WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

WI #20-108

18 February 2021

Peninsula Humane Society
1450 Rollins Road
Burlingame, CA 94010
Attn: Mr. Jim Griffin

Subject: Noise study for the Peninsula Humane Society & SPCA Haskin Hill Sanctuary, Loma Mar, CA

Dear Mr. Griffin:

Wilson Ihrig has completed this noise study for the proposed Haskin Hill Sanctuary for the Peninsula Humane Society & SPCA in Loma Mar, California (Project). The site is located south of SR-84/La Honda Road and Pescadero Road and west of Pescadero Creek Road, as shown in Figure 1. The purpose of this study is to compare the expected noise from the completed project to the noise guidelines included in the Noise Element of the San Mateo County General Plan and the noise regulations of the San Mateo Country Municipal Code, Chapter 4.88. The Project was also reviewed for compliance with the conditions for Negative Declaration for noise per the California Environmental Quality Act (CEQA).

The study included noise survey measurements at three locations, two within the residential area along SR-84/La Honda and Pescadero Road, north of the project, and one location near YMCA Camp Jones Gulch to the east. Figure 1 shows the project area and measurement locations. These measurements were used as a basis for determining Project compliance with the guidelines of the General Plan, the regulations of the Municipal Code, and CEQA.

Section 6 evaluates the Project against the CEQA checklist, and the conclusions of this report are that the Project would not exceed applicable thresholds as

- the Project would not affect the 24-hour CNEL at nearby sensitive areas, satisfying guidance in the San Mateo County General Plan Noise Element.
- noise from Project sources would comply with the San Mateo County Municipal Code Noise Level Standards.

In addition, the Project would not annoy reasonable persons of normal sensitivities, based on comparing Project noise to existing conditions.

A glossary of acoustical terminology has been attached to this report in Appendix A for reference.

1 DESCRIPTION OF THE PROJECT

This study is based upon Project drawings provided by KSH Architects, dated 12 October 2020, and the Site Plan is shown in Figure 2. The Peninsula Humane Society and SPCA proposes to construct a new Animal Sanctuary on a 261- acre site within an RM Zoning District. The Animal Sanctuary would provide a permanent home for dogs, cats, and a limited number of other small animals. The Animal Sanctuary would also provide a home for a small number of farm animals. The project proposes to build 70 dog enclosures, 14 cat enclosures and 1 barn for farm animals on a 261-acre site within the Resource Management (RM) Zoning District. In addition to the animal enclosures, the project also includes a maintenance building, an existing barn, a 1,000 square-foot caretaker's residence, and an approximately 6,500 square-foot administration building including a small veterinary medical center office, break rooms, and ancillary support spaces for staff and volunteers.

Dog cottages would be situated within the fenced area to minimize proximity to one another and line-of-site between cottages. Dogs would be strategically matched up to live together in pairs or small groups. This arrangement would innately foster play and social structure which helps alleviate boredom and stress, both of which can contribute to nuisance barking. Staff would conduct regularly scheduled play groups in the arena for dogs who don't reside with one another but who are suited to such activities. Should a group of dogs decide to start barking in unison, it would likely be in one "cluster" of cottages (up to 10 dogs). Staff would quiet them down in 15 minutes or less.

Dogs would be inside their cottages space (areas 6 and 7 in Figure 2 site plan) with no outdoor access from dusk each day until approximately 8 a.m. the following morning. Should any dog need to be let outside to relieve themselves after hours, they would be directly supervised by staff. This would minimize opportunities for barking.

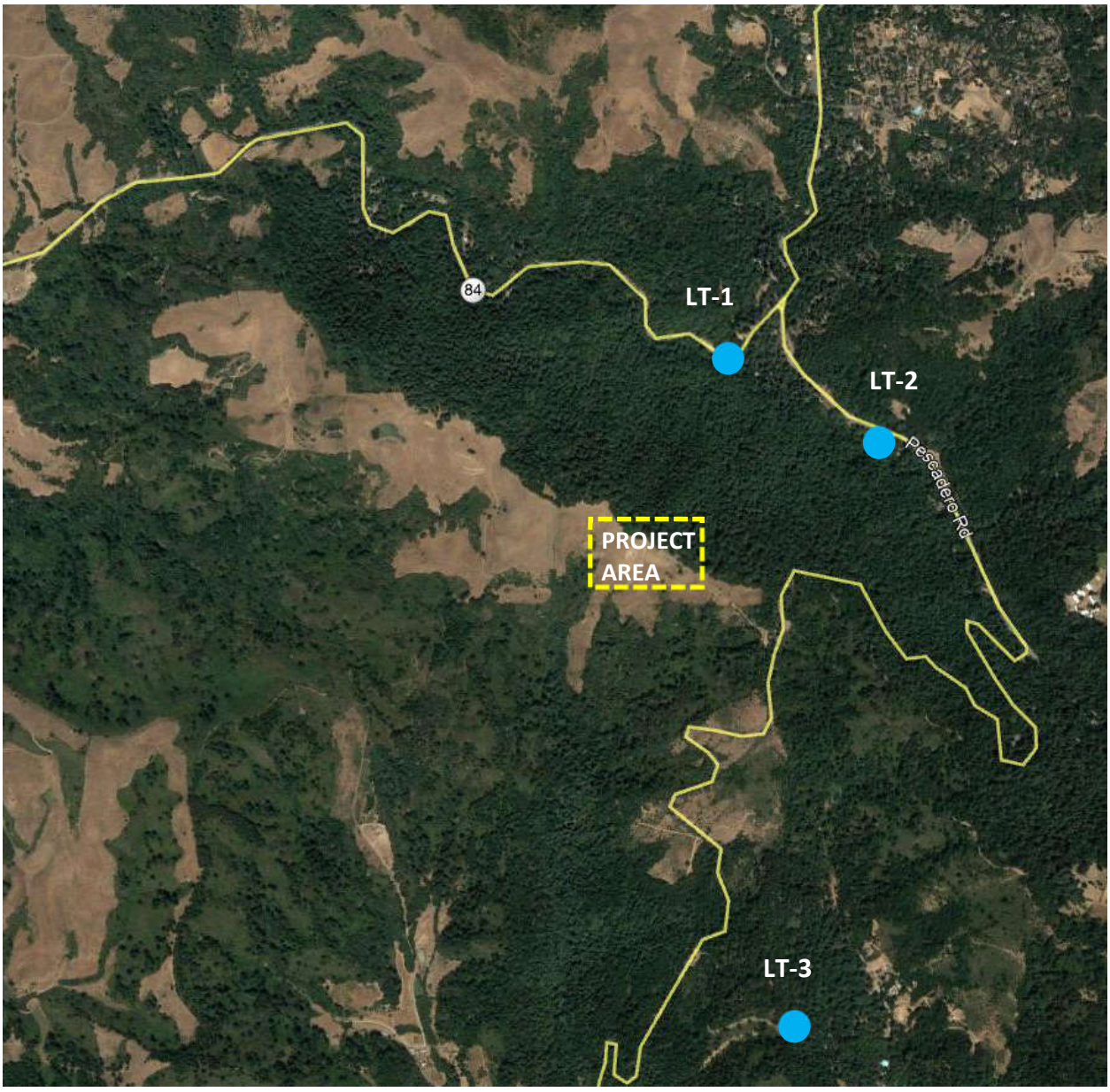
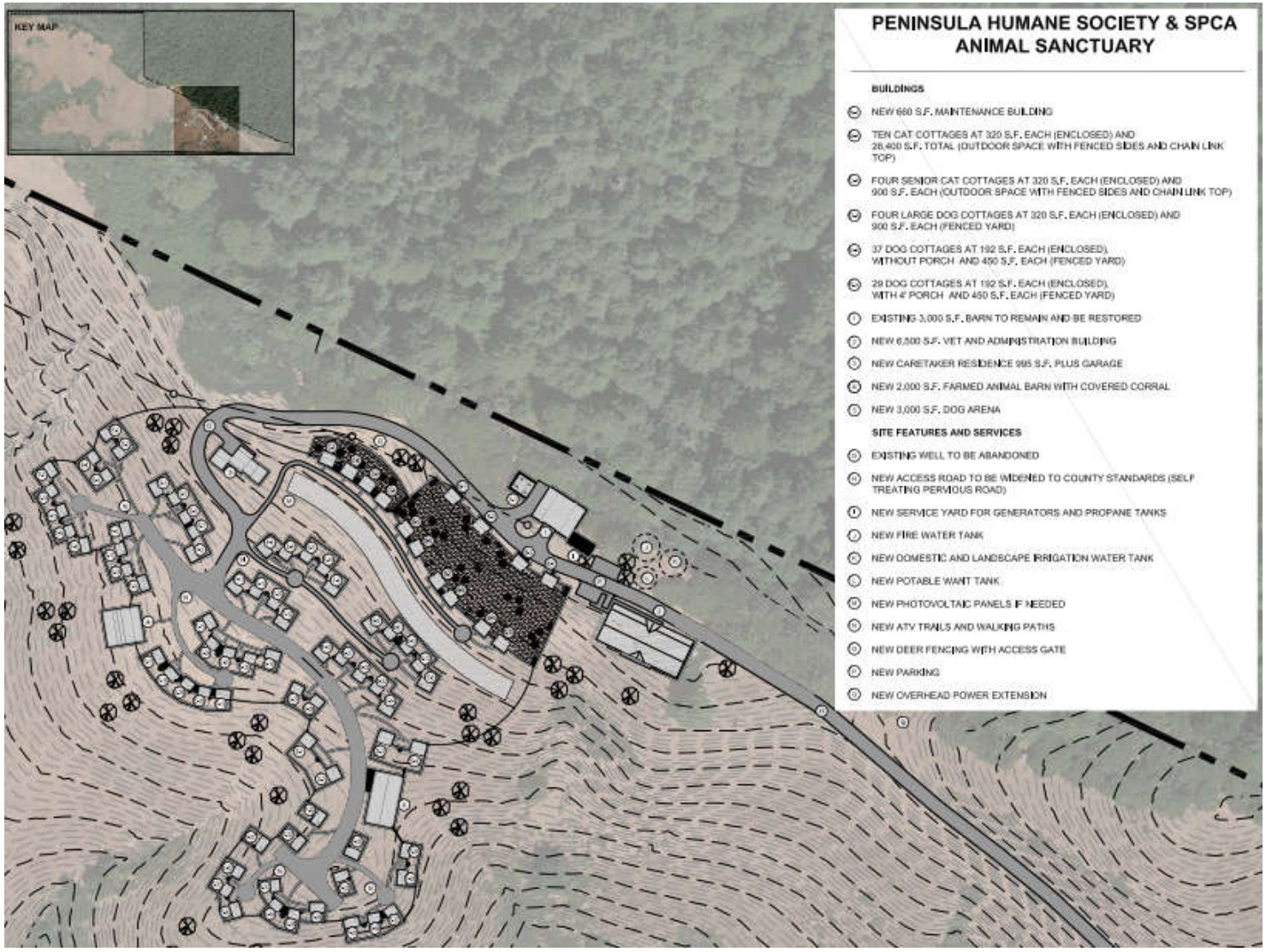


Figure 1 PROJECT AREA AND NOISE SURVEY MEASUREMENT LOCATIONS



SOURCE: KSH ARCHITECTS, 12 October 2020

Figure 2 ENLARGED SITE PLAN

2 NOISE CRITERIA

2.1 San Mateo County General Plan, Noise Element

The Noise Element for the San Mateo County General Plan includes maximum outdoor noise levels expressed in terms of the Community Noise Exposure Level (CNEL). The CNEL is the level of a steady noise which would have the same energy as the fluctuating A-weighted noise level integrated over a 24-hour period with a 5 dB penalty applied to noise levels between 7 p.m. and 10 p.m. and a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m. In other words, the CNEL is the energy of the A-weighted noise averaged over a 24-hour period with penalties added as described above.

The maximum outdoor noise level recommended in the Noise Element is 60 CNEL. In cases where these limits are already exceeded by noise sources not related to a project, it is common practice for the existing levels to be used as the limit.

2.2 San Mateo County Municipal Code

Section 4.88.333 of the San Mateo Municipal Codes states the following:

> *It is unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any single or multiple family residence, school, hospital, church, public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth in Table I following:*
>
> *Table I - Receiving Land use: Single or Multiple Family Residence, School, Hospital, Church, or Public Library Properties.*

NOISE LEVEL STANDARDS, dBA			
Category	**Cumulative Number of Minutes in any one hour time period**	**Daytime 7 A.M.—10 P.M.**	**Nighttime 10 P.M.—7 A.M.**
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

> *a) In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five (5) dBA increments so as to encompass the background noise level.*
>
> *b) Each of the noise level standards specified above shall be reduced by 5 dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.*

Section 4.88.360 states the following:

> *The following activities shall be exempted from the provisions of this chapter:*

e) Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 6:00 P.M. and 7:00 A.M. weekdays, 5:00 P.M. and 9:00 A.M. on Saturdays or at any time on Sundays, Thanksgiving and Christmas.

2.3 Impact Thresholds

As discussed above, the maximum CNEL recommended in the San Mateo County Noise Element is 60 dBA, unless the existing conditions are higher. Based on the existing noise environment discussed below in Section 3, the more conservative threshold of CNEL 60 is used.

The San Mateo County Municipal Code indicates maximum daytime and nighttime noise level standards based on cumulative number of minutes in a one-hour period. Per operation assumptions described in Section 2, project impact thresholds are summarized in Table 3-1 below.

Table 2-1 Summary of Project Impact Criteria Based on Municipal Code

Project Related Noise Source	**Assumed Duration**	**Municipal Code Criteria, dBA**
Single dog barking	no more than 5 min (nighttime)	60
Ten dogs barking	no more than 15 min (daytime)	60
Mechanical noise (single tone noise)	continuous, 24-hour	45

2.4 Annoyance

This report includes additional comments on potential annoyance from the Project, and these are based on the existing conditions. Project noise sources that would occur 10 dB below existing prevailing sound levels characterized by the equivalent sound levels Leq would not be expected to annoy reasonable persons of normal sensitivities. Levels well below background sound levels characterized by the L90 would generally be difficult to detect at sensitive receivers.

3 EXISTING CONDITIONS

Sensitive areas near the project include residences along SR-84 and Pescadero Road, approximately 2700 feet north and YMCA Camp Jones Gulch, approximately 6200 feet southeast. The Log Cabin Ranch juvenile facility is located more than 6000 feet northeast of the project. It is our understanding that the facility is currently not operational, and no time has been set for reopening.

Wilson Ihrig installed three precision, digitally logging sound level meters in the area: one installed on a utility pole on SR-84/La Honda Road north of the project (LT-1), one on a tree on Pescadero Road (LT-2), and one installed on a utility pole on Jones Gulch Road near YMCA Camp Jones Gulch. Figure 2 indicates the approximate locations of the sound level meters and project area in an aerial photograph of the vicinity. The sound level meters were installed on Tuesday, 24 November 2020, and recovered on the following Thursday, 3 December 2020. The meters continually logged noise levels, providing data summaries every 15 minutes for a total of eight full 24-hour periods between these dates.

Figure 3 summarizes the average equivalent sound levels at each site measured over the survey period. Appendix B contains additional figures, and Figures B-1 through B-3 indicate the time varying equivalent sound levels for each 15-minute period measured each day during the survey. The corresponding CNEL levels are indicated in the legend. Thursday, November 26 was a holiday. Typical CNEL measured in the vicinity of residences closest to the project site ranged between 60 and 65 dBA at LT-1 and LT-2. The most notable source of noise in this area in traffic on SR-84 and Pescadero Road. Typical CNEL measured at LT-3 ranged from 35 to 44 dBA. YMCA Camp Jones Gulch is currently closed due to the COVID19 pandemic, resulting in very low traffic or other activity along Jones Gulch Road.

Appendix B also includes plots showing the background, characterized by the L90. Figures B-4 through B-6 indicate the 15-minute L90 sound levels measured at the three survey locations. The L90 generally represents the level of noise present from distant sources when all other sources of noise are not present, such as nearby automobiles and aircraft (i.e. the background noise). Typical nighttime L90 levels measured at LT-1 and LT-2 ranged between 30 and 33 dBA and at LT-3 ranged between 20 and 23 dBA. Project noise sources are compared below to these background levels to provide additional observations on potential annoyance.

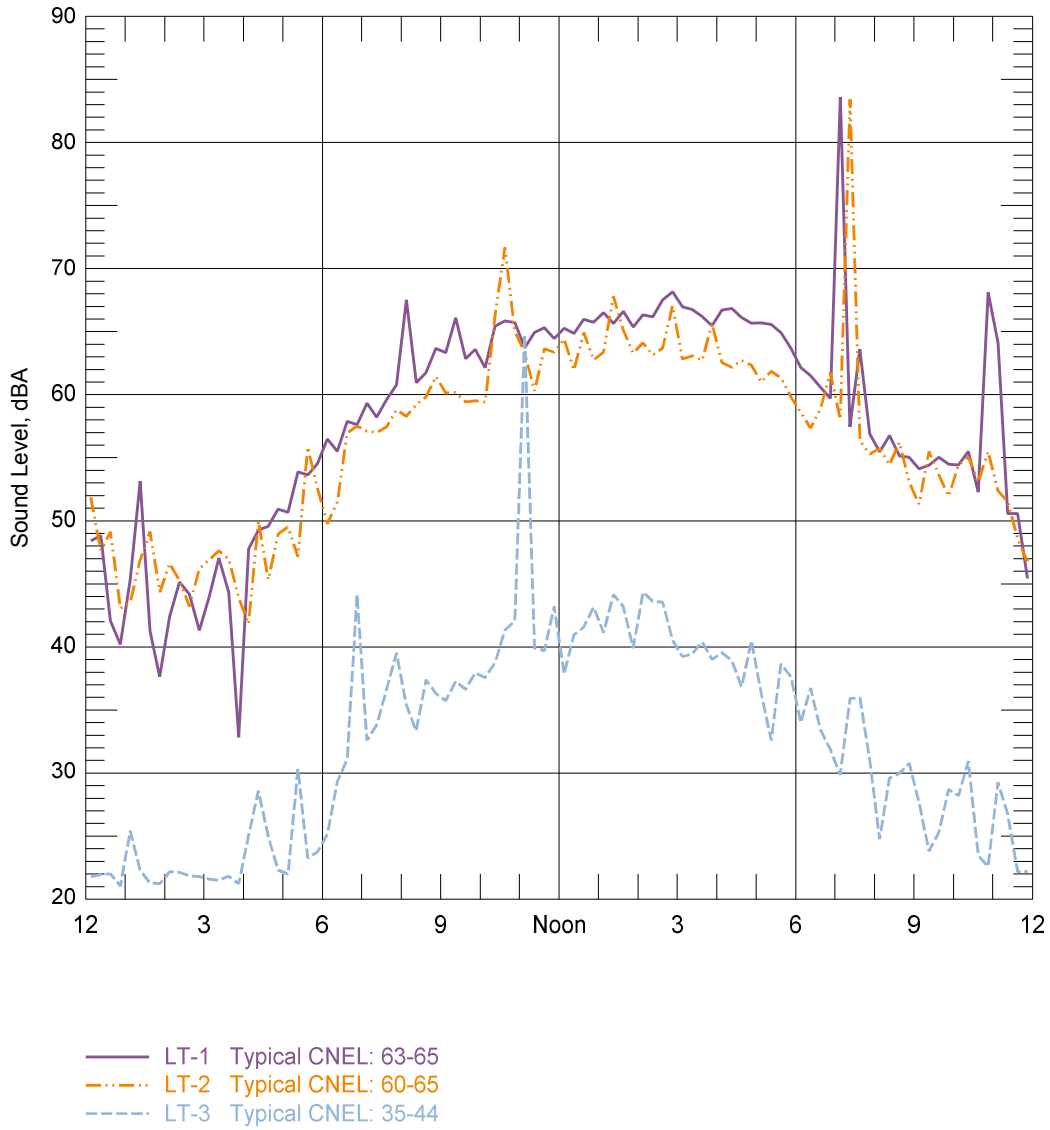


Figure 3: AVERAGE 15-MINUTE EQUIVALENT NOISE LEVELS MEASURED AT LT1, LT-2, and LT-3

4 PROJECT RELATED NOISE

Four sources of noise related to the Project were considered: 1) nighttime animal noise, 2) daytime noise from animals in outdoor areas, 3) mechanical equipment, and 4) traffic. Table 4-1 summarizes reference levels used for noise sources.

This study focuses on dog barks, which are expected to be the highest noise source from animals on site. All noise levels discussed for barking dogs are based upon data which Wilson Ihrig had obtained for previous, unrelated projects. The maximum noise level at five feet from a barking dog is approximately 96 dBA with a sound level meter set on "fast" response which is appropriate for discrete, very short duration noise events like a single dog bark.

The Project also includes HVAC equipment, and typical heat pump units are assumed to have sound power levels of 75 to 85 dBA for animal cottages, 100 dBA for residential buildings, and 105 for the administration building.

The noise analysis is based on a model developed with CadnaA[1], and the model incorporates contours from the U.S. Geological Survey National Geospatial Technical Operations Center[2] to determine noise reduction from local terrain and the resulting noise levels at the nearest noise sensitive receptors.

The Project would not include any operational vibration sources, and therefore no groundborne vibration or groundborne noise would be generated.

Table 4-1 Noise Source Reference Levels

Noise Source	**Metric**	**Reference Level, dBA**
Barking Dog	Sound Pressure Leve at 5 feet (Lmax)	96
Heat Pumps	Sound Power Level	
192 sq. ft. Cottages		75
320 sq. ft. Cottages		85
Caretaker/Volunteer Cottages		100
Administration Building		105
Construction Equipment	Sound Pressure Leve at 50 feet (Lmax)	85

4.1 Nighttime Animal Noise

As noted in the Project description in Section 1, dogs would not have the opportunity to bark outside during nighttime hours. For the rare occurrence that a dog would bark outside in the middle of the night, the maximum expected noise level at the closest residence, approximately 2700 feet away with noise reduction from local terrain, would be 10 dBA. Maximum expected noise level at the YMCA camp from the Project would be 20 dBA. The construction of the cottage assembly is expected to further reduce levels by 10 to 15 dB. This would meet the San Mateo Municipal Code Nighttime Noise Level Standards.

4.2 Daytime Animal Noise

As noted in the Project description in Section 1, most dog barking would be controlled, but should a group of 10 dogs bark in unison while they are outdoors in the daytime, the expected maximum noise level would be 20 dBA at the residences and 30 dBA at the YMCA camp. This meets the San Mateo Municipal Code Daytime Noise Level Standards.

Extrapolating these Project noise levels from dog barking, the Project CNEL would be less than 25 dBA, well below the 60 to 65 dBA existing CNEL measured at nearest residences. Based upon the data and information given above, it can be concluded that noise from animals outside the Project would

[1] CadnaA software provides tools for the calculation, presentation, assessment and prediction of environmental noise.
[2] https://prdtnm.s3.amazonaws.com/StagedProducts/TopoMapVector/CA/Shape/VECTOR_La_Honda_CA_7_5_Min_Shape.zip

not have any effect upon the 24-hour CNEL in the residential area along SR-84 and the camp. Thus, there would be no impact, as the Project would satisfy Noise Element guidance and would be below the evaluation threshold.

4.3 Mechanical Equipment

The Project would include heat and ventilation for 84 animal cottages, caretaker's residence, volunteer cottage, and veterinary/administration building. The worst case expected maximum noise level from Project HVAC equipment, assuming all air handlers were operating simultaneously and that all the equipment were located at one spot on the project, would be 11 dBA.

Noise from Project mechanical equipment would not have any effect upon the 24-hour CNEL in either the vicinity of the Project or at the nearest receptors. This analysis result is based upon the unlikely event that all mechanical equipment would operate simultaneously over the entire 24-hour period. Thus, the noise from Project mechanical equipment would comply with the guidelines of the Noise Element and the requirements of the Municipal Code for simple tone noises. There would be no impact, as the Project would satisfy Noise Element guidance and would be below the evaluation threshold.

4.4 Traffic

Traffic project is expected to increase traffic along Pescadero Creek Road by 10%, per the information provided by Hexagon Transportation Consultants, Inc., dated 8 December 2020. A 10% increase in traffic would correspond to a 0.4 dB increase in noise and the overall CNEL would remain unaffected in the 60 to 65 dBA CNEL range. Traffic related to the project would not cause any change at the closest residences along SR-84 and there would no impact.

4.5 Annoyance

The maximum expected noise levels from project sources would be 10 dB below average existing equivalent levels and lower at nearest residences and well below existing background (L90) levels. Therefore, the Project would not be expected to annoy reasonable persons of normal sensitivities at the residences. Dogs barking and HVAC equipment operating at full power could be just audible during periods of low noise levels at the nighttime period at the YMCA camp.

Table 4-2 Existing and Predicted Noise Levels at Nearest Sensitive Receivers

Receiver	Typical Existing Equivalent Level, dBA	Single Dog Bark, Lmax, dBA	Mechanical Noise, Lmax, dBA
La Honda Road/ SR-84 Residences (LT-1)	55-65 (daytime) 45-55 (nighttime)	10	11
Pescadero Road Residences (LT-2)	55-65 (daytime) 45-55 (nighttime)	7-10	8-11
YMCA Camp (LT-3)	35-45 (daytime) 20-25 (nighttime)	20	23

4.6 Construction Noise and Vibration

During construction of the project, the maximum noise level from three pieces of standard construction equipment, used simultaneously, would be 24 dBA at the nearest residence. Noise from construction equipment would not have any effect upon the 24-hour CNEL at the nearest receptors.

There may be some temporary noise increase in the daytime ambient noise levels in the immediate vicinity of the project during restoration of the existing barn and during the construction phase of the project. All construction activity would take place during daytime hours.

The project would not include any construction vibration sources and therefore no groundborne vibration or groundborne noise would be generated during the construction phase.

5 CUMULATIVE NOISE LEVELS

As discussed above and shown in Table 5-1, noise from Project related sources would be 10 dBA less than the existing, and the combination of the Project with the existing noise would be unchanged from the existing range of 60 to 65 CNEL. Thus, the Project would have no effect on the cumulative noise level, and there would be no cumulative impact.

Table 5-1 Existing and Predicted Cumulative CNEL at Nearest Sensitive Receivers

Receiver (measurement reference)	Typical Existing CNEL, dBA	Cumulative Noise CNEL, dBA
La Honda Road/ SR-84 Residences (LT-1)	63-65	63-65
Pescadero Road Residences (LT-2)	60-65	60-65
YMCA Camp (LT-3)	35-44	35-44

6 CEQA CHECKLIST SUMMARY

The following is a summary of the Project compliance with the conditions for Negative Declaration for noise per CEQA.

CEQA Environmental Checklist:

XI. NOISE – Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Impact. Noise from the Project would meet the guidelines included in the Noise Element of San Mateo County and the Noise Ordinance of the San Mateo County Municipal Code.

b) Generation of excessive groundborne vibration or groundborne noise levels?

No Impact. The Project would not generate groundborne vibration or groundborne noise.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. This project area falls outside of the noise contours of nearby large airports and the closest private airstrip is more than 10 miles away.

7 CONCLUSIONS

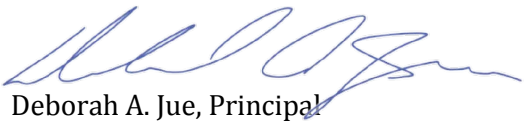
Noise from the proposed Peninsula Humane Society & SPCA Haskin Hill Sanctuary would meet the guidelines of the Noise Element of the San Mateo County General Plan and the requirements of the San Mateo County Municipal Code and would not generate noise impacts. No noise control measures are required for the project.

Please do not hesitate to contact our office if you have any questions regarding this report or require further information.

Very truly yours,

WILSON IHRIG

Ani S. Toncheva, Associate



Deborah A. Jue, Principal

cc: Ken White, Peninsula Humane Society & SPCA

ATTACHMENT A

GLOSSARY OF ACOUSTICAL TERMINOLOGY

DESCRIPTION OF ACOUSTICAL TERMS

A-Weighted Sound Level (dBA):

The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. A-weighting de-emphasizes the low and very high frequency components of the sound in a manner similar to the response of the average human ear. A-weighted sound levels correlate well with subjective reactions of people to noise and are universally used for community noise evaluations.

Airborne Sound:

Sound that travels through the air, as opposed to structure-borne sound.

Ambient Noise:

The prevailing general noise existing at a location or in a space, which usually consists of a composite of sounds from many sources near and far.

Community Noise Exposure Level (CNEL):

The L_{eq} of the A-weighted noise level over a 24-hour period with a 5 dB penalty applied to noise levels between 7 p.m. and 10 p.m. and a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m.

Day-Night Sound Level (L_{dn}):

The L_{eq} of the A-weighted noise level over a 24-hour period with a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m.

Decibel (dB):

The decibel is a measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a standardized quantity.

Energy Equivalent Level / Equivalent Noise Level (L_{eq}):

The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time period of interest. L_{eq} is widely used as a single-number descriptor of environmental noise. L_{eq} is based on the logarithmic or energy summation and it places more emphasis on high noise level periods than does L_{50} or a straight arithmetic average of noise level over time. This energy average is not the same as the average sound pressure levels over the period of interest, but must be computed by a procedure involving summation or mathematical integration.

Field Impact Isolation Class (FIIC):

A single number rating similar to the IIC except that the impact sound pressure levels are measured in the field.

Field Sound Transmission Class (FSTC):

A single number rating similar to STC, except that the transmission loss values used to derive the FSTC are measured in the field. All sound transmitted from the source room to the receiving room is assumed to be through the separating wall or floor-ceiling assembly.

Frequency (Hz):

The number of oscillations per second of a periodic noise (or vibration) expressed in Hertz (abbreviated Hz). Frequency in Hertz is the same as cycles per second.

Impact Insulation Class (IIC):

A single number rating used to compare the effectiveness of floor-ceiling assemblies in providing reduction of impact generated sounds such as footsteps. It is derived from the measurement of impact sound pressure levels across a series of 16 test bands using a standardized tapping machine.

Narrowband Analysis:

A narrowband analysis determines the amplitudes of the different frequency components of a noise. The results of the analysis are presented as plots with frequency on the horizontal axis and the amplitude (or narrowband noise level) on the vertical axis. The set of narrowband noise levels associated with each frequency for a particular noise is called the *spectrum* of the noise (or *spectra* in plural). Pure tones, such as those generated by the rotating blades of a fan, appear as sharp spikes in the spectrum curve.

Noise Isolation Class (NIC):

A single number rating derived from measured values of noise reduction between two enclosed spaces that are connected by one or more paths. The NIC is not adjusted or normalized to a standard reverberation time.

Noise Level:

See Sound Pressure Level.

Normalized Noise Isolation Class (NNIC):

A single number rating similar to the NIC, except that the measured noise reduction values are normalized to a reverberation time of 1/2 second.

Octave Band - 1/3 Octave Band:

One octave is an interval between two sound frequencies that have a ratio of two. For example, the frequency range of 200 Hz to 400 Hz is one octave, as is the frequency range of 2000 Hz to 4000 Hz. An octave band is a frequency range that is one octave wide. A standard series of octaves is used in acoustics, and they are specified by their center frequencies. In acoustics, to increase resolution, the frequency content of a sound or vibration is often analyzed in terms of 1/3 octave bands, where each octave is divided into three 1/3 octave bands.

Sound Absorption Coefficient (α):

The absorption coefficient of a material is the ratio of the sound absorbed by the material to that absorbed by an equivalent area of open window. The absorption coefficient of a perfectly absorbing surface would be 1.0 while that for concrete or marble slate is approximately 0.01 (a perfect reflector would have an absorption of 0.00).

Sound Pressure Level (SPL):

The sound pressure level of sound in decibels is 20 times the logarithm to the base of 10 of the ratio of the RMS value of the sound pressure to the RMS value of a reference sound pressure. The standard reference sound pressure is 20 micro-pascals as indicated in ANSI S1.8-1969, "Preferred Reference Quantities for Acoustical Levels".

Sound Transmission Class (STC):

STC is a single number rating, specified by the American Society for Testing and Materials, which can be used to measure the sound insulation properties for comparing the sound transmission capability, in decibels, of interior building partitions for noise sources such as speech, radio, and television. It is used extensively for rating sound insulation characteristics of building materials and products.

Structure-Borne Sound:

Sound propagating through building structure. Rapidly fluctuating elastic waves in gypsum board, joists, studs, etc.

Statistical Distribution Terms:

L_{99} and L_{90} are descriptors of the typical minimum or "residual" background noise (or vibration) levels observed during a measurement period, normally made up of the summation of a large number of sound sources distant from the measurement position and not usually recognizable as individual noise sources. Generally, the prevalent source of this residual noise is distant street traffic. L_{90} and L_{99} are not strongly influenced by occasional local motor vehicle passbys. However, they can be influenced by stationary sources such as air conditioning equipment.

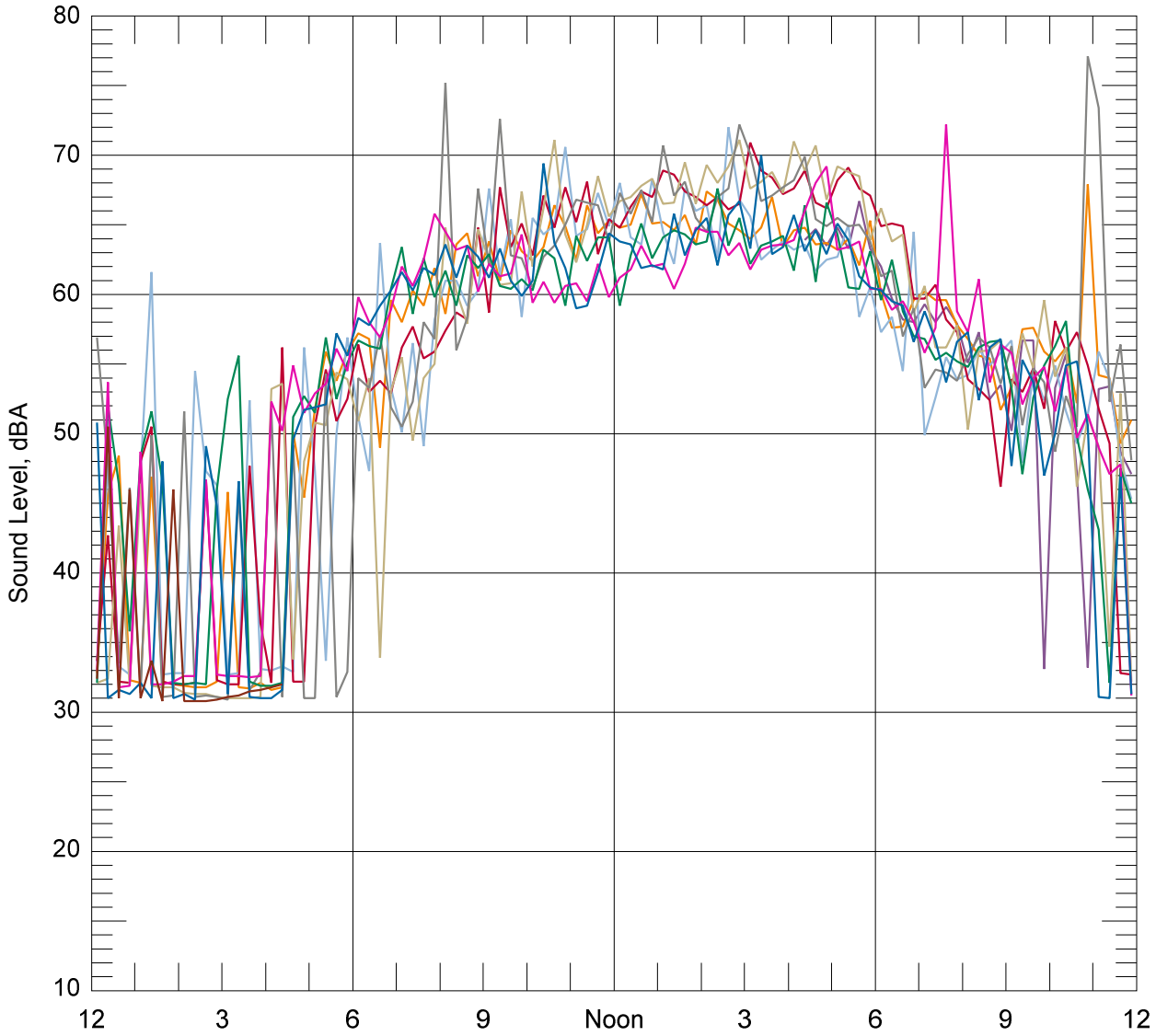
L_{50} represents a long-term statistical median noise level over the measurement period and does reveal the long-term influence of local traffic.

L_{10} describes typical levels or average for the maximum noise levels occurring, for example, during nearby passbys of trains, trucks, buses and automobiles, when there is relatively steady traffic. Thus, while L_{10} does not necessarily describe the typical maximum noise levels observed at a point, it is strongly influenced by the momentary maximum noise level occurring during vehicle passbys at most locations.

L_1, the noise level exceeded for 1% of the time is representative of the occasional, isolated maximum or peak level which occurs in an area. L_1 is usually strongly influenced by the maximum short-duration noise level events which occur during the measurement time period and are often determined by aircraft or large vehicle passbys.

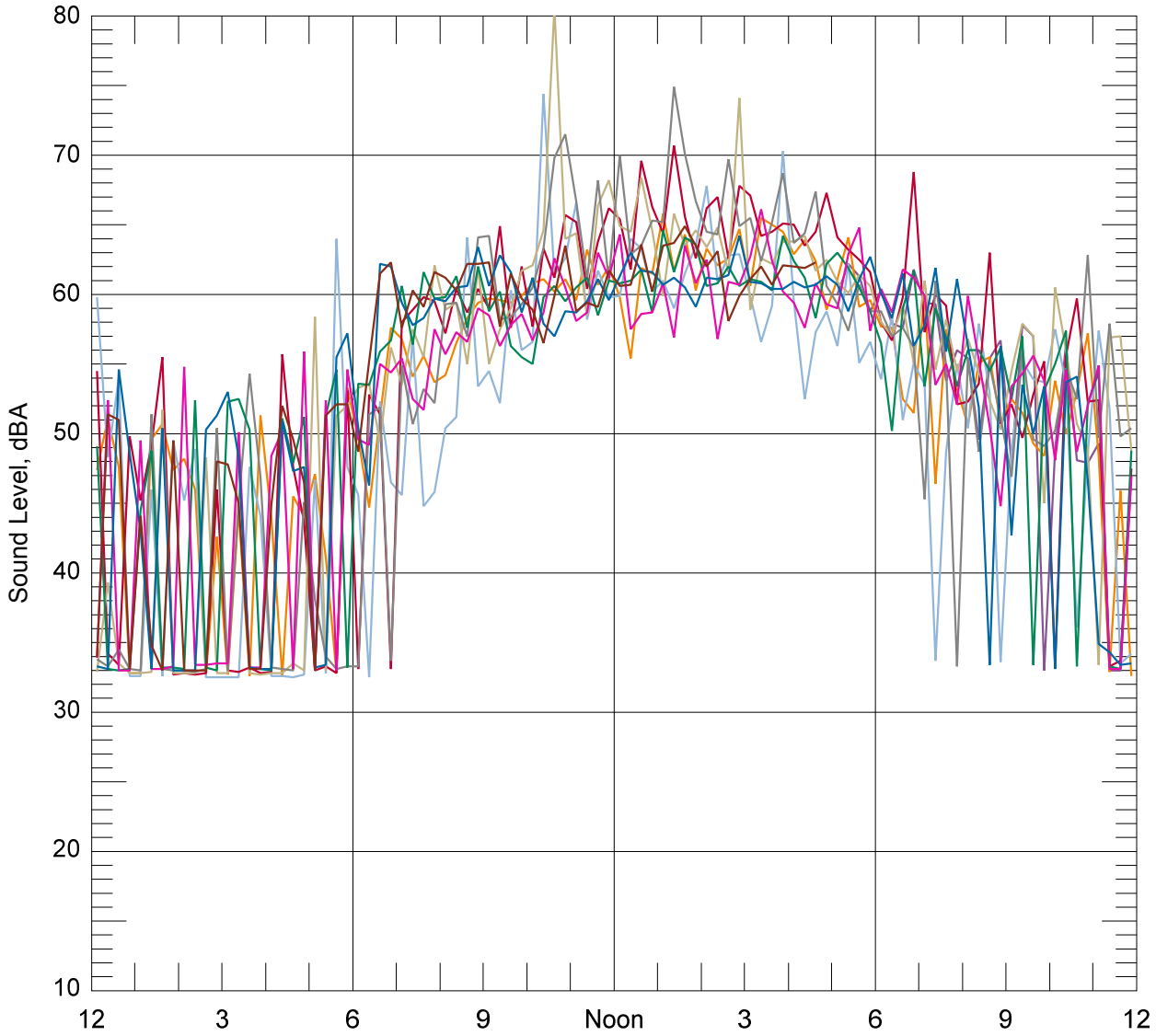
ATTACHMENT B

NOISE MEASUREMENTS



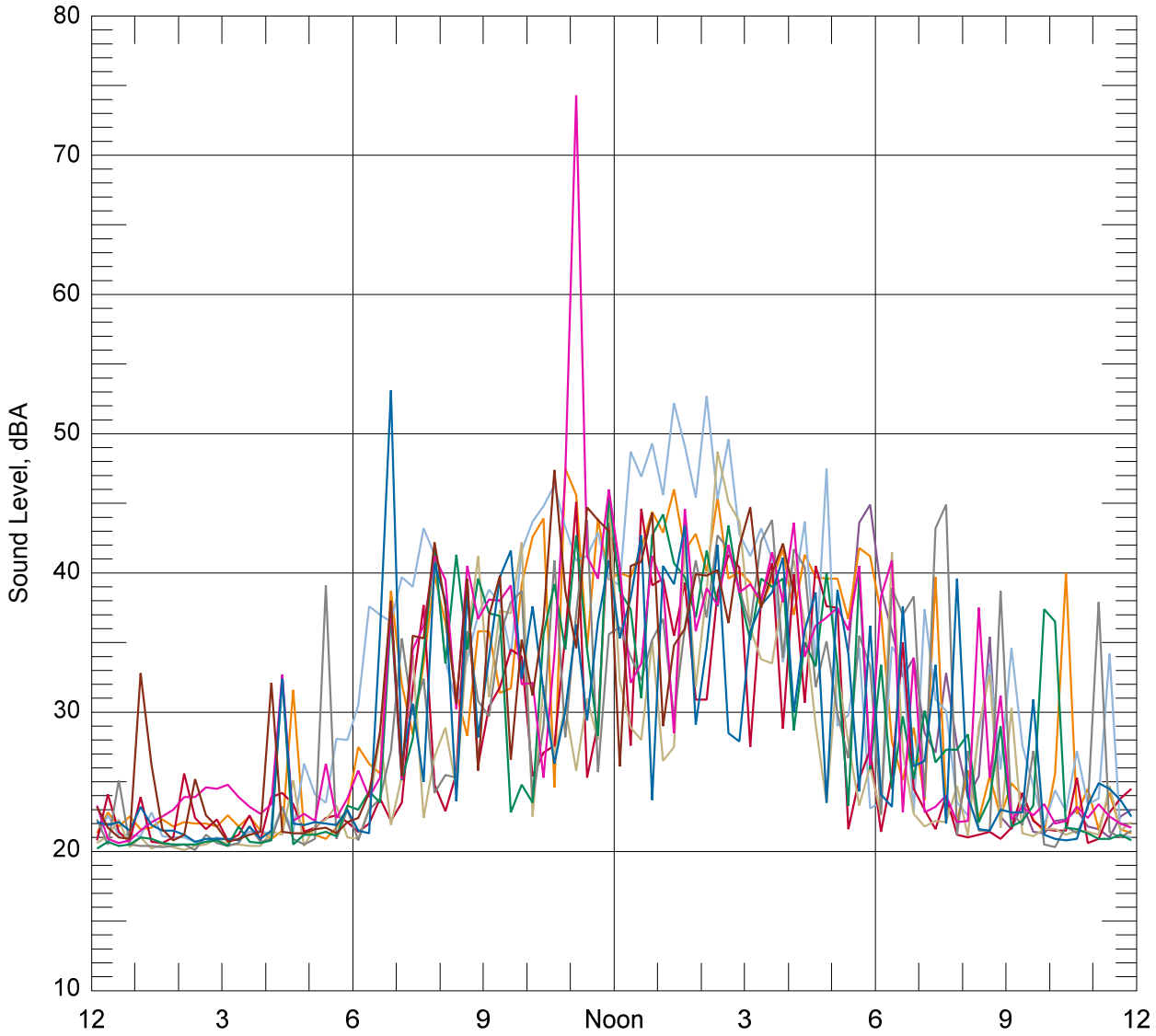
Tue, 24 Nov 2020	
Wed, 25 Nov 2020	64 CNEL
Thu, 26 Nov 2020	64 CNEL
Fri, 27 Nov 2020	64 CNEL
Sat, 28 Nov 2020	65 CNEL
Sun, 29 Nov 2020	70 CNEL
Mon 30 Nov, 2020	63 CNEL
Tue, 1 Dec 2020	64 CNEL
Wed, 2 Dec 2020	63 CNEL
Thu, 3 Dec 2020	

Figure B-1: 15-MINUTE EQUIVALENT NOISE LEVELS MEASURED AT LT-1



Tue, 24 Nov 2020	
Wed, 25 Nov 2020	60 CNEL
Thu, 26 Nov 2020	62 CNEL
Fri, 27 Nov 2020	63 CNEL
Sat, 28 Nov 2020	65 CNEL
Sun, 29 Nov 2020	64 CNEL
Mon, 30 Nov 2020	61 CNEL
Tue, 1 Dec 2020	60 CNEL
Wed, 2 Dec 2020	61 CNEL
Thu, 3 Dec 2020	

Figure B-2: 15-MINUTE EQUIVALENT NOISE LEVELS MEASURED AT LT-2



Tue, 24 Nov 2020	
Wed, 25 Nov 2020	39 CNEL
Thu, 26 Nov 2020	42 CNEL
Fri, 27 Nov 2020	35 CNEL
Sat, 28 Nov 2020	36 CNEL
Sun, 29 Nov 2020	38 CNEL
Mon, 30 Nov 2020	37 CNEL
Tue, 1 Dec 2020	55 CNEL
Wed, 2 Dec 2020	44 CNEL
Thu, 3 Dec 2020	

Figure B-3: 15-MINUTE EQUIVALENT NOISE LEVELS MEASURED AT LT-3

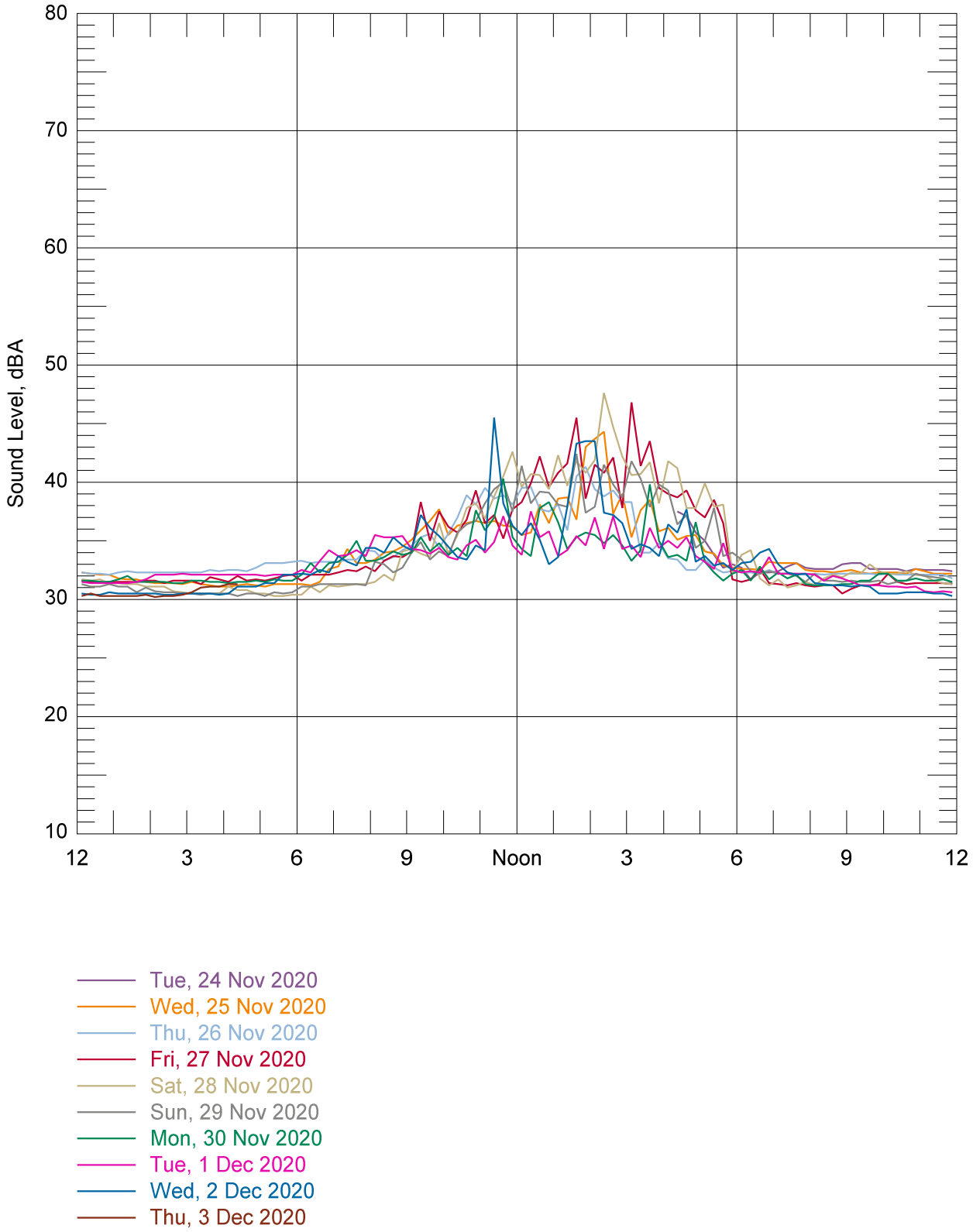

Sound Level, dBA
80
70
60
50
40
30
20
10
12
3
6
9
Noon
3
6
9
12
Tue, 24 Nov 2020
Wed, 25 Nov 2020
Thu, 26 Nov 2020
Fri, 27 Nov 2020
Sat, 28 Nov 2020
Sun, 29 Nov 2020
Mon, 30 Nov 2020
Tue, 1 Dec 2020
Wed, 2 Dec 2020
Thu, 3 Dec 2020

Figure B-4: 15-MINUTE L90 NOISE LEVELS MEASURED AT LT-1

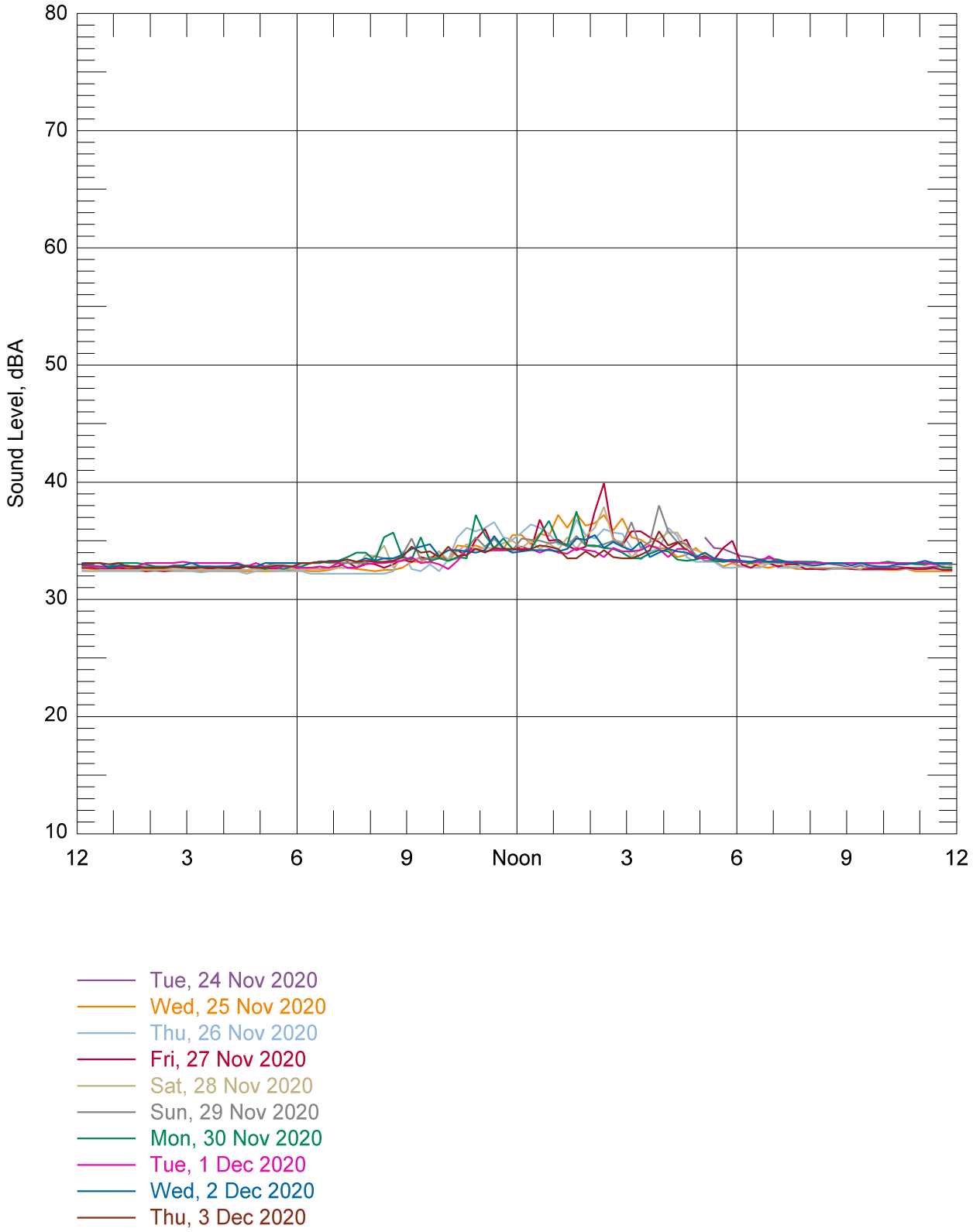

Sound Level, dBA
80
70
60
50
40
30
20
10
12
3
6
9
Noon
3
6
9
12
Tue, 24 Nov 2020
Wed, 25 Nov 2020
Thu, 26 Nov 2020
Fri, 27 Nov 2020
Sat, 28 Nov 2020
Sun, 29 Nov 2020
Mon, 30 Nov 2020
Tue, 1 Dec 2020
Wed, 2 Dec 2020
Thu, 3 Dec 2020

Figure B-5: 15-MINUTE L90 NOISE LEVELS MEASURED AT LT-2

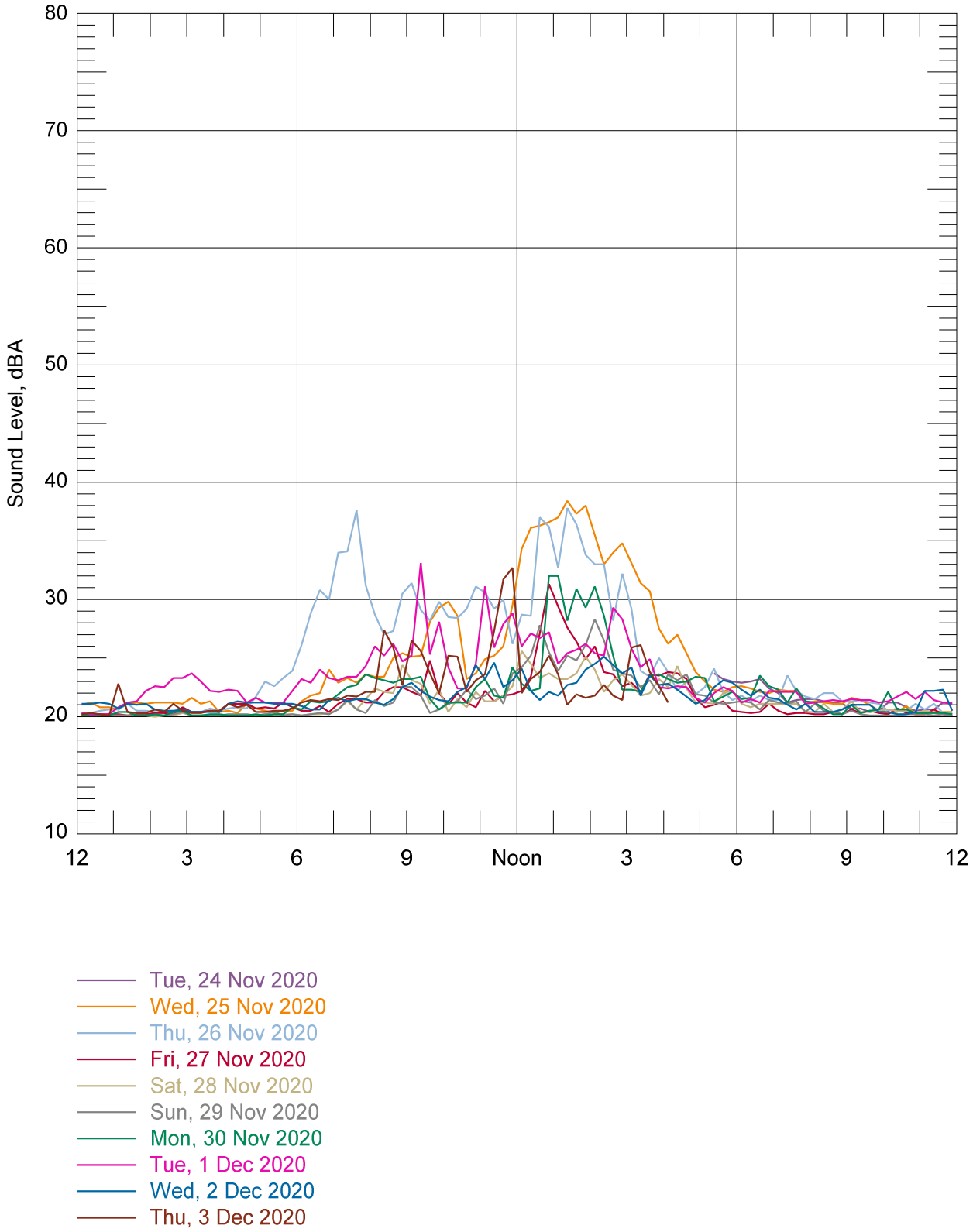

Sound Level, dBA
80
70
60
50
40
30
20
10
12
3
6
9
Noon
3
6
9
12
Tue, 24 Nov 2020
Wed, 25 Nov 2020
Thu, 26 Nov 2020
Fri, 27 Nov 2020
Sat, 28 Nov 2020
Sun, 29 Nov 2020
Mon, 30 Nov 2020
Tue, 1 Dec 2020
Wed, 2 Dec 2020
Thu, 3 Dec 2020

Figure B-6: 15-MINUTE L90 NOISE LEVELS MEASURED AT LT-3