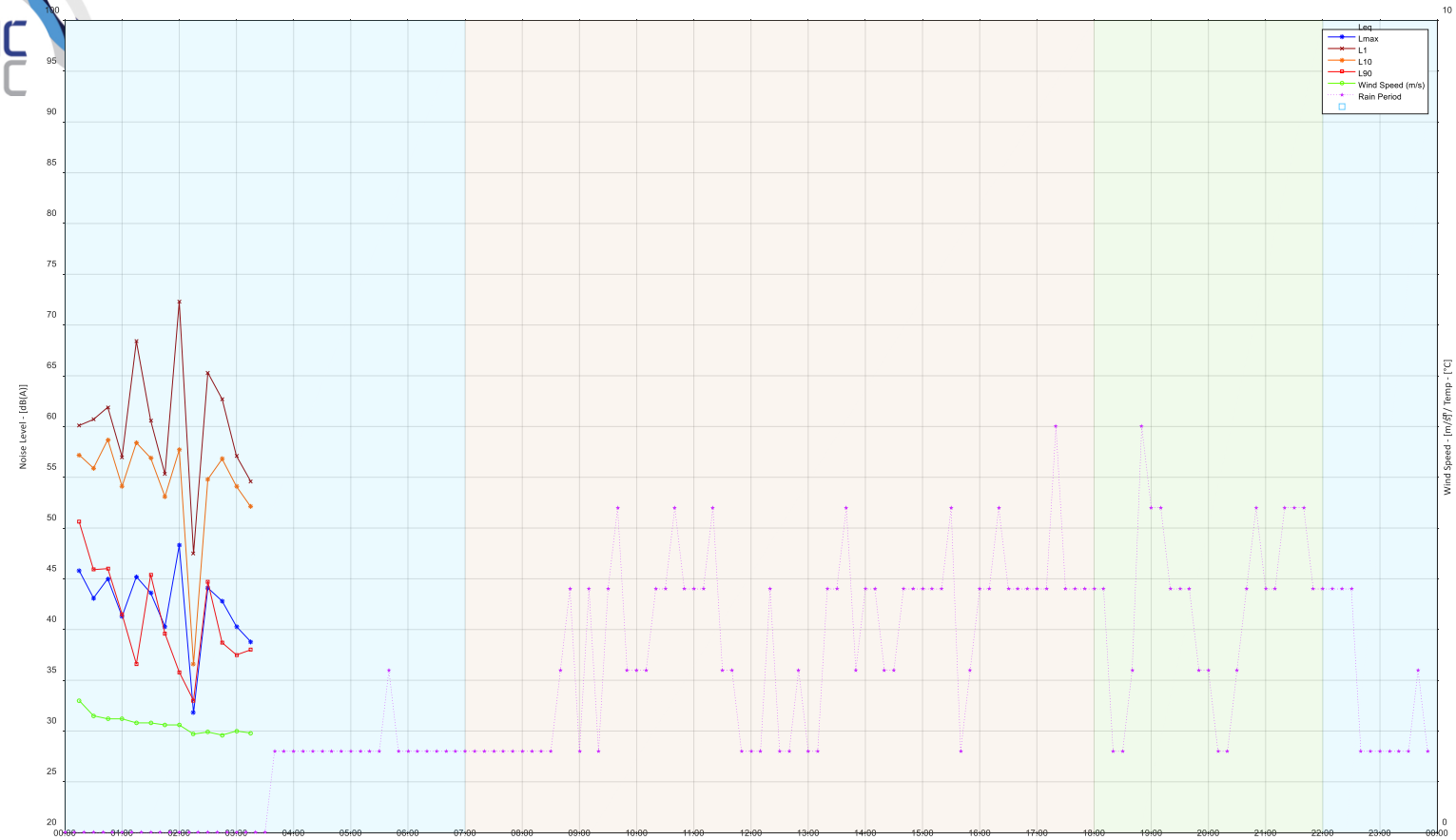



5 Skyline Place, Frenchs Forest (Monitor 1): Friday 15 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

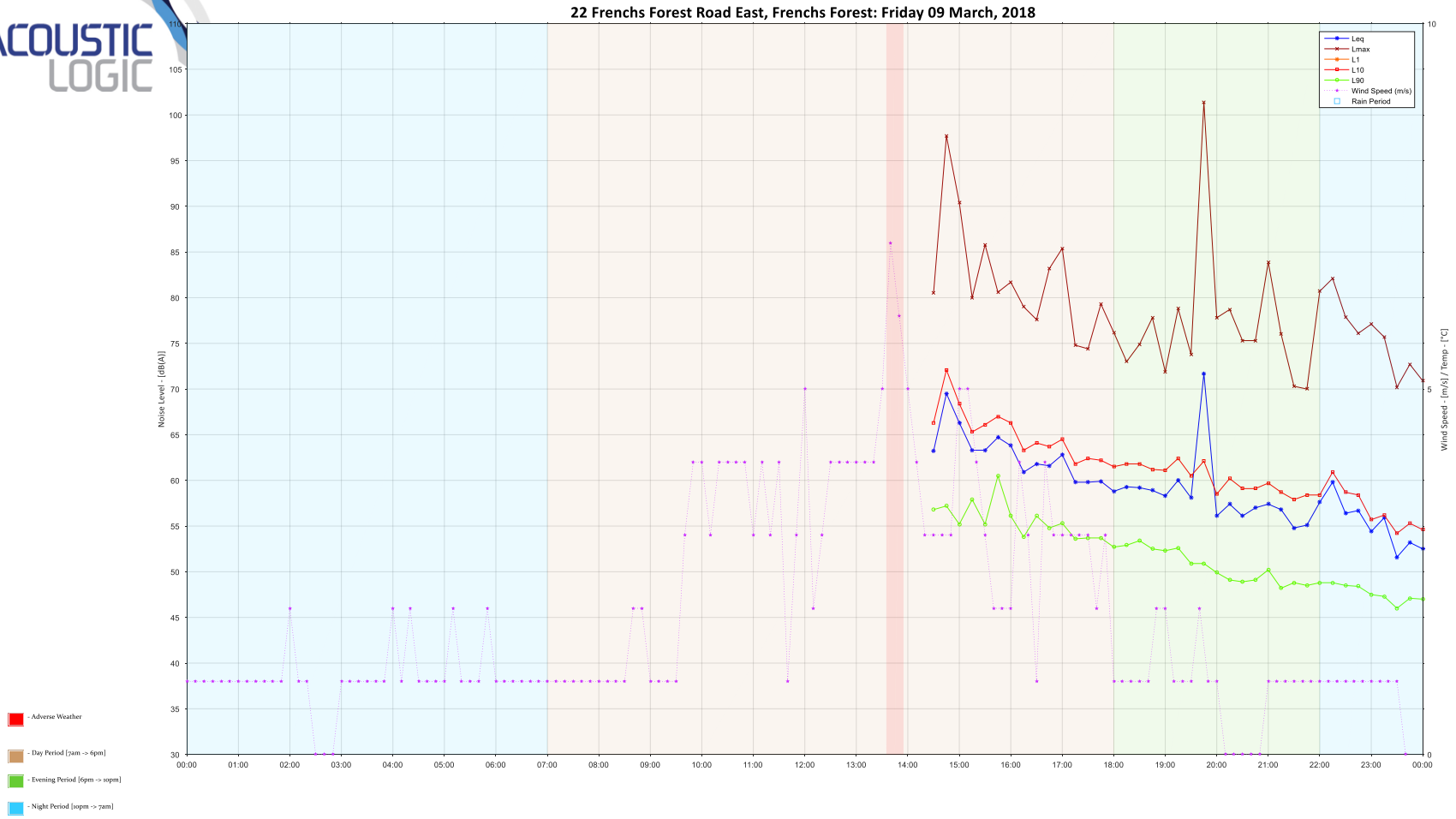

5 Skyline Place, Frenchs Forest (Monitor 1): Saturday 16 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

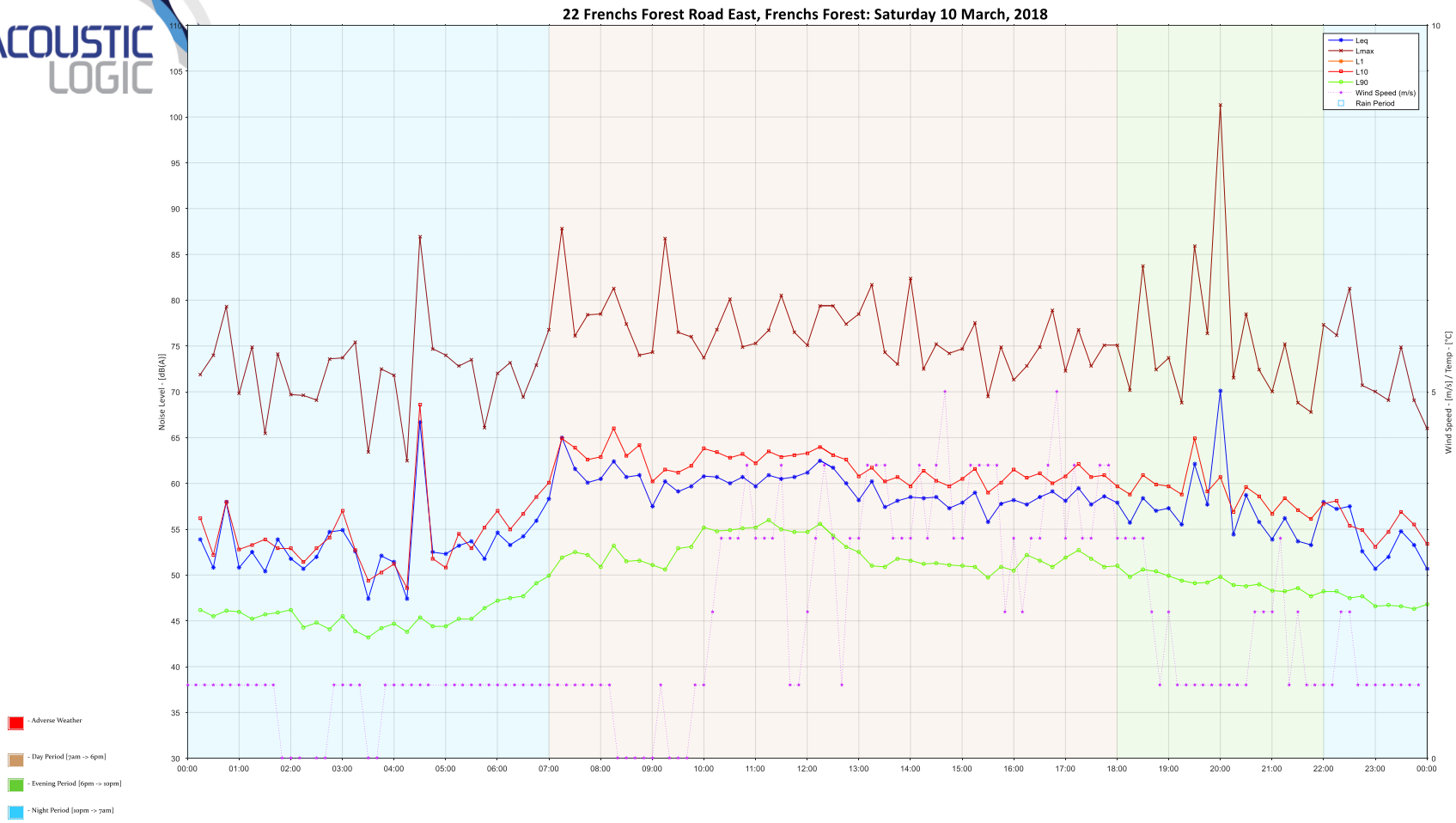

5 Skyline Place, Frenchs Forest (Monitor 1): Sunday 17 January, 2021
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

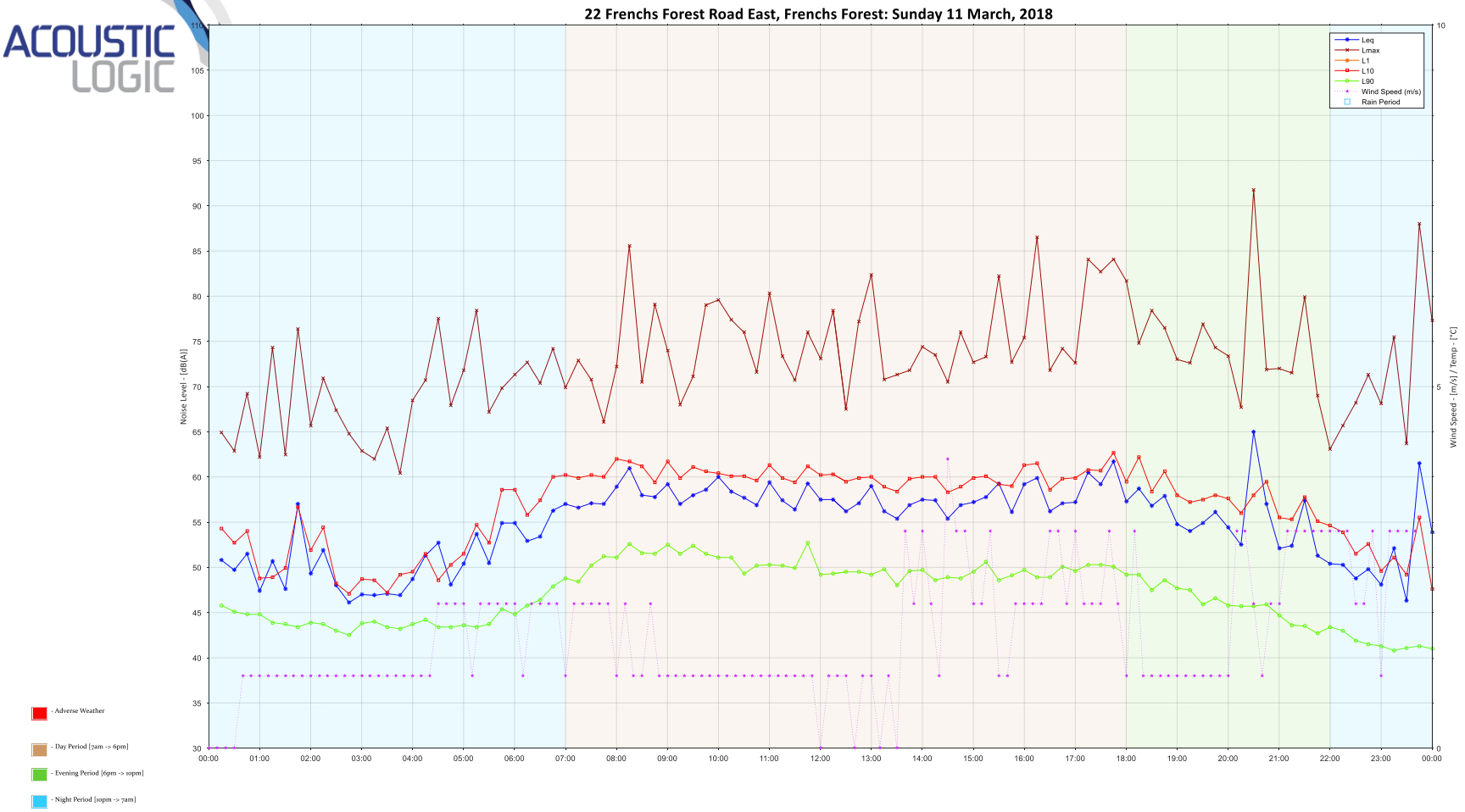
5 Skyline Place, Frenchs Forest (Monitor 1): Monday 18 January, 2021

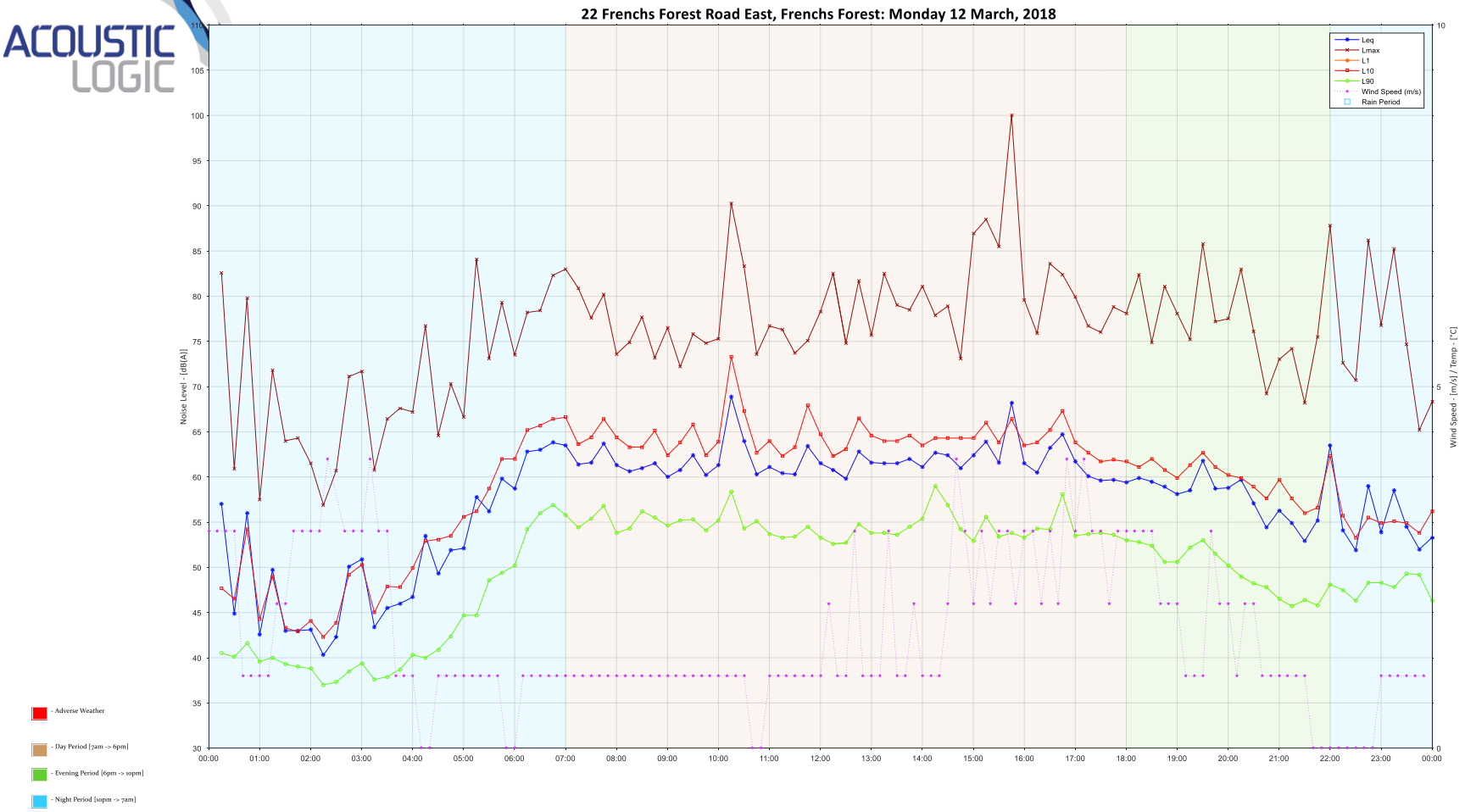


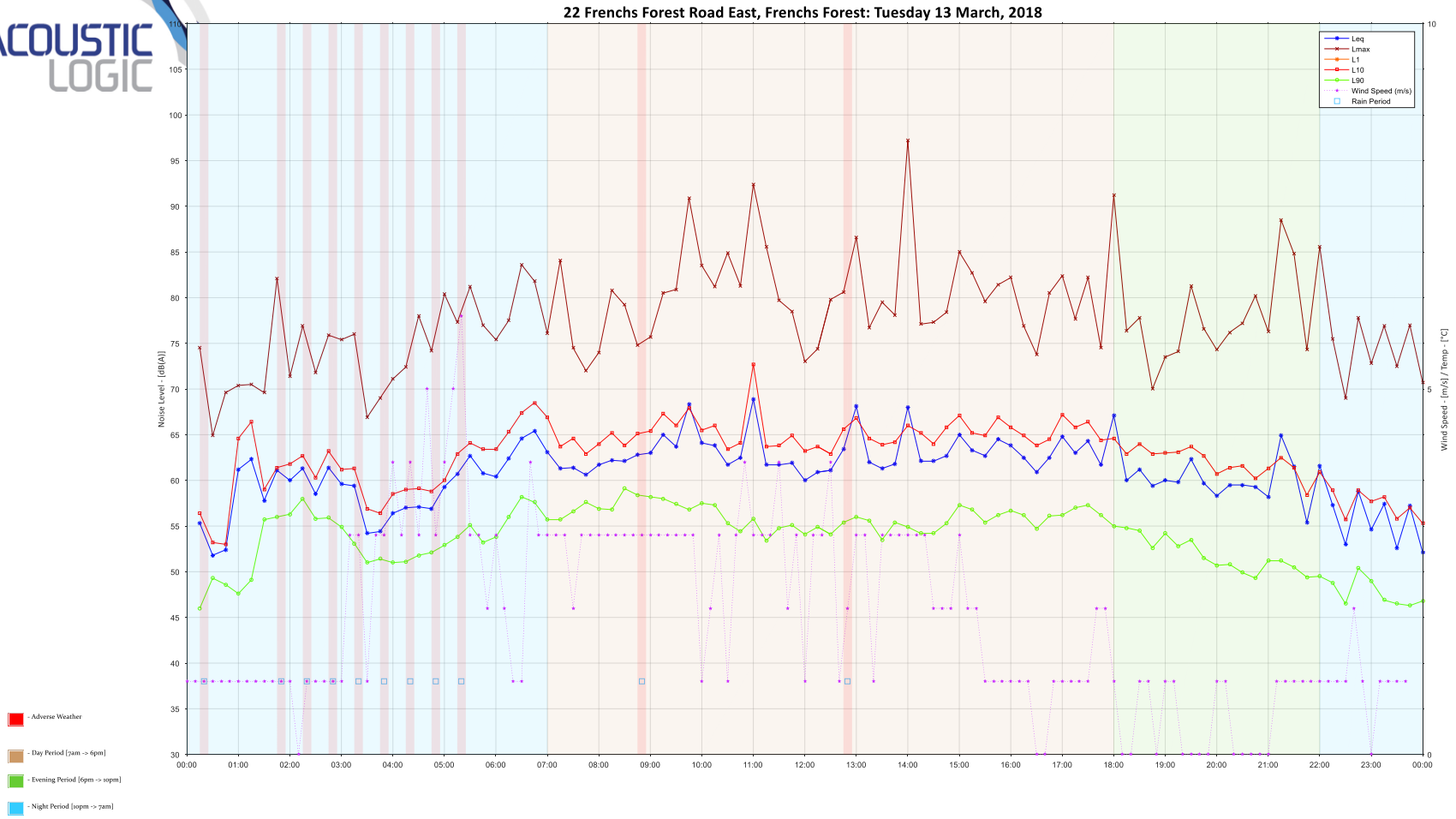
APPENDIX B – UNATTENDED NOISE MONITORING – 22 FRENCHS FOREST ROAD EAST

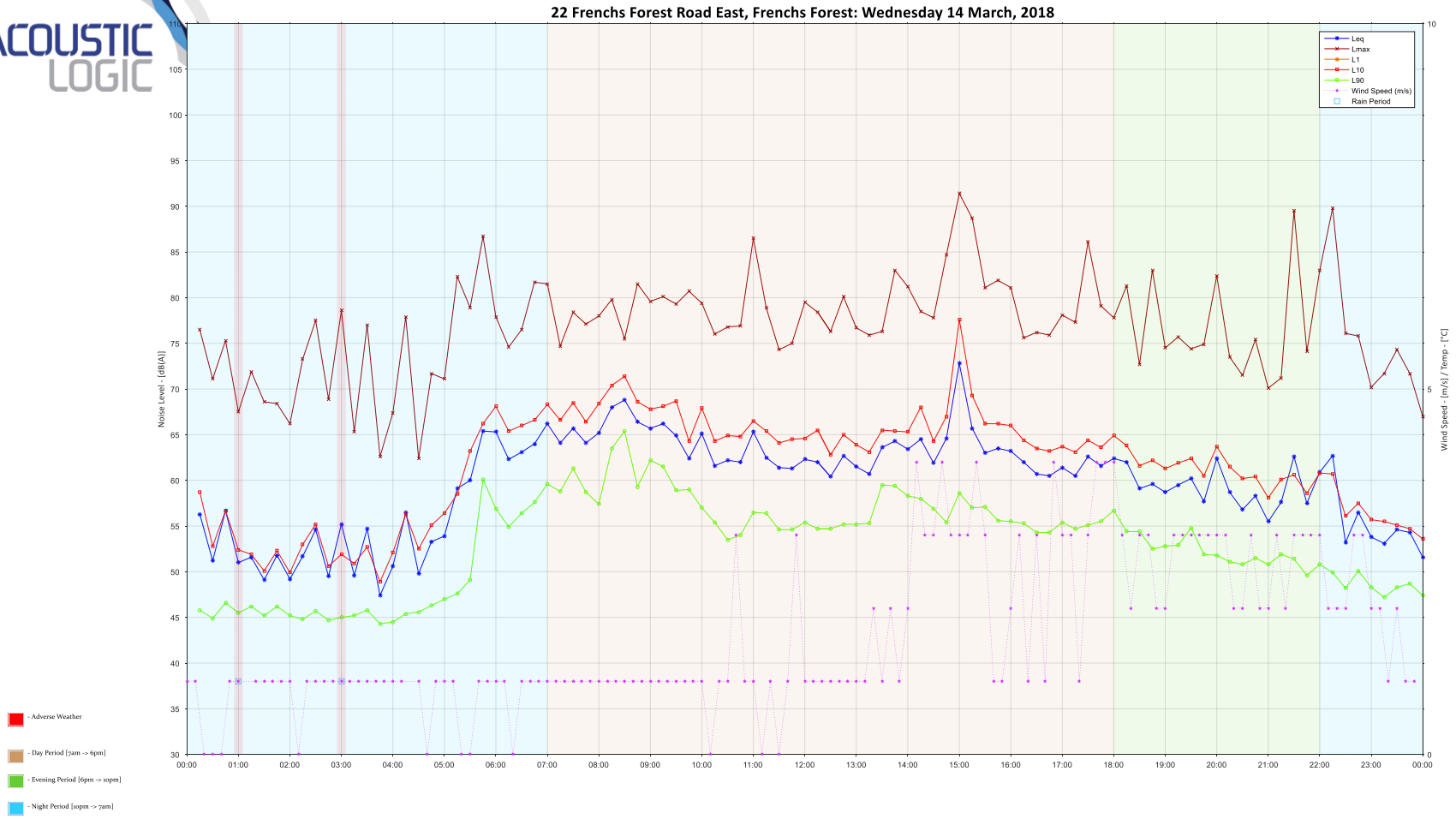

22 Frenchs Forest Road East, Frenchs Forest: Friday 09 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

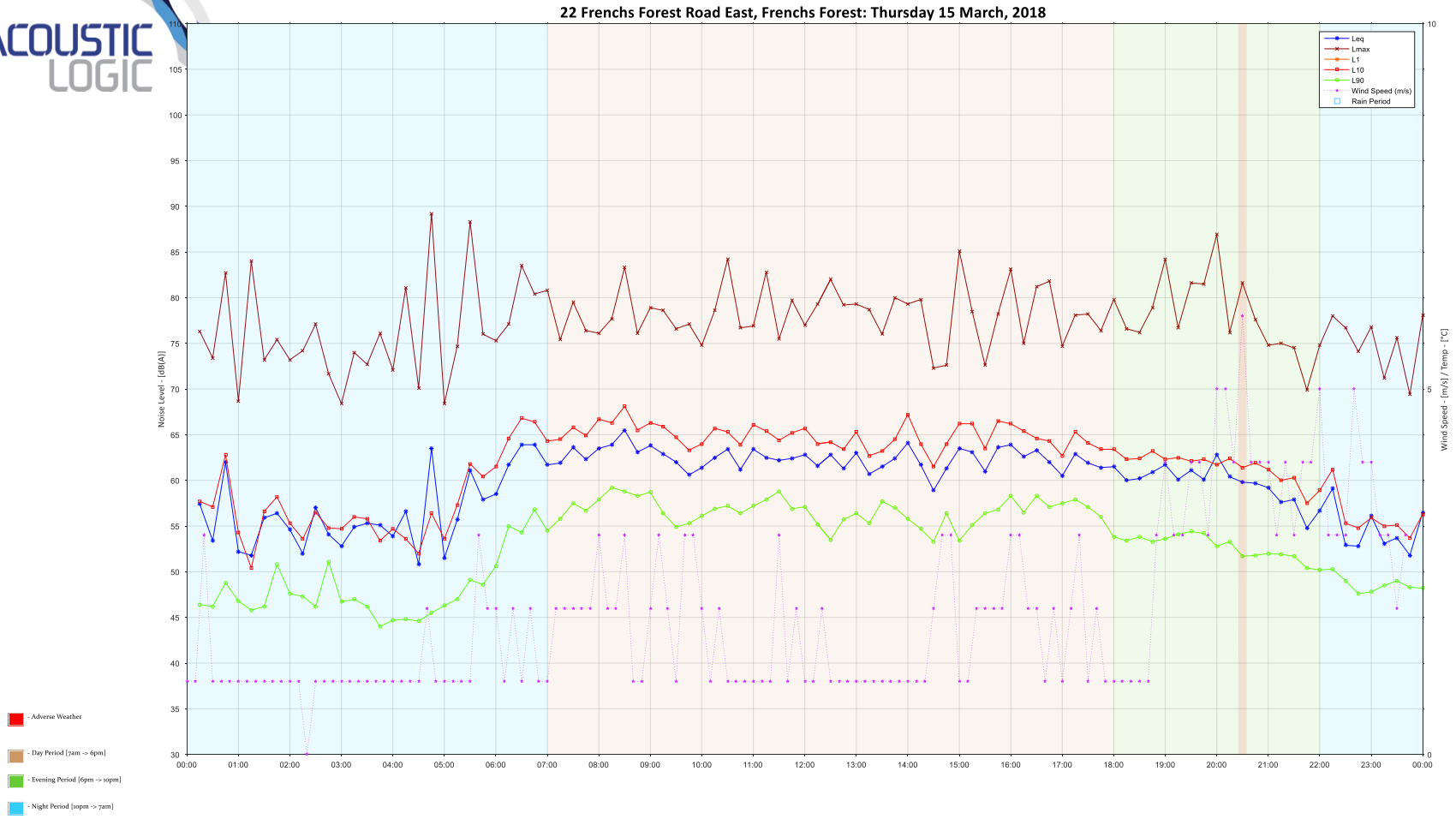

22 Frenchs Forest Road East, Frenchs Forest: Saturday 10 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]

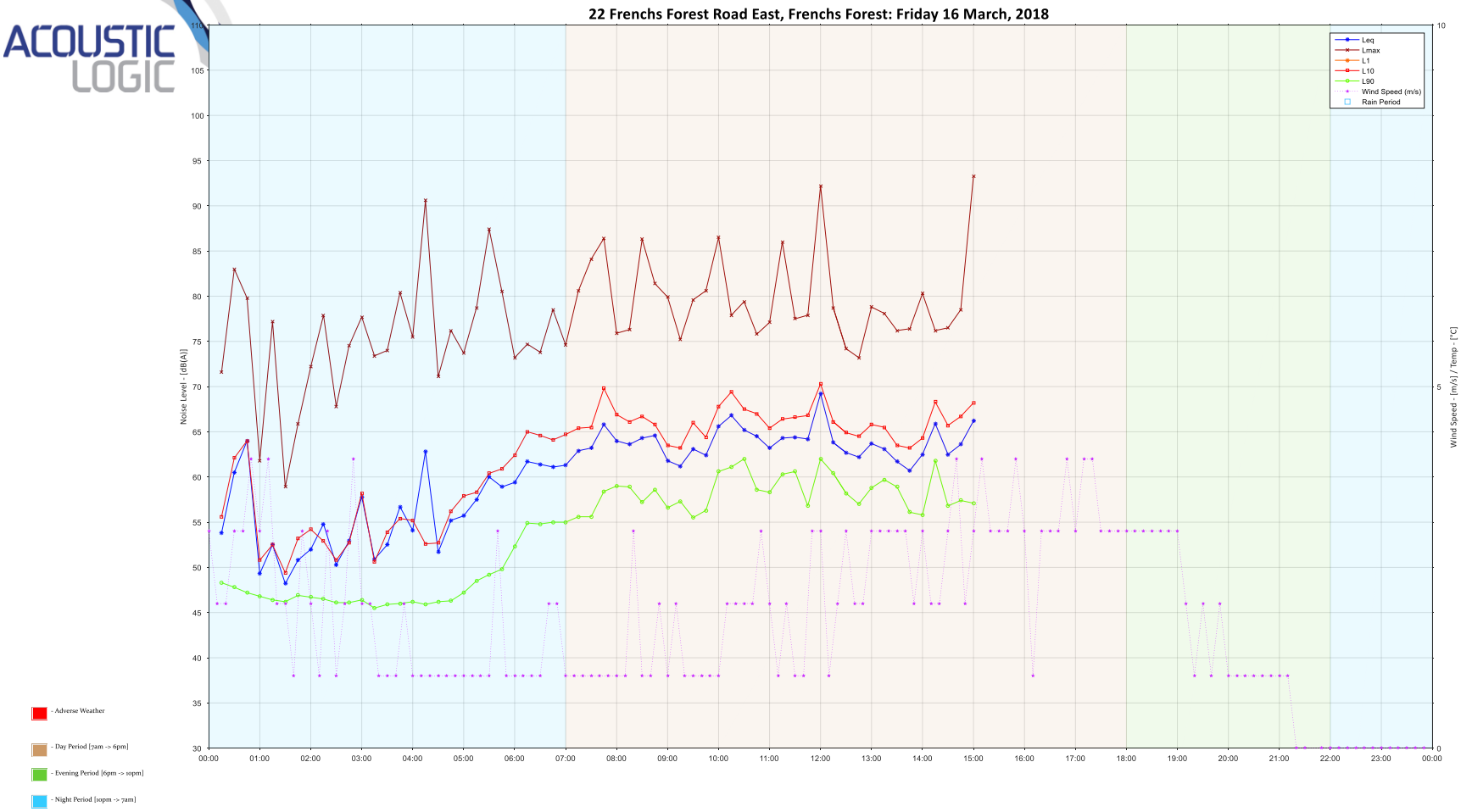

22 Frenchs Forest Road East, Frenchs Forest: Sunday 11 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]


22 Frenchs Forest Road East, Frenchs Forest: Monday 12 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]


22 Frenchs Forest Road East, Frenchs Forest: Tuesday 13 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]


22 Frenchs Forest Road East, Frenchs Forest: Wednesday 14 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]


22 Frenchs Forest Road East, Frenchs Forest: Thursday 15 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]


22 Frenchs Forest Road East, Frenchs Forest: Friday 16 March, 2018
Noise Level - [dB(A)]
Wind Speed - [m/s] / Temp - [°C]
Leq
Lmax
L1
L10
L90
Wind Speed (m/s)
Rain Period
- Adverse Weather
- Day Period [7am -> 6pm]
- Evening Period [6pm -> 10pm]
- Night Period [10pm -> 7am]