SESPE
CONSULTING, INC.

374 Poli Street, Suite 200 • Ventura, California 93001

NOISE IMPACT ASSESSMENT

CARLI EXPANSION PROJECT

Sacramento Aggregates
11501 Florin Road
Sacramento County, California 95830

April 28, 2017

Prepared for:	Vulcan Materials Co. dba Sacramento Aggregates 4101 Dublin Boulevard, PMB #144, Suite F Dublin, California 94568
Prepared by:	Sespe Consulting, Inc. 374 Poli Street, Suite 200 Ventura, California 93001 (805) 275-1515

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Graham Stephens
Environmental Professional I

Scott Cohen, P. E., C.I.H.
Project Manager III

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Vulcan Materials Company
Carli Expansion Project

April 28, 2017

EXECUTIVE SUMMARY

Vulcan Materials Company (Vulcan) owns the Sacramento Aggregate mine and processing plant located at 11501 Florin Road in Sacramento County, California. Vulcan purchased the 153-acre property (referred to as the Carli property) west of the current mining operation in order to expand the mining operation into the newly acquired land. Vulcan could also potentially install a portable concrete/asphalt processing plant within this expansion area. Sespe Consulting, Inc. (Sespe) has prepared this Noise Impact Assessment (NIA) on behalf of Vulcan, to identify potential noise and vibration impacts from this proposed expansion of the Sacramento Aggregates mine and installation of a portable concrete/asphalt plant (Project). The 151-acre Carli property, located immediately west of Sacramento Aggregates existing processing facility, would provide an estimated 10,000,000 tons of additional aggregates reserves. The Project would move existing excavation and material transport operations and install a portable concrete/asphalt plant on the adjacent Carli property. The approved rates of excavation stipulated in the existing use permit for the Sacramento Aggregate mining operation would not change.

This NIA quantifies the results of background noise monitoring performed on 9/29/2016 and 9/30/2016, and assesses potential noise impacts associated with the Project on nearby receptors. Forecasted Project impacts are compared to applicable noise thresholds, and mitigation measures are recommended for receptors where noise impacts were found to be significant.

This NIA has the following findings:

- Mitigated Project noise impacts are less than significant at nearby receptors;
- Project vibration impacts are less than significant at nearby receptors; and
- The Project would result in a Class II impact, significant but mitigable.

NOISE IMPACT ASSESSMENT

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April 28, 2017

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SESPE CONSULTING, INC.

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NOISE IMPACT ASSESSMENT

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Carli Expansion Project

April 28, 2017

1.0 INTRODUCTION

Vulcan Materials Company (Vulcan) owns the Sacramento Aggregate mine and processing plant located at 11501 Florin Road in Sacramento County, California. Vulcan purchased the 153-acre property (referred to as the Carli property) west of the current mining operation in order to expand the mining operation into the newly acquired land. Vulcan could also potentially install a portable concrete/asphalt processing plant within this expansion area. Sespe Consulting, Inc. (Sespe) has prepared this Noise Impact Assessment (NIA) on behalf of Vulcan, to identify potential noise and vibration impacts from this proposed expansion of the Sacramento Aggregates mine and installation of a portable concrete/asphalt plant (Project). The 151-acre Carli property, located immediately west of Sacramento Aggregates existing processing facility, would provide an estimated 10,000,000 tons of additional aggregates reserves. The Project would move existing excavation and material transport operations and install a portable concrete/asphalt plant on the adjacent Carli property. The approved rates of excavation stipulated in the existing use permit for the Sacramento Aggregate mining operation would not change.

This NIA quantifies the results of background noise monitoring performed on 9/29/2016 and 9/30/2016, and assesses potential noise impacts associated with the Project on nearby receptors. Forecasted Project impacts are compared to applicable noise thresholds, and mitigation measures are recommended for receptors where noise impacts were found to be significant.

2.0 PROJECT DESCRIPTION

The Carli expansion would be on 140-acres of the 151-acre property, and provide an estimated 10,000,000 tons of reserves for the Sacramento Aggregate operation. Please see the figures in Appendix A, which show the location of the Project site (Figures 1 & 2) and the proposed Project site plan (Figure 3). The Project is estimated to take 10 years. There would be no significant changes to the existing mining and processing operation other than extracting aggregate reserves from the adjacent Carli property and installing a portable concrete/asphalt processing plant. There are no proposed changes to the approved production rate or processing rate for the existing mining operation or processing plant. Because the production and processing rates would not change from the existing rates, the amount of offsite highway truck traffic leaving the entrance road would also not change. The mining activities currently being conducted in the previously approved Expansion E area south of Florin Road (Figure 4) would be completed prior to starting the material extraction at the Project site (i.e. Carli expansion area). As with Expansion E, mining activities in the Carli expansion area would occur during daytime hours (7:00 AM – 10:00 PM) only.

Prior to extracting the aggregate, the overburden would be removed from the site in phases to expose the aggregate resources. Following overburden removal, mining would begin in the northern portion of the site, extending south down and around the existing Sacramento Compost and Recycling Facility and then to the east and finally back up towards the northeast to excavate the area currently occupied by the composting operation. The excavation area would be approximately 2,600 feet wide (east to west) by 2,500 feet long (north to south) and would reach a depth of approximately 70-75 feet from the original grade.

2.1 Initial Ground Preparation – Removal of Overburden

Following Project approval, initial ground preparation of the Project site would commence. Two (2) scrapers would be used to remove overburden from the Project site to a depth of approximately 20 feet below the existing grade covering an area of approximately 140 acres. It is assumed the portable concrete/asphalt processing plant would also be brought onsite during this Project phase. Based upon discussion with the Vulcan and information gathered from the previous Sacramento Aggregate's Expansion E environmental documents, this process is expected to take approximately one (1) month (*NIA Sacramento Aggregates Mining Expansion*, Bollard Acoustical Consultants, Inc., page C-7). Following overburden removal, normal extraction of the aggregate would commence at a starting depth of approximately 20 feet below the existing Project site grade.

2.2 Mining Operation – Extraction of Aggregate

Mining at the Project site would be conducted with the same equipment and in the same manner as what is currently being done at the existing Expansion E quarry south of Florin Road (Figure 4). When mining is completed at Expansion E, the equipment (one bulldozer, two front-end loaders, one excavator, two haul trucks, water & service truck) would simply be moved over to the Project site. As with Expansion E, the mined material extracted from the Project would be transferred to the adjacent Sacramento Aggregates crushing and processing area via a conveyor system. Additionally, as with overburden removal, it is conservatively assumed the portable concrete/asphalt processing plant would also be operating onsite during normal mining operations. There would be no changes to the existing processing plant, throughput, or offsite truck trips as a result of the Project.

3.0 EXISTING SETTING

3.1 Noise & Vibration Fundamentals

3.1.1 Characteristics of Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second) they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 decibels (dB). Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness as presented in Table 1.

The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by weighing the sound level pressures between 1,000 and 5,000 Hz, which represent the most sensitive frequencies perceived by a healthy human ear and coincidentally the natural frequency range of human speech. This weighting network is referred to as the A-scale. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this NIA are A-weighted. Table 1 provides sound pressure levels of typical noise sources in units of dBA and micropascals (µPa) of pressure.

Table 1 Typical A-Weighted Sound Levels of Common Noise Sources

Loudness Ratio	Micropascals (µPa)	dBA	Description
128	63,245,553	130	Threshold of Pain
64	20,000,000	120	Jet aircraft Take-Off at 100 feet
32	6,324,555	110	Riveting Machine at Operator's Position
16	2,000,000	100	Shotgun at 200 feet
8	632,456	90	Bulldozer at 50 feet
4	200,000	80	Diesel Locomotive at 300 feet
2	63,246	70	Commercial Jet Aircraft Interior During Flight
1	20,000	60	Normal Conversation Speech at 5-10 feet
0.5	6,325	50	Open Office Background Level
0.25	2,000	40	Background Level Within a Residence
0.125	632	30	Soft Whisper at 2 feet
0.0625	200	20	Interior of Recording Studio

Sources: US EPA (1971) & Federal Interagency Committee on Noise (1992).

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour or less). L_{eq} is also the foundation of the maximum sound level (L_{max}) noise descriptor. The maximum sound level (L_{max}) presents the highest instantaneous noise level recorded over a given time period (usually one hour or less). Noise level criteria presented in this NIA utilize the L_{eq} and L_{max} sound level descriptors to determine the significance of Project noise impacts.

3.1.2 Characteristics of Groundbourne Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through a structure. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration depends on their individual sensitivity as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (inches/second). Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity. Aggregate mining and processing vibration levels are not expected to be significant for this Project due to the relatively large distances between Project equipment (sources) and acoustically sensitive receivers as well as the fact that no blasting would occur with this Project. However, an assessment of mining-related vibration levels is nonetheless addressed within this NIA.

According to the California Department of Transportation's (CalTrans) *Transportation and Construction Vibration Guidance Manual* (California Department of Transportation, 2013), operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage (e.g., crack plaster). Ground vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Traffic, including heavy trucks traveling on a highway, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate by a few ten-thousandths to a few thousandths of an inch. Differences in subsurface geologic conditions and distance from the source of vibration would result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes would decrease with increasing distance. The maximum rate or velocity of particle movement is the commonly accepted descriptor of the vibration "strength." This is referred to as the peak particle velocity (PPV) and is typically measured in inches per second.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 2 indicates that the threshold for damage to structures ranges from 2.0 to 6.0 in/sec peak particle velocity (PPV). One-half this minimum threshold, or 1.0 in/sec PPV is considered a criterion that would protect against significant architectural or structural damage. The general threshold at which human annoyance could occur is noted as one tenth of that level, or 0.2 in/sec PPV.

Table 2 General Human & Structural Responses to Continuous Vibration Levels

Effects on Structures and People	Peak Vibration Threshold (in./sec. PPV)
Structural damage to commercial structures	2
Structural damage to residential structures	1
Architectural damage to old structures (cracking, etc.)	0.5
General threshold of human annoyance	0.2
General threshold of human perception	0.01

Source: *Transportation and Construction Vibration Guidance Manual* (Caltrans, 2013).

3.2 Regulatory Setting

3.2.1 Federal Standards

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.), which serves three purposes:

- Establish noise emission standards for interstate commerce.
- Assist state and local abatement efforts.
- Promote noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies, including the Federal Aviation Administration (FAA), Federal Transit Administration (FTA), and Federal Highway Administration (FHWA).

The FAA regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the FTA (formerly the Urban Mass Transit Administration). Transit noise is regulated by the FTA, while freeways that are part of the interstate highway system are regulated by the FHWA. Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the Federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the County is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

3.2.2 State Standards

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regulatory tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

Article 4 of the California Administrative Code (California Noise Insulation Standards, Title 24, Chapter 1) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that prevent interior Day-Night (L_{dn}) or CNEL noise levels from exceeding 45 dBA. When such structures are located within a 60-dBA Day-Night (L_{dn}) or CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA limit.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

The *Sacramento County General Plan of 2005-2030* (Sacramento County, 2011) has adopted a Noise Element that outlines various guidelines, requirements and policies related to noise. These requirements are summarized in the following section and Section II of the General Plan Noise Element.

3.2.3 Sacramento County General Policies & Guidelines

The *Sacramento County General Plan of 2005-2030* Noise Element has a number of policies related to noise. The applicable General Plan policies relevant to the Project are listed below. General Plan policies not applicable to the Project are not listed, but the full Sacramento County General Plan Noise Element and associated policies list can be found in Appendix D. It is assumed that each existing noise-sensitive receptors in the project vicinity are residences. This is conservative, as residential receptors are subject to the most stringent noise standards within the General Plan noise policies. Also see Table 2 (Non-Transportation Noise Standards) within the Sacramento County General Plan Noise Element (Appendix D) for the noise standards referenced in the applicable polices presented below.

NO-6. *Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table 2* (Appendix D) *at existing noise-sensitive areas in the project vicinity.*

NO-7. *The "last use there" shall be responsible for noise mitigation. However, if a noise generating use is proposed adjacent to lands zoned for uses which may have sensitivity to noise, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the Table 2* (Appendix D) *standards at the property line of the generating use in anticipation of the future neighboring development.*

NO-8. *Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.*

NO-13. *Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design to the extent feasible, prior to consideration of the use of noise barriers.*

This NIA utilizes the Sacramento County General Plan thresholds to determine significance of Project impacts. Although Table 2 within the General Plan Noise Element outlines median noise level (L_{50}) standards, per Sacramento County guidance these are substituted for hourly equivalent noise level (L_{eq}) standards as the noise source in question (i.e. mining equipment) operates for at least 30 minutes of an hour and is relatively constant within a given timeframe. In cases where the existing ambient noise levels exceed the applicable standards, then the noise level standard would be increased at +5 dBA increments to encompass the ambient noise (Appendix D, Table 2, Note #1, page 15). Additionally, if ambient noise levels are within 1 dB of the applicable significance threshold, the Sacramento County noise level standard is increased by +5 dB increments to encompass the ambient (e.g. ambient level of 79.5 dB results in a significance threshold of 85 dB rather than 80 dB).

As shown in Figure 6 (Appendix A), the Project site is surrounded by lands zoned agriculture (AG-160) within the Sacramento County General Plan. For this reason, policy NO-7 above could be considered not applicable as this is not a "land use with sensitive to noise." However, to be conservative, impacts to surrounding residences located on agriculturally zone land are assessed per policy NO-7.

Table 9 in Section 4.1 shows the appropriate Sacramento County noise thresholds presented in the General Plan Noise Element (Appendix D) for each receptor, adjusted to encompass the measured ambient noise level.

3.2.4 Project-Related Noise Level Increase

Subjective reactions to change in noise levels, as shown in Table 3, is commonly used to identify expected public reaction to changes in environmental noise levels. Table 3 was developed on the basis of test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). Table 3 was taken from the *Fundamentals of Noise and Vibration Analysis for Engineers* (Norton & Karczub, 2003). It was also utilized within the previous *Environmental Noise Impact Assessment* prepared for the Phase E expansion by Bollard Acoustical Consultants, Inc. (Bollard Acoustical Consultants, Inc., 2005). As described in both of these reference materials, these changes in environmental noise level are most applicable to noise levels in the range of 50 dB to 70 dB, which is the usual range of voice and interior noise levels. The change in noise level thresholds in Table 3 are also used to determine significance of Project impacts.

Table 3 Subjective Reaction to Changes in Noise Levels of Similar Sources

Change in Level, dBA	Factor Change In Acoustical Energy	Subjective Reaction
+1	1.3	Imperceptible (Except for Tones)
+3	2.0	Just Barely Perceptible
+6	4.0	Clearly Noticeable
+10	10.0	About Twice (or half) as Loud

Source: *Fundamentals of Noise and Vibration Analysis for Engineers, 2nd Edition* (Norton & Karczub, 2003).

3.2.5 Vibration Criteria

The California Department of Transportation (CalTrans) has developed a set of criteria to assess the potential impacts caused by vibration-generating activities. Table 4 outlines threshold criteria for Project-related vibration impacts on nearby human populations, based on test subjects' responses to transient vibrations in terms of peak particle velocity (PPV) in units of inches per second. These criteria form the basis of the groundbourne vibration impact analysis in Section 6.1.2.

Table 4 Human Responses to Transient Vibration

PPV (inches/second)	Human Response
2.0	Severe
0.9	Strongly perceptible
0.24	Distinctly perceptible
0.035	Barely perceptible

Source: *Transportation and Construction Induced Vibration Guidance Manual* (Caltrans, 2013).

3.2.6 CEQA Guidelines

The CEQA Guidelines provide threshold criteria that can be used to determine whether a project would result in a significant impact to the environment. These criteria are found in the Environmental Checklist in Appendix G of the CEQA Guidelines. Section 12 of the Environmental Checklist outlines criteria for noise analysis, and these specific criteria form the basis of the significance thresholds utilized to determine noise impacts. These thresholds are used in this study to determine potential impacts associated with the Project and are discussed in Section 4.2.

3.3 Environmental Setting

3.3.1 Regional Setting

The Project site is located in unincorporated Sacramento County, California, southeast of the City of Sacramento proximate to State Route 16 (SR-16), south of the City of Folsom and north of the City of Elk Grove (Figure 1, Appendix A). Mather Airport is located approximately 3.8 miles away to the northwest (Figure 2, Appendix A). The Project site is bound by the existing Sacramento Aggregates operation to the north and east, Eagles Nest Road to the west, and Florin Road to the south. Across the Sacramento Aggregates processing facility, the Folsom South Canal aqueduct, which diverts water from the American River, runs north to south approximately 2,000 feet away from the Project's eastern perimeter (Figure 2, Appendix A).

The surrounding area is characterized by agricultural and mining land uses, rural dwellings, and small urban centers. Noise sources in the region are typical for rural areas, generally associated with agricultural production, aggregates production, traffic noise from adjacent roadways (Florin Road, Jackson Road, and Sunshine Boulevard), occasional aircraft over-flights, and urban activities from the nearby communities.

3.3.2 Local Vibration Environment

The existing ambient vibration environment in the immediate Project vicinity is extremely low, as would be expected in a rural area with no appreciable sources of local vibration. During field visits, Sespe staff could not detect any appreciable groundbourne vibrations resulting for existing mining operations in the Expansion E excavation pit. Background vibration levels around the Project perimeter are less than the threshold of perception.

3.3.3 Local Noise Environment

The existing noise environment experienced by residential receptors closest to the Project site is associated with vehicular noise from adjacent roadways, aggregates production, and agricultural production related noise. The existing ambient noise environment is consistent with that of typical rural dwellings in the area, and consists primarily of local roadway traffic (Florin Road and Eagles Nest Road), sand and gravel mining, aggregates processing (existing Sacramento Aggregates facility), and of natural sounds (wind, birds, insects, etc.).

To quantify the existing ambient noise environment at residential receivers, six (6) short-duration (15-minute) measurements and one (1) long-duration (24-hour) noise measurement were conducted at the seven (7) locations surrounding the proposed Project site on September 29th and 30th, 2016 (Figure 4, Appendix A). The noise measurements were recorded using two (2) Quest DL SoundPro, Type 2 noise meters (Serial #'s BGI04008, BIJ090010). Noise meters were programmed in "slow" mode to record noise levels in "A" weighted form, logging every 30 seconds for the long-duration measurement and 10 seconds for the short-duration measurements, with a microphone sensitivity of -28 dB. The microphones were equipped with a windscreen during measurements, and noise dosimeters were calibrated using two (2) Quest QC-10 calibrators (Serial #'s QIB070141, QIJ090052) prior to, and following each, measurement taken. The noise meters and calibrators were factory calibrated within the last year by Engineering Dynamics, Inc., who provided Certificates of Compliance and Calibration for each piece of equipment (Appendix G).

Details regarding the monitoring locations assessed are summarized in Table 5 (Figure 4, Appendix A). The closest relevant receptor in each direction from the Project site was included. The measurement locations were selected to be generally representative of existing ambient conditions at the nearest residential receptors surrounding the Project site, and along nearby routes of travel. Additionally, measurements at these closest receivers conservatively account for potentially-affected receivers at locations farther from the Project noise sources. In addition to being representative of a nearby residential receptor (N1), the long-duration (24-hour) measurement is also used as a reference measurement to determine the daytime L_{eq} and L_{max} noise levels at the other receptor locations where only short-duration measurements were collected. The details of this calculation are presented in Appendix B. Table 6 presents the results of the long-duration (24-hour) measurement collected at Receptor N1.

Table 5 Summary of Monitoring Locations

Receptor	Duration	Date(s) Measured	Time Start	Time Stop	Description
N1	24-hours	9/29/16 9/30/16	10:58 AM	10:58 AM	Residence east of the Project site along Eagles Nest Road
N2	15-mins	9/29/16	11:21 AM	11:36 AM	Residence southwest of the Project site along Eagles Nest Road
N3	15-mins	9/29/16	11:39 AM	11:54 AM	Residence southwest of the Project site along Eagles Nest Road
N4	15-mins	9/29/16	11:59 AM	12:14 PM	Residence southwest of the Project site along Eagles Nest Road
N5	15-mins	9/29/16	12:18 PM	12:33 PM	Residence south of the Project site along Florin Road
N6	15-mins	9/29/16	1:03 PM	1:18 PM	Residence southeast of the Project site / Traffic noise along Florin Road & Sunrise Boulevard
N7	15-mins	9/29/16	1:26 PM	1:41 PM	Residence southeast of the Project site along Sunrise Boulevard

Figure 4 (Appendix A) shows the locations described above.

Table 6 Long-Duration (24-Hour) Noise Measurement Results (dBA)

Receptor	24-Hour Measurement		Outdoor Area		Interior[1]	
			Daytime		Daytime & Nighttime	
	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
N1	61.9	99.8	63.7	99.8	43.7	79.8

1 – Based on the EPA's *Protective Noise Level* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. See Exhibit B for more detail.

L_{eq} and L_{max} measurements collected at the long-duration (24-hour) reference location were compared to L_{eq} and L_{max} measurements at each short-duration (15-min) receptor location during the same time of day to determine the dBA difference between the two points. For example, Receptor N2 measurements (15-minute) collected between 11:21 AM and 11:36 AM when compared to the L_{eq} and L_{max} values collected at the 24-hour reference point (N1) between 11:21 AM and 11:36 AM show a noise level difference of +1.5 L_{eq} dBA and +3.5 L_{max} dBA respectively. This difference between the noise levels can be used as a correction factor, which is utilized to estimate daytime L_{eq} and L_{max} values at short-duration receptor locations. Table 7 displays the correction factors while Table 8 and shows the adjusted daytime L_{eq} and L_{max} ambient noise levels at each receptor. Additional detail regarding these calculations are included in Appendix B.

Table 7 Ambient Correction Factors (dBA)

Receptor	Time Start	Time Stop	15-Minute Measured		24-Hour (during same period)[1]		dBA Correction Factor[1]	
			L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
N2	11:21 AM	11:36 AM	52.9	78.4	51.4	74.9	1.5	3.5
N3	11:39 AM	11:54 AM	48.7	67.3	48.9	69.1	-0.2	-1.8
N4	11:59 AM	12:14 PM	73.8	93.2	75.2	97.7	-1.3	-4.5
N5	12:18 PM	12:33 PM	61.9	82.7	55.1	77.6	6.8	5.1
N6	1:03 PM	1:18 PM	65.5	80.2	56.9	81.6	8.6	-1.4
N7	1:26 PM	1:41 PM	72.0	85.6	55.4	78.2	16.5	7.4

1 – The L_{eq} and L_{max} values shown represent the measured L_{eq} and L_{max} at the long-duration (24-hour) reference location during the same time period as the applicable short-duration (15-minute) receptor location. The difference (i.e. correction factor) is then applied to the measured 24-hour measurement to determine the daytime noise level at each receptor as shown in Table 8.

Using this correction factor, Table 8 summarizes the ambient noise values at each receptor location. Land in the immediate Project vicinity is primarily zoned agricultural. However, residences exist in some of these areas, so this analysis considers those locations be noise-sensitive residential receptors. This is conservative, as residential receptors are subject to the most stringent noise standards within the General Plan noise policies (see Appendix D). The nearest noise sensitive receptor to the Project in each direction is included in this assessment.

Table 8 Ambient Noise Level Summary (dBA)

Site	Receptor Type	Ambient Noise[2]			
		Outdoor Area		Interior[1]	
		Daytime		Daytime & Nighttime	
		L_{eq}	L_{max}	L_{eq}	L_{max}
N1	Residential	63.7	99.8	43.7	79.8
N2	Residential	65.2	103.3	45.2	83.3
N3	Residential	63.6	98.0	43.6	78.0
N4	Residential	62.4	95.3	42.4	75.3
N5	Residential	70.5	104.9	50.5	84.9
N6	Residential	72.4	98.4	52.4	78.4
N7	Residential	80.3	107.2	60.3	87.2

1 – Based on the EPA's *Protective Noise Level* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. See Appendix B for more detail.

2 – Ambient noise levels for receptor N1 represent the measured L_{eq} and L_{max} daytime noise levels. To estimate L_{eq} and L_{max} daytime noise levels at short-duration (15-minute) receptor locations (N2, N3, N4, N5, N6 and N7), the applicable correction factor shown in Table 7 is applied to the measured L_{eq} and L_{max} daytime noise levels at the long-duration (24-hour) reference location.

4.0 SIGNIFICANCE THREHOLDS

According to the Appendix G Checklist in the CEQA Guidelines (CCR § 21094.5), a Project would have a significant effect if any of the following are true:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (see Section 3.2.3).

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (see Section 3.2.5).

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (see Section 3.2.4).

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (see Section 3.2.4).

e) For a project located within 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 (see Section 6.1.5).

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels (see Section 6.1.6).

4.1 Sacramento County General Plan

As described in Section 3.2.3, The *Sacramento County General Plan of 2005-2030* (2011) has adopted a Noise Element that outlines various guidelines, requirements and policies related to noise. The Sacramento County noise thresholds, specifically those presented in Table 2 (Appendix D) of the Noise Element, are utilized to address CEQA Checklist item *a)*.

Per the General Plan Noise Element, in cases where the existing ambient noise levels exceed the applicable standards, then the noise level standard would be increased at +5 dBA increments to encompass the ambient noise. Additionally if ambient noise levels are within 1 dB of the applicable significance threshold, the Sacramento County noise level standard is increased by +5 dB increments to encompass the ambient (e.g. ambient level of 79.5 dB results in a significance threshold of 85 dB rather than 80 dB). Table 9 below presents the applicable Sacramento County significance thresholds for each receptor, adjusted to encompass the ambient noise levels presented in Table 8. Additional detail regarding these calculations are included in Appendix E.

Table 9 Applicable Sacramento County Significance Thresholds (dBA)

Site	Receptor[1]	Outdoor Area		Interior	
		Daytime		Daytime & Nighttime	
		L_{eq}	L_{max}	L_{eq}	L_{max}
N1	Residential	65	105	45	85
N2	Residential	70	105	50	85
N3	Residential	65	100	45	80
N4	Residential	65	100	45	80
N5	Residential	75	110	55	90
N6	Residential	75	100	55	80
N7	Residential	85	110	65	90

1 – Each receptor is assumed to be residential. This is the most conservative approach, as the Sacramento County General Plan noise thresholds for residential receptors are the most restrictive. See Appendix D for more detail.

4.2 Vibration Significance Thresholds

Table 4 in Section 3.2.5 outlines threshold criteria for Project-related vibration impacts on nearby human populations, based on test subjects' responses to transient vibrations in terms of peak particle velocity (PPV) in units of inches per second. These threshold criteria are utilized to address CEQA Checklist item *b)*. Using this criteria, a Project-related vibration impact would be considered significant if vibrations at nearby receptors are generate in excess of 0.24 PPV (in/sec), which is considered a "distinctly perceptible" vibration level.

4.3 Project-Related Noise Level Increase

Table 3 in Section 3.2.4 is commonly used to show expected public reaction to changes in environmental noise levels. This table was developed on the basis of test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). The change criterion presented in Table 3 are utilized to address CEQA Checklist items *c)* and *d)*. Using this criteria, a Project-related noise impact at nearby receptors would be considered significant if noise levels increase by +6 dB or more, which represents a "clearly noticeable" noise level increase.

5.0 METHODOLOGIES

To quantify the noise generated by the Project noise sources (i.e. mining equipment & portable concrete/asphalt processing plan) reference data was gathered from the Federal Highway Administration's (FHWA) *Roadway Construction Noise Model User Guide* (Federal Highway Administration, 2006), the previous *Environmental Noise Impact Assessment* prepared by Bollard Acoustical Consultants, Inc. (Bollard Acoustical Consultants, Inc., 2005), and previous field measurements collected by Sespe. In 2005, Bollard determined noise impacts associated with 125-acre Sacramento Aggregates quarry expansion south of Florin Road, known as the Phase E Expansion. In 2007, Sespe Consulting conducted noise monitoring of various portable concrete/asphalt processing plants, and this data was utilized to quantify noise impacts from the processing of recycled concrete/asphalt onsite.

As described in the 2005 Bollard report, previously performed noise levels measurements of caterpillar scrappers indicate that the operation of two (2) scrappers results in average noise levels of approximately 80 dB L_{eq} at a distance of 50-feet. This data is utilized to determine L_{eq} noise levels at each receptor resulting from overburden removal (initial ground preparation). To determine the maximum sound pressure level (L_{max}) generated by initial ground preparation operations (i.e. scrappers), FHWA reference data is utilized. Normal mining operation (extraction of aggregate) equipment L_{eq} and L_{max} source noise sound pressure levels were determined using FHWA reference data. Sespe data was utilized to quantity the L_{eq} and L_{max} noise level generated during onsite processing of concrete/asphalt within the portable concrete/asphalt processing plant.

Table 10 shows each equipment type that would be utilized by the Project. Usage fraction and maximum sound pressure level (L_{max}) noise data shown are FHWA default values. Source noise calculations in Appendix C provide more detail. There is no usage factor for the portable concrete/asphalt processing plant as it is assumed to operate at full power for the entire hour during peak operations.

Table 10 Reference Equipment Noise Data

Noise Source	Usage (%)	L_{max} @ 100-feet (dBA)	L_{eq} @ 100-feet (dBA)
Scrapers (x2)	40	82	74
Dozer	40	85	75
Excavator	40	85	75
Front-End Loaders (x2)	40	80	70
Haul Trucks (x2)[1]	40	84	74
Water/Service Truck[1]	40	84	74
Concrete/Asphalt Plant[2]	---	91.1	87.4

Mine Equipment Sources: Federal Highway Administration (FHWA, 2006). Bollard Acoustical Consultants, Inc. (Bollard, 2005).
1 – For haul trucks and the water/service truck, the FHWA default values for a "flat bed truck" were utilized.
2 – Concrete/Asphalt Plant: Based on field measurements of portable concrete/asphalt processing plant from Sespe studies (Hanson Aggregates, 2007)

6.0 PROJECT-LEVEL IMPACTS & MITIGATION MEASURES

6.1 Impact Assessment

6.1.1 Generation of Noise Levels in Excess of Applicable Standards

Impact Statement

Impact NO-1: *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?* **(Appendix G Threshold Criteria (a))**

Impact Analysis

To address the CEQA Criteria *(a)*, the Sacramento County General Plan Noise Element significance thresholds presented in Table 9 are utilized. Table 11 and Table 12 show the predicted change in noise level at each receptor during the initial ground preparation of the site (removal of overburden) and during the actual mining operations (extraction of aggregate), and compares the results to the applicable Sacramento County from Table 9. Please note, noise generated by the portable concrete/asphalt processing plant was conservatively included in both the initial ground preparation and the actual mining operations phases.

Shielding was excluded from the assessment of noise levels during the initial ground preparation phase because these activities would begin at grade. Over time, equipment noise would be increasingly shielded as the excavation proceeds to a depth of approximately 20-feet, at which depth actual mining operations would commence. Therefore, the predicted noise levels are conservative for future operations by assessing the noise levels expected at the beginning of the Project, which are the worst-case noise levels during the overburden removal phase.

Mining operations would commence following the removal of overburden. Therefore worst case noise levels during mining are expected when the excavation reaches a depth of approximately 20-feet. Barrier insertion loss calculations presented in Appendix F show that the excavation pit walls at a depth of 20-feet would result in an approximately -19.9 dBA noise reduction between source (i.e. mining equipment) and receptor. This reduction has been applied to the noise levels associated with the mining operation and are presented in Table 12. Over time, equipment noise would be increasingly shielded as the excavation proceeds to a final depth of approximately 75-feet.

Referring to Table 11, noise levels during initial ground preparation activities exceed the applicable Sacramento County energy average noise level (L_{eq}) outdoor daytime and indoor daytime/nighttime noise thresholds at **Receptors N1, N4 and N5**. Referring to Table 12, noise levels during mining operations do not exceed the applicable Sacramento County noise thresholds at any receptors. Unmitigated impacts to Receptors N1, N4 and N5 during ground preparation activities are considered **potentially significant**. Please refer to the following section for recommended mitigation measures.

Level of Significance Before Mitigation

Potential for a significant impact is predicted at Receptors 1 (N1), 4 (N4), and 5 (N5).

Table 11 Initial Ground Preparation – Sacramento County Significance Determination

Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant
N1	**86.2**	**65**	**Yes**	90.2	105	No	**66.2**	**45**	**Yes**	70.2	85	No
N2	62.7	70	No	66.7	105	No	42.7	50	No	46.7	85	No
N3	62.1	65	No	66.1	100	No	42.1	45	No	46.1	80	No
N4	**67.7**	**65**	**Yes**	71.7	100	No	**47.7**	**45**	**Yes**	51.7	80	No
N5	**83.7**	**75**	**Yes**	87.7	110	No	**63.7**	**55**	**Yes**	67.7	90	No
N6	59.9	75	No	64.0	100	No	39.9	55	No	44.0	80	No
N7	58.9	85	No	62.9	110	No	38.9	65	No	42.9	90	No

Table 12 Mining Operations – Sacramento County Significance Determination

Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant	Project[2]	Threshold[1]	Significant
N1	63.3	65	No	67.2	105	No	43.3	45	No	47.2	85	No
N2	39.7	70	No	43.7	105	No	19.7	50	No	23.7	85	No
N3	39.2	65	No	43.1	100	No	19.2	45	No	23.1	80	No
N4	44.7	65	No	48.7	100	No	24.7	45	No	28.7	80	No
N5	60.8	75	No	64.7	110	No	40.8	55	No	44.7	90	No
N6	37.0	75	No	41.0	100	No	17.0	55	No	21.0	80	No
N7	35.9	85	No	39.9	110	No	15.9	65	No	19.9	90	No

Footnotes:

Note: Values shown in **bold** represent an exceedance of the applicable Sacramento County significance threshold.

1 – Thresholds shown represent the appropriate Sacramento County General Plan noise threshold for each receptor presented in Table 9.

2 – Please see the source noise calculations for initial ground preparation (removal of overburden) and mining operations (extraction of aggregate) presented in Appendix C. Values shown represents the noise level at each receptor resulting for operation of Project noise sources (i.e. mining equipment & concrete/asphalt plant).

Mitigation Measures

As shown in Table 11, during initial ground preparation (overburden removal) activities noise impacts to **Receptor N1** would require mitigation sufficient to obtain at least a -21.2 dBA reduction in noise levels. Additionally, noise impacts to **Receptor N4** would require mitigation sufficient to obtain at least a -2.7 dBA reduction in noise levels, and noise impacts to **Receptor N5** would require mitigation sufficient to obtain at least an -8.7 dBA reduction in noise level. To ensure Project noise levels do not exceed applicable noise thresholds at Receptors N1, N4 and N5 during overburden removal, the following **Mitigation Measure NO-1** is recommended.

Mitigation Measure NO-1:

In order to reduce the noise level associated with the portable concrete/asphalt processing plant to less than significant, one of the following measures shall be implemented:

1. *While operating, the portable concrete/asphalt processing plant should be setback a minimum of 1,600 feet from nearby receptors. This setback area (Figure 5) will ensure that noise impacts generated from the portable concrete/asphalt processing plant will be sufficiently attenuated due to distance separation between source and receptor;* OR

2. *If operating within 1,600 feet of nearby receptor, a 22-foot sound barrier (i.e. blankets, curtains, or walls) should be installed near the portable concrete/asphalt processing plant to block the sight line shared by the closest receptor and the plant.*

Distance propagation calculations presented in Appendix E show that noise impacts resulting from the portable concrete/asphalt processing plant operations can be reduced to less than significant levels by ensuring the plant operates a minimum distance of 1,600 feet from the nearby affected receptors (N1, N4, N5). Additionally, insertion loss calculations presented in Appendix F shown the noise generated by the portable concrete/asphalt processing plant can be sufficiently attenuated through use of a 22-foot sound barrier (blankets, curtains, walls, etc.). Depending on the location of the concrete/asphalt plant, the barrier shall be installed so as to break line-of-sight between the plant and the nearest receptor. As shown in Appendix E as well as Table 13, applying this mitigation measure would reduce noise impacts at Receptor N4 and N5 to less than significant. Also see Figure 5 (Appendix A) which displays the areas of the Project site that are a minimum of 1,600 feet away from nearby receptors.

Table 13 MM NO-1 Ground Preparation Noise – Sacramento Co. Significance Determination

Receptor	Outdoor Area – Daytime			Interior – Daytime & Nighttime		
	Mitigated L_{eq}			Mitigated L_{eq}		
	Project[1]	Threshold[2]	Significant	Project[1]	Threshold[2]	Significant
N1	**73.0**	**65**	**Yes**	**53.0**	**45**	**Yes**
N4	54.5	65	No	34.5	45	No
N5	70.5	75	No	50.5	55	No

Footnotes:

Note: Values shown in **bold** represent an exceedance of the applicable Sacramento County significance threshold.

1 – Reductions are applied to Receptors N1, N4 and N5 due to either the minimum concrete/asphalt plant setback of 1,600 feet from nearby receptors or installation of a sound barrier. See Figure 5 (Appendix A) and Appendix E for more detail.

2 – See Table 9 for the appropriate Sacramento County General Plan noise threshold for Receptors N1, N4 and N5.

Following implementation of MM NO-1, impacts to Receptor N1 remain significant due to equipment (i.e. scrappers) operating near this receptor. Insertion loss calculations that predict the noise attenuation of a 12-foot berm are included in Appendix F. Figure 5 (Appendix A) illustrates the approximate location of the berm. Referring to the insertion loss calculations, the 12-foot berm would result in a -14.5 dBA noise reduction from the sources (i.e. scrappers) operating nearby Receptor N1. Distance propagation calculations presented in Appendix F show the berm should extend a minimum of 300-feet from the northwest corner of the expansion boundary to ensure noise impacts at Receptor 1 are less than significant. Therefore, to ensure Project noise levels do not exceed applicable noise thresholds at Receptors N1 during overburden removal, the following **Mitigation Measure NO-2** is also recommended.

Mitigation Measure NO-2:

> *Prior to ground preparation (overburden removal) activities, a 12-foot tall earthen berm with a minimum length of 300-feet extending from the northwest corner of the expansion boundary shall be constructed along the Project's western property line adjacent to Receptor 1.*

Applying this reduction, mitigated noise impacts are presented in Appendix E (Initial Ground Preparation – Mitigated Project Impacts) and Table 14 below.

Table 14 MM NO-2 Ground Preparation Noise – Sacramento Co. Significance Determination

Receptor	Outdoor Area – Daytime			Interior – Daytime & Nighttime		
	Mitigated L_{eq}			Mitigated L_{eq}		
	Project[1]	Threshold[2]	Significant	Project[1]	Threshold[2]	Significant
N1	58.5	65	No	38.5	45	No

As shown in Table 13 and Table 14, the Project is expected to have a less than significant impact with mitigation incorporated. It is important to note this study was designed to produce conservative worst-case Project noise impacts to nearby receptors. In reality, when taking into account the shielding or absorption effects from intervening topography between source and receptor as well as the fact that most excavation operations will not occur near the outermost mining boundary, noise levels are expected to be less than those calculated within this NIA. However, to confirm the assumptions and conclusions of this assessment, the following **Mitigation Measure NO-3** is recommended.

Mitigation Measure NO-3:

> *Upon beginning Project operation, the predicted noise impacts associated with onsite excavation equipment and the portable concrete/asphalt processing plant shall be verified with noise measurements. In the event that actual noise levels exceed the assumptions contained within this analysis, additional noise reduction measures (i.e. blankets, curtains, or walls) shall be implemented to reduce the impacts and the monitoring will be repeated. This process will continue until sufficient mitigation is provided and the impact is determined to be less than significant.*

Level of Significance After Mitigation

Upon implementation of MM NO-1, MM NO-2 and MM NO-3, Project impacts to nearby receptors would be less than significant as shown in Table 13 and Table 14.

6.1.2 Generation of Excessive Groundbourne Vibration

Impact Statement

Impact NO-2: *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?* **(Appendix G Threshold Criteria (b))**

Impact Analysis

The Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (Federal Transit Administration, 2006) document provides guidelines for assessing vibration impacts resulting from construction activities. Table 15 below lists vibration source levels for common types of construction equipment, in terms of peak particle velocity (PPV) in units of inches per second at a distance of 25-feet.

Table 15 Vibration Source Level for Construction Equipment

Equipment	PPV (in/sec) @ 25-feet away
Vibratory Roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: *Transportation and Construction Induced Vibration Guidance Manual* (Caltrans, 2013), *Transit Noise and Vibration Impact Assessment* (FTA, 2006).

To assess Project vibration impacts at each receptor location, the reference PPV value of 0.089 inches per second (i.e. large bulldozer) is utilized. It is assumed that nothing larger or more powerful than a large bulldozer would be utilized at the site in close proximity to nearby receptors. The distance shown represents the measured distance from the closest boundary of the active mining area to the nearest property line of the receptor. Using this information, Table 16 summarizes the predicted groundbourne vibration impacts resulting from the Project. Significance was determined by comparing the predicted change in groundbourne vibration to the applicable CalTrans thresholds outlined in Table 4.

Table 16 Predicted Project Vibration Levels at Receptors

Receptor	Distance (ft)	Predicted Vibration PPV (in/sec)	Applicable Significance Threshold (in/sec)[1]	Significant?
N1	117	0.016	≤ 0.035	No
N2	1,758	0.001	≤ 0.035	No
N3	1,874	0.001	≤ 0.035	No
N4	987	0.002	≤ 0.035	No
N5	156	0.012	≤ 0.035	No
N6	2,412	0.001	≤ 0.035	No
N7	2,734	0.001	≤ 0.035	No

Note: See Appendix C for more detail.

1 – The Project vibration levels shown above are considered "barely perceptible" per CalTrans guidance (Caltrans, 2013).

As shown in Table 16, predicted vibration impacts to nearby receptors were well below the applicable CalTrans significance thresholds for human response. Groundbourne vibration impacts to nearby receptors resulting from Project operations are **less than significant** with **no mitigation required**.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not Applicable.

6.1.3 Substantial Permanent Increase in Ambient Noise Level

Impact Statement

Impact NO-3: *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?* **(Appendix G Threshold Criteria (c))**

Impact Analysis

To determine if the Project would result in a substantial "permanent" increase in ambient noise levels at nearby receptors, the change criterion presented in Table 3 is utilized. Using this criteria, a potentially significant impact would result if noise levels at receptors are increase by +6 dBA above the ambient due to Project noise sources, which represents a "clearly noticeable" noise level increase.

Table 17 and Table 18 below show the predicted increase in noise level at each receptor during initial ground preparation (removal of overburden) activities and mining operations (extraction of aggregates) respectively. This change is compared to the change criterion present in Table 3 to determine significance. Please note, the calculations noise levels for overburden removal conservatively assume that both the mining equipment (i.e. scrappers) and the portable concrete/asphalt processing plant would be operating simultaneously in the areas immediately adjacent to nearby receptors.

Referring to Table 17, initial ground preparation activities would significantly increase noise levels at **Receptor N1** by approximately +22.5 dBA, or "about four times as loud," which is considered a significant impact. Initial ground preparation activities would also increase noise levels at **Receptor N4** by approximately +6.4 dBA, a "clearly noticeable" increase, and at **Receptor N5** by approximately +13.4 dBA, or "about twice as loud." Referring to Table 18, mining operations would not increase noise levels at any receptor above the "just barely perceptible" significance threshold. Impacts to Receptors N1, N2 and N3 during ground preparation activities are considered **potentially significant**.

Table 17 Initial Ground Preparation – Project-Related Noise Level Increases w/o Mitigation

Site	Ambient L_{eq} (dBA)[1]	Total Phase 1 Project Noise Level (dBA)	Change (dBA)[2]	Subjective Reaction[3]	Significant?
N1	63.7	86.2	**22.5**	**About Four Times as Loud**	**Yes**
N2	65.2	62.7	1.9	Imperceptible	No
N3	63.6	62.1	2.3	Just Barely Perceptible	No
N4	62.4	65.9	**6.4**	**Clearly Noticeable**	**Yes**
N5	70.5	83.9	**13.4**	**About Twice as Loud**	**Yes**
N6	72.4	72.6	0.2	Imperceptible	No
N7	80.3	80.3	0.0	Imperceptible	No

See footnotes below.

Table 18 Mining Operations – Project-Related Noise Level Increases

Site	Ambient L_{eq} (dBA)[1]	Total Phase 2 Project Noise Level (dBA)	Change (dBA)[2]	Subjective Reaction[3]	Significant?
N1	63.7	66.5	2.8	Just Barely Perceptible	No
N2	65.2	65.2	0.0	Imperceptible	No
N3	63.6	63.6	0.0	Imperceptible	No
N4	62.4	62.5	0.1	Imperceptible	No
N5	70.5	70.9	0.4	Imperceptible	No
N6	72.4	72.4	0.0	Imperceptible	No
N7	80.3	80.3	0.0	Imperceptible	No

Footnotes:

Notes: Values shown in **bold** represent a potentially significant impact. See Appendix E for more detail.

1 – See Table 8 for the ambient noise levels at each receptor.

2 – Values shown represent the dBA increase in noise experienced at each receptor resulting from Project noise sources (i.e. mining equipment & concrete/asphalt plant)

3 – See Table 3 for subjective reactions to changes in noise levels. A decibel change of +6 dBA is considered potentially significant (i.e. "clearly noticeable"). Source: *Fundamentals of Noise and Vibration Analysis for Engineers* (Norton & Karczub, 2003)

Level of Significance Before Mitigation

Potential for a significant impact is predicted at Receptors 1 (N1), 4 (N4), and 5 (N5).

Mitigation Measures

Following implementation of Mitigation Measure NO-1, NO-2 and NO-3, Table 19 below shows the mitigated noise impacts at Receptors 1 (N1), 4 (N4), and 5 (N5). Mitigation Measures NO-1, NO-2 and NO-3 are recommended to reduce impacts on receptors to less than significant levels.

Table 19 Mitigated Ground Preparation Noise – Project-Related Noise Level Increases

Site	Ambient L_{eq} (dBA)	Mitigated Project Noise Level (dBA)[1]	Change (dBA)	Subjective Reaction[2]	Significant?
N1	63.7	65.0	1.2	Just Barely Perceptible	No
N4	62.4	63.0	0.6	Imperceptible	No
N5	70.5	73.5	3.0	Just Barely Perceptible	No

Footnotes:

1 – Reductions are applied to Receptors N1, N4 and N5 due to either the minimum concrete/asphalt plant setback of 1,600 feet from nearby receptors or installation of a sound barrier. A -14.5 dB reduction is applied to predicted source noise levels at Receptor N1 to account for noise attenuation provided by the installation of a 12-foot berm (minimum 300-foot length) along the property boundary facing Receptor N1. See Figure 5 (Appendix A) and Appendix E for more detail.

2 – See Table 3 for subjective reactions to changes in noise levels. A decibel change of +6 dBA is considered potentially significant.

Level of Significance After Mitigation

Upon implementation of MM NO-1, MM NO-2 and MM NO-3, Project impacts to nearby receptors would be less than significant as shown in Table 19.

6.1.4 Substantial Temporary Increase in Ambient Noise Level

Impact NO-4: *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?* **(Appendix G Threshold Criteria (d))**

Impact Analysis

To determine if the Project would result in a substantial "temporary or periodic" increase in ambient noise levels at nearby receptors, the same methods as those outlined in Section 6.1.3 were utilized. As shown in Table 18 previously, the greatest source of "temporary" noise impacts will result from overburden removal activities. However, this Project phase is only expected to last approximately one (1) month.

Nonetheless, temporary impacts to Receptors N1, N2 and N3 during ground preparation activities are considered **potentially significant**.

Level of Significance Before Mitigation

Potential for a significant impact is predicted at Receptors 1 (N1), 4 (N4), and 5 (N5).

Mitigation Measures

Following implementation of Mitigation Measure NO-1, NO-2 and NO-3, Table 19 below shows the mitigated noise impacts at Receptors 1 (N1), 4 (N4), and 5 (N5). Mitigation Measures NO-1, NO-2 and NO-3 are recommended to reduce impacts on receptors to less than significant levels.

Level of Significance After Mitigation

Upon implementation of MM NO-1, MM NO-2 and MM NO-3, Project impacts to nearby receptors would be less than significant as shown in Table 19.

6.1.5 Airport Land Use/Vicinity Analysis

Impact Statement

Impact NO-5: *For a project located within 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?* **(Appendix G Threshold Criteria (e))**

Impact Analysis

The proposed Project site is not located within 2 miles of any public airports or public airstrips. The closest airport/airstrip is Mather Airport, located approximately 3.8 miles northwest of the Project site. Furthermore, the Project does not involve creation of a new noise-sensitive land uses (i.e. residences). Therefore, the Project would have **no impact** related to airport/airstrip noise levels.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not Applicable.

6.1.6 Private Airstrip Land Use/Vicinity Analysis

Impact Statement

Impact NO-6: *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?* **(Appendix G Threshold Criteria (f))**

Impact Analysis

As described in Section 6.1.5, the proposed Project site is not located within 2 miles of any public airports or public airstrips. The closest airport/airstrip is Mather Airport, located approximately 3.8 miles northwest of the Project site. Furthermore, the Project does not involve creation of a new noise-sensitive land uses (i.e. residences). Therefore, the Project would have **no impact** related to airport/airstrip noise levels.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Not Applicable.

7.0 FINDINGS

This Noise Impact Assessment finds that:

- Mitigated Project noise impacts are less than significant at nearby receptors;
- Project vibration impacts are less than significant at nearby receptors;
- The Project would result in a Class II impact, significant but mitigable.

8.0 REFERENCE

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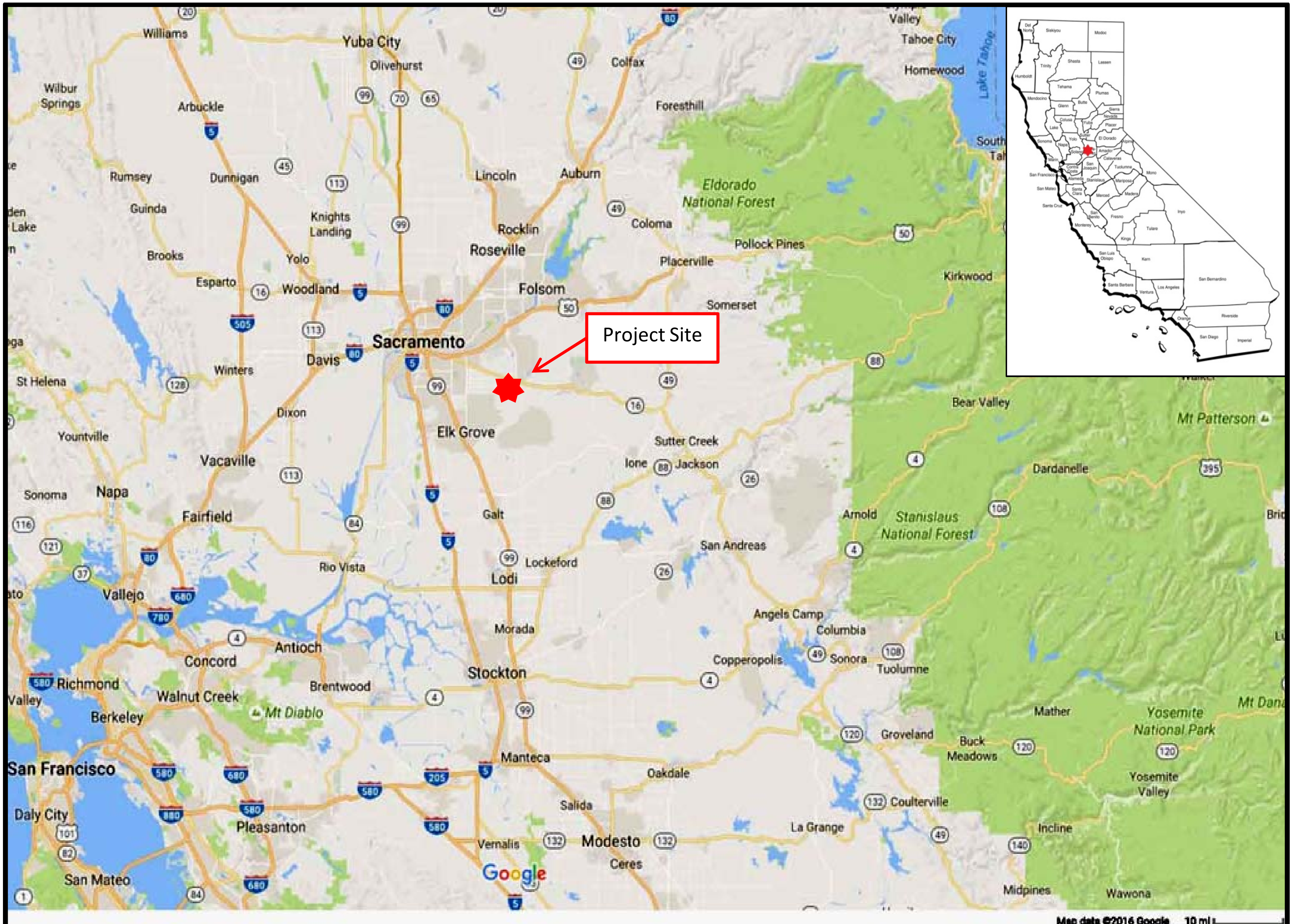
APPENDIX A

Figures



Google Earth 2016

N

SESPE
CONSULTING, INC.

FIGURE 1	REGIONAL LOCATION MAP Carli Expansion Project 11501 Florin Road Sacramento County, CA 95830		
PROJECT #:	VU01.15.64	DATE:	11/22/16
SCALE:	as shown	DRAWN BY:	GPS

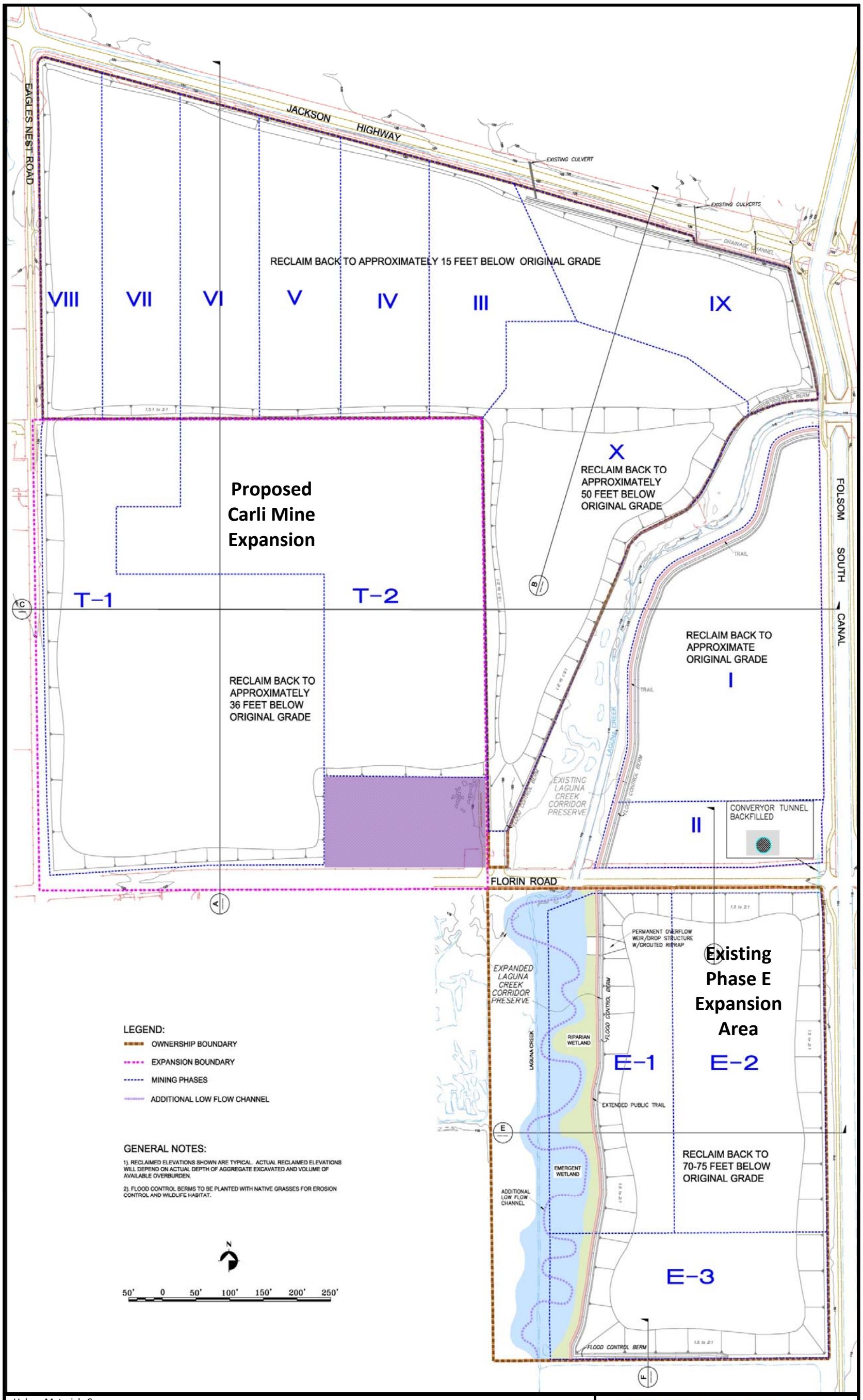
Google Earth 2016

- Approximate Project Site Boundary

N

SESPE CONSULTING, INC.

FIGURE 2	LOCAL LOCATION MAP Carli Expansion Project 11501 Florin Road Sacramento County, CA 95830		
PROJECT #:	VU01.15.64	DATE:	11/22/16
SCALE:	as shown	DRAWN BY:	GPS



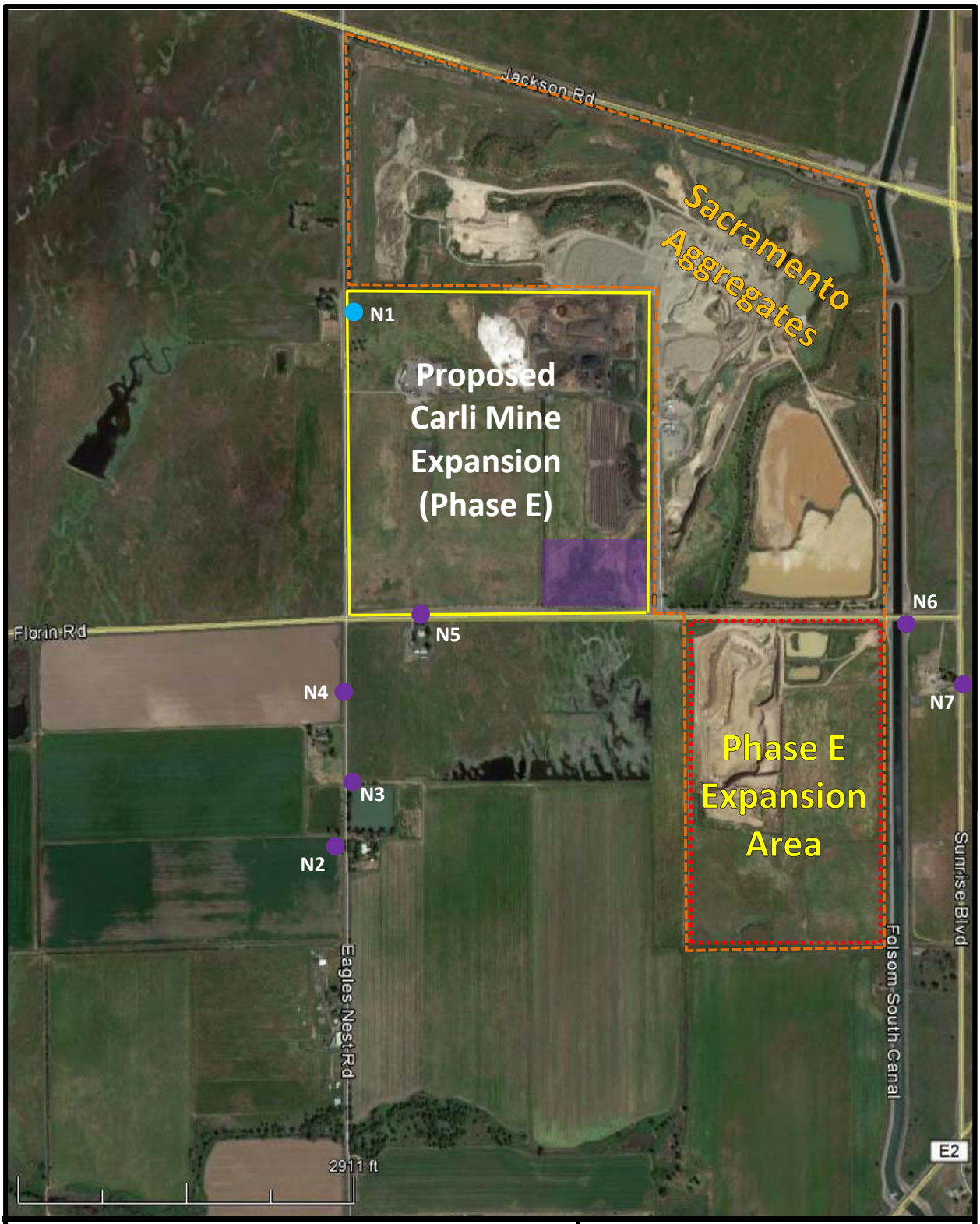
Vulcan Materials Company

N

SESPE CONSULTING, INC.

- Season Wetland Avoidance Area (No Mining)

FIGURE	MINING & RECLAMATION PLAN		
3	Carli Expansion Project 11501 Florin Road Sacramento County, CA 95830		
PROJECT #:	VU01.15.64	DATE:	2/28/17
SCALE:	as shown	DRAWN BY:	Vulcan



Google Earth 2016

N

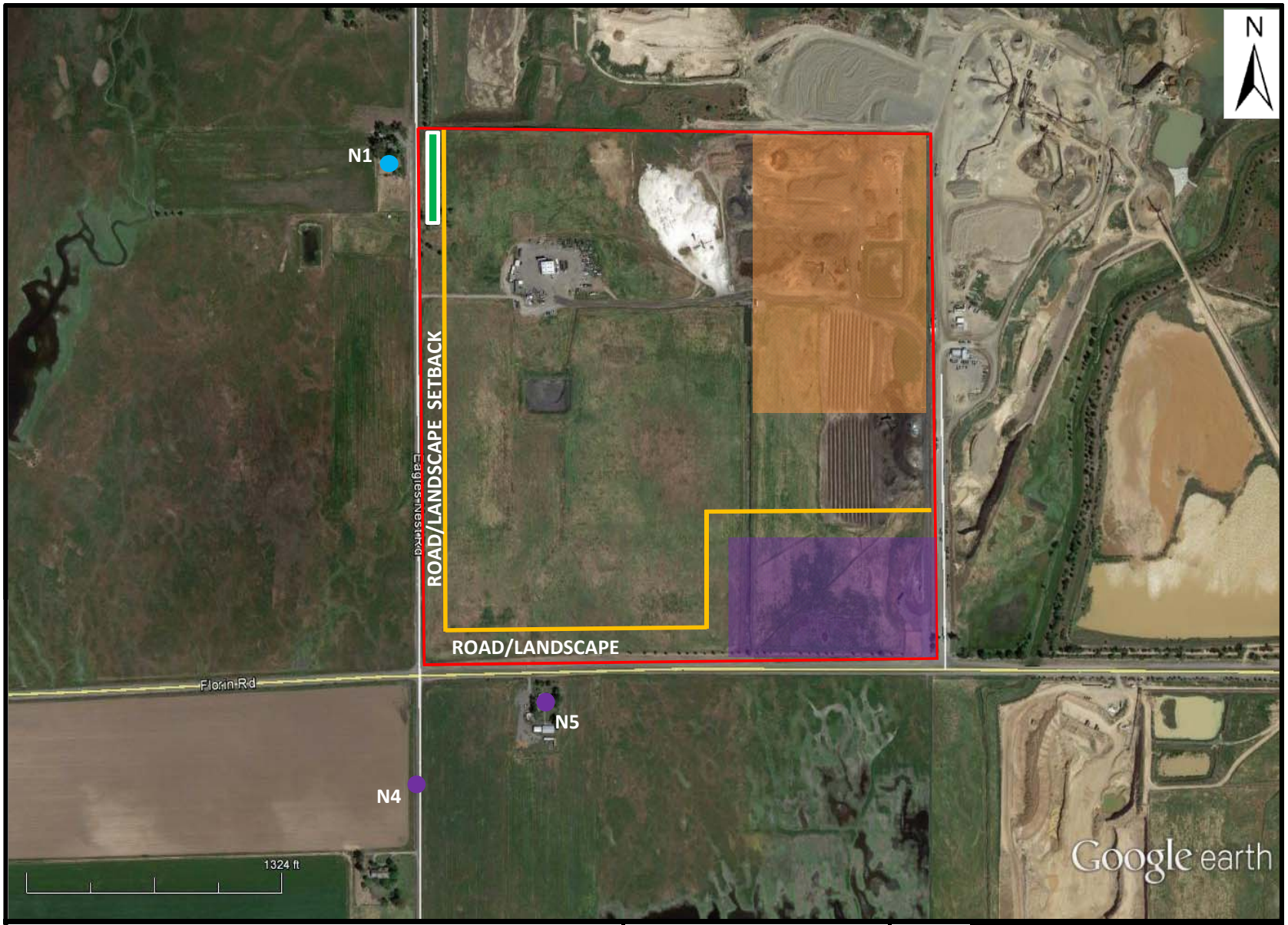
SESPE CONSULTING, INC.

- Approximate Project Site Boundary
- Approximate Sacramento Aggregates Operations Boundary
- Approximate Phase E Expansion Boundary
- Season Wetland Avoidance Area (No Mining)
- Long-Duration (24-Hours) Noise Monitoring Location
- Short-Duration (15-Minutes) Noise Monitoring Locations

FIGURE 4

RECEPTOR LOCATIONS
Carli Expansion Project
11501 Florin Road
Sacramento County, CA 95830

PROJECT #:	VU01.15.64	DATE:	11/22/16
SCALE:	as shown	DRAWN BY:	GPS



Google Earth 2016

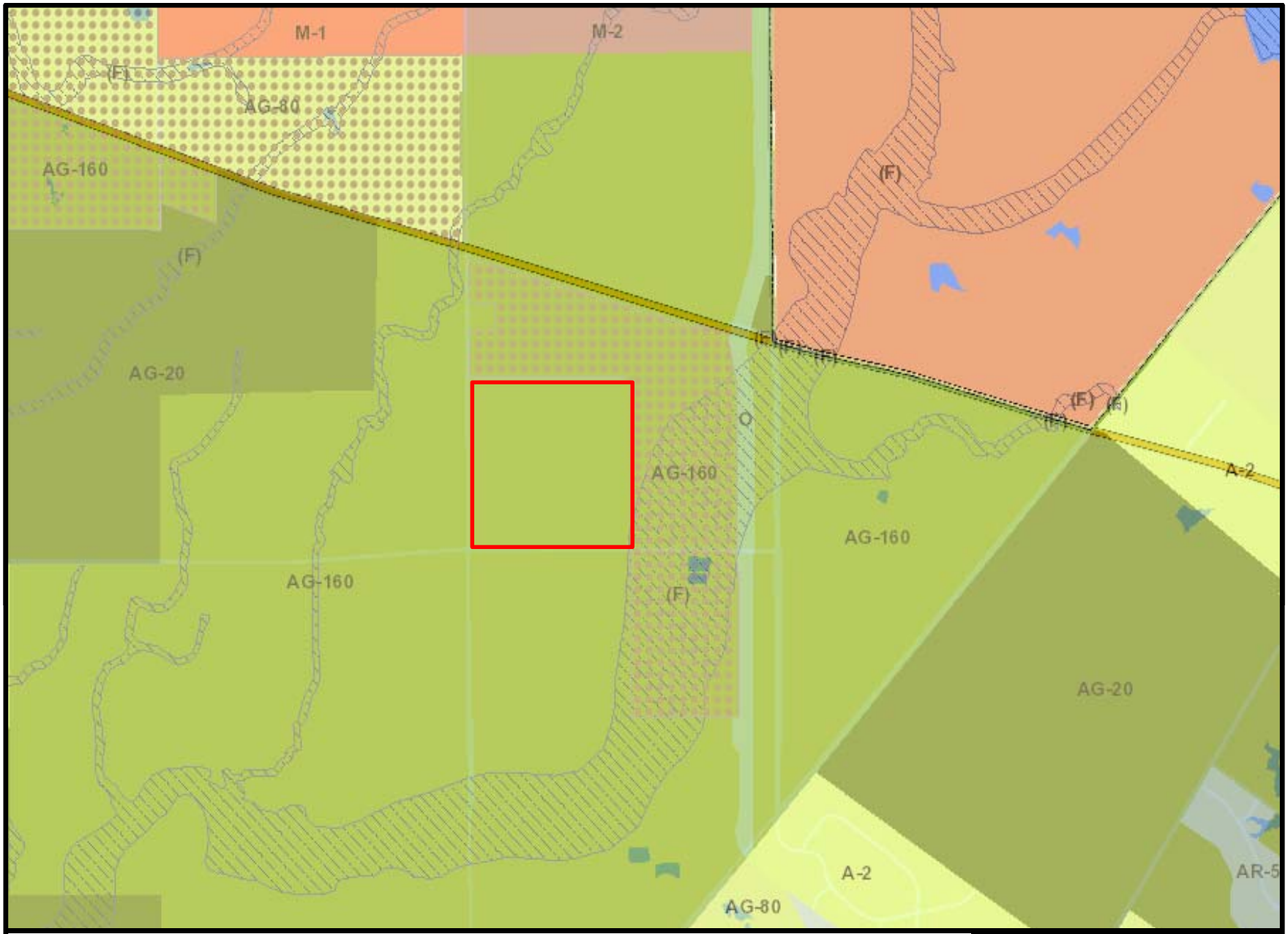
- Approx. Project Site Boundary
- Approx. Mining Boundary (45-foot setback from property boundary)
- Season Wetland Avoidance Area (No Mining)
- Plant Operation Area (minimum 1,600 feet away from receptors)
- 6-Foot Tall Earthen Berm (minimum 300-foot length)

SESPE CONSULTING, INC.

FIGURE 5

MINING/PLANT SETBACKS & BERM
Carli Expansion Project
11501 Florin Road
Sacramento County, CA 95830

PROJECT #:	VU01.15.64	DATE:	10/5/16
SCALE:	as shown	DRAWN BY:	GPS



Google Earth 2016

- Approx. Project Site Boundary

N

SESPE CONSULTING, INC.

FIGURE 6	SACARAMENTO CO. ZONING MAP Carli Expansion Project 11501 Florin Road Sacramento County, CA 95830		
PROJECT #:	VU01.15.64	DATE:	11/22/16
SCALE:	as shown	DRAWN BY:	GPS

APPENDIX B

Ambient Noise Summary & Meter Log Summaries

Ambient Noise Summary

Ambient Measurement - Receptor N1 (24-Hour Reference)										
Site	Date	Duration	Time Start	Time Stop	24-Hour Measurement		Outdoor Area Daytime		Interior[1] Daytime & Nighttime	
					Measured L_{eq}	Measured L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
N1	9/29/16 - 9/30/16	24-Hours	10:58:19 AM	10:58:19 AM	61.9	99.8	63.7	99.8	43.7	79.8

Note: All values in units of dBA. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

Ambient Measurements & Correction Factors - Receptors N2, N3, N4, N5, N6 and N7 (15-Minute)										
Site	Date	Duration	Time Start	Time Stop	15-Min Measured L_{eq}	15-Min Measured L_{max}	24-Hour L_{eq} (during same period)	24-Hour L_{max} (during same period)	L_{eq} Change (correction factor)[2]	L_{max} Change (correction factor)[2]
N2	9/29/16	15-Mins	11:21:07 AM	11:36:07 AM	52.9	78.4	51.4	74.9	1.5	3.5
N3	9/29/16	15-Mins	11:39:07 AM	11:54:07 AM	48.7	67.3	48.9	69.1	- 0.2	- 1.8
N4	9/29/16	15-Mins	11:59:17 AM	12:14:17 PM	73.8	93.2	75.2	97.7	- 1.3	- 4.5
N5	9/29/16	15-Mins	12:18:40 PM	12:33:40 PM	61.9	82.7	55.1	77.6	6.8	5.1
N6	9/29/16	15-Mins	1:03:05 PM	1:18:05 PM	65.5	80.2	56.9	81.6	8.6	- 1.4
N7	9/29/16	15-Mins	1:26:02 PM	1:41:02 PM	72.0	85.6	55.4	78.2	16.5	7.4

Note: All values in units of dBA.

Ambient Noise Level Summary @ Receptors[3]					
Site	Receptor Type	Outdoor Area Daytime		Interior[1] Daytime & Nighttime	
		L_{eq}	L_{max}	L_{eq}	L_{max}
N1	Residential	63.7	99.8	43.7	79.8
N2	Residential	65.2	103.3	45.2	83.3
N3	Residential	63.6	98.0	43.6	78.0
N4	Residential	62.4	95.3	42.4	75.3
N5	Residential	70.5	104.9	50.5	84.9
N6	Residential	72.4	98.4	52.4	78.4
N7	Residential	80.3	107.2	60.3	87.2

Note: All values in units of dBA. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

FOOTNOTES:

1 - Based on the EPA's *Protective Noise Levels* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. This takes into account the average noise reduction provided while windows are closed (25 dBA) and while windows are open (15 dBA). This is a conservatively low estimate of noise attenuation as residents are expected to generally keep windows closed, especially those facing sources of noise. This 20 dBA attenuation is applied to the daytime L_{eq} and L_{max} values to determine interior noise levels.

2 - The dBA change shown above was calculated by comparing the measured L_{eq} and L_{max} values at each short-duration (15-min) receptor to the measured L_{eq} and L_{max} at the long-duration (24-hour) reference location during the same time period. The difference (i.e. correction factor) shown above is then applied to the measured 24-hour L_{eq} and L_{max} data points to quantify the daytime (7:00 AM-10:00 PM) noise levels at each receptor location.

3 - Ambient noise levels for receptor N1 represent the measured L_{eq} and L_{max} daytime noise levels, measured over a 24-hour period. To estimate L_{eq} and L_{max} daytime noise levels at short-duration (15-minute) receptor locations (N2, N3, N4, N5, N6 and N7), the applicable correction factor calculated in the table above is applied to the measured L_{eq} and L_{max} daytime noise levels at the long-duration (24-hour).

Long-Duration (24-Hour) Meter Summary

Receptor N1

9/29/2016 + 9/30/2016

Serial Number	BGI040008	
Start Time	10:58:19 AM	9/29/2016
Run Length	24:00:00	5529600
Stop Time	10:58:19 AM	9/30/2016

UNIT REV R12N

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description		Units	Value
Pre-Cal	Level	dB	114.1
	Date		10:55:04 29-Sep-2016
Post-Cal	Level	dB	114
	Date		10:58:57 30-Sep-2016
ReCert	Date		Unavailable

Configuration Information		
Description	Units	Meter 1
Integration Threshold	dB	OFF
Exchange Rate	dB	3
Criterion Level	dB	90
Upper Limit Level	dB	140
Projected Time	Hrs	24
Weighting		A
Time Response		SLOW

Measurement	Units	Meter 1 Broadband
Lavg	dB	61.9
Lmax	dB	99.8
Lmin	dB	28.5
Lpk	dB	116
TWA	dB	66.6
PTWA	dB	66.6
DOSE	%	0.46
PDOSE	%	0.46
SEL	dB	111.2
EXP	p2s	53

Long-Duration (24-Hour) Meter Summary

Receptor N1

9/29/2016 + 9/30/2016

Measurement	Units	Value
LDN	dB	63.3
CNEL	dB	63.3
TAKTMAX (5sec)	dB	N/A
LC-A	dB	N/A

		Meter 1			Meter 2		
		Count	Percent	Time	Count	Percent	Time
Overload	(OL)	0	0	00:00:00	0	0	00:00:00
Under-Range	(UR)	1198295	21.67	05:12:03	1209477	21.87	05:14:58
Upper Limit	(UL)	0	0	00:00:00	0	0	00:00:00

Exceedence Table

	0	1	2	3	4	5	6	7	8	9
0	99.8	71.6	68.6	65.6	62.7	60	57.6	55.7	54	52.8
10	51.7	50.8	50	49.2	48.6	48	47.5	47	46.5	46.1
20	45.6	45.2	44.9	44.6	44.3	44	43.8	43.5	43.3	43
30	42.8	42.5	42.3	42.1	41.9	41.7	41.5	41.4	41.2	41
40	40.8	40.6	40.5	40.3	40.1	40	39.8	39.7	39.5	39.3
50	39.2	39	38.8	38.7	38.6	38.4	38.3	38.1	37.9	37.8
60	37.6	37.5	37.3	37.2	37	36.9	36.7	36.6	36.4	36.3
70	36.1	36	35.8	35.7	35.5	35.4	35.2	35.1	34.9	34.7
80	34.6	34.4	34.2	34.1	33.9	33.7	33.5	33.3	33.2	32.9
90	32.7	32.5	32.3	32.1	31.8	31.5	31.2	30.9	30.5	30

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N1	0:00:30	0:00:30		49.1	85.5	58.9	43.7
(24 Hour)	0:01:00	0:01:00		52.4	92.8	64.3	41
	0:01:30	0:01:30		49.8	87.7	55.8	43.6
	0:02:00	0:02:00		47.8	84.5	54.8	38.9
	0:02:30	0:02:30		44.9	67.6	50.9	37.7
	0:03:00	0:03:00		44.1	61.5	50.6	38.6
	0:03:30	0:03:30		41.4	66.9	45.3	37
	0:04:00	0:04:00		45.4	69.9	57.3	35.7
	0:04:30	0:04:30		51.3	74.2	61.4	38.1
	0:05:00	0:05:00		44.3	65.1	47	42
	0:05:30	0:05:30		41	64.2	43.2	38.8
	0:06:00	0:06:00		39	60	41.5	35.6
	0:06:30	0:06:30		39	58	42.3	36
	0:07:00	0:07:00		40.9	57.3	42.8	38.7
	0:07:30	0:07:30		37.9	54.8	40.3	35.2
	0:08:00	0:08:00		37.3	58.2	41.3	35.4
	0:08:30	0:08:30		39.2	60.3	41.4	37.7
	0:09:00	0:09:00		40.5	64.3	41.6	38.3
	0:09:30	0:09:30		40.8	59.5	42.5	38.9
	0:10:00	0:10:00		64.2	90.2	75.9	39.7
	0:10:30	0:10:30		47.9	60.7	58.6	42.4
	0:11:00	0:11:00		42.9	59.1	45.1	39.8
	0:11:30	0:11:30		39.4	59.7	42.5	35.4
	0:12:00	0:12:00		40.8	60.2	42.7	37.4
	0:12:30	0:12:30		41.2	59.6	42.3	39.2
	0:13:00	0:13:00		41.5	60.6	43.6	40.2
	0:13:30	0:13:30		61	84.9	70.1	42.1
	0:14:00	0:14:00		49.9	66.7	53.9	43.4
	0:14:30	0:14:30		56.4	83.2	67.9	38.8
	0:15:00	0:15:00		40.8	60.7	42.6	38.9
	0:15:30	0:15:30		40.9	59.3	42.4	39.5
	0:16:00	0:16:00		40.3	57.9	42	38.3
	0:16:30	0:16:30		40.6	57.4	42.2	39.3
	0:17:00	0:17:00		39.9	58.2	42.9	37.4
	0:17:30	0:17:30		39.9	60.5	41.7	38.4
	0:18:00	0:18:00		55.6	80.5	65.9	37.7
	0:18:30	0:18:30		40	58.3	42.4	36.8
	0:19:00	0:19:00		41.4	59.1	42.5	39.3
	0:19:30	0:19:30		41.9	59.1	43.5	40.3
	0:20:00	0:20:00		40.3	56.7	42.1	39.3
	0:20:30	0:20:30		43.2	63.3	48.7	39.7
	0:21:00	0:21:00		49.9	65.3	52.3	45
	0:21:30	0:21:30		46	62	50.8	41.6
	0:22:00	0:22:00		42.3	60.3	44.4	38.4
	0:22:30	0:22:30		41.5	59	43.6	38.8
N2	0:23:00	0:23:00		41.8	58.4	44	39.9
N2	0:23:30	0:23:30		41	58.8	43.2	38.7
N2	0:24:00	0:24:00		41.5	59.4	44	36.8
N2	0:24:30	0:24:30		39.2	58.8	42.5	37.1
N2	0:25:00	0:25:00		40.3	59.8	42.3	38.5
N2	0:25:30	0:25:30		37.8	57.7	40.4	36.2
N2	0:26:00	0:26:00		37.3	56.3	38.4	35.9
N2	0:26:30	0:26:30		39.9	58.9	45.3	37.1
N2	0:27:00	0:27:00		38.8	56.2	40.4	37.4
N2	0:27:30	0:27:30		38.8	57.6	41.2	37.2
N2	0:28:00	0:28:00		38.1	57.1	40.4	36.6
N2	0:28:30	0:28:30		38.4	58.3	42.5	36.2
N2	0:29:00	0:29:00		48.6	64.2	52.3	41.4
N2	0:29:30	0:29:30		47.1	65.1	52.1	40.2
N2	0:30:00	0:30:00		39.5	59.6	41.7	37.6
N2	0:30:30	0:30:30		38	55.7	39.8	35.8
N2	0:31:00	0:31:00		37.4	57.4	40.1	35.9
N2	0:31:30	0:31:30		38.8	60.5	42.1	35.6
N2	0:32:00	0:32:00		38.1	59	40.4	36.2
N2	0:32:30	0:32:30		40.1	59	43.5	37.7
N2	0:33:00	0:33:00		41.3	60.7	43.3	39.1
N2	0:33:30	0:33:30		40.1	56.3	41.4	38.6
N2	0:34:00	0:34:00		53.2	75.8	62.2	40.6
N2	0:34:30	0:34:30		58.2	77.8	65	38.1
N2	0:35:00	0:35:00		46.2	64.9	51.5	37.5
N2	0:35:30	0:35:30		62.7	88.8	74.9	40.8
N2	0:36:00	0:36:00		39.9	58	44.3	36.3
N2	0:36:30	0:36:30		59.6	88.4	72.4	35.3
N2	0:37:00	0:37:00		54.4	74.4	68.6	35.7

Start: 10:58:19 AM 9/29/2016
End: 10:58:19 AM 9/30/2016

Total Baseline (24-Hours)

L_{eq}	L_{max}
61.9	99.8

Daytime (7:00 AM - 10:00 PM)

L_{eq}	L_{max}
63.7	99.8

15-Min Baseline (L_{eq} + L_{max})

Receptor	L_{eq}	L_{max}
N2	51.4	74.9
N3	48.9	69.1
N4	75.2	97.7
N5	55.1	77.6
N6	56.9	81.6
N7	55.4	78.2

15-Min Baseline (L_{eq} + L_{max})

Receptor	L_{eq}	L_{max}
N2	51.4	74.9
N3	48.9	69.1
N4	75.2	97.7
N5	55.1	77.6
N6	56.9	81.6
N7	55.4	78.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N2	0:37:30	0:37:30		37.8	56.5	39.7	36.4
N2	0:38:00	0:38:00		39	64.1	42	36.9
	0:38:30	0:38:30		40	56.4	42.1	38.9
	0:39:00	0:39:00		70.6	97.5	82.6	39.4
	0:39:30	0:39:30		43.1	63.7	48.9	38.6
	0:40:00	0:40:00		39.6	56.1	42.3	37.1
	0:40:30	0:40:30		37.4	52	39.6	36
N3	0:41:00	0:41:00		37.7	55.9	39.7	36.1
N3	0:41:30	0:41:30		38.5	56.6	39.9	36.6
N3	0:42:00	0:42:00		56.3	77.8	64.4	39.5
N3	0:42:30	0:42:30		55.2	74.9	63.7	38.8
N3	0:43:00	0:43:00		58.1	88.6	69.1	37.2
N3	0:43:30	0:43:30		36.4	54.8	38.1	35.8
N3	0:44:00	0:44:00		44.9	69.6	56.1	35.9
N3	0:44:30	0:44:30		51.4	73	58.3	36.9
N3	0:45:00	0:45:00		36.1	53.7	39.9	34.9
N3	0:45:30	0:45:30		38.7	54.4	41.6	36.9
N3	0:46:00	0:46:00		42.7	60.3	47.2	38
N3	0:46:30	0:46:30		44.2	63.5	49.9	40.2
N3	0:47:00	0:47:00		55.8	75.8	62.8	37.9
N3	0:47:30	0:47:30		37.9	53.6	39.9	36.3
N3	0:48:00	0:48:00		41.2	63.4	49.3	36.9
N3	0:48:30	0:48:30		38.9	60.6	42.1	37
N3	0:49:00	0:49:00		37.8	61.5	40.7	35.7
N3	0:49:30	0:49:30		37.2	58.4	40.3	35.8
N3	0:50:00	0:50:00		38.7	57.8	41.9	36.2
N3	0:50:30	0:50:30		45.3	61.9	49.1	40.4
N3	0:51:00	0:51:00		52.6	70.5	58.1	40.9
N3	0:51:30	0:51:30		41.8	59.2	51.1	37.1
N3	0:52:00	0:52:00		40	56.8	43.2	37.4
N3	0:52:30	0:52:30		37.5	54	40.1	36.3
N3	0:53:00	0:53:00		39.2	54.3	41.2	37.3
N3	0:53:30	0:53:30		38.9	53.8	41	37.7
N3	0:54:00	0:54:00		39.8	64.6	48.5	37.1
N3	0:54:30	0:54:30		40.8	64.7	44.6	38.3
N3	0:55:00	0:55:00		40.2	58.9	44.9	38.1
N3	0:55:30	0:55:30		41.4	63	46.7	35.2
N3	0:56:00	0:56:00		37.1	55.3	40.7	35.2
	0:56:30	0:56:30		38.1	53.5	40	36.5
	0:57:00	0:57:00		40.5	59.1	44.9	36.1
	0:57:30	0:57:30		61.5	87.8	73.7	38.4
	0:58:00	0:58:00		38.3	69.6	40.9	36.3
	0:58:30	0:58:30		37.6	56.4	43.2	36.1
	0:59:00	0:59:00		55.7	75.5	59.7	43.2
	0:59:30	0:59:30		45.2	66.7	51.9	39.8
	1:00:00	1:00:00		38.9	55.7	40.1	37.2
	1:00:30	1:00:30		42.6	61.7	48.6	38.1
N4	1:01:00	1:01:00		39.2	60.2	43.3	37
N4	1:01:30	1:01:30		70.9	100	84.8	36.4
N4	1:02:00	1:02:00		82.2	107.6	89.3	72.8
N4	1:02:30	1:02:30		83.1	106.7	89	63.4
N4	1:03:00	1:03:00		52.9	72.9	63.3	37.2
N4	1:03:30	1:03:30		38.9	57.1	42.2	37.1
N4	1:04:00	1:04:00		37.9	57	41.4	36
N4	1:04:30	1:04:30		40.5	59.6	43.7	37.3
N4	1:05:00	1:05:00		52.2	74.7	61.9	37.7
N4	1:05:30	1:05:30		88	116	97.7	58.9
N4	1:06:00	1:06:00		65.7	83.5	78	49.4
N4	1:06:30	1:06:30		54.1	71.6	58.9	47.4
N4	1:07:00	1:07:00		46.6	64.9	51.1	39.8
N4	1:07:30	1:07:30		38.2	56.3	41.4	36.3
N4	1:08:00	1:08:00		64.5	91.9	76.5	36.4
N4	1:08:30	1:08:30		43.1	77.6	60.4	36.9
N4	1:09:00	1:09:00		57.5	83.3	69.4	36.7
N4	1:09:30	1:09:30		59.3	85.9	71.5	36
N4	1:10:00	1:10:00		60.7	86.7	72.8	35.8
N4	1:10:30	1:10:30		37.6	54.5	46.6	35.6
N4	1:11:00	1:11:00		48.5	68.8	55.6	35.7
N4	1:11:30	1:11:30		42	58.9	46.5	37.3
N4	1:12:00	1:12:00		38	55	40.1	35
N4	1:12:30	1:12:30		35.7	57.5	39.6	34
N4	1:13:00	1:13:00		34.7	52.3	39.5	33.3
N4	1:13:30	1:13:30		36.1	58.3	40.5	34.2
N4	1:14:00	1:14:00		35.7	52.9	37.3	34.2
N4	1:14:30	1:14:30		41.1	59.9	46.3	35.3
N4	1:15:00	1:15:00		39.4	54.9	41.3	37.6
N4	1:15:30	1:15:30		39.6	56.7	42.8	36.8

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N4	1:16:00	1:16:00		43.9	62.2	49.1	37.9
	1:16:30	1:16:30		61.1	88.2	72.6	36
	1:17:00	1:17:00		35.2	54.4	37.6	34.2
	1:17:30	1:17:30		38.2	57.1	44.1	35.4
	1:18:00	1:18:00		45.1	62.5	49	39.2
	1:18:30	1:18:30		37.7	56.4	39.2	36.6
	1:19:00	1:19:00		36.3	53.8	38.9	34.6
	1:19:30	1:19:30		58.9	87.3	70.6	35
	1:20:00	1:20:00		38.4	55.3	45	35.9
N5	1:20:30	1:20:30		65.8	93	77.6	38.8
N5	1:21:00	1:21:00		49.2	68.9	54.9	42
N5	1:21:30	1:21:30		60.5	87.9	72.2	38.4
N5	1:22:00	1:22:00		40.7	58	43.9	37.7
N5	1:22:30	1:22:30		57.8	83.2	69.3	35.9
N5	1:23:00	1:23:00		36.2	53.2	38.5	34.7
N5	1:23:30	1:23:30		35.6	51.1	36.9	34.3
N5	1:24:00	1:24:00		37.5	55	40.5	35.4
N5	1:24:30	1:24:30		38.7	56.3	42.7	35.7
N5	1:25:00	1:25:00		39.4	56.6	41.8	36.1
N5	1:25:30	1:25:30		41.8	60.2	46.1	37.6
N5	1:26:00	1:26:00		45.3	68	54.5	38.2
N5	1:26:30	1:26:30		52.2	72	57.5	46.8
N5	1:27:00	1:27:00		57.4	80.8	64.6	44.5
N5	1:27:30	1:27:30		42.1	63.4	44.7	40.4
N5	1:28:00	1:28:00		39.7	58.7	42.6	37.1
N5	1:28:30	1:28:30		43.8	63.6	50.1	36.6
N5	1:29:00	1:29:00		41	60.6	48.2	36.4
N5	1:29:30	1:29:30		38.4	53.6	40.3	35.8
N5	1:30:00	1:30:00		36.4	57.3	39.3	35.1
N5	1:30:30	1:30:30		38.3	73.2	49.3	34.2
N5	1:31:00	1:31:00		41.6	64.5	50.5	34.6
N5	1:31:30	1:31:30		50.5	69.5	56.9	36.7
N5	1:32:00	1:32:00		52.2	72	59.5	39.3
N5	1:32:30	1:32:30		49.9	70.4	57.3	40.4
N5	1:33:00	1:33:00		46.7	66.3	52.6	39.8
N5	1:33:30	1:33:30		47.3	64.7	53.2	41.7
N5	1:34:00	1:34:00		64.7	90.2	75.7	48.4
N5	1:34:30	1:34:30		46.1	66.7	50.9	36.8
N5	1:35:00	1:35:00		42.6	62.3	49.3	38.9
N5	1:35:30	1:35:30		46	67.6	54.3	38.5
	1:36:00	1:36:00		65.6	88.7	73.4	39.9
	1:36:30	1:36:30		62.9	87.3	71.5	50.6
	1:37:00	1:37:00		61.4	90.7	70.9	38
	1:37:30	1:37:30		37.6	56.1	40	36.5
	1:38:00	1:38:00		37.1	54.1	41.5	35.7
	1:38:30	1:38:30		61.8	89.4	74	34.6
	1:39:00	1:39:00		49.8	75.7	59.8	34.7
	1:39:30	1:39:30		58.3	76.6	64.3	41.7
	1:40:00	1:40:00		58.3	86.2	69.4	41.5
	1:40:30	1:40:30		58.8	83.9	70.5	35.2
	1:41:00	1:41:00		36.3	56.4	38.9	35.2
	1:41:30	1:41:30		48.8	69.6	57.5	35.4
	1:42:00	1:42:00		59.3	85.7	70.5	40.7
	1:42:30	1:42:30		38.9	65.5	42.5	37.4
	1:43:00	1:43:00		39.1	61	42.2	37.2
	1:43:30	1:43:30		39.1	54.8	41.7	37.2
	1:44:00	1:44:00		39.2	55.6	42.3	35.5
	1:44:30	1:44:30		37.3	53.3	39.4	35.6
	1:45:00	1:45:00		44.3	64.8	50.5	35.6
	1:45:30	1:45:30		42.2	58.3	45.5	39
	1:46:00	1:46:00		37.5	58	42.2	35.2
	1:46:30	1:46:30		36.1	57.4	44.1	33.7
	1:47:00	1:47:00		40.2	61.4	44.3	36
	1:47:30	1:47:30		38.5	55.6	41	36.6
	1:48:00	1:48:00		51.3	75.1	59.9	36.2
	1:48:30	1:48:30		51	73.9	60.3	38.3
	1:49:00	1:49:00		48	65	52.9	39.7
	1:49:30	1:49:30		39.7	59.3	42.5	37.8
	1:50:00	1:50:00		54.1	80.1	65.1	38.2
	1:50:30	1:50:30		43.2	66.4	51.8	35.1
	1:51:00	1:51:00		65.8	91.9	77.6	40.2
	1:51:30	1:51:30		43	66.1	49.5	36
	1:52:00	1:52:00		39.6	64.2	45	37.5
	1:52:30	1:52:30		47.9	66.6	54	39.9
	1:53:00	1:53:00		42.3	59.8	47.5	36.4
	1:53:30	1:53:30		37.3	58	39.5	35.1
	1:54:00	1:54:00		46.5	65.1	53.4	37.4

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	1:54:30	1:54:30		58.6	86.7	70.7	36.9
	1:55:00	1:55:00		40.1	57.5	50.7	35.2
	1:55:30	1:55:30		54.8	79.9	65.8	39.7
	1:56:00	1:56:00		61	87.4	73	41.9
	1:56:30	1:56:30		42.4	62.8	50.6	37.9
	1:57:00	1:57:00		42.7	63.8	46.6	38.7
	1:57:30	1:57:30		41.1	59.3	44.9	37.4
	1:58:00	1:58:00		46.4	71.6	53.9	38.9
	1:58:30	1:58:30		63.1	87.6	72.8	41.3
	1:59:00	1:59:00		54.5	73.1	60	44.6
	1:59:30	1:59:30		43.4	61	48.8	35.8
	2:00:00	2:00:00		38.2	60	40.9	35.1
	2:00:30	2:00:30		50.2	73.1	60.1	38.3
	2:01:00	2:01:00		63.6	86.5	73.2	37.9
	2:01:30	2:01:30		44.5	62	56.6	38.8
	2:02:00	2:02:00		61.6	86.8	72.5	41.2
	2:02:30	2:02:30		62.5	88.2	73.1	41.4
	2:03:00	2:03:00		58.9	86	70.4	36.8
	2:03:30	2:03:30		59.4	87.2	70.6	39.3
	2:04:00	2:04:00		38	54.4	42	35.6
	2:04:30	2:04:30		61.8	96.5	73.9	35.7
N6	2:05:00	2:05:00		35.7	52.9	38.2	34.5
N6	2:05:30	2:05:30		58.2	83.7	70	36.5
N6	2:06:00	2:06:00		54.7	72.5	58.6	44.5
N6	2:06:30	2:06:30		61.7	88.4	72.1	37.3
N6	2:07:00	2:07:00		39.5	56.9	42.7	37
N6	2:07:30	2:07:30		38.2	56.6	43.1	36
N6	2:08:00	2:08:00		38.9	55.7	41.2	36.7
N6	2:08:30	2:08:30		40.5	59.2	46.5	36.5
N6	2:09:00	2:09:00		54.7	79.3	65.9	35.4
N6	2:09:30	2:09:30		42.5	63.9	51.9	38
N6	2:10:00	2:10:00		38.7	55.5	40.8	37.3
N6	2:10:30	2:10:30		38.1	55	41.2	34.9
N6	2:11:00	2:11:00		37.2	58	40.9	34.7
N6	2:11:30	2:11:30		60.2	86.3	71.6	35
N6	2:12:00	2:12:00		37.4	57.9	40.7	35.8
N6	2:12:30	2:12:30		40.6	63	44.2	36.3
N6	2:13:00	2:13:00		39	59	42.6	36.7
N6	2:13:30	2:13:30		37.2	54.3	41.6	35.2
N6	2:14:00	2:14:00		37.3	56.7	38.1	35.7
N6	2:14:30	2:14:30		37.3	54.3	38.7	35.9
N6	2:15:00	2:15:00		37.6	54.2	40.2	36.4
N6	2:15:30	2:15:30		36.4	53	38.5	34.4
N6	2:16:00	2:16:00		45	64.9	49.4	37.3
N6	2:16:30	2:16:30		40.4	62.4	45.3	36.6
N6	2:17:00	2:17:00		48.8	69.2	56.5	35.7
N6	2:17:30	2:17:30		36.4	58.1	38	35.2
N6	2:18:00	2:18:00		57.8	84.6	69.3	34.8
N6	2:18:30	2:18:30		35.8	52.3	37.3	34.9
N6	2:19:00	2:19:00		52.3	76.8	63.1	36
N6	2:19:30	2:19:30		44.5	76.3	61.1	35.9
N6	2:20:00	2:20:00		70.1	95	81.6	39.5
	2:20:30	2:20:30		37.3	53.1	40.3	35.2
	2:21:00	2:21:00		35.9	51.8	36.7	34.6
	2:21:30	2:21:30		35.9	51.5	36.9	34.9
	2:22:00	2:22:00		36.5	53.7	38.9	35.1
	2:22:30	2:22:30		56.2	91	74.9	35.7
	2:23:00	2:23:00		65	92.4	77.4	35.1
	2:23:30	2:23:30		58.3	83.3	69.5	36.2
	2:24:00	2:24:00		58.5	85.2	70	35.8
	2:24:30	2:24:30		37	55	39.3	35
	2:25:00	2:25:00		62	89.2	74.3	37.2
	2:25:30	2:25:30		37.3	53.6	39.8	34.8
	2:26:00	2:26:00		35.5	51.9	38.2	33.9
	2:26:30	2:26:30		70.2	97.7	82.9	37.6
	2:27:00	2:27:00		72.4	99.7	84.7	36.8
	2:27:30	2:27:30		36.6	53.5	38.9	35.3
N7	2:28:00	2:28:00		36	52	38.2	34.9
N7	2:28:30	2:28:30		36.1	53.6	39.4	35.2
N7	2:29:00	2:29:00		39.5	58.9	44.4	36.1
N7	2:29:30	2:29:30		38.5	56.1	42.9	36.6
N7	2:30:00	2:30:00		36	50.5	37.2	35.1
N7	2:30:30	2:30:30		34.8	49	35.7	34
N7	2:31:00	2:31:00		34.8	50.3	36	34.1
N7	2:31:30	2:31:30		36.4	51.3	37.8	35.2
N7	2:32:00	2:32:00		36.9	51.6	38.1	35.9
N7	2:32:30	2:32:30		61.4	88.3	73.6	35.7

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N7	2:33:00	2:33:00		60.8	87.1	72.5	40.2
N7	2:33:30	2:33:30		43.6	65.2	47	40.5
N7	2:34:00	2:34:00		67	93.1	78.2	42.7
N7	2:34:30	2:34:30		42.9	60.8	48.8	36.1
N7	2:35:00	2:35:00		36.2	59.3	38.5	35.1
N7	2:35:30	2:35:30		39.3	65.2	44.6	34.6
N7	2:36:00	2:36:00		59.4	86.9	70.7	35.8
N7	2:36:30	2:36:30		36	55.1	40.9	33.6
N7	2:37:00	2:37:00		35.5	53.5	37.8	34.1
N7	2:37:30	2:37:30		34.5	51.5	36	33.7
N7	2:38:00	2:38:00		34.9	54.5	36	33.7
N7	2:38:30	2:38:30		59.1	86.7	71	34.3
N7	2:39:00	2:39:00		35.5	53.5	37.2	34.5
N7	2:39:30	2:39:30		34.8	53	36.6	33.5
N7	2:40:00	2:40:00		35.8	60.9	41.7	33.7
N7	2:40:30	2:40:30		56.8	82.8	68.2	34.8
N7	2:41:00	2:41:00		36.5	59.2	41.4	34.9
N7	2:41:30	2:41:30		37.3	55.3	41.9	34.1
N7	2:42:00	2:42:00		34.8	51.1	36	34.2
N7	2:42:30	2:42:30		34.9	49.5	36.6	33.5
N7	2:43:00	2:43:00		59.8	87.8	71.3	33.5
	2:43:30	2:43:30		39.1	53.8	48.1	35.1
	2:44:00	2:44:00		52	78.7	65.5	35.3
	2:44:30	2:44:30		51.6	72.9	64.8	34.7
	2:45:00	2:45:00		34.8	59.9	36.2	34
	2:45:30	2:45:30		35.3	53	38.5	34
	2:46:00	2:46:00		63.6	89.9	74.9	36.8
	2:46:30	2:46:30		40.1	58.9	43.7	37
	2:47:00	2:47:00		41.4	61	45.7	36.3
	2:47:30	2:47:30		39.8	67	45.5	35.4
	2:48:00	2:48:00		62.1	91.4	77.1	36.3
	2:48:30	2:48:30		61.6	79.4	75.9	33.8
	2:49:00	2:49:00		38.9	68.7	46.7	33.4
	2:49:30	2:49:30		40.1	70.3	47.6	33.7
	2:50:00	2:50:00		38.1	69.3	45.6	33.9
	2:50:30	2:50:30		42.1	71.9	48.3	36.4
	2:51:00	2:51:00		52.6	76.9	63.1	35.5
	2:51:30	2:51:30		35.4	53.5	38.4	34.1
	2:52:00	2:52:00		34.9	58.8	37.5	33.5
	2:52:30	2:52:30		55.1	83.2	66.9	34.2
	2:53:00	2:53:00		54.5	79.1	65	35.4
	2:53:30	2:53:30		36.2	60.9	39.2	34.1
	2:54:00	2:54:00		36.8	53.6	39.1	34
	2:54:30	2:54:30		56.1	83.6	67.4	36.6
	2:55:00	2:55:00		43	55.8	54.8	37.1
	2:55:30	2:55:30		36.1	54.4	39.1	34.3
	2:56:00	2:56:00		37	57	41.7	34.1
	2:56:30	2:56:30		37.6	57.8	40	34.1
	2:57:00	2:57:00		34.7	60.7	36.5	33.6
	2:57:30	2:57:30		60.2	87.3	72.4	33.9
	2:58:00	2:58:00		35.6	66.5	43.5	33.9
	2:58:30	2:58:30		34.9	55.2	36.7	33.6
	2:59:00	2:59:00		35.7	54.7	37.3	34.3
	2:59:30	2:59:30		58.6	86.5	70.7	34.5
	3:00:00	3:00:00		35.9	52.5	37.4	35
	3:00:30	3:00:30		36.6	53.5	39.7	34.7
	3:01:00	3:01:00		35.5	55	39.9	33.7
	3:01:30	3:01:30		35.4	55.1	37.1	33.7
	3:02:00	3:02:00		35.8	51.5	38.3	33.7
	3:02:30	3:02:30		38.4	56.1	41.3	34.8
	3:03:00	3:03:00		37.2	55.2	39.3	36
	3:03:30	3:03:30		35.7	53.7	37.8	34.4
	3:04:00	3:04:00		63.7	88.7	74.9	33.7
	3:04:30	3:04:30		45	63.6	56.6	35.8
	3:05:00	3:05:00		39.7	58.4	41.6	36.9
	3:05:30	3:05:30		42.2	64	49.7	38.4
	3:06:00	3:06:00		38.2	56.5	40.3	36.2
	3:06:30	3:06:30		59.7	88.2	71.2	36.8
	3:07:00	3:07:00		39.2	58	41.9	37.5
	3:07:30	3:07:30		40.4	57.3	41.9	38.7
	3:08:00	3:08:00		59.9	85.8	72.3	39.4
	3:08:30	3:08:30		39.8	57.3	41.8	38.1
	3:09:00	3:09:00		39.9	57.8	41.5	38.2
	3:09:30	3:09:30		40.6	57.2	42.6	38.9
	3:10:00	3:10:00		41	70.8	53.1	38.7
	3:10:30	3:10:30		60.3	84	69.3	37.9
	3:11:00	3:11:00		39.2	56.1	41.7	37

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	3:11:30	3:11:30		51.1	75.8	61.2	38.2
	3:12:00	3:12:00		39.8	57.5	42.8	37.3
	3:12:30	3:12:30		40	58.8	43.2	35.7
	3:13:00	3:13:00		42.2	65.4	46.6	38.6
	3:13:30	3:13:30		59.8	86.4	71.3	39.4
	3:14:00	3:14:00		59.4	86.5	71.1	35.4
	3:14:30	3:14:30		40	57.1	45.3	37.9
	3:15:00	3:15:00		40.4	59.9	44.8	36.8
	3:15:30	3:15:30		38.5	56.3	41	36.1
	3:16:00	3:16:00		36.7	52	38.9	34.6
	3:16:30	3:16:30		55.9	81.4	66.8	35.9
	3:17:00	3:17:00		38.2	56.6	40.8	35.1
	3:17:30	3:17:30		36.3	55.6	39.2	34.3
	3:18:00	3:18:00		60	85.3	69.7	34.4
	3:18:30	3:18:30		59	85.4	70.5	35.1
	3:19:00	3:19:00		36.9	53.8	39.1	34.8
	3:19:30	3:19:30		38.7	55.3	40.5	35.7
	3:20:00	3:20:00		39	56.3	40.4	37.2
	3:20:30	3:20:30		58.3	85.1	69.4	37.6
	3:21:00	3:21:00		38.8	56.8	40.2	37
	3:21:30	3:21:30		38.7	55.8	41.4	36.1
	3:22:00	3:22:00		37.6	56.6	41.4	35.6
	3:22:30	3:22:30		58.6	90.5	70.7	37.2
	3:23:00	3:23:00		40.2	59.5	44.2	35.4
	3:23:30	3:23:30		41.6	69.6	53.8	35.3
	3:24:00	3:24:00		56.5	82.8	67.9	35.9
	3:24:30	3:24:30		58.7	84	70.4	35.5
	3:25:00	3:25:00		36.1	53.3	37.3	35.1
	3:25:30	3:25:30		35.7	51.4	37.3	34.6
	3:26:00	3:26:00		36.3	60.7	38.8	34.9
	3:26:30	3:26:30		37.2	60.7	41.1	35.3
	3:27:00	3:27:00		35.5	52.3	38.2	33.3
	3:27:30	3:27:30		36	53.7	38.3	33.9
	3:28:00	3:28:00		56.9	82.4	68.4	35
	3:28:30	3:28:30		37.1	52.3	40.6	35.7
	3:29:00	3:29:00		37.1	52.2	38.9	36.2
	3:29:30	3:29:30		37.1	55.1	38.4	35.9
	3:30:00	3:30:00		36	51.3	38.3	34.4
	3:30:30	3:30:30		38.4	55.2	42.1	34.9
	3:31:00	3:31:00		37	53	39	35.5
	3:31:30	3:31:30		36.5	53.8	39.2	33.9
	3:32:00	3:32:00		37	54.6	38.8	35.5
	3:32:30	3:32:30		37.6	55.1	40.9	35.9
	3:33:00	3:33:00		40.4	56.8	43.4	36.2
	3:33:30	3:33:30		42.9	60.2	46.6	40.6
	3:34:00	3:34:00		54.3	74	60.5	43.6
	3:34:30	3:34:30		52.6	74.3	61.5	38.5
	3:35:00	3:35:00		62.6	89.3	74.2	41.5
	3:35:30	3:35:30		44.2	61.6	49.8	41
	3:36:00	3:36:00		52.4	75.1	63.1	41.5
	3:36:30	3:36:30		58.1	77.8	65.7	39.2
	3:37:00	3:37:00		39.4	55.2	41.6	37.6
	3:37:30	3:37:30		53.9	85.5	69.8	38.2
	3:38:00	3:38:00		71.9	100.6	83.6	41
	3:38:30	3:38:30		41.6	62.9	43.2	39.8
	3:39:00	3:39:00		51.2	70.6	58	40.7
	3:39:30	3:39:30		46.6	65.6	53.9	41.4
	3:40:00	3:40:00		45.9	62.2	49.3	41.8
	3:40:30	3:40:30		48.1	68.4	56	41.2
	3:41:00	3:41:00		57.7	86	68.8	42.7
	3:41:30	3:41:30		42.9	57.9	51	40
	3:42:00	3:42:00		42.2	59.3	43.9	39.6
	3:42:30	3:42:30		52.6	77.1	64.2	40.8
	3:43:00	3:43:00		66.4	90.3	75.4	42.3
	3:43:30	3:43:30		42.1	58.7	42.9	41
	3:44:00	3:44:00		55.9	77.8	64.7	40
	3:44:30	3:44:30		62.9	93	75.1	42.5
	3:45:00	3:45:00		50.8	76.9	61.9	44.1
	3:45:30	3:45:30		59.4	81.2	67.8	42
	3:46:00	3:46:00		42.1	58.2	43.9	39.5
	3:46:30	3:46:30		51.5	77.6	63.6	41.1
	3:47:00	3:47:00		56.4	77.4	62.7	44
	3:47:30	3:47:30		50.4	68.7	55.1	42.7
	3:48:00	3:48:00		51.7	69.7	57.2	40.5
	3:48:30	3:48:30		42.4	58.8	44.7	41
	3:49:00	3:49:00		47.8	69.7	56.9	38.6
	3:49:30	3:49:30		52.6	68.6	56.9	47.3

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	3:50:00	3:50:00		44.8	61.2	48.5	41.6
	3:50:30	3:50:30		61.2	86.6	73	43.1
	3:51:00	3:51:00		52.7	69.7	64.8	41.4
	3:51:30	3:51:30		54.8	73.5	61.2	43
	3:52:00	3:52:00		57.6	82.9	68.7	35.8
	3:52:30	3:52:30		41.2	62.6	48.4	36
	3:53:00	3:53:00		60.9	88	72.2	40.7
	3:53:30	3:53:30		40.9	65.5	47.2	37.5
	3:54:00	3:54:00		40.4	59.4	42.5	38.7
	3:54:30	3:54:30		41	58.8	45.1	39
	3:55:00	3:55:00		60.3	85.6	71.1	45.2
	3:55:30	3:55:30		68.8	88.1	74.8	53
	3:56:00	3:56:00		63.5	86.7	71.7	53.2
	3:56:30	3:56:30		92.4	116	99.8	52.3
	3:57:00	3:57:00		72.6	95.6	83.7	53.1
	3:57:30	3:57:30		57.8	76.5	63.5	42
	3:58:00	3:58:00		48.1	70	59.2	37.2
	3:58:30	3:58:30		59.7	86	71.4	41.9
	3:59:00	3:59:00		41.4	64.3	45	39
	3:59:30	3:59:30		46.2	68.4	50.8	38
	4:00:00	4:00:00		44.5	70.3	51.2	39.2
	4:00:30	4:00:30		48.5	67	53.5	41.3
	4:01:00	4:01:00		48.4	70.6	56.5	35.8
	4:01:30	4:01:30		42	61.2	48.7	36.2
	4:02:00	4:02:00		64.2	89.6	74	37.6
	4:02:30	4:02:30		47.1	68.6	54.9	37.7
	4:03:00	4:03:00		58.7	82.5	68.9	43.1
	4:03:30	4:03:30		39.2	58.5	43.6	36.8
	4:04:00	4:04:00		61.8	88.1	73.6	38.8
	4:04:30	4:04:30		63	88.8	73	39
	4:05:00	4:05:00		47	65.2	52.1	39.1
	4:05:30	4:05:30		59.4	86.3	70.8	40.1
	4:06:00	4:06:00		40.7	57.4	47.2	36
	4:06:30	4:06:30		37.7	57.4	40.4	36
	4:07:00	4:07:00		50.1	70.3	57	40
	4:07:30	4:07:30		47.2	68.3	56.3	39
	4:08:00	4:08:00		57.3	77.1	64	43.1
	4:08:30	4:08:30		64	91.2	75.8	37.4
	4:09:00	4:09:00		37.2	55.4	40.7	35
	4:09:30	4:09:30		57.7	83.1	69	38.8
	4:10:00	4:10:00		45	65.5	51.5	39.5
	4:10:30	4:10:30		50.3	70.6	56.6	38.7
	4:11:00	4:11:00		40.5	62.5	49.1	35.1
	4:11:30	4:11:30		52.7	71.6	57.8	45.6
	4:12:00	4:12:00		64.2	95.8	80.7	42.4
	4:12:30	4:12:30		81.2	103.1	89.9	43
	4:13:00	4:13:00		40.4	60.3	44.3	37.8
	4:13:30	4:13:30		61.7	89.8	73.9	39.9
	4:14:00	4:14:00		55.9	81.7	67.1	38.1
	4:14:30	4:14:30		37.8	55.4	39.1	37.2
	4:15:00	4:15:00		59.6	85.3	71	36.1
	4:15:30	4:15:30		59.4	84.7	71	37.4
	4:16:00	4:16:00		45.9	65.3	51.1	40.6
	4:16:30	4:16:30		58.8	84.8	70.9	36.5
	4:17:00	4:17:00		50.2	63.2	64.5	34.2
	4:17:30	4:17:30		47.1	82.9	65.8	34.6
	4:18:00	4:18:00		59.5	86	71	38.5
	4:18:30	4:18:30		58.5	85.9	72	36.7
	4:19:00	4:19:00		61.6	86.2	72.1	38.2
	4:19:30	4:19:30		39.3	57.6	44	36
	4:20:00	4:20:00		59.1	84.7	70.5	38.8
	4:20:30	4:20:30		38.8	63.6	47.8	35.4
	4:21:00	4:21:00		63.5	87.2	72	35.7
	4:21:30	4:21:30		62.6	90.1	74.8	35.6
	4:22:00	4:22:00		38.7	60.1	42.7	36.5
	4:22:30	4:22:30		35.6	52.7	38	32.9
	4:23:00	4:23:00		33.6	50.1	35.5	32.3
	4:23:30	4:23:30		35.2	56.2	36.4	34.2
	4:24:00	4:24:00		34.8	50.1	35.4	34
	4:24:30	4:24:30		40.1	73.5	50.3	35.2
	4:25:00	4:25:00		37.9	57.4	40.5	36
	4:25:30	4:25:30		36.7	53.8	38	35.5
	4:26:00	4:26:00		36.5	55.4	38.9	33.7
	4:26:30	4:26:30		35.2	51.1	37.4	33.8
	4:27:00	4:27:00		35.4	56	37.7	34.4
	4:27:30	4:27:30		37.3	65.2	49.1	35.1
	4:28:00	4:28:00		60.9	85.7	70.8	38.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	4:28:30	4:28:30		38.9	59	42.1	37.5
	4:29:00	4:29:00		56.2	81.8	67.1	38
	4:29:30	4:29:30		38.6	55.7	41.1	36.6
	4:30:00	4:30:00		37.6	55.6	41.4	35.6
	4:30:30	4:30:30		37.9	54.6	39.5	35.7
	4:31:00	4:31:00		41	61.5	44.7	38.1
	4:31:30	4:31:30		37.9	58.5	41.2	36.7
	4:32:00	4:32:00		57.7	84.6	69	36.6
	4:32:30	4:32:30		41.8	61.5	46.1	37.9
	4:33:00	4:33:00		57.4	82.9	68.8	40
	4:33:30	4:33:30		50.6	80.9	65.9	38
	4:34:00	4:34:00		53.8	78	66	39.4
	4:34:30	4:34:30		41	58.8	44.7	37.5
	4:35:00	4:35:00		38.2	54.9	40.7	35
	4:35:30	4:35:30		62.8	90.1	74.9	36.9
	4:36:00	4:36:00		39.7	57	41.5	36
	4:36:30	4:36:30		39.3	58.2	40.7	37.4
	4:37:00	4:37:00		37.6	53.4	39.7	36.4
	4:37:30	4:37:30		40.5	65.2	47.5	37.2
	4:38:00	4:38:00		38.8	55.4	39.9	38.1
	4:38:30	4:38:30		38.6	56.1	41.8	37
	4:39:00	4:39:00		41.5	63	48.4	38.2
	4:39:30	4:39:30		60.4	87.7	72.6	36.7
	4:40:00	4:40:00		36.5	52.6	38.2	35.1
	4:40:30	4:40:30		38.9	60	42.2	35.2
	4:41:00	4:41:00		57.8	84.1	68.7	36.9
	4:41:30	4:41:30		40	64	46.8	37.4
	4:42:00	4:42:00		57.3	83.2	68.8	39.4
	4:42:30	4:42:30		61.5	87.9	73.3	41.4
	4:43:00	4:43:00		55.3	81.1	66.4	38.3
	4:43:30	4:43:30		53.3	78.2	64	38.8
	4:44:00	4:44:00		51.1	67.9	57.7	46.7
	4:44:30	4:44:30		42.5	58.8	47.8	39.9
	4:45:00	4:45:00		61.9	87.7	73.9	38
	4:45:30	4:45:30		51.4	84.5	69.5	38.4
	4:46:00	4:46:00		59.2	83.5	70.9	41.2
	4:46:30	4:46:30		48.1	81.7	65.5	39.8
	4:47:00	4:47:00		66.8	90.3	78.4	38.6
	4:47:30	4:47:30		59.5	86.3	71.5	35.8
	4:48:00	4:48:00		57.3	83.9	69.1	36.5
	4:48:30	4:48:30		58.1	84	69.4	38.2
	4:49:00	4:49:00		37.6	68.1	38.7	37.1
	4:49:30	4:49:30		58.5	85.1	70.1	37.4
	4:50:00	4:50:00		38	54.6	40.5	35.5
	4:50:30	4:50:30		57.9	84.4	69.8	36.5
	4:51:00	4:51:00		61.3	88.2	73.2	36.2
	4:51:30	4:51:30		39.6	53.8	41.6	38.3
	4:52:00	4:52:00		37.9	53.5	39.8	36.2
	4:52:30	4:52:30		36.7	52.8	38.9	34.8
	4:53:00	4:53:00		36.4	53.8	38.1	34
	4:53:30	4:53:30		38.5	55.9	40.8	36.8
	4:54:00	4:54:00		39.8	57.6	41.9	37.8
	4:54:30	4:54:30		40.1	59.2	43	38.1
	4:55:00	4:55:00		38.3	59.6	41.7	35.4
	4:55:30	4:55:30		35.9	52.4	37.4	34.7
	4:56:00	4:56:00		38	54.3	39.8	35.7
	4:56:30	4:56:30		61	88.6	72.9	38.4
	4:57:00	4:57:00		60.7	85.1	70	37.9
	4:57:30	4:57:30		50.8	69.6	63.9	39.7
	4:58:00	4:58:00		56.8	82	68	39.5
	4:58:30	4:58:30		41.5	59.9	44.3	39.5
	4:59:00	4:59:00		55.7	81	66.5	39.5
	4:59:30	4:59:30		47	81.7	65.6	38.5
	5:00:00	5:00:00		61	88.2	72.8	38.5
	5:00:30	5:00:30		55.9	83	68.3	38.3
	5:01:00	5:01:00		51.2	71	64.7	37.2
	5:01:30	5:01:30		61.6	89.1	73.3	36.5
	5:02:00	5:02:00		37.7	54.7	39.8	36.3
	5:02:30	5:02:30		38.3	58.1	46	35.5
	5:03:00	5:03:00		57.9	83.2	69	35.4
	5:03:30	5:03:30		39.4	55.4	40	38.6
	5:04:00	5:04:00		38.8	56.2	40.1	36.7
	5:04:30	5:04:30		39.8	64.5	45.4	37.3
	5:05:00	5:05:00		37.9	54.2	40.1	36
	5:05:30	5:05:30		36.9	52.6	38.7	35.9
	5:06:00	5:06:00		57.5	83.1	69	35.7
	5:06:30	5:06:30		62.3	85.3	70.1	38

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	5:07:00	5:07:00		47.3	72.2	60.8	38
	5:07:30	5:07:30		41.2	58.9	45.5	38.7
	5:08:00	5:08:00		70.2	94.6	80.6	42.7
	5:08:30	5:08:30		51.6	75.1	65.5	38.7
	5:09:00	5:09:00		40	58	42.2	38.3
	5:09:30	5:09:30		38.4	54.2	40.5	36.4
	5:10:00	5:10:00		39.8	62.4	45	37.5
	5:10:30	5:10:30		61.9	88.6	73.8	37.8
	5:11:00	5:11:00		62.5	87.8	73.9	46.8
	5:11:30	5:11:30		47.5	64.6	49	46.5
	5:12:00	5:12:00		50.1	78.7	60.1	46.8
	5:12:30	5:12:30		63.3	84.9	71.7	46.7
	5:13:00	5:13:00		43	67.6	51	38.9
	5:13:30	5:13:30		41.4	61.2	43.1	40.3
	5:14:00	5:14:00		59.8	86.8	71	38.9
	5:14:30	5:14:30		59.4	85.7	70.7	39.1
	5:15:00	5:15:00		39.9	61	44.3	37.8
	5:15:30	5:15:30		59.2	85.5	70.5	38.3
	5:16:00	5:16:00		63.4	87	71.9	37.3
	5:16:30	5:16:30		58.9	83.9	69	35.7
	5:17:00	5:17:00		58.9	83.1	69.9	35.3
	5:17:30	5:17:30		63.8	88.9	75.2	38.2
	5:18:00	5:18:00		59.6	85.3	70.9	39
	5:18:30	5:18:30		63.4	87.1	70.6	37.3
	5:19:00	5:19:00		38.2	56.2	43.9	35.3
	5:19:30	5:19:30		37.5	55	41.2	35.8
	5:20:00	5:20:00		39.1	66.2	43.5	37.2
	5:20:30	5:20:30		37.7	65.7	40.5	35.7
	5:21:00	5:21:00		42.2	67.2	45.6	37
	5:21:30	5:21:30		51.2	84.4	69.1	38
	5:22:00	5:22:00		63.9	87.6	71.9	46.4
	5:22:30	5:22:30		47.8	69.2	51	45.4
	5:23:00	5:23:00		43.5	61.2	48	40.4
	5:23:30	5:23:30		69.9	95.1	80.7	40.8
	5:24:00	5:24:00		65.2	90.7	75.4	41.1
	5:24:30	5:24:30		61.5	83.8	69.3	43.2
	5:25:00	5:25:00		60.9	87.3	72.4	39.5
	5:25:30	5:25:30		57.7	84.2	69.1	39.4
	5:26:00	5:26:00		55.1	80.2	65.8	37.9
	5:26:30	5:26:30		63.3	86.3	72.5	39.8
	5:27:00	5:27:00		61.8	86.4	71.1	38.9
	5:27:30	5:27:30		39.6	59.7	42.3	37.1
	5:28:00	5:28:00		41.2	61.7	42.7	39.8
	5:28:30	5:28:30		41.7	57.8	44.4	40
	5:29:00	5:29:00		58.1	83.2	69.2	39.2
	5:29:30	5:29:30		42.2	58.4	46.6	39.9
	5:30:00	5:30:00		66.6	95.2	76.2	39.3
	5:30:30	5:30:30		62.6	83.3	75.4	39.2
	5:31:00	5:31:00		63.9	89.7	73.9	40.2
	5:31:30	5:31:30		66.9	92.1	76.8	44.5
	5:32:00	5:32:00		61	84.8	69.5	42.3
	5:32:30	5:32:30		46.6	62.8	59	39.3
	5:33:00	5:33:00		58.3	83.7	69.5	40.1
	5:33:30	5:33:30		64.2	87.1	72	43.2
	5:34:00	5:34:00		59.8	85.2	71.3	39.9
	5:34:30	5:34:30		61.5	87.1	71.7	37.4
	5:35:00	5:35:00		38.2	56	40	36.7
	5:35:30	5:35:30		67.5	96.7	82	36.7
	5:36:00	5:36:00		72	96.8	81.4	55.4
	5:36:30	5:36:30		46.4	63.7	58.7	36.9
	5:37:00	5:37:00		39.4	55.8	41.9	36.9
	5:37:30	5:37:30		40.8	70.7	50.9	37.1
	5:38:00	5:38:00		65.9	87.2	72.7	43.1
	5:38:30	5:38:30		63.4	88.1	74.3	38.9
	5:39:00	5:39:00		59.2	87	70.9	38.1
	5:39:30	5:39:30		42.8	68.1	51.1	37.9
	5:40:00	5:40:00		65	88.1	72.3	38.9
	5:40:30	5:40:30		39.8	57.5	46.8	36.3
	5:41:00	5:41:00		61.4	88	73	35.5
	5:41:30	5:41:30		39.2	56.7	47.4	35.4
	5:42:00	5:42:00		59.7	87.9	71.4	37
	5:42:30	5:42:30		37.1	54.3	39.4	35.3
	5:43:00	5:43:00		35.8	53.3	37.9	34.3
	5:43:30	5:43:30		37.4	57.4	40.9	34.9
	5:44:00	5:44:00		62.3	87.6	73.6	36.3
	5:44:30	5:44:30		43.4	62.5	52.8	38.5
	5:45:00	5:45:00		40.1	62.8	45.6	38

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	5:45:30	5:45:30		42.2	60.9	45.7	39.7
	5:46:00	5:46:00		57.9	83.1	69.1	40
	5:46:30	5:46:30		40.3	58.9	43.3	38
	5:47:00	5:47:00		62.4	85.5	71	39.4
	5:47:30	5:47:30		43.7	61.5	52.5	39.8
	5:48:00	5:48:00		60.4	83.8	70.4	40.1
	5:48:30	5:48:30		42.5	61	53.2	37.2
	5:49:00	5:49:00		59.8	85.6	71.8	38.5
	5:49:30	5:49:30		66.2	87.8	71.5	52.3
	5:50:00	5:50:00		60.7	88.6	73	37.1
	5:50:30	5:50:30		60.4	85.3	70.4	36.8
	5:51:00	5:51:00		63.7	88.3	72.6	39.9
	5:51:30	5:51:30		59.1	84.1	69.8	39.7
	5:52:00	5:52:00		58.8	83	69.5	38.3
	5:52:30	5:52:30		51.9	70.4	65.3	37.5
	5:53:00	5:53:00		39.6	59.4	41.2	38.5
	5:53:30	5:53:30		39.2	54.8	41	37.4
	5:54:00	5:54:00		65.2	84.6	72	38.2
	5:54:30	5:54:30		41.4	58.8	44.9	39.3
	5:55:00	5:55:00		42.2	64.3	44.5	40.1
	5:55:30	5:55:30		62.8	85.7	72	43.1
	5:56:00	5:56:00		61.4	87.6	73.1	41.1
	5:56:30	5:56:30		63	89.3	74.6	39.3
	5:57:00	5:57:00		56.7	84.3	69.5	41.7
	5:57:30	5:57:30		61.1	87.1	70.1	42.8
	5:58:00	5:58:00		60.9	82.5	69.9	43
	5:58:30	5:58:30		58.4	84.4	68.4	42.2
	5:59:00	5:59:00		44.6	67.4	50	39.3
	5:59:30	5:59:30		40.3	56.1	41.6	38.5
	6:00:00	6:00:00		58.5	84.7	70.1	40.4
	6:00:30	6:00:30		58.7	84.7	70	41.8
	6:01:00	6:01:00		42.7	59	45.1	40.2
	6:01:30	6:01:30		57.1	81	67.5	42.3
	6:02:00	6:02:00		48.8	66.7	53.1	43.4
	6:02:30	6:02:30		43.1	62.5	49.1	39.8
	6:03:00	6:03:00		68.4	98	80.2	39.7
	6:03:30	6:03:30		38.5	59.7	41.9	35.6
	6:04:00	6:04:00		56.7	82.7	67.7	36.2
	6:04:30	6:04:30		57	82.6	68.5	38.3
	6:05:00	6:05:00		63.2	88.3	74.5	38.7
	6:05:30	6:05:30		63.9	88.8	73.3	43.3
	6:06:00	6:06:00		60.6	84.6	70.2	40.2
	6:06:30	6:06:30		57	79	67.5	37.7
	6:07:00	6:07:00		60.6	88.1	72.2	42.3
	6:07:30	6:07:30		43.1	59.8	48.9	38.5
	6:08:00	6:08:00		57.9	84.2	69.2	38.3
	6:08:30	6:08:30		38.9	65.4	41.7	37.1
	6:09:00	6:09:00		38.5	55.1	40.2	36.8
	6:09:30	6:09:30		58.5	84.5	70	36.9
	6:10:00	6:10:00		64.6	87.2	73	39.5
	6:10:30	6:10:30		58.4	84.5	70.4	39
	6:11:00	6:11:00		45.6	64	49.7	40.1
	6:11:30	6:11:30		60.5	88.7	73.3	43.2
	6:12:00	6:12:00		60.9	84.8	70.8	44.4
	6:12:30	6:12:30		56.4	83.8	67.6	38.6
	6:13:00	6:13:00		40.6	60.3	42.9	38.3
	6:13:30	6:13:30		66.6	93.9	74.3	40.8
	6:14:00	6:14:00		61.8	87.5	73.2	42.7
	6:14:30	6:14:30		67.7	90.5	76.6	40.2
	6:15:00	6:15:00		62.2	84.4	69	41.2
	6:15:30	6:15:30		59.1	85	70.7	37.5
	6:16:00	6:16:00		63.7	89.7	73.4	44.1
	6:16:30	6:16:30		59.5	85.2	71.9	37
	6:17:00	6:17:00		63	89.5	74.6	38.4
	6:17:30	6:17:30		65	86.3	72.6	45.6
	6:18:00	6:18:00		63.8	89.9	74.4	41.1
	6:18:30	6:18:30		69.6	96.9	80.9	48.5
	6:19:00	6:19:00		61	87.2	72.6	36.2
	6:19:30	6:19:30		41.7	61.7	47.5	38.1
	6:20:00	6:20:00		59.9	85.6	71	41.2
	6:20:30	6:20:30		61.6	85.4	70.8	41.3
	6:21:00	6:21:00		49.3	65.3	61	41.1
	6:21:30	6:21:30		61.4	89.5	73.1	39.1
	6:22:00	6:22:00		70.3	95.4	80.3	50.4
	6:22:30	6:22:30		67.1	94.4	79.1	40.6
	6:23:00	6:23:00		62.9	93.2	70.7	43.3
	6:23:30	6:23:30		57.9	83.2	68.8	36.6

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	6:24:00	6:24:00		39.3	61.5	46.6	36
	6:24:30	6:24:30		60.6	88	71.3	36.9
	6:25:00	6:25:00		62.6	90.3	73.4	37.2
	6:25:30	6:25:30		65.2	90.8	73.9	38.1
	6:26:00	6:26:00		65.8	85.6	72	43.7
	6:26:30	6:26:30		63.8	89.9	75.1	45.1
	6:27:00	6:27:00		65.2	89	72.9	50.7
	6:27:30	6:27:30		63.1	91.8	71.8	38.4
	6:28:00	6:28:00		66.9	87.5	72.8	50.2
	6:28:30	6:28:30		61.7	88.9	73.5	39.9
	6:29:00	6:29:00		67.1	90.9	76.4	38.7
	6:29:30	6:29:30		64.8	89	73.8	40.7
	6:30:00	6:30:00		49	72.4	61.6	38.5
	6:30:30	6:30:30		62.6	87.3	71.4	40.8
	6:31:00	6:31:00		59.2	85	70.1	40.6
	6:31:30	6:31:30		58.2	82.9	69.6	39.1
	6:32:00	6:32:00		65.4	86.1	71.3	39.8
	6:32:30	6:32:30		65.5	88.7	72.5	44.5
	6:33:00	6:33:00		61.8	87.8	72.6	39.4
	6:33:30	6:33:30		58.6	83.7	71	38.9
	6:34:00	6:34:00		67.1	91	75.3	43.5
	6:34:30	6:34:30		64	88.8	71.5	38.5
	6:35:00	6:35:00		62.8	86	72.6	36.9
	6:35:30	6:35:30		44.7	61.7	55.3	39.8
	6:36:00	6:36:00		62.1	88.9	73.7	39.2
	6:36:30	6:36:30		56.7	81.7	67.8	39.4
	6:37:00	6:37:00		61.3	86.3	71.5	40.5
	6:37:30	6:37:30		66	88.6	73.7	42.4
	6:38:00	6:38:00		60	83.2	68.3	39.6
	6:38:30	6:38:30		58.6	86	70.2	39.4
	6:39:00	6:39:00		42.2	58.3	44.2	40
	6:39:30	6:39:30		62.8	86.5	72.8	41
	6:40:00	6:40:00		66.9	89.6	73.6	51.1
	6:40:30	6:40:30		67.3	90.3	75.4	40.3
	6:41:00	6:41:00		57	75.4	70.6	40.9
	6:41:30	6:41:30		60.5	88	72.5	42.3
	6:42:00	6:42:00		61.4	86.7	71.2	40.7
	6:42:30	6:42:30		65.7	91.6	75.8	40.2
	6:43:00	6:43:00		44.1	61	48.6	41.6
	6:43:30	6:43:30		62	84.3	69.1	40.1
	6:44:00	6:44:00		39.9	56.9	43.6	37.9
	6:44:30	6:44:30		68.7	92.7	77.7	42.4
	6:45:00	6:45:00		47.2	65.6	53.7	40
	6:45:30	6:45:30		61.9	88.7	73.7	41.2
	6:46:00	6:46:00		66.5	86.9	72.1	53
	6:46:30	6:46:30		61.5	84.6	70.8	42.3
	6:47:00	6:47:00		59.3	85.5	71.1	46.2
	6:47:30	6:47:30		49.4	65.2	52.4	43
	6:48:00	6:48:00		58.3	83.8	69.5	39.4
	6:48:30	6:48:30		63.1	87.4	72.2	40.5
	6:49:00	6:49:00		57.7	80.9	70.7	39.6
	6:49:30	6:49:30		42.9	63	46.2	39.6
	6:50:00	6:50:00		42.6	59.6	45.2	39.2
	6:50:30	6:50:30		65.8	92.9	77.7	39.9
	6:51:00	6:51:00		40.9	60	44.5	38.8
	6:51:30	6:51:30		41.4	58.9	45.1	38.7
	6:52:00	6:52:00		59.4	85.5	71.4	34.6
	6:52:30	6:52:30		38.7	59.9	45.8	34.6
	6:53:00	6:53:00		60.7	88.6	71.7	41
	6:53:30	6:53:30		61.6	86.1	70.9	40.9
	6:54:00	6:54:00		59.4	85.1	71.1	38.8
	6:54:30	6:54:30		41.2	61.5	46.5	38.1
	6:55:00	6:55:00		50.8	68.2	54	42.6
	6:55:30	6:55:30		41.7	58.2	43.2	39.1
	6:56:00	6:56:00		39.7	55.7	41.7	37.5
	6:56:30	6:56:30		59.5	85.2	70.8	36.7
	6:57:00	6:57:00		37.2	51.9	38.8	35.8
	6:57:30	6:57:30		40.7	68.4	45.8	37.5
	6:58:00	6:58:00		63.3	85.8	72.2	40.6
	6:58:30	6:58:30		46.3	63.4	57.6	38.7
	6:59:00	6:59:00		59.3	85.5	70.6	39.2
	6:59:30	6:59:30		39.9	59.3	42.8	38
	7:00:00	7:00:00		40.4	56.5	43	37.8
	7:00:30	7:00:30		54.7	85	69.8	42.7
	7:01:00	7:01:00		63.2	85.7	70.7	46.2
	7:01:30	7:01:30		56.7	84.8	69.9	40.5
	7:02:00	7:02:00		54.4	71.7	68.3	40.5

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	7:02:30	7:02:30		41	57.9	44.5	39.3
	7:03:00	7:03:00		57.4	85.2	68.8	37.6
	7:03:30	7:03:30		38.2	61.2	44.7	35.3
	7:04:00	7:04:00		60.6	83.6	69.5	35.2
	7:04:30	7:04:30		53.4	71.9	66.9	38.3
	7:05:00	7:05:00		42.5	60.1	45.4	40.9
	7:05:30	7:05:30		57.9	83.7	69.1	40.6
	7:06:00	7:06:00		70.2	97.1	80.6	40.8
	7:06:30	7:06:30		57.2	81.3	65.6	40.2
	7:07:00	7:07:00		41.9	59.1	45.5	38.9
	7:07:30	7:07:30		63.6	91	75.2	40.2
	7:08:00	7:08:00		39.8	58.6	43	37.8
	7:08:30	7:08:30		39.6	57.1	42.4	37.3
	7:09:00	7:09:00		41.4	68.5	44.7	38.7
	7:09:30	7:09:30		63.7	87.6	72.7	38.8
	7:10:00	7:10:00		43.7	60.7	52.4	37.4
	7:10:30	7:10:30		45.8	65	50.7	39.1
	7:11:00	7:11:00		46.7	63.1	50.5	41.9
	7:11:30	7:11:30		42	62	45.3	38.9
	7:12:00	7:12:00		64.4	92	76.4	38
	7:12:30	7:12:30		65.2	88.3	73.1	44.7
	7:13:00	7:13:00		48.5	67.2	52	44.5
	7:13:30	7:13:30		62.5	87.1	72.8	45.3
	7:14:00	7:14:00		42.8	58.4	46	40.4
	7:14:30	7:14:30		41.4	63.5	46.2	39.7
	7:15:00	7:15:00		40	55.5	41.6	38.9
	7:15:30	7:15:30		60.7	86.7	72.2	39.6
	7:16:00	7:16:00		63	93.8	73.7	41.6
	7:16:30	7:16:30		46.2	65.7	57.6	39.3
	7:17:00	7:17:00		40.6	57.8	43	39.5
	7:17:30	7:17:30		38.7	57	42.3	37.1
	7:18:00	7:18:00		39.1	61.8	41.9	37.3
	7:18:30	7:18:30		60.9	85.9	72.3	39.9
	7:19:00	7:19:00		41.2	59.5	44	39.3
	7:19:30	7:19:30		59.5	86.2	71.1	40.3
	7:20:00	7:20:00		53.6	88.8	71.2	40.1
	7:20:30	7:20:30		60.3	87.7	73.1	36.7
	7:21:00	7:21:00		62.6	86.6	72	39.5
	7:21:30	7:21:30		38.5	54.6	44.4	36
	7:22:00	7:22:00		41.3	59.2	45.3	37.8
	7:22:30	7:22:30		58.4	85.2	70	37.2
	7:23:00	7:23:00		41.6	58.1	51.4	36.4
	7:23:30	7:23:30		39	56.4	41.7	37.3
	7:24:00	7:24:00		39.8	58.8	41.4	38.3
	7:24:30	7:24:30		47.3	66.3	52.8	39.4
	7:25:00	7:25:00		50.7	65.8	53.1	46.6
	7:25:30	7:25:30		42.7	62.5	46.5	39.3
	7:26:00	7:26:00		40	56.4	41.5	38.7
	7:26:30	7:26:30		40	61.2	43.6	37.9
	7:27:00	7:27:00		38.5	58.1	40.9	36.8
	7:27:30	7:27:30		37.2	53.4	39.2	35.2
	7:28:00	7:28:00		36.8	51.3	38.8	34.9
	7:28:30	7:28:30		60.7	86.9	72.4	36.8
	7:29:00	7:29:00		40.3	55.4	41.7	39.2
	7:29:30	7:29:30		39.5	56.9	41.7	37
	7:30:00	7:30:00		61.3	88	73.2	39.5
	7:30:30	7:30:30		59.9	85.9	71.2	36
	7:31:00	7:31:00		36	53.5	38.6	35
	7:31:30	7:31:30		37.7	54.8	40.2	35.9
	7:32:00	7:32:00		40.9	58.5	42.5	38.8
	7:32:30	7:32:30		59.5	85.8	71	37.3
	7:33:00	7:33:00		60.3	88.2	72.5	36.2
	7:33:30	7:33:30		40.8	60.3	44	36.6
	7:34:00	7:34:00		55	79.4	65.7	39.2
	7:34:30	7:34:30		64.1	91.6	76	42.7
	7:35:00	7:35:00		44.2	60.7	48.3	40
	7:35:30	7:35:30		44	60	47.8	39.3
	7:36:00	7:36:00		41.9	59.5	44.8	39
	7:36:30	7:36:30		46.4	66.1	49.6	43.3
	7:37:00	7:37:00		60.2	86.4	71.5	40.3
	7:37:30	7:37:30		42	59.3	44.5	39.9
	7:38:00	7:38:00		45.2	62	47.1	42.3
	7:38:30	7:38:30		41.2	57.3	43.5	39.2
	7:39:00	7:39:00		57.5	82.6	68.6	37
	7:39:30	7:39:30		38.7	57.5	44.6	35.6
	7:40:00	7:40:00		57.4	84.6	68.7	38.7
	7:40:30	7:40:30		36.9	55.9	39	35.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	7:41:00	7:41:00		37.7	54.3	39.4	35.2
	7:41:30	7:41:30		63.6	90.9	75.8	39
	7:42:00	7:42:00		41.6	57.9	44.5	36.4
	7:42:30	7:42:30		39.4	56.7	42.1	36.3
	7:43:00	7:43:00		39.3	53.2	41.1	37.7
	7:43:30	7:43:30		37.2	52.9	39.7	35.1
	7:44:00	7:44:00		58.8	84.5	70.6	38.5
	7:44:30	7:44:30		37.8	52.6	39.2	36.5
	7:45:00	7:45:00		39.8	55.5	41.6	37.3
	7:45:30	7:45:30		39.7	53.8	41.5	38.3
	7:46:00	7:46:00		39.4	56.2	40.8	37.8
	7:46:30	7:46:30		37.4	59.3	39.7	35
	7:47:00	7:47:00		36.9	55.3	38.6	35.3
	7:47:30	7:47:30		38.7	54.8	40.5	36.7
	7:48:00	7:48:00		44.2	61.6	50	38.9
	7:48:30	7:48:30		39.6	57.4	42.2	37.9
	7:49:00	7:49:00		39.3	61.2	43	37.7
	7:49:30	7:49:30		40.7	66.3	44.4	38.5
	7:50:00	7:50:00		60.3	89.3	68.7	38.9
	7:50:30	7:50:30		53.3	82.9	64.3	37.8
	7:51:00	7:51:00		52.2	80.6	59	38.9
	7:51:30	7:51:30		49.4	72.5	55	46
	7:52:00	7:52:00		62.4	90.9	74.3	40.9
	7:52:30	7:52:30		39.4	65.4	43.6	36.5
	7:53:00	7:53:00		42	61	46.5	37.8
	7:53:30	7:53:30		48.6	63.4	51.2	45.2
	7:54:00	7:54:00		47	64.6	50.5	43.1
	7:54:30	7:54:30		61.1	89.4	70.6	44
	7:55:00	7:55:00		53.1	71.5	66.5	37.4
	7:55:30	7:55:30		47.1	63.1	50	39.3
	7:56:00	7:56:00		66.4	88.1	73.1	50.1
	7:56:30	7:56:30		49.2	68.4	59.9	40.4
	7:57:00	7:57:00		40.5	56.4	42.3	37.7
	7:57:30	7:57:30		45.5	73.4	53.1	38.5
	7:58:00	7:58:00		54.1	77.1	62.2	42.5
	7:58:30	7:58:30		43.9	60	46.1	41.6
	7:59:00	7:59:00		41.6	58.9	43.4	39.6
	7:59:30	7:59:30		39.8	54.9	40.9	38.1
	8:00:00	8:00:00		37.1	51	38.9	36
	8:00:30	8:00:30		37.2	52.5	39.1	35.9
	8:01:00	8:01:00		41.3	60.5	46.1	38.9
	8:01:30	8:01:30		40.9	59.5	47	39.4
	8:02:00	8:02:00		54.2	71.5	57.8	46.7
	8:02:30	8:02:30		52.8	67.1	55.2	50.8
	8:03:00	8:03:00		46.9	61.5	50.8	43.3
	8:03:30	8:03:30		42.5	58	44.9	37.6
	8:04:00	8:04:00		38	52	39.3	36.3
	8:04:30	8:04:30		37.7	55.7	42.2	35
	8:05:00	8:05:00		35.2	50.2	36.6	34.2
	8:05:30	8:05:30		36	62.2	37.3	34.5
	8:06:00	8:06:00		35.3	49.9	36.5	34.3
	8:06:30	8:06:30		37	52.9	40.1	34.9
	8:07:00	8:07:00		44.3	61.2	47.6	39.5
	8:07:30	8:07:30		44.6	60.7	47.2	40.7
	8:08:00	8:08:00		41.2	64.2	45.5	38.5
	8:08:30	8:08:30		38.4	52.5	40.2	37.4
	8:09:00	8:09:00		36.8	51.5	37.6	35.6
	8:09:30	8:09:30		37.4	51.7	38.8	36.2
	8:10:00	8:10:00		37.3	51.5	38.3	36.3
	8:10:30	8:10:30		37.4	52	38.5	36.6
	8:11:00	8:11:00		38.8	53	39.7	37.6
	8:11:30	8:11:30		37.5	52.6	39.2	36.2
	8:12:00	8:12:00		37.8	53.1	39.2	37.2
	8:12:30	8:12:30		38	57.8	39	36.8
	8:13:00	8:13:00		36.8	51.3	37.8	35.5
	8:13:30	8:13:30		39.6	57.5	44.3	36.3
	8:14:00	8:14:00		43.7	63	47.1	39.9
	8:14:30	8:14:30		40.5	58.5	44.8	37.6
	8:15:00	8:15:00		36.9	51.4	38.5	35.5
	8:15:30	8:15:30		44	67.6	52.6	36.3
	8:16:00	8:16:00		56.5	81.8	67.8	41.9
	8:16:30	8:16:30		42.2	56.6	43.1	41.4
	8:17:00	8:17:00		40	54.8	42.1	38.4
	8:17:30	8:17:30		64.4	89.5	75.1	39.1
	8:18:00	8:18:00		40.8	64.5	50.6	37.2
	8:18:30	8:18:30		56.7	81.7	67.5	36.4
	8:19:00	8:19:00		37.8	52.3	39.3	36

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	8:19:30	8:19:30		37.3	52.2	38	36.2
	8:20:00	8:20:00		38.9	53.1	39.8	37.3
	8:20:30	8:20:30		38.4	55.2	40.6	36.8
	8:21:00	8:21:00		42.1	65.5	47.4	37.8
	8:21:30	8:21:30		39.7	56.1	40.8	38.4
	8:22:00	8:22:00		38.5	54.7	40.8	36.5
	8:22:30	8:22:30		35.7	50.3	38	35.1
	8:23:00	8:23:00		34.6	49.7	35.6	33.6
	8:23:30	8:23:30		37.5	55	42.3	34.2
	8:24:00	8:24:00		40.1	56.7	42.5	38.3
	8:24:30	8:24:30		39.1	55.1	40.6	38.1
	8:25:00	8:25:00		38.3	52.9	39.6	36.9
	8:25:30	8:25:30		37	51	38.3	36.1
	8:26:00	8:26:00		37.6	51.7	39.5	36.2
	8:26:30	8:26:30		37.5	52.5	39.1	36
	8:27:00	8:27:00		45.7	69.4	56.6	36.2
	8:27:30	8:27:30		63.8	88.3	73.2	38.9
	8:28:00	8:28:00		36.4	51.1	38.9	34.8
	8:28:30	8:28:30		35.3	50.8	36.4	34.3
	8:29:00	8:29:00		35.7	51.4	37.6	34.9
	8:29:30	8:29:30		37.4	51.5	38.8	35.1
	8:30:00	8:30:00		38.1	65	41.2	36.2
	8:30:30	8:30:30		38.4	53.4	41	36.4
	8:31:00	8:31:00		37.8	54.6	40.2	35.6
	8:31:30	8:31:30		39.8	57	43.1	36.1
	8:32:00	8:32:00		47.3	62.8	48.9	42.8
	8:32:30	8:32:30		43.9	59.2	47.2	38.5
	8:33:00	8:33:00		37.3	53.1	40.1	35.3
	8:33:30	8:33:30		37	58.1	38.4	35.5
	8:34:00	8:34:00		36.4	52.5	38.5	35.6
	8:34:30	8:34:30		34.3	52.2	36.5	33.2
	8:35:00	8:35:00		34.5	49.6	35.7	33.3
	8:35:30	8:35:30		34.8	49.2	36.2	33.6
	8:36:00	8:36:00		34	49.1	35.8	32.4
	8:36:30	8:36:30		35.5	53.1	37.6	32.8
	8:37:00	8:37:00		37.3	61.2	44.8	34.9
	8:37:30	8:37:30		38.7	59.9	42.2	35.9
	8:38:00	8:38:00		37.4	54.2	40.3	34.9
	8:38:30	8:38:30		37.8	53.8	39.6	35.7
	8:39:00	8:39:00		37.1	52.8	39.7	35
	8:39:30	8:39:30		58.6	84.4	69.8	38.1
	8:40:00	8:40:00		40.1	54.8	43.6	38
	8:40:30	8:40:30		40.4	55.8	42	39.4
	8:41:00	8:41:00		38.6	60.8	42.9	37.1
	8:41:30	8:41:30		39.4	56.8	41.8	37.3
	8:42:00	8:42:00		37.2	51.5	38.5	35.6
	8:42:30	8:42:30		38.5	53.7	40.3	35.9
	8:43:00	8:43:00		39.8	54.9	42.3	37.6
	8:43:30	8:43:30		38.1	54.8	40.7	36
	8:44:00	8:44:00		37.6	53	39	35.9
	8:44:30	8:44:30		37.7	52.6	39.5	35.8
	8:45:00	8:45:00		45.9	72.3	57.1	33.5
	8:45:30	8:45:30		38.5	55.3	43.3	35.9
	8:46:00	8:46:00		41	56.9	44.5	37.1
	8:46:30	8:46:30		47.9	62.5	49.7	44.2
	8:47:00	8:47:00		42.5	57.4	46.6	39
	8:47:30	8:47:30		38.2	54.1	41.5	36.1
	8:48:00	8:48:00		38.4	56.6	41.6	36.2
	8:48:30	8:48:30		41.5	55.6	42.9	40.1
	8:49:00	8:49:00		41.5	57	44.5	39.3
	8:49:30	8:49:30		47.3	62.2	49	43.8
	8:50:00	8:50:00		43.1	58.9	47.2	38.1
	8:50:30	8:50:30		39.1	54.9	40.8	36.9
	8:51:00	8:51:00		37.3	56	40	35.2
	8:51:30	8:51:30		39	60.4	48.3	35.5
	8:52:00	8:52:00		38.3	58.7	41.2	36.1
	8:52:30	8:52:30		39.4	56.5	41.6	38
	8:53:00	8:53:00		36.5	54.6	40	33.4
	8:53:30	8:53:30		33.3	49.3	33.9	32.5
	8:54:00	8:54:00		33.2	48.4	33.7	32.8
	8:54:30	8:54:30		35.3	52.9	37.4	32.9
	8:55:00	8:55:00		37.2	53	39.7	34.7
	8:55:30	8:55:30		35.4	55.4	40.6	33.5
	8:56:00	8:56:00		38.2	61	40.4	34.7
	8:56:30	8:56:30		42.4	56.5	45	39.7
	8:57:00	8:57:00		38.4	58.4	42.8	33.3
	8:57:30	8:57:30		35	51.6	37.4	33.1

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	8:58:00	8:58:00		39.3	57.2	43.2	36.8
	8:58:30	8:58:30		50.4	66.7	54.1	42.3
	8:59:00	8:59:00		50.5	64.9	53.3	45
	8:59:30	8:59:30		41.5	57.7	45	37.7
	9:00:00	9:00:00		37.1	50.9	38.3	36
	9:00:30	9:00:30		37.8	52.1	39.9	35.8
	9:01:00	9:01:00		37.2	56.3	41.7	35.2
	9:01:30	9:01:30		36.2	53.4	39.9	34.6
	9:02:00	9:02:00		36.3	53.4	38	34.3
	9:02:30	9:02:30		35.8	50.2	37	34.6
	9:03:00	9:03:00		36.6	50.6	37.9	35.5
	9:03:30	9:03:30		38.1	54	39.8	36.4
	9:04:00	9:04:00		37.1	54.4	39.2	34.8
	9:04:30	9:04:30		35.4	52.8	37	34.3
	9:05:00	9:05:00		37.1	54.1	39.5	35.4
	9:05:30	9:05:30		36	50.6	39.1	34
	9:06:00	9:06:00		34.4	49.6	35.6	33.6
	9:06:30	9:06:30		37.4	52.6	39.2	35.1
	9:07:00	9:07:00		37	55.9	39	35.8
	9:07:30	9:07:30		37.8	53.3	41	36.1
	9:08:00	9:08:00		48.3	64.6	52.3	40.4
	9:08:30	9:08:30		49.4	65.7	52.5	44.2
	9:09:00	9:09:00		56.5	80.1	67.2	37.8
	9:09:30	9:09:30		39.7	54.8	41.2	37.3
	9:10:00	9:10:00		36.7	56.5	39	35.4
	9:10:30	9:10:30		35.6	51.1	36.8	34.5
	9:11:00	9:11:00		36.1	56.3	37.3	34.6
	9:11:30	9:11:30		37.7	53.6	39.4	36.6
	9:12:00	9:12:00		36.8	50.8	38.5	35
	9:12:30	9:12:30		36.1	51.3	37.5	34.7
	9:13:00	9:13:00		36.8	54.8	41.4	34.1
	9:13:30	9:13:30		40.5	62.9	44.8	37.5
	9:14:00	9:14:00		50.1	74.9	55.4	37.9
	9:14:30	9:14:30		43.6	61.1	48.3	40.7
	9:15:00	9:15:00		40.4	59.3	42.7	37.7
	9:15:30	9:15:30		38.9	57	42.5	36.7
	9:16:00	9:16:00		35.9	50.4	37.6	34.6
	9:16:30	9:16:30		38.7	57	42.3	34.6
	9:17:00	9:17:00		39.4	57.2	42.4	37.1
	9:17:30	9:17:30		39.9	58.4	43.8	36
	9:18:00	9:18:00		36.1	50.5	38.1	33.5
	9:18:30	9:18:30		35.5	52.4	39	32.9
	9:19:00	9:19:00		35.8	55.6	39.5	33.8
	9:19:30	9:19:30		42.3	58.3	46.2	38.4
	9:20:00	9:20:00		40.7	57.3	44.6	38.1
	9:20:30	9:20:30		39.9	54.6	41.1	38.7
	9:21:00	9:21:00		39.1	62.3	45.6	36.5
	9:21:30	9:21:30		52.2	75.9	59	40.2
	9:22:00	9:22:00		48.6	74.3	57.7	38.7
	9:22:30	9:22:30		51.1	76.3	57.4	35.6
	9:23:00	9:23:00		36.9	66.2	46.1	34.4
	9:23:30	9:23:30		40	64	43	36.3
	9:24:00	9:24:00		41.6	58.7	45.3	39.3
	9:24:30	9:24:30		41.5	72.7	52.6	36.2
	9:25:00	9:25:00		39.4	66	42.5	37
	9:25:30	9:25:30		40.7	56.6	43.3	37.9
	9:26:00	9:26:00		46.8	62.7	51.3	40.2
	9:26:30	9:26:30		50	70	52.2	45.2
	9:27:00	9:27:00		41.6	68.2	45.5	36.6
	9:27:30	9:27:30		36.8	63.7	38.6	35.4
	9:28:00	9:28:00		36.7	62.3	42.5	33
	9:28:30	9:28:30		48.4	72.9	55.7	34
	9:29:00	9:29:00		56.4	88.3	63.1	34.5
	9:29:30	9:29:30		43.7	75.4	52.1	35.3
	9:30:00	9:30:00		37.3	55.2	39.2	35.7
	9:30:30	9:30:30		37.6	62.9	41.2	34.6
	9:31:00	9:31:00		37.4	54.7	38.8	36.1
	9:31:30	9:31:30		36.4	63.4	39.8	34.2
	9:32:00	9:32:00		35.8	53	37.7	34.2
	9:32:30	9:32:30		35	52.9	38.6	32.9
	9:33:00	9:33:00		33.8	49.3	35.9	32.5
	9:33:30	9:33:30		34.2	49.6	35.3	32.5
	9:34:00	9:34:00		37.2	53.7	39.3	34.8
	9:34:30	9:34:30		39.9	55	41.3	38.3
	9:35:00	9:35:00		38.7	54.3	40.9	35.7
	9:35:30	9:35:30		35	49	36.6	33.1
	9:36:00	9:36:00		35.6	50.8	37.8	33.4

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	9:36:30	9:36:30		36.6	52.6	38.5	35.1
	9:37:00	9:37:00		37.3	53.5	39.2	34.8
	9:37:30	9:37:30		36.5	53.3	38.9	34.4
	9:38:00	9:38:00		37.3	53	38.7	35.4
	9:38:30	9:38:30		36.2	50.9	38	34.7
	9:39:00	9:39:00		39	54.2	40.6	36.9
	9:39:30	9:39:30		38.8	55.6	41.4	36.4
	9:40:00	9:40:00		36.5	52	38	34.3
	9:40:30	9:40:30		34.5	52.2	36.6	33.8
	9:41:00	9:41:00		35.3	54.4	37	33.8
	9:41:30	9:41:30		34.9	54.8	36.5	33.1
	9:42:00	9:42:00		39.1	64.5	50.2	33.8
	9:42:30	9:42:30		35.3	52.7	38.1	33.8
	9:43:00	9:43:00		34.6	50.7	36.9	32.8
	9:43:30	9:43:30		35.9	54.8	41	33
	9:44:00	9:44:00		35.8	52.7	39.5	32.9
	9:44:30	9:44:30		34.7	49.3	36.1	33.2
	9:45:00	9:45:00		32.9	48.1	34.7	31.7
	9:45:30	9:45:30		34.2	49.5	36.6	32.6
	9:46:00	9:46:00		36.2	53.8	39.1	34.8
	9:46:30	9:46:30		35.1	49.7	36.8	33.9
	9:47:00	9:47:00		35.9	52.5	38.6	34.3
	9:47:30	9:47:30		35.6	50.9	37.6	34.1
	9:48:00	9:48:00		38.9	54.7	41.3	36.9
	9:48:30	9:48:30		35.3	50.1	37.5	33.6
	9:49:00	9:49:00		36.7	51.4	38.2	33.7
	9:49:30	9:49:30		37	52	39.5	34.4
	9:50:00	9:50:00		33.9	49.3	35	33.2
	9:50:30	9:50:30		36.2	52.5	38.1	33.9
	9:51:00	9:51:00		35.8	50.3	37.2	34
	9:51:30	9:51:30		36.1	50.9	37.3	34.8
	9:52:00	9:52:00		35.6	50.1	36.5	34.7
	9:52:30	9:52:30		36.7	53.2	39.5	35.4
	9:53:00	9:53:00		36.7	52	38.2	35.5
	9:53:30	9:53:30		35.5	50.6	37.1	33.9
	9:54:00	9:54:00		35.6	50.5	37.4	33.2
	9:54:30	9:54:30		63.5	91.6	75.5	36.3
	9:55:00	9:55:00		35.2	49.2	43.4	33
	9:55:30	9:55:30		34.5	49.7	36.5	32.7
	9:56:00	9:56:00		51.1	82.2	63.6	33.9
	9:56:30	9:56:30		36.7	53.7	38.7	35.5
	9:57:00	9:57:00		38.2	60.9	41.3	36.6
	9:57:30	9:57:30		61.2	87.4	72.6	37.2
	9:58:00	9:58:00		41.5	61.4	48.6	35.9
	9:58:30	9:58:30		46.7	70.9	55.1	38.6
	9:59:00	9:59:00		49.5	66.3	53.6	40.8
	9:59:30	9:59:30		49.3	64.4	53.2	44.7
	10:00:00	10:00:00		42.3	59.6	46.9	37.4
	10:00:30	10:00:30		36.6	51.3	38.8	35.4
	10:01:00	10:01:00		38.9	56.3	41.8	35.9
	10:01:30	10:01:30		37.4	53.3	38.8	36.4
	10:02:00	10:02:00		37.5	52	39.1	36.3
	10:02:30	10:02:30		37.7	61	40.5	35.9
	10:03:00	10:03:00		40.3	56.2	42.9	38.7
	10:03:30	10:03:30		37.9	54.1	41.9	35.5
	10:04:00	10:04:00		38.7	56.5	44	34.2
	10:04:30	10:04:30		33.2	47.3	34.4	32.4
	10:05:00	10:05:00		35.6	51	37.8	32.8
	10:05:30	10:05:30		37.9	53.2	40.4	35.8
	10:06:00	10:06:00		37.9	52.8	39.3	36.7
	10:06:30	10:06:30		39.7	62.4	48.7	34.4
	10:07:00	10:07:00		64.9	93.2	76.9	39
	10:07:30	10:07:30		37.8	55.2	41	36
	10:08:00	10:08:00		36.9	51.8	38.7	34.9
	10:08:30	10:08:30		35.5	55	40.3	34.1
	10:09:00	10:09:00		37.7	53.5	39.1	36.5
	10:09:30	10:09:30		37.9	59.3	39.9	36.3
	10:10:00	10:10:00		36.8	52.8	40.4	34.6
	10:10:30	10:10:30		37.6	58.6	40.9	35.4
	10:11:00	10:11:00		37	52.3	40.2	34
	10:11:30	10:11:30		38.2	56	41.6	35
	10:12:00	10:12:00		39	54.4	41.1	37.3
	10:12:30	10:12:30		38.3	55.4	41.6	36.4
	10:13:00	10:13:00		38	53.3	39.9	35.5
	10:13:30	10:13:30		36.1	52.9	39.4	34.3
	10:14:00	10:14:00		34.5	49.9	37.1	33.5
	10:14:30	10:14:30		35.8	52.7	38.9	33.3

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	10:15:00	10:15:00		34.4	49.8	36.7	33
	10:15:30	10:15:30		35.8	55.5	36.8	34.8
	10:16:00	10:16:00		39.2	56.1	41.3	35.9
	10:16:30	10:16:30		37.6	52.1	39.2	36.3
	10:17:00	10:17:00		37.9	52.9	39.3	35.2
	10:17:30	10:17:30		39.6	57.1	43.4	35.3
	10:18:00	10:18:00		40.5	56.9	43.3	37.9
	10:18:30	10:18:30		38.7	54.1	40.9	35.9
	10:19:00	10:19:00		40.5	58	45.1	35.7
	10:19:30	10:19:30		57.9	81.4	68.2	43.8
	10:20:00	10:20:00		50.3	68.5	54	39.8
	10:20:30	10:20:30		39.7	54.5	42.7	37.7
	10:21:00	10:21:00		38.5	55.7	40.2	37.2
	10:21:30	10:21:30		38.9	58.4	41.3	36.4
	10:22:00	10:22:00		39.9	56.3	41.9	38.1
	10:22:30	10:22:30		40.2	54.7	43.2	36.7
	10:23:00	10:23:00		35.8	49.5	37.5	34.7
	10:23:30	10:23:30		40.5	54.7	45.1	34.7
	10:24:00	10:24:00		35.8	52.9	39.8	33.7
	10:24:30	10:24:30		36.7	51.4	38.2	34.2
	10:25:00	10:25:00		35.2	50.7	37.1	33.4
	10:25:30	10:25:30		36.5	52.7	38.6	33.7
	10:26:00	10:26:00		36.8	58.7	38.8	34.8
	10:26:30	10:26:30		36.7	53.6	39.5	34.6
	10:27:00	10:27:00		33.8	49.4	35.5	32.7
	10:27:30	10:27:30		34.3	50	35.8	32.7
	10:28:00	10:28:00		33.7	53.3	35.7	32.6
	10:28:30	10:28:30		36.1	52.6	38	34.2
	10:29:00	10:29:00		36.3	56.5	37.8	34.9
	10:29:30	10:29:30		36.7	54.4	41.5	33.7
	10:30:00	10:30:00		36.8	52.1	38.8	34.1
	10:30:30	10:30:30		36.2	55.4	38.2	34.8
	10:31:00	10:31:00		38.9	56.5	43.8	35.5
	10:31:30	10:31:30		38	54	43.8	35
	10:32:00	10:32:00		35.9	51	37.3	34.2
	10:32:30	10:32:30		61.6	88.1	73.5	33.3
	10:33:00	10:33:00		53.9	84.1	67	32.9
	10:33:30	10:33:30		36.2	55.1	41.4	32.7
	10:34:00	10:34:00		39.2	57.1	41.9	36.3
	10:34:30	10:34:30		36.9	52.5	38.8	35.3
	10:35:00	10:35:00		38.9	57.4	44.3	34.8
	10:35:30	10:35:30		35.7	49.7	37.6	34.3
	10:36:00	10:36:00		35.4	51.4	37.6	33.4
	10:36:30	10:36:30		39.7	57.6	45.6	33
	10:37:00	10:37:00		50.7	66.3	52.8	44.9
	10:37:30	10:37:30		45.8	61.3	50.5	39.7
	10:38:00	10:38:00		38.2	56.4	41.1	36.2
	10:38:30	10:38:30		35.6	50.3	37	34.5
	10:39:00	10:39:00		35.2	52.7	38.4	33.5
	10:39:30	10:39:30		43	62.1	50.1	36
	10:40:00	10:40:00		51.9	67.5	53.5	49.3
	10:40:30	10:40:30		47	63.8	51.1	39.1
	10:41:00	10:41:00		42.8	65.7	50.3	36.1
	10:41:30	10:41:30		36.5	54.8	41	34
	10:42:00	10:42:00		34.4	48.5	35.5	33.3
	10:42:30	10:42:30		41.2	70	55.1	34.2
	10:43:00	10:43:00		62.3	87.8	73.7	35.9
	10:43:30	10:43:30		34.8	51	36.3	33.4
	10:44:00	10:44:00		36	49.8	36.8	35
	10:44:30	10:44:30		35.4	56.6	36.7	34.4
	10:45:00	10:45:00		35.6	53.5	39.5	33.8
	10:45:30	10:45:30		38	52.8	40	36.4
	10:46:00	10:46:00		35.3	49.8	38.5	34.1
	10:46:30	10:46:30		33.5	47.8	34.6	32.4
	10:47:00	10:47:00		33.1	47	33.6	32.3
	10:47:30	10:47:30		33.7	48	34.8	32.8
	10:48:00	10:48:00		33.9	49	35.1	33
	10:48:30	10:48:30		35	50.1	35.9	34
	10:49:00	10:49:00		35.1	50.8	36.7	34.2
	10:49:30	10:49:30		36	51.5	37.2	34.8
	10:50:00	10:50:00		60.7	87.1	72.3	34
	10:50:30	10:50:30		45.2	61.2	58.1	33.5
	10:51:00	10:51:00		38.2	58.3	44.8	34.3
	10:51:30	10:51:30		34	51	35.1	33
	10:52:00	10:52:00		36.5	56.8	41.4	34.4
	10:52:30	10:52:30		37.1	52.3	39.2	33.8
	10:53:00	10:53:00		35.8	52.6	38.6	33.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	10:53:30	10:53:30		34.2	50.4	36.9	32.6
	10:54:00	10:54:00		33.9	50.9	36.7	32.5
	10:54:30	10:54:30		37.3	53.9	39.9	35.4
	10:55:00	10:55:00		36.7	52.7	38.8	35.6
	10:55:30	10:55:30		36.7	52.4	39.4	34.2
	10:56:00	10:56:00		35.1	51.2	36.1	33.7
	10:56:30	10:56:30		33.8	51.6	36.5	33
	10:57:00	10:57:00		35.8	56.2	38.9	33.5
	10:57:30	10:57:30		37.7	60.8	41.4	35.4
	10:58:00	10:58:00		36.7	50.9	38.4	34.9
	10:58:30	10:58:30		35.6	53.8	39.5	33.5
	10:59:00	10:59:00		34.5	55.4	36.9	32.8
	10:59:30	10:59:30		33.4	48.9	36.2	32.4
	11:00:00	11:00:00		34.3	48.3	35.6	32.7
	11:00:30	11:00:30		33	52.1	34.7	32.2
	11:01:00	11:01:00		34.1	48.4	35.5	32.8
	11:01:30	11:01:30		33	46.5	33.9	32.2
	11:02:00	11:02:00	Nighttime	33.6	49.2	35.8	32.4
	11:02:30	11:02:30		35.6	51.8	38	33.9
	11:03:00	11:03:00		35.2	53.5	37.8	33.7
	11:03:30	11:03:30		36.8	56.6	40.7	35.2
	11:04:00	11:04:00		35	53.7	38.6	33.4
	11:04:30	11:04:30		37.4	53.7	39.7	35.8
	11:05:00	11:05:00		36.9	54.5	39.2	35.6
	11:05:30	11:05:30		36.4	53.9	38.6	34.7
	11:06:00	11:06:00		36.4	52	38.6	34.1
	11:06:30	11:06:30		34.3	49.6	36.2	33.1
	11:07:00	11:07:00		36.4	55.1	40.6	35
	11:07:30	11:07:30		36	50.5	37.3	34.6
	11:08:00	11:08:00		35.3	50.3	36.9	33.5
	11:08:30	11:08:30		35.7	55.4	39.4	33.6
	11:09:00	11:09:00		35.7	54	37.9	34.5
	11:09:30	11:09:30		34.7	48.8	36	33.6
	11:10:00	11:10:00		34	49.1	35	32.9
	11:10:30	11:10:30		32.8	46.4	33.7	32.1
	11:11:00	11:11:00		34.3	50.8	36.4	33.2
	11:11:30	11:11:30		40	58.7	43.6	35.4
	11:12:00	11:12:00		39.1	55.5	42.4	35.4
	11:12:30	11:12:30		34.7	51.4	37.4	33.4
	11:13:00	11:13:00		34	48.4	34.9	33.1
	11:13:30	11:13:30		34.7	50.2	36	33.7
	11:14:00	11:14:00		34.2	49.3	35.3	33.6
	11:14:30	11:14:30		33.9	51.3	34.9	33.4
	11:15:00	11:15:00		34.3	49.1	35.4	33.3
	11:15:30	11:15:30		35.5	50.7	36.4	34.9
	11:16:00	11:16:00		37.7	53.6	39.5	35.9
	11:16:30	11:16:30		37.8	54.5	40.1	35.8
	11:17:00	11:17:00		39	58.4	43.6	35.2
	11:17:30	11:17:30		34.9	49.7	36.1	34.4
	11:18:00	11:18:00		37.1	53.1	38.4	35.9
	11:18:30	11:18:30		36.8	52.8	37.6	36.2
	11:19:00	11:19:00		37.3	54.6	38.5	36.6
	11:19:30	11:19:30		36.4	54.4	38.6	35.7
	11:20:00	11:20:00		36.1	51.7	38.1	34.7
	11:20:30	11:20:30		34.2	48.5	34.9	33.7
	11:21:00	11:21:00		34.9	53.9	39.1	34.1
	11:21:30	11:21:30		39.5	56.2	44.7	37.1
	11:22:00	11:22:00		39.3	57.8	42	37
	11:22:30	11:22:30		37.9	55.6	41.6	35.3
	11:23:00	11:23:00		39	61.8	45.3	36
	11:23:30	11:23:30		38.7	55.5	41	35.5
	11:24:00	11:24:00		41.7	61.8	48.8	35.5
	11:24:30	11:24:30		39.3	54.8	44.9	35.3
	11:25:00	11:25:00		36.6	52.3	38.9	34.8
	11:25:30	11:25:30		37.7	55.1	41.9	34.2
	11:26:00	11:26:00		33.8	48.1	34.6	33.3
	11:26:30	11:26:30		37.2	55.7	40.9	34.1
	11:27:00	11:27:00		39.6	60	42.1	35.1
	11:27:30	11:27:30		35.9	51.9	38.9	34.1
	11:28:00	11:28:00		35.5	50.7	37.9	33.4
	11:28:30	11:28:30		36.3	51.4	38.1	34.7
	11:29:00	11:29:00		38.7	54.4	41.6	36.9
	11:29:30	11:29:30		38.7	59	45.9	35.3
	11:30:00	11:30:00		63.8	91.2	75.8	34.7
	11:30:30	11:30:30		34.3	50	36.4	32.4
	11:31:00	11:31:00		56.7	80.5	67.2	32.2
	11:31:30	11:31:30		38.8	63.2	48.6	33.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	11:32:00	11:32:00		59.6	86.5	71	32.7
	11:32:30	11:32:30		40.8	59.5	52	32.6
	11:33:00	11:33:00		33.6	49.6	35.8	32.1
	11:33:30	11:33:30		36.3	52.1	38.4	34
	11:34:00	11:34:00		35.5	51.3	37.7	33.8
	11:34:30	11:34:30		33.6	49.6	34.7	32.7
	11:35:00	11:35:00		33.9	47.9	35.3	33.1
	11:35:30	11:35:30		34.3	49.7	35.9	33.1
	11:36:00	11:36:00		34.8	50	36.9	33.2
	11:36:30	11:36:30		37.7	61.6	44.8	34.1
	11:37:00	11:37:00		33.5	49	34.6	32.9
	11:37:30	11:37:30		33.3	49	34.5	32.4
	11:38:00	11:38:00		33.2	47	34.1	32.8
	11:38:30	11:38:30		33.5	47.9	34.8	32.7
	11:39:00	11:39:00		33.6	48.3	34.5	32.9
	11:39:30	11:39:30		35.9	52.2	38	33.5
	11:40:00	11:40:00		36.7	53.4	38.6	33.7
	11:40:30	11:40:30		35	51	36.8	33.5
	11:41:00	11:41:00		33.8	48.9	34.6	33
	11:41:30	11:41:30		33.3	48.4	35.3	32.7
	11:42:00	11:42:00		33.3	48.4	33.6	32.9
	11:42:30	11:42:30		33.7	53.4	34.6	33
	11:43:00	11:43:00		33.7	48.3	35.5	33.1
	11:43:30	11:43:30		34.8	48.8	35.3	34.2
	11:44:00	11:44:00		34.1	48.7	34.6	33.6
	11:44:30	11:44:30		34.3	50.4	34.7	34
	11:45:00	11:45:00		34.7	48.9	35.6	34.1
	11:45:30	11:45:30		34.6	49.6	36.5	33.6
	11:46:00	11:46:00		35.2	49.8	35.9	34.5
	11:46:30	11:46:30		36.1	55.1	38.2	34.4
	11:47:00	11:47:00		34.7	53.9	36.5	33.7
	11:47:30	11:47:30		35.4	53.7	37.2	33.5
	11:48:00	11:48:00		35.8	54.3	38.9	34
	11:48:30	11:48:30		35.1	53.1	39.1	33.7
	11:49:00	11:49:00		33.6	50	35.9	32.2
	11:49:30	11:49:30		34.1	62.7	38.6	32.7
	11:50:00	11:50:00		32.9	47.3	34.3	31.7
	11:50:30	11:50:30		32.5	46.8	33.5	31.8
	11:51:00	11:51:00		33	52.2	33.8	32.3
	11:51:30	11:51:30		33.8	56.1	37.6	32.5
	11:52:00	11:52:00		33.2	49.3	37	32.3
	11:52:30	11:52:30		33.7	49.1	37	32.6
	11:53:00	11:53:00		34	49.5	36	32.4
	11:53:30	11:53:30		33.5	48.4	35.6	32.1
	11:54:00	11:54:00		32.7	46.9	33.7	32
	11:54:30	11:54:30		32.3	46.9	33.4	31.5
	11:55:00	11:55:00		31.8	46	32.6	31.1
	11:55:30	11:55:30		32	46.6	32.6	31.3
	11:56:00	11:56:00		33	47.3	33.9	32.5
	11:56:30	11:56:30		33.2	50.9	35.5	31.6
	11:57:00	11:57:00		33.6	47.9	35.5	32.4
	11:57:30	11:57:30		38.1	57.8	45	32.2
	11:58:00	11:58:00		33.8	48.5	35.9	32.1
	11:58:30	11:58:30		32.5	46.4	33	32.1
	11:59:00	11:59:00		32.9	47.4	34	32.2
	11:59:30	11:59:30		32.9	47.7	33.4	32.3
	12:00:00	12:00:00		36.1	56.9	43.5	32.4
	12:00:30	12:00:30		35.2	50.6	39.5	33.9
	12:01:00	12:01:00		37.8	55.7	43.3	35.1
	12:01:30	12:01:30		35.4	51.3	40.9	32.9
	12:02:00	12:02:00		35.4	52.2	35.9	34.9
	12:02:30	12:02:30		34.7	48.8	35.7	33.6
	12:03:00	12:03:00		37.4	55.5	40.6	33.5
	12:03:30	12:03:30		35.6	53.4	38.2	33.8
	12:04:00	12:04:00		34.3	49	35.9	32.2
	12:04:30	12:04:30		32.5	49	35.3	31.2
	12:05:00	12:05:00		32.1	46.6	33.5	30.9
	12:05:30	12:05:30		32.8	48.7	35.5	31.1
	12:06:00	12:06:00		33.5	49.1	35.3	31.8
	12:06:30	12:06:30		32.3	56.2	34.5	30.9
	12:07:00	12:07:00		33.4	50.8	36.7	31.7
	12:07:30	12:07:30		31.7	47	32.9	30.8
	12:08:00	12:08:00		31.1	45.4	31.8	30.5
	12:08:30	12:08:30		32.7	48.1	33.5	31.6
	12:09:00	12:09:00		33.5	48.3	34.5	32.1
	12:09:30	12:09:30		35	52.7	38	33.2
	12:10:00	12:10:00		34.4	52.4	38.8	32.3

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	12:10:30	12:10:30		33.4	48.9	34.9	31.8
	12:11:00	12:11:00		32.7	49.4	35.7	31.7
	12:11:30	12:11:30		33.8	53	36	32.1
	12:12:00	12:12:00		32.7	46.9	33.6	31.7
	12:12:30	12:12:30		34.4	54.8	37.9	32.5
	12:13:00	12:13:00		38.6	60.4	42.2	32.9
	12:13:30	12:13:30		34.3	49.9	35.6	33
	12:14:00	12:14:00		38.4	61.2	44.2	34.4
	12:14:30	12:14:30		35.2	49.6	38.6	33.5
	12:15:00	12:15:00		35.7	52.8	38.3	34
	12:15:30	12:15:30		36.1	60.2	42	33
	12:16:00	12:16:00		32.8	51.1	34.7	32
	12:16:30	12:16:30		32.4	46.3	33.2	31.9
	12:17:00	12:17:00		32.8	48.8	34.1	32.1
	12:17:30	12:17:30		32.3	46.4	32.8	31.8
	12:18:00	12:18:00		33.1	47.6	34.2	32.3
	12:18:30	12:18:30		33	47.4	34.5	32.3
	12:19:00	12:19:00		33.3	47.1	36	32.6
	12:19:30	12:19:30		34.7	48.5	36.6	33.9
	12:20:00	12:20:00		33.1	47.7	34.1	32.2
	12:20:30	12:20:30		34	50.4	37.2	32.4
	12:21:00	12:21:00		33.7	48.3	35	32.9
	12:21:30	12:21:30		35.4	50.4	37.1	33.8
	12:22:00	12:22:00		34	49.5	35.6	32.8
	12:22:30	12:22:30		33.8	49.5	35.6	32.8
	12:23:00	12:23:00		34.5	48.8	35.4	33.6
	12:23:30	12:23:30		33.5	49.2	35.6	32.5
	12:24:00	12:24:00		34.1	49.5	35.1	32.7
	12:24:30	12:24:30		34	49.4	35.2	32.8
	12:25:00	12:25:00		33.3	49	34.4	32.4
	12:25:30	12:25:30		34.3	47.8	35.2	33
	12:26:00	12:26:00		34.2	49	36.7	32.8
	12:26:30	12:26:30		33.9	48.9	35.5	32.6
	12:27:00	12:27:00		35.8	54	38.1	33.8
	12:27:30	12:27:30		35	52.7	38	33.4
	12:28:00	12:28:00		33.9	48.4	35.1	32.7
	12:28:30	12:28:30		33.4	47.6	34.5	32.3
	12:29:00	12:29:00		35.2	50.8	37.2	32.7
	12:29:30	12:29:30		33.6	48.3	34.2	32.5
	12:30:00	12:30:00		33.6	48.3	34.3	33
	12:30:30	12:30:30		34.7	51.8	36.3	32.9
	12:31:00	12:31:00		34.7	50.1	35.7	33.3
	12:31:30	12:31:30		33.8	48	35.2	32.8
	12:32:00	12:32:00		33.5	48.4	34.6	32.1
	12:32:30	12:32:30		38.7	61.2	46	34.3
	12:33:00	12:33:00		51.2	67.8	54.1	44.2
	12:33:30	12:33:30		49.3	67.8	53.6	39
	12:34:00	12:34:00		38.7	56.1	42.7	35.7
	12:34:30	12:34:30		34.6	50.4	36.8	33.3
	12:35:00	12:35:00		33.5	62.1	35	32.4
	12:35:30	12:35:30		32.5	49	33.6	31.5
	12:36:00	12:36:00		32.3	46.7	33.4	31.5
	12:36:30	12:36:30		31.6	45.9	32	31
	12:37:00	12:37:00		32	46.4	33.3	31.1
	12:37:30	12:37:30		31.8	46	32.5	31
	12:38:00	12:38:00		31.1	46.8	31.9	30.7
	12:38:30	12:38:30		31.1	46	32	30.6
	12:39:00	12:39:00		33.5	50.5	36	30.8
	12:39:30	12:39:30		34	49.7	35.5	32.2
	12:40:00	12:40:00		38.4	59.5	42.8	32.9
	12:40:30	12:40:30		55	79.9	66.4	30
	12:41:00	12:41:00		30.9	45.3	32	30.1
	12:41:30	12:41:30		33.5	48.8	35.2	30.4
	12:42:00	12:42:00		34.8	53.2	38.9	31.7
	12:42:30	12:42:30		61.4	89.1	72.9	33.6
	12:43:00	12:43:00		43	71.4	53.5	32.2
	12:43:30	12:43:30		35.6	55.8	41.2	30.9
	12:44:00	12:44:00		34.4	52.5	37.9	31.2
	12:44:30	12:44:30		32	47.1	33.1	31
	12:45:00	12:45:00		32	46.5	32.9	31.4
	12:45:30	12:45:30		33.1	48.2	34.3	31.8
	12:46:00	12:46:00		33.5	47.9	35	32.6
	12:46:30	12:46:30		34.8	50.5	36.3	33.7
	12:47:00	12:47:00		33.5	48.2	34.8	32.1
	12:47:30	12:47:30		34.7	51.3	37.6	32.6
	12:48:00	12:48:00		35.7	52.9	38.9	33.8
	12:48:30	12:48:30		35.2	51.3	38	33.3

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	12:49:00	12:49:00		34.4	51.5	36.1	33.2
	12:49:30	12:49:30		33.7	53.9	39.4	31.6
	12:50:00	12:50:00		31.1	45.6	32.4	30.4
	12:50:30	12:50:30		33.5	50.2	35.8	31.4
	12:51:00	12:51:00		35.9	53.4	39.8	32.9
	12:51:30	12:51:30		34.2	52.4	36.3	32.9
	12:52:00	12:52:00		32.6	47.2	33.7	31.4
	12:52:30	12:52:30		32.3	47.3	33.5	31.5
	12:53:00	12:53:00		32.4	47.2	34.2	30.9
	12:53:30	12:53:30		33.7	48	34.8	32.3
	12:54:00	12:54:00		32.8	49.1	36.1	31.1
	12:54:30	12:54:30		31.9	48.2	34.6	30.3
	12:55:00	12:55:00		31	45.5	31.9	30.4
	12:55:30	12:55:30		30.5	44.4	31.4	30
	12:56:00	12:56:00		33.1	48.5	34.6	30.9
	12:56:30	12:56:30		34.9	50.5	36.9	32.3
	12:57:00	12:57:00		34.3	50.3	36.5	32.8
	12:57:30	12:57:30		32.9	49.8	36.8	30.6
	12:58:00	12:58:00		32.8	51.1	38.7	31
	12:58:30	12:58:30		32.7	50.2	36.8	31.1
	12:59:00	12:59:00		32	46.6	32.9	31
	12:59:30	12:59:30		35.2	53.9	41.2	32.2
	13:00:00	13:00:00		46.7	63.5	50.9	40.4
	13:00:30	13:00:30		47	63	50.3	38.8
	13:01:00	13:01:00		36.3	53.9	41.3	32.3
	13:01:30	13:01:30		32.1	47	33.5	31.2
	13:02:00	13:02:00		32.3	47	34	31.1
	13:02:30	13:02:30		33.2	48.9	34.9	31.7
	13:03:00	13:03:00		34.1	48.8	35.6	32.7
	13:03:30	13:03:30		32.1	47.1	33.4	30.9
	13:04:00	13:04:00		34.7	51.8	38.8	31.2
	13:04:30	13:04:30		35.9	52.5	39.3	31.9
	13:05:00	13:05:00		32.8	50.8	38.2	30.9
	13:05:30	13:05:30		33.6	50	36.5	31.6
	13:06:00	13:06:00		34	51.2	38	31.8
	13:06:30	13:06:30		31.9	46.6	32.5	31.1
	13:07:00	13:07:00		32.2	48.8	34.3	30.7
	13:07:30	13:07:30		33.6	50.2	36.1	31
	13:08:00	13:08:00		34.8	52.2	37.1	32
	13:08:30	13:08:30		32.7	47.3	33.8	31.8
	13:09:00	13:09:00		34.3	50.6	35	33.4
	13:09:30	13:09:30		36.7	54.5	40	34
	13:10:00	13:10:00		33.5	48.7	35.3	31.2
	13:10:30	13:10:30		32	45.7	33.2	31.2
	13:11:00	13:11:00		32.5	52.8	34.4	31.5
	13:11:30	13:11:30		31.2	45.2	32.5	30.5
	13:12:00	13:12:00		30.4	44.4	31.6	29.6
	13:12:30	13:12:30		32.6	49.3	35.5	30.4
	13:13:00	13:13:00		33.8	48.7	34.9	32.8
	13:13:30	13:13:30		34.8	52.1	37.6	32.4
	13:14:00	13:14:00		34.9	52.5	37.4	31.9
	13:14:30	13:14:30		32.9	50.5	37.4	30.3
	13:15:00	13:15:00		33.2	49.6	36	30.6
	13:15:30	13:15:30		33.4	48.5	36	32
	13:16:00	13:16:00		37.7	56.5	41.6	33.1
	13:16:30	13:16:30		37.1	51.1	39.1	34.8
	13:17:00	13:17:00		34.8	53.6	38.3	32.5
	13:17:30	13:17:30		34	57.6	36.4	31.2
	13:18:00	13:18:00		32.9	65.4	41.9	30
	13:18:30	13:18:30		35	64.9	45.4	30.2
	13:19:00	13:19:00		35.3	53.5	40.9	30.4
	13:19:30	13:19:30		35.7	53.2	40.7	30.9
	13:20:00	13:20:00		33.3	48.6	35.9	31.1
	13:20:30	13:20:30		34.4	50.3	37.3	31
	13:21:00	13:21:00		32.6	49.2	36.2	30
	13:21:30	13:21:30		33.6	48.1	34.6	32.7
	13:22:00	13:22:00		34.1	48.9	35.4	32.9
	13:22:30	13:22:30		37.7	56.4	44	35.1
	13:23:00	13:23:00		36.7	52.6	42.9	34.2
	13:23:30	13:23:30		37.4	55.9	41.7	33.7
	13:24:00	13:24:00		37	58.4	40.6	34.1
	13:24:30	13:24:30		36.8	52	39.1	34.9
	13:25:00	13:25:00		34.9	52.8	39.2	32.5
	13:25:30	13:25:30		37.6	53.7	40.1	34.3
	13:26:00	13:26:00		38.6	52.9	40.7	36
	13:26:30	13:26:30		41.1	62	43.4	38.5
	13:27:00	13:27:00		39.7	60.7	44.8	34.7

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	13:27:30	13:27:30		34.1	48	36.5	32.8
	13:28:00	13:28:00		37.9	55.7	41.4	34.2
	13:28:30	13:28:30		35.1	51.5	37.3	33.5
	13:29:00	13:29:00		36	51.4	37.3	33.9
	13:29:30	13:29:30		37.9	52.9	39.3	36.2
	13:30:00	13:30:00		36.1	51.7	37.8	34.6
	13:30:30	13:30:30		36.4	52.4	39.5	34.1
	13:31:00	13:31:00		37.9	56.7	39.9	35.6
	13:31:30	13:31:30		35.8	53.6	37.4	34
	13:32:00	13:32:00		37.3	57.7	40.2	33.2
	13:32:30	13:32:30		33.7	47.9	35.3	32.4
	13:33:00	13:33:00		33.8	49.1	35.7	32.1
	13:33:30	13:33:30		32.9	47.7	35.1	31.5
	13:34:00	13:34:00		33.5	50.8	35.7	31.5
	13:34:30	13:34:30		35.6	51.9	38.7	32.5
	13:35:00	13:35:00		39.3	55.7	42.5	35.5
	13:35:30	13:35:30		35	51.2	40.3	32.2
	13:36:00	13:36:00		31.9	47.1	34	30.6
	13:36:30	13:36:30		32.4	47.8	34.7	30.5
	13:37:00	13:37:00		33.8	50.5	37.4	30.2
	13:37:30	13:37:30		33.6	49.8	36.9	30.6
	13:38:00	13:38:00		31.8	46.5	33.3	30.6
	13:38:30	13:38:30		31.8	46.5	33	30.8
	13:39:00	13:39:00		31.8	48.3	34.5	30.7
	13:39:30	13:39:30		32	47.4	34.5	30.8
	13:40:00	13:40:00		31.3	45.6	32.4	30.4
	13:40:30	13:40:30		31.7	45.6	32.3	31.1
	13:41:00	13:41:00		32.7	47.1	34.3	31.9
	13:41:30	13:41:30		33.3	50.4	36	31.4
	13:42:00	13:42:00		37.3	59.9	42.3	33.6
	13:42:30	13:42:30		33.4	52.7	35.9	31.6
	13:43:00	13:43:00		36.2	54.3	39.9	34.1
	13:43:30	13:43:30		36.9	63	42.3	32.7
	13:44:00	13:44:00		36.8	51.5	38.2	34.4
	13:44:30	13:44:30		33.6	48.3	35	32.1
	13:45:00	13:45:00		34.1	49.6	34.9	33
	13:45:30	13:45:30		34.3	48.5	35.5	33.5
	13:46:00	13:46:00		33.4	48.4	34.2	32.5
	13:46:30	13:46:30		34	49.6	36	32.8
	13:47:00	13:47:00		34	51.4	36.9	33
	13:47:30	13:47:30		35.8	50.9	37.3	34.1
	13:48:00	13:48:00		35.8	52.4	38.2	34.1
	13:48:30	13:48:30		39	60.6	46	35.5
	13:49:00	13:49:00		45.4	64.5	51.7	37.7
	13:49:30	13:49:30		39	57	43.3	33.3
	13:50:00	13:50:00		35	54.7	39	31.2
	13:50:30	13:50:30		31.4	45.6	32.3	30.7
	13:51:00	13:51:00		33.5	50.2	36	31.8
	13:51:30	13:51:30		35.3	53.2	37.2	32.5
	13:52:00	13:52:00		30.6	45.3	32.6	29.6
	13:52:30	13:52:30		31.3	48.8	32.5	30.7
	13:53:00	13:53:00		37.5	54.2	40.4	30.8
	13:53:30	13:53:30		40.1	62.9	47.9	36.5
	13:54:00	13:54:00		62	88.1	73	40.8
	13:54:30	13:54:30		43.1	74.9	54.6	37.6
	13:55:00	13:55:00		38.2	54.4	39.4	37
	13:55:30	13:55:30		38	52.4	39.3	37
	13:56:00	13:56:00		38.2	52.2	39	37.1
	13:56:30	13:56:30		38.2	59.1	40.3	37
	13:57:00	13:57:00		38.6	61.3	41.8	37.7
	13:57:30	13:57:30		38	51.7	38.7	37.2
	13:58:00	13:58:00		38.3	54.2	39.7	37.8
	13:58:30	13:58:30		37.9	52	38.5	37.1
	13:59:00	13:59:00		38.7	53.5	40	37.3
	13:59:30	13:59:30		35.4	52.1	38.3	31.2
	14:00:00	14:00:00		31.9	48.2	34.6	31.1
	14:00:30	14:00:30		33.7	49.4	36.6	31.3
	14:01:00	14:01:00		35.4	62	40.1	33.2
	14:01:30	14:01:30		58.5	83.4	70.4	35.5
	14:02:00	14:02:00		49.1	67.3	62.9	34.8
	14:02:30	14:02:30		41.4	56.3	43.2	36.8
	14:03:00	14:03:00		41.9	56	43	40.8
	14:03:30	14:03:30		41.8	58.3	43	40.6
	14:04:00	14:04:00		60.6	87.1	72	40.7
	14:04:30	14:04:30		43.7	56.8	53.3	40.9
	14:05:00	14:05:00		42.1	56	43.4	40.9
	14:05:30	14:05:30		42.9	61.6	43.8	41.4

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	14:06:00	14:06:00		45.6	63.3	50.4	37.3
	14:06:30	14:06:30		40.3	65.6	48.9	37.7
	14:07:00	14:07:00		39.6	56.6	41.2	37.6
	14:07:30	14:07:30		42.7	59.8	46	40.1
	14:08:00	14:08:00		45.4	62.9	49.5	42.1
	14:08:30	14:08:30		62	89.3	73.8	46.4
	14:09:00	14:09:00		43.1	58.7	47.6	40.8
	14:09:30	14:09:30		43.9	61.6	46.4	41.3
	14:10:00	14:10:00		40.9	58.3	44.8	39.4
	14:10:30	14:10:30		40.1	56.5	43.9	36.7
	14:11:00	14:11:00		64.5	91	76	41.6
	14:11:30	14:11:30		42.5	64.2	47.1	39.1
	14:12:00	14:12:00		39	58.6	42	35.1
	14:12:30	14:12:30		42.2	59.9	45.8	39
	14:13:00	14:13:00		39.1	60.8	44.5	34
	14:13:30	14:13:30		35.4	52	37.8	33.3
	14:14:00	14:14:00		35.9	53.2	37.4	34.4
	14:14:30	14:14:30		35.3	51.9	36.5	34.1
	14:15:00	14:15:00		37.3	63.9	46.6	33.1
	14:15:30	14:15:30		32.9	48.5	34.9	31.7
	14:16:00	14:16:00		32.3	52.3	34.7	31.3
	14:16:30	14:16:30		31.1	44.9	32	30.6
	14:17:00	14:17:00		31.1	45.9	31.8	30.4
	14:17:30	14:17:30		32.9	49.5	34.5	31.4
	14:18:00	14:18:00		32.5	47.2	33.8	30.8
	14:18:30	14:18:30		34.9	52.2	38.3	30.9
	14:19:00	14:19:00		35.1	52.2	39.7	31
	14:19:30	14:19:30		34.9	51.9	39.3	31.6
	14:20:00	14:20:00		37.2	58.8	42.6	33.7
	14:20:30	14:20:30		34.7	58.5	37.5	31.7
	14:21:00	14:21:00		56.3	81.3	67.3	32.9
	14:21:30	14:21:30		33	47.3	34.7	31.5
	14:22:00	14:22:00		30.7	44.7	32.7	29.9
	14:22:30	14:22:30		30.1	45.1	30.4	29.8
	14:23:00	14:23:00		30.4	44	30.8	29.9
	14:23:30	14:23:30		30.8	45	31.6	30
	14:24:00	14:24:00		30.7	45.8	32.6	29.9
	14:24:30	14:24:30		33.1	52.1	37.7	31.4
	14:25:00	14:25:00		35.1	54	39.3	30.2
	14:25:30	14:25:30		30.4	45.4	31.9	29.6
	14:26:00	14:26:00		31	45.1	31.8	29.9
	14:26:30	14:26:30		30.4	44.9	31.3	29.9
	14:27:00	14:27:00		31.5	46.9	34.3	29.7
	14:27:30	14:27:30		30.1	44.5	31	29.7
	14:28:00	14:28:00		30.9	47.7	33.7	29.8
	14:28:30	14:28:30		34.3	56.3	39.6	30.3
	14:29:00	14:29:00		32.6	48.4	34.2	31
	14:29:30	14:29:30		32.9	49.8	36.6	30.3
	14:30:00	14:30:00		30.9	45.5	31.6	30.2
	14:30:30	14:30:30		31.1	46.2	32.7	30
	14:31:00	14:31:00		34.3	54.5	37.9	31.4
	14:31:30	14:31:30		36.3	58.2	39.6	33.6
	14:32:00	14:32:00		32.9	50.4	37.3	30.2
	14:32:30	14:32:30		31.1	48.2	32.5	29.5
	14:33:00	14:33:00		30.5	47.1	32.5	29.5
	14:33:30	14:33:30		30.5	44.5	31.6	29.7
	14:34:00	14:34:00		31.7	51.4	36.8	29.9
	14:34:30	14:34:30		33.6	49.9	37.3	31.2
	14:35:00	14:35:00		32.6	50.7	37.4	29.7
	14:35:30	14:35:30		36	53.6	40.4	32.1
	14:36:00	14:36:00		34.3	50.6	37.5	31
	14:36:30	14:36:30		34.3	53.4	37.4	32.6
	14:37:00	14:37:00		35.6	50.9	38.3	32.6
	14:37:30	14:37:30		32.3	47.1	35.6	30.6
	14:38:00	14:38:00		32.6	48.1	34	31
	14:38:30	14:38:30		32.8	47.4	34.4	31.5
	14:39:00	14:39:00		32.6	47	33.7	31.2
	14:39:30	14:39:30		33.1	47.5	34.2	31.9
	14:40:00	14:40:00		34.5	48.5	35.4	33.4
	14:40:30	14:40:30		35.6	52.2	37.8	33.9
	14:41:00	14:41:00		34.8	53.6	38.6	33.2
	14:41:30	14:41:30		33.5	49.8	35	32.9
	14:42:00	14:42:00		34	48.6	35	32.9
	14:42:30	14:42:30		34.2	49.8	35	33.2
	14:43:00	14:43:00		33.6	47.9	35.2	32.4
	14:43:30	14:43:30		33.1	48	34.2	32
	14:44:00	14:44:00		33.2	51.4	35	32.3

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	14:44:30	14:44:30		36.2	58.5	38.5	34.5
	14:45:00	14:45:00		39	56	42.4	37.2
	14:45:30	14:45:30		42.2	60.1	45.6	40
	14:46:00	14:46:00		37.9	55.8	41.6	35.6
	14:46:30	14:46:30		67.7	94.1	79.8	35.8
	14:47:00	14:47:00		39.9	55.2	41.9	35.2
	14:47:30	14:47:30		32.5	47.7	35.2	31.6
	14:48:00	14:48:00		32.2	56.9	35	31.2
	14:48:30	14:48:30		31.3	45	32.1	30.5
	14:49:00	14:49:00		30.7	46.2	31.7	30.1
	14:49:30	14:49:30		33.9	51.1	36.7	31
	14:50:00	14:50:00		33.7	51.2	37.8	31.7
	14:50:30	14:50:30		32.9	50.4	35.7	30.7
	14:51:00	14:51:00		36.9	52.8	39.1	34.1
	14:51:30	14:51:30		34.5	50.6	37.1	31.9
	14:52:00	14:52:00		35.1	49.4	36.7	31.9
	14:52:30	14:52:30		35.1	50.4	37.3	32.8
	14:53:00	14:53:00		35.2	50.6	37.3	33
	14:53:30	14:53:30		34.9	49.3	36.7	33.2
	14:54:00	14:54:00		34	50.7	36.2	32.4
	14:54:30	14:54:30		33.1	50.8	35.8	30.2
	14:55:00	14:55:00		30.6	45	32	29.6
	14:55:30	14:55:30		33.2	53	39.8	29.7
	14:56:00	14:56:00		36.1	50.6	38.1	31
	14:56:30	14:56:30		36.8	52.7	39.8	34.4
	14:57:00	14:57:00		36.1	53.5	40	32.8
	14:57:30	14:57:30		35.9	54.9	39.5	33.5
	14:58:00	14:58:00		35.3	50.8	37.5	34.3
	14:58:30	14:58:30		36.7	66.3	41.6	33.7
	14:59:00	14:59:00		37.6	56.6	42.9	33.5
	14:59:30	14:59:30		62.8	89.5	74.9	33.5
	15:00:00	15:00:00		37.4	63.5	40.1	34.1
	15:00:30	15:00:30		41.2	61.6	47.5	33.6
	15:01:00	15:01:00		61	87.1	72.9	38.1
	15:01:30	15:01:30		42.1	58.8	48.1	35.5
	15:02:00	15:02:00		35.5	51	40.3	32.1
	15:02:30	15:02:30		32.5	49.6	35.8	30
	15:03:00	15:03:00		34.6	54.8	41	29.7
	15:03:30	15:03:30		30.7	45.8	32.4	29.4
	15:04:00	15:04:00		30	44.1	30.7	29.5
	15:04:30	15:04:30		30.1	49.5	30.7	29.3
	15:05:00	15:05:00		30.5	47.6	31.8	29.1
	15:05:30	15:05:30		31.1	46.2	32.6	29.9
	15:06:00	15:06:00		33.7	52	37.2	30.7
	15:06:30	15:06:30		33.9	51.1	38.4	30.7
	15:07:00	15:07:00		31.5	46.7	32.8	30.1
	15:07:30	15:07:30		31.6	47.3	34.1	30.3
	15:08:00	15:08:00		32	47.7	34.5	30.6
	15:08:30	15:08:30		31	46.2	33	29.9
	15:09:00	15:09:00		31.3	47.2	32.8	30.5
	15:09:30	15:09:30		32.1	54.3	40.1	29.4
	15:10:00	15:10:00		33.9	60.7	45.9	29.2
	15:10:30	15:10:30		29.6	44.3	30	29.3
	15:11:00	15:11:00		30.8	47.8	33.5	29.6
	15:11:30	15:11:30		31	46.9	33.5	29.8
	15:12:00	15:12:00		65.6	98.3	77.7	30.2
	15:12:30	15:12:30		41.9	59.7	53	33.9
	15:13:00	15:13:00		36	53.4	38.9	33.9
	15:13:30	15:13:30		31.9	46.4	33.9	30.6
	15:14:00	15:14:00		31.6	46.6	33.2	30.7
	15:14:30	15:14:30		30.9	44.5	31.4	30.6
	15:15:00	15:15:00		30.6	47	31.1	30.2
	15:15:30	15:15:30		32.1	47.8	33.3	30.8
	15:16:00	15:16:00		33.1	47.4	33.7	32.6
	15:16:30	15:16:30		33.2	48	34	32.1
	15:17:00	15:17:00		59.7	86.5	71.6	31.9
	15:17:30	15:17:30		43.5	61.2	55.6	32
	15:18:00	15:18:00		32.9	47.7	34.6	31.3
	15:18:30	15:18:30		35.9	55	39.9	33.9
	15:19:00	15:19:00		39.9	60.3	43.2	36.1
	15:19:30	15:19:30		35.1	59.6	40.7	31.6
	15:20:00	15:20:00		66.8	94.5	78.9	34.6
	15:20:30	15:20:30		34.5	52.5	40.3	30.9
	15:21:00	15:21:00		42	57.9	44.8	37
	15:21:30	15:21:30		35.4	54.5	37.4	33.5
	15:22:00	15:22:00		33.2	49.8	35.3	31.9
	15:22:30	15:22:30		34.3	55.4	35.3	33.1

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	15:23:00	15:23:00		35.4	53.4	38.3	32.4
	15:23:30	15:23:30		34.5	50.4	36.5	33.2
	15:24:00	15:24:00		35.1	49.5	36.4	33.8
	15:24:30	15:24:30		35.7	51.3	37.3	34.2
	15:25:00	15:25:00		36.4	54.3	38.9	34.3
	15:25:30	15:25:30		35.6	51.1	37.1	34.5
	15:26:00	15:26:00		36.7	57.4	41.6	33
	15:26:30	15:26:30		34.8	53.2	38.8	32.7
	15:27:00	15:27:00		33	50.6	36.7	31.6
	15:27:30	15:27:30		33.9	49.8	36	31.9
	15:28:00	15:28:00		31.7	50.2	33.8	30.9
	15:28:30	15:28:30		33	50.6	35.3	31.6
	15:29:00	15:29:00		33.6	49.1	36.4	31.4
	15:29:30	15:29:30		33.3	49.5	35.4	31.8
	15:30:00	15:30:00		30.7	48	32.1	29.8
	15:30:30	15:30:30		31.7	47.7	33	30
	15:31:00	15:31:00		29.9	43.9	30.9	29.4
	15:31:30	15:31:30		33.6	50.6	36.7	30.5
	15:32:00	15:32:00		34	48.3	37.8	31.7
	15:32:30	15:32:30		33.4	48.3	36.9	31.6
	15:33:00	15:33:00		34.1	49.3	36.7	31.2
	15:33:30	15:33:30		37.5	53.4	40.6	34.2
	15:34:00	15:34:00		37.6	53.5	40.4	35.1
	15:34:30	15:34:30		35.7	58.6	38.9	33
	15:35:00	15:35:00		35.6	55.5	39.2	31.9
	15:35:30	15:35:30		32.2	46.6	34.7	31.1
	15:36:00	15:36:00		34.7	52.4	38.4	32.1
	15:36:30	15:36:30		36	54.3	39.1	33.3
	15:37:00	15:37:00		37.1	53.2	40.5	33.7
	15:37:30	15:37:30		36.2	58.1	42.9	30.1
	15:38:00	15:38:00		30.4	45.3	31.5	29.6
	15:38:30	15:38:30		32.6	49.1	36.2	30.3
	15:39:00	15:39:00		31.7	46.6	34	30.3
	15:39:30	15:39:30		32.9	52.8	37.7	30.7
	15:40:00	15:40:00		33.4	49.6	36	31.1
	15:40:30	15:40:30		32	47.5	34.3	30.6
	15:41:00	15:41:00		38	57.1	42.8	32.5
	15:41:30	15:41:30		37.6	53.9	41.4	34.5
	15:42:00	15:42:00		32.4	47.6	34.6	30.6
	15:42:30	15:42:30		30.7	45.3	32.5	29.7
	15:43:00	15:43:00		36.3	54.6	40.8	32.2
	15:43:30	15:43:30		37.1	57.1	41.5	34.6
	15:44:00	15:44:00		34.7	50.9	38.2	30.7
	15:44:30	15:44:30		31	45	32.3	30.4
	15:45:00	15:45:00		31.3	45.7	32.4	30.4
	15:45:30	15:45:30		31	45.8	33.2	30.2
	15:46:00	15:46:00		31.9	48	34.2	30.4
	15:46:30	15:46:30		32.4	46.6	33.5	31.4
	15:47:00	15:47:00		32.9	48.6	35.3	31.2
	15:47:30	15:47:30		32.5	46.6	34.2	31.3
	15:48:00	15:48:00		30.6	45.2	31.4	29.7
	15:48:30	15:48:30		30	53.3	30.7	29.6
	15:49:00	15:49:00		32.3	48.9	35.6	30.2
	15:49:30	15:49:30		32.7	46.5	34.2	31.7
	15:50:00	15:50:00		34.5	52	38.5	31.5
	15:50:30	15:50:30		31.9	47.9	35.6	30.7
	15:51:00	15:51:00		31.1	45.6	31.9	30.5
	15:51:30	15:51:30		31.1	45.4	31.9	30.2
	15:52:00	15:52:00		31.1	45	32.5	30.2
	15:52:30	15:52:30		31.3	46	32.3	30.7
	15:53:00	15:53:00		32.4	48.4	36.3	30.8
	15:53:30	15:53:30		31.7	46	32.7	31
	15:54:00	15:54:00		32.2	46.2	33	31.4
	15:54:30	15:54:30		31.4	45.7	31.9	31.1
	15:55:00	15:55:00		31.2	45.5	31.7	31
	15:55:30	15:55:30		31.7	46.6	32.8	31
	15:56:00	15:56:00		31.9	46	32.9	31.3
	15:56:30	15:56:30		32.1	46.3	32.7	31.4
	15:57:00	15:57:00		35.1	52.8	38.6	32.4
	15:57:30	15:57:30		36.1	57.4	41.5	32.8
	15:58:00	15:58:00		32.9	49.5	34.3	31.6
	15:58:30	15:58:30		31.7	45.7	32.2	31.3
	15:59:00	15:59:00		32.3	48.2	34.1	31.1
	15:59:30	15:59:30		34.4	53.1	36.9	32.4
	16:00:00	16:00:00		36.7	54.2	39.7	33.2
	16:00:30	16:00:30		38.7	59	43.4	31.9
	16:01:00	16:01:00		53.8	77.2	64.3	31.9

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	16:01:30	16:01:30		68.9	95.9	81	31
	16:02:00	16:02:00		31	48.8	31.5	30.5
	16:02:30	16:02:30		31.5	46.7	32.4	30.7
	16:03:00	16:03:00		31.3	46.3	32	30.7
	16:03:30	16:03:30		30.7	45.6	32.1	29.8
	16:04:00	16:04:00		30.9	44.7	31.5	30.4
	16:04:30	16:04:30		30.6	44.5	31.6	30.1
	16:05:00	16:05:00		30.4	45.2	31.6	29.5
	16:05:30	16:05:30		29.7	44	30.5	29.1
	16:06:00	16:06:00		30.9	46	32.5	29.8
	16:06:30	16:06:30		29.8	43.9	32.1	29.2
	16:07:00	16:07:00		29.5	43.2	29.7	29
	16:07:30	16:07:30		29.5	43.4	30.3	28.8
	16:08:00	16:08:00		29	44.4	29.5	28.7
	16:08:30	16:08:30		30.4	45.4	31.6	29.5
	16:09:00	16:09:00		29.1	43.2	30.4	28.5
	16:09:30	16:09:30		29.1	43.1	29.9	28.6
	16:10:00	16:10:00		30.2	45.9	32.9	29
	16:10:30	16:10:30		33.2	49	35.1	31.3
	16:11:00	16:11:00		32.3	47.8	34.1	29.9
	16:11:30	16:11:30		30.9	47.6	34.6	29.3
	16:12:00	16:12:00		32.8	50.1	36.3	30.2
	16:12:30	16:12:30		29.7	44.5	30.6	28.9
	16:13:00	16:13:00		30.4	47.3	31.6	29.5
	16:13:30	16:13:30		31.5	50.1	35.7	29.8
	16:14:00	16:14:00		31.4	46.6	34.1	29.9
	16:14:30	16:14:30		30	45.8	30.8	29.2
	16:15:00	16:15:00		29.9	45.8	31.4	29.3
	16:15:30	16:15:30		32.2	50.7	36.2	29.6
	16:16:00	16:16:00		34	51	36.3	30.4
	16:16:30	16:16:30		30.3	45.5	32.2	29.6
	16:17:00	16:17:00		34.7	51.6	37.7	30.6
	16:17:30	16:17:30		33.1	48.8	37.3	30.6
	16:18:00	16:18:00		33.3	49.2	34.9	31.1
	16:18:30	16:18:30		32.8	47.5	34.5	31.3
	16:19:00	16:19:00		32.1	48	34.4	30
	16:19:30	16:19:30		32.7	51.3	34.5	30.9
	16:20:00	16:20:00		33.2	48.5	35.4	31.8
	16:20:30	16:20:30		42.3	64.4	47.6	32.6
	16:21:00	16:21:00		34.4	52.5	38.4	31
	16:21:30	16:21:30		36.1	55	41.2	32.3
	16:22:00	16:22:00		33	49.2	35.7	30.7
	16:22:30	16:22:30		32.9	50.5	36.6	30.3
	16:23:00	16:23:00		30.5	47	32.3	29.9
	16:23:30	16:23:30		30.6	45.2	31.4	30.3
	16:24:00	16:24:00		30.6	52.5	31.1	30.2
	16:24:30	16:24:30		30.3	55.3	31.1	29.8
	16:25:00	16:25:00		30.4	44.7	31.1	29.9
	16:25:30	16:25:30		30.8	44.9	31.5	30.3
	16:26:00	16:26:00		30.4	44.2	31.1	29.9
	16:26:30	16:26:30		29.9	43.5	30.5	29.6
	16:27:00	16:27:00		30	45.3	31.8	29.4
	16:27:30	16:27:30		32	46	32.6	31.2
	16:28:00	16:28:00		32.4	47.1	33.4	31.6
	16:28:30	16:28:30		32.2	46.1	32.7	31.7
	16:29:00	16:29:00		31	45.2	32.2	30.1
	16:29:30	16:29:30		30.2	45.4	31.3	29.7
	16:30:00	16:30:00		30.2	44.3	31.3	29.8
	16:30:30	16:30:30		30.3	44.5	30.8	29.7
	16:31:00	16:31:00		30.4	44.5	31	29.8
	16:31:30	16:31:30		30.5	45.5	31.3	29.9
	16:32:00	16:32:00		33.2	49	35.8	30.4
	16:32:30	16:32:30		37	56.5	43.5	31.3
	16:33:00	16:33:00		39.9	58.6	46.1	31
	16:33:30	16:33:30		37.8	55.3	42.3	32
	16:34:00	16:34:00		59.9	87.1	71.6	31.9
	16:34:30	16:34:30		47.7	71.1	60.6	34.1
	16:35:00	16:35:00		35.7	55.6	43.6	30.2
	16:35:30	16:35:30		64.5	92	76.7	31.1
	16:36:00	16:36:00		32.1	47.9	34.1	29.8
	16:36:30	16:36:30		33.2	48	34.9	32
	16:37:00	16:37:00		34	50.6	36.4	32.6
	16:37:30	16:37:30		32.6	49.3	34.1	31.7
	16:38:00	16:38:00		53.1	83.7	68.8	32
	16:38:30	16:38:30		55	79.5	68.8	31.3
	16:39:00	16:39:00		31.6	45.6	32.1	30.8
	16:39:30	16:39:30		31.9	48.3	33.1	31.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	16:40:00	16:40:00		32.5	46.9	33	31.7
	16:40:30	16:40:30		32.1	46.6	33.2	31.5
	16:41:00	16:41:00		33.4	48.3	35.2	32.2
	16:41:30	16:41:30		37.3	58.8	41.4	32.1
	16:42:00	16:42:00		37.9	55.1	40.8	34.5
	16:42:30	16:42:30		62.4	89.5	74.5	32.4
	16:43:00	16:43:00		32.7	52.5	36	31.5
	16:43:30	16:43:30		36.1	54.9	40	33.7
	16:44:00	16:44:00		35.4	53.5	40.3	32.4
	16:44:30	16:44:30		38.4	58.2	42.2	35
	16:45:00	16:45:00		35.2	56	37.2	32.4
	16:45:30	16:45:30		36.6	58.9	42.4	32
	16:46:00	16:46:00		33.7	50.1	36	31
	16:46:30	16:46:30		35	50.2	37.5	31.9
	16:47:00	16:47:00		34.6	48.8	35.7	33.7
	16:47:30	16:47:30		33.9	48.2	35.5	33.2
	16:48:00	16:48:00		32.9	47	33.4	32.5
	16:48:30	16:48:30		33.5	47.2	34.2	32.8
	16:49:00	16:49:00		34.8	50.3	37.7	33.1
	16:49:30	16:49:30		38.1	54.2	41.5	34
	16:50:00	16:50:00		39.7	65.8	44.3	35.6
	16:50:30	16:50:30		38.5	56.2	42.9	33.6
	16:51:00	16:51:00		33.2	48.5	33.9	32.8
	16:51:30	16:51:30		33.4	54.4	36.2	32.3
	16:52:00	16:52:00		33	47.9	33.9	32.4
	16:52:30	16:52:30		33.8	50.1	34.8	33.3
	16:53:00	16:53:00		34.2	48.1	35.4	33.3
	16:53:30	16:53:30		34.8	50.6	36.1	33.9
	16:54:00	16:54:00		35.6	52.3	37.6	34.4
	16:54:30	16:54:30		33.8	51.9	38.6	32
	16:55:00	16:55:00		32.2	47.6	33	31.5
	16:55:30	16:55:30		33.6	49.4	35.4	32.5
	16:56:00	16:56:00		59.7	87.2	71.5	34.6
	16:56:30	16:56:30		51.8	67.9	65.1	36.3
	16:57:00	16:57:00		36.2	62.9	42.4	32.3
	16:57:30	16:57:30		35.1	56.1	41.4	31.3
	16:58:00	16:58:00		39.7	54.2	40.6	38.7
	16:58:30	16:58:30		38.8	56.5	40.8	35.7
	16:59:00	16:59:00		35.9	50.7	38.1	34.9
	16:59:30	16:59:30		35.3	50.4	36.4	34
	17:00:00	17:00:00		35	56	40.9	33.6
	17:00:30	17:00:30		34.5	52.7	36.5	32.8
	17:01:00	17:01:00		35.8	55.1	40.1	33.6
	17:01:30	17:01:30		39.2	57.4	43.9	35.7
	17:02:00	17:02:00		39.6	58.2	41.9	35.6
	17:02:30	17:02:30		38.7	55.9	41.9	35.2
	17:03:00	17:03:00		37.1	53.8	41.1	34.2
	17:03:30	17:03:30		61	86.4	72.6	34.2
	17:04:00	17:04:00		33.5	48.4	35.3	32.1
	17:04:30	17:04:30		32.7	47.9	34.3	31.7
	17:05:00	17:05:00		32.5	46.4	33.4	32.1
	17:05:30	17:05:30		33.2	48.7	35.5	31.9
	17:06:00	17:06:00		37.1	52.8	39.9	34.5
	17:06:30	17:06:30		37.9	54.5	41.5	35.5
	17:07:00	17:07:00		36.7	53.7	39	33.6
	17:07:30	17:07:30		33.5	48.3	35.9	32.3
	17:08:00	17:08:00		33.9	49.6	36.6	32.8
	17:08:30	17:08:30		36.4	53.9	39.4	34
	17:09:00	17:09:00		33	47.9	35.2	31.6
	17:09:30	17:09:30		33	47.8	34.7	32.3
	17:10:00	17:10:00		34.5	49.9	35.5	33.2
	17:10:30	17:10:30		33.2	47.2	34.2	32.3
	17:11:00	17:11:00		32	47.4	33.3	31.2
	17:11:30	17:11:30		31.9	45.5	32.6	31.3
	17:12:00	17:12:00		33.5	49.3	35.1	31.6
	17:12:30	17:12:30		34	48	35.5	33.1
	17:13:00	17:13:00		34.9	54.3	41.2	33
	17:13:30	17:13:30		61.8	87.9	73.2	33.9
	17:14:00	17:14:00		33.8	52.5	36.9	32.4
	17:14:30	17:14:30		36.7	54.6	39.2	35.1
	17:15:00	17:15:00		34.7	53.8	38.8	32.3
	17:15:30	17:15:30		32.6	47.7	33.9	32
	17:16:00	17:16:00		32.4	47.1	33.3	31.6
	17:16:30	17:16:30		31.6	49.3	32.4	31.2
	17:17:00	17:17:00		31.7	45.7	32.4	30.9
	17:17:30	17:17:30		31.9	46.5	32.4	31.5
	17:18:00	17:18:00		32	46.1	32.6	31.5

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	17:18:30	17:18:30		32.3	46	33.7	31.4
	17:19:00	17:19:00		31.9	45.9	33	31.2
	17:19:30	17:19:30		32.2	46.3	32.9	31.4
	17:20:00	17:20:00		32.9	47.1	34.3	31.7
	17:20:30	17:20:30		32.9	47.2	34.1	32.3
	17:21:00	17:21:00		34.7	57.8	39.1	33.1
	17:21:30	17:21:30		37.4	56.7	40.5	34.4
	17:22:00	17:22:00		37	55.5	39.3	35.2
	17:22:30	17:22:30		36	51.3	38	33.6
	17:23:00	17:23:00		33.1	47.3	34.4	32.2
	17:23:30	17:23:30		32.3	47.8	35.8	31
	17:24:00	17:24:00		35.2	49.4	38.2	32.8
	17:24:30	17:24:30		33.5	48.5	35	32.3
	17:25:00	17:25:00		32.2	46.3	33.8	31.1
	17:25:30	17:25:30		32.6	48.4	34.5	31.7
	17:26:00	17:26:00		34.6	56.2	37.3	32.6
	17:26:30	17:26:30		37.7	55.3	40.7	33.7
	17:27:00	17:27:00		34.5	50	35.7	33.2
	17:27:30	17:27:30		33.9	48.7	34.9	32.6
	17:28:00	17:28:00		33.2	49	34.9	31.7
	17:28:30	17:28:30		32.9	48.7	35.8	31.9
	17:29:00	17:29:00		34.4	51	38.1	31.6
	17:29:30	17:29:30		35.9	54.4	38.8	33.5
	17:30:00	17:30:00		36.8	55	40.1	34.7
	17:30:30	17:30:30		35.4	50.2	36.9	34
	17:31:00	17:31:00		35.4	51.3	36.8	34.4
	17:31:30	17:31:30		34.7	49.5	37	33
	17:32:00	17:32:00		33.5	48	34.4	32.8
	17:32:30	17:32:30		34.2	49.5	36.2	32.5
	17:33:00	17:33:00		38.6	58.6	42.7	34
	17:33:30	17:33:30		38.8	60.2	44.1	35.7
	17:34:00	17:34:00		39.5	56.6	43.4	36.2
	17:34:30	17:34:30		40.7	56.7	43	38.2
	17:35:00	17:35:00		39.1	56.3	42.9	35.5
	17:35:30	17:35:30		36.6	51.4	37.8	35.1
	17:36:00	17:36:00		39.6	60.6	44.8	36.4
	17:36:30	17:36:30		37	55.4	39.6	34.2
	17:37:00	17:37:00		36.6	55.2	40.1	34.1
	17:37:30	17:37:30		37.6	56.3	39.7	35.7
	17:38:00	17:38:00		41.9	65	47.7	37.8
	17:38:30	17:38:30		36.7	53.8	42.7	34.6
	17:39:00	17:39:00		35.6	51.2	37.9	34.4
	17:39:30	17:39:30		37.6	55.8	41.7	34.2
	17:40:00	17:40:00		37.7	58.4	41.8	35.2
	17:40:30	17:40:30		34.8	52.4	37.9	33.2
	17:41:00	17:41:00		33.7	48.6	35.1	32.9
	17:41:30	17:41:30		34.6	50.1	38.2	33.5
	17:42:00	17:42:00		34	48.1	37.6	32.9
	17:42:30	17:42:30		33.6	47.3	34.2	32.9
	17:43:00	17:43:00		33.5	48.2	34.7	32.7
	17:43:30	17:43:30		34.2	48.9	36.2	33
	17:44:00	17:44:00		36.6	53.1	39.1	34.7
	17:44:30	17:44:30		37	55.1	40.5	34.1
	17:45:00	17:45:00		36.6	52.8	38.8	35
	17:45:30	17:45:30		35.6	52.1	38.8	34
	17:46:00	17:46:00		38.5	59.3	44	34.4
	17:46:30	17:46:30		35.8	54.8	40.2	33.6
	17:47:00	17:47:00		62.5	89.4	74.4	34.9
	17:47:30	17:47:30		34.9	49.8	36.3	33.9
	17:48:00	17:48:00		36.6	59.7	40.7	34.3
	17:48:30	17:48:30		40.3	57.9	43.6	37.8
	17:49:00	17:49:00		36.8	55.6	40.5	34.9
	17:49:30	17:49:30		66.3	91.2	77.7	35
	17:50:00	17:50:00		52.1	71.4	65.1	35.5
	17:50:30	17:50:30		39.4	56.8	41.9	35.4
	17:51:00	17:51:00		37.6	53.5	40.4	34.7
	17:51:30	17:51:30		37.4	56	39.6	34.2
	17:52:00	17:52:00		36.1	52.3	39.1	34.1
	17:52:30	17:52:30		39.4	59.1	41.7	35.9
	17:53:00	17:53:00		36.9	52.7	39.2	34.8
	17:53:30	17:53:30		36.8	59.8	40.7	34.5
	17:54:00	17:54:00		39.3	53.5	40.4	38.6
	17:54:30	17:54:30		38.3	53.3	39.1	37.6
	17:55:00	17:55:00		39.2	55.7	41.7	36.5
	17:55:30	17:55:30		40	58.5	44.3	37.4
	17:56:00	17:56:00		64.8	93.7	77.1	37.9
	17:56:30	17:56:30		37.7	52	38.7	36.8

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	17:57:00	17:57:00		38.7	54.8	41.4	37.3
	17:57:30	17:57:30		40	56.3	41.7	38.6
	17:58:00	17:58:00		41	58.4	44.6	38.5
	17:58:30	17:58:30		39.6	59.2	42.4	37.7
	17:59:00	17:59:00		62.6	88.6	74.1	38.8
	17:59:30	17:59:30		44.8	54.7	58.1	36.2
	18:00:00	18:00:00		37.8	53.2	39.8	35.9
	18:00:30	18:00:30		37	53.6	39	35.3
	18:01:00	18:01:00		34.7	48.5	35.9	34
	18:01:30	18:01:30		35.3	50.3	37.1	33.9
	18:02:00	18:02:00		39.5	57.3	42.7	36.4
	18:02:30	18:02:30		37.5	54.2	40.3	34.7
	18:03:00	18:03:00		36.8	51.3	38	35.5
	18:03:30	18:03:30		37.3	51.4	38.7	35.8
	18:04:00	18:04:00		45.5	61.5	49.9	38.7
	18:04:30	18:04:30		42.1	58	43.4	40.3
	18:05:00	18:05:00		40.1	63.6	45	38.6
	18:05:30	18:05:30		39.9	59.8	43.1	38.1
	18:06:00	18:06:00		63.6	90.2	76	38.6
	18:06:30	18:06:30		56.1	67	70.6	36.9
	18:07:00	18:07:00		36.1	49.9	37.5	34.7
	18:07:30	18:07:30		35.8	50.7	37.7	34.9
	18:08:00	18:08:00		36.1	50.5	38.3	34
	18:08:30	18:08:30		35.6	50.2	36.8	34.1
	18:09:00	18:09:00		58.2	86.3	71.8	35.4
	18:09:30	18:09:30		56.8	78.6	70.6	38.4
	18:10:00	18:10:00		36.9	53.7	40	35.1
	18:10:30	18:10:30		35.7	49.8	36.7	35.1
	18:11:00	18:11:00		35.9	51.7	36.7	35.1
	18:11:30	18:11:30		35.9	50.6	37.3	35
	18:12:00	18:12:00		34.9	48.7	35.4	34.1
	18:12:30	18:12:30		35.4	53.5	37	34.4
	18:13:00	18:13:00		37.1	55.6	40.1	35.7
	18:13:30	18:13:30		39	55.8	41.8	35
	18:14:00	18:14:00		37.8	52.1	41.7	36
	18:14:30	18:14:30		38	58.2	44	36
	18:15:00	18:15:00		43	58.9	45	40.3
	18:15:30	18:15:30		39.8	56.8	44.8	36.1
	18:16:00	18:16:00		37.3	53.4	39.7	36
	18:16:30	18:16:30		40.3	57.8	43.7	36
	18:17:00	18:17:00		41	59.6	42.7	40
	18:17:30	18:17:30		40.5	58.5	43.6	37.9
	18:18:00	18:18:00		40	56.5	42.9	37.3
	18:18:30	18:18:30		41.7	59.5	45	38.3
	18:19:00	18:19:00		39	60	41.3	37.1
	18:19:30	18:19:30		42.7	57.8	44.9	38.8
	18:20:00	18:20:00		43.4	57.4	45.2	40.2
	18:20:30	18:20:30		43.3	57.8	44.7	40.2
	18:21:00	18:21:00		41.9	56.3	43.8	40.5
	18:21:30	18:21:30		41.1	58.2	44.7	39.4
	18:22:00	18:22:00		42.8	57.1	44.8	40
	18:22:30	18:22:30		41.5	58	42.8	40.3
	18:23:00	18:23:00		43.5	61.3	47.6	41.6
	18:23:30	18:23:30		40.7	56.4	47.1	38.1
	18:24:00	18:24:00		41.4	58.7	44.3	39.8
	18:24:30	18:24:30		40.5	56.9	42.5	37.4
	18:25:00	18:25:00		38.5	54.6	40.4	37
	18:25:30	18:25:30		40.1	56.9	41.9	38.8
	18:26:00	18:26:00		39.8	55.8	42.1	37.5
	18:26:30	18:26:30		37.7	58.6	39.2	36
	18:27:00	18:27:00		36.7	54.8	37.9	35.9
	18:27:30	18:27:30		37.9	54.2	40.3	36.1
	18:28:00	18:28:00		38	54.1	39.8	36.3
	18:28:30	18:28:30		61	86.6	72.6	37.2
	18:29:00	18:29:00		49.7	66.1	62.6	40.5
	18:29:30	18:29:30		41.9	56.3	44.3	39.7
	18:30:00	18:30:00		65	89.5	74.4	42.4
	18:30:30	18:30:30		39.7	54.6	42.4	38
	18:31:00	18:31:00		40.8	58.1	42.8	39.2
	18:31:30	18:31:30		43.4	74.3	48.8	40
	18:32:00	18:32:00		41.9	60	45.2	38.3
	18:32:30	18:32:30		42.5	68.7	50	37.5
	18:33:00	18:33:00		59.4	87.4	71	35.1
	18:33:30	18:33:30		36.8	51	37.7	35.8
	18:34:00	18:34:00		61.4	87.4	72.8	37.7
	18:34:30	18:34:30		41.8	56.7	45.2	38.5
	18:35:00	18:35:00		41.3	59.9	44.5	38.6

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	18:35:30	18:35:30		38.6	58	40.2	37.5
	18:36:00	18:36:00		37.6	51.2	38.2	36.7
	18:36:30	18:36:30		38.7	56.5	40.7	36.6
	18:37:00	18:37:00		39	57	40.7	37.7
	18:37:30	18:37:30		38.6	53.5	40.9	37.4
	18:38:00	18:38:00		41.7	57.9	44.5	39.1
	18:38:30	18:38:30		42.7	59.6	45.1	40
	18:39:00	18:39:00		41.2	56.1	44.4	38.9
	18:39:30	18:39:30		60.8	87.6	73.4	39.6
	18:40:00	18:40:00		54.3	67.1	68.5	40.5
	18:40:30	18:40:30		42.6	58.8	44.2	40.7
	18:41:00	18:41:00		62.4	89.3	75.8	38.7
	18:41:30	18:41:30		58.3	71.2	72.7	40
	18:42:00	18:42:00		44.1	60.6	47.7	40.4
	18:42:30	18:42:30		61.9	88.4	73.5	42
	18:43:00	18:43:00		41.4	59.1	43.5	40.1
	18:43:30	18:43:30		41.6	60.1	44	40
	18:44:00	18:44:00		42	60.8	43.6	40
	18:44:30	18:44:30		42.5	58.6	46.7	40.5
	18:45:00	18:45:00		45.2	63.7	50.2	41.5
	18:45:30	18:45:30		43.1	60.2	45.9	39.7
	18:46:00	18:46:00		40.7	54.3	42.1	39.5
	18:46:30	18:46:30		42.4	57.9	45.1	40.1
	18:47:00	18:47:00		44.5	60.8	47.1	42.2
	18:47:30	18:47:30		61.6	87.9	72.8	42
	18:48:00	18:48:00		41.9	58.6	43.4	40.5
	18:48:30	18:48:30		41.7	56.9	43.4	40.3
	18:49:00	18:49:00		43.7	67.5	53.7	40.1
	18:49:30	18:49:30		66.5	91.4	77.2	44.5
	18:50:00	18:50:00		43.1	59.1	44.6	41.4
	18:50:30	18:50:30		42.4	61.6	44.7	39.8
	18:51:00	18:51:00		41.1	59.9	43.6	39.7
	18:51:30	18:51:30		42.2	58.9	45.4	41.2
	18:52:00	18:52:00		43.2	58.5	44.6	41.5
	18:52:30	18:52:30		42.9	58.7	45.1	41.5
	18:53:00	18:53:00		43.7	58.4	45.7	42.3
	18:53:30	18:53:30		64.8	88.8	74.4	45
	18:54:00	18:54:00		48.7	65.1	53.1	43.5
	18:54:30	18:54:30		43.9	63.7	46	42
	18:55:00	18:55:00		42.5	64.5	45.1	40.8
	18:55:30	18:55:30		44.7	60.7	46.6	43.3
	18:56:00	18:56:00		42.7	61.3	45.4	41
	18:56:30	18:56:30		61	87.5	72.8	42.3
	18:57:00	18:57:00		55	72.6	68.1	42.8
	18:57:30	18:57:30		42.7	62.6	45.9	41.1
	18:58:00	18:58:00		46.1	60.9	48.3	42.9
	18:58:30	18:58:30		46.1	62	49.2	42.5
	18:59:00	18:59:00		42.9	69.7	44.6	41.7
	18:59:30	18:59:30		43.1	62.3	45.9	41.2
	19:00:00	19:00:00		43.4	60.4	47.3	40.7
	19:00:30	19:00:30		46.2	62.1	48.5	42.2
	19:01:00	19:01:00		47.3	64.8	50.3	45
	19:01:30	19:01:30		44.4	63.4	46.5	42
	19:02:00	19:02:00		62.3	88.4	74	41.5
	19:02:30	19:02:30		42.6	58.9	44.3	41.1
	19:03:00	19:03:00		43.1	60.2	44.5	41.8
	19:03:30	19:03:30		45	68.8	51.2	42.1
	19:04:00	19:04:00		43.7	61.3	45.4	42.1
	19:04:30	19:04:30		45.4	60.2	47	43.3
	19:05:00	19:05:00		44.9	58.7	46.9	43.6
	19:05:30	19:05:30		45.9	63.6	49	43.3
	19:06:00	19:06:00		51.2	75.5	62.1	43.1
	19:06:30	19:06:30		48.2	74.8	58.7	44.4
	19:07:00	19:07:00		46.5	64.1	50.9	44.2
	19:07:30	19:07:30		45	61.5	46.8	43.5
	19:08:00	19:08:00		44	59.8	45.6	43
	19:08:30	19:08:30		44.5	60.5	45.9	42.7
	19:09:00	19:09:00		44.3	62.6	46	42.9
	19:09:30	19:09:30		44.8	65.1	45.9	43.1
	19:10:00	19:10:00		66.6	92.7	78.4	43.6
	19:10:30	19:10:30		50.7	59.8	64	43.9
	19:11:00	19:11:00		48.6	72.5	59.6	42.8
	19:11:30	19:11:30		68.1	95.1	80.2	41.9
	19:12:00	19:12:00		47	66.1	51.4	43.3
	19:12:30	19:12:30		43.5	61.7	47.3	41.2
	19:13:00	19:13:00		47	63.5	49.7	43.5
	19:13:30	19:13:30		46.5	61.4	50.1	44.5

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	19:14:00	19:14:00		47.1	64.7	48.7	44.4
	19:14:30	19:14:30		62.4	88.7	73.9	46.2
	19:15:00	19:15:00		48.2	62.8	50.7	45.5
	19:15:30	19:15:30		45.7	63.2	49	42.1
	19:16:00	19:16:00		43.6	59.7	45.1	42.2
	19:16:30	19:16:30		62.9	90.2	74.9	42.9
	19:17:00	19:17:00		47.2	61.6	49.3	43.6
	19:17:30	19:17:30		44.8	59.9	47.7	42.7
	19:18:00	19:18:00		43.8	68	51.5	41.5
	19:18:30	19:18:30		61.4	88.9	73.3	42.2
	19:19:00	19:19:00		42.5	63.6	50.5	39.5
	19:19:30	19:19:30		63.2	85.9	72.4	43.1
	19:20:00	19:20:00		46.2	60.3	47.1	45.2
	19:20:30	19:20:30		43.9	60.2	45.3	42.6
	19:21:00	19:21:00		43.1	59.2	44.5	41.9
	19:21:30	19:21:30		42.1	56.5	44.3	41.1
	19:22:00	19:22:00		42.5	58.1	45.4	41
	19:22:30	19:22:30		43.4	58.1	45.6	41.9
	19:23:00	19:23:00		46.9	64.2	50	44
	19:23:30	19:23:30		45.4	62.1	48.3	43.2
	19:24:00	19:24:00		43.9	58.7	45.1	42.3
	19:24:30	19:24:30		46.4	63.7	51.1	41.7
	19:25:00	19:25:00		61.9	87.5	73.1	48.7
	19:25:30	19:25:30		45.9	60.6	49.2	42.7
	19:26:00	19:26:00		43.6	59.8	44.8	41.5
	19:26:30	19:26:30		42.7	58.2	45.1	41
	19:27:00	19:27:00		43.2	62.6	46.7	41.3
	19:27:30	19:27:30		43.8	59.6	46	41.9
	19:28:00	19:28:00		43.3	66.4	46.6	41.5
	19:28:30	19:28:30		63.5	90.6	75.5	41.7
	19:29:00	19:29:00		42.4	58.7	45	41.3
	19:29:30	19:29:30		63.4	90.6	75.3	43.5
	19:30:00	19:30:00		45.1	61.9	47.6	43.1
	19:30:30	19:30:30		45	62	47.1	42.5
	19:31:00	19:31:00		60.9	87.9	72.6	45
	19:31:30	19:31:30		48	65.3	52.7	43.6
	19:32:00	19:32:00		51.1	66.3	53.5	48.1
	19:32:30	19:32:30		46.7	63.5	49.7	43.3
	19:33:00	19:33:00		43.6	58.2	44.8	42.2
	19:33:30	19:33:30		43.7	58.1	44.6	42.9
	19:34:00	19:34:00		56.4	89.9	73.9	43.4
	19:34:30	19:34:30		69.1	102.3	77.7	54.5
	19:35:00	19:35:00		47.9	69.8	54.5	44
	19:35:30	19:35:30		44.3	61.3	47.5	42.8
	19:36:00	19:36:00		62	89.4	74.1	45.1
	19:36:30	19:36:30		46	61.7	47.9	44.7
	19:37:00	19:37:00		63.3	89.4	75.7	45.3
	19:37:30	19:37:30		53.8	64	67.7	44.3
	19:38:00	19:38:00		58.9	84.7	70.3	43.9
	19:38:30	19:38:30		50.1	77.8	62.6	42.8
	19:39:00	19:39:00		46.2	64.2	50.9	44.4
	19:39:30	19:39:30		69.3	103.2	78.7	51
	19:40:00	19:40:00		49.7	65.7	59.6	42.9
	19:40:30	19:40:30		43.6	58.6	44.9	42.6
	19:41:00	19:41:00		49.3	79.8	60.4	44.5
	19:41:30	19:41:30		45.9	60.1	47.1	44.6
	19:42:00	19:42:00		45.2	65.1	49	42.8
	19:42:30	19:42:30		60.6	86.5	72.4	43
	19:43:00	19:43:00		65.5	92.6	77.7	44.4
	19:43:30	19:43:30		46.7	67.9	49.2	44.6
	19:44:00	19:44:00		45.3	63.3	47.2	43.5
	19:44:30	19:44:30		44.6	59.9	45.8	43.2
	19:45:00	19:45:00		61.5	88.3	72.9	44.9
	19:45:30	19:45:30		47.9	64	50.9	45.6
	19:46:00	19:46:00		45.9	61.7	47.2	44
	19:46:30	19:46:30		44.4	59.8	45.5	43.4
	19:47:00	19:47:00		71.8	102.5	84	44.6
	19:47:30	19:47:30		62.5	90.3	74.7	46.4
	19:48:00	19:48:00		46.7	66.4	48.6	45.2
	19:48:30	19:48:30		63	91.6	75.1	44.2
	19:49:00	19:49:00		49.2	60.7	61.6	44
	19:49:30	19:49:30		63	90.6	75.1	43.7
	19:50:00	19:50:00		57.5	85.6	69.4	43.3
	19:50:30	19:50:30		52.8	69.7	65.3	43.2
	19:51:00	19:51:00		65.1	92.4	77.2	43.2
	19:51:30	19:51:30		43.6	62	44.8	42.1
	19:52:00	19:52:00		43.4	61.9	44.7	42.4

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	19:52:30	19:52:30		44.1	62.9	47.1	42.6
	19:53:00	19:53:00		46.2	64.2	49.2	43.7
	19:53:30	19:53:30		47.9	65.7	50.6	45.5
	19:54:00	19:54:00		45.8	64.5	47.6	44.3
	19:54:30	19:54:30		47.5	72	53.7	45
	19:55:00	19:55:00		62.8	90.6	75.4	48.4
	19:55:30	19:55:30		63.1	89.2	75.1	44.2
	19:56:00	19:56:00		45.1	63.4	46.6	44.1
	19:56:30	19:56:30		44.3	59.2	46	42.9
	19:57:00	19:57:00		66.2	92.7	78.4	44.1
	19:57:30	19:57:30		51	64.1	63.8	43.1
	19:58:00	19:58:00		57.4	88.8	73.7	42.6
	19:58:30	19:58:30		60.9	87.7	74.1	43.2
	19:59:00	19:59:00		43.2	66	44.8	41.8
	19:59:30	19:59:30		43.2	60.9	44.7	41.9
	20:00:00	20:00:00		47.1	65.8	52.2	43.4
	20:00:30	20:00:30		57.2	81.9	68.1	44.3
	20:01:00	20:01:00		65.7	89.6	75.6	44.9
	20:01:30	20:01:30		54.5	67.5	67.8	44.1
	20:02:00	20:02:00	Daytime	66.3	91	75.6	44.6
	20:02:30	20:02:30		64	92.9	75.1	44.1
	20:03:00	20:03:00		52	72	63	45.8
	20:03:30	20:03:30		47.1	61.4	48.7	45.9
	20:04:00	20:04:00		45.6	60.1	47.6	44
	20:04:30	20:04:30		48.6	65.4	52.4	45.6
	20:05:00	20:05:00		45.4	59.2	47.2	44.1
	20:05:30	20:05:30		45.8	59.5	47.1	44.3
	20:06:00	20:06:00		48.2	64.1	51.1	44.8
	20:06:30	20:06:30		44.6	60.7	45.8	43.3
	20:07:00	20:07:00		44.8	61.8	48.7	41.9
	20:07:30	20:07:30		45.4	62.2	49.3	43.3
	20:08:00	20:08:00		45	60.5	46.9	43.1
	20:08:30	20:08:30		47.7	63.5	50.8	44.5
	20:09:00	20:09:00		51.5	68.1	54.5	50.2
	20:09:30	20:09:30		50.4	65.6	53.1	48
	20:10:00	20:10:00		48.9	69.8	51.8	46.8
	20:10:30	20:10:30		62.3	87.9	74.1	47.4
	20:11:00	20:11:00		64.2	90.9	75.6	48.3
	20:11:30	20:11:30		66.1	93.6	78.4	47.9
	20:12:00	20:12:00		48.1	63.3	50.1	46.9
	20:12:30	20:12:30		48.4	71.4	53.4	46.3
	20:13:00	20:13:00		48.6	74.2	54.5	46.8
	20:13:30	20:13:30		47.6	69.6	50.8	45.1
	20:14:00	20:14:00		63.7	91.4	75.8	45.4
	20:14:30	20:14:30		51.1	63.9	62	46.4
	20:15:00	20:15:00		65	92	77.1	46.6
	20:15:30	20:15:30		51.9	66.1	53.3	50.3
	20:16:00	20:16:00		64.5	88.9	74.6	49.2
	20:16:30	20:16:30		52.2	81.5	64	46.3
	20:17:00	20:17:00		65.8	89.3	74.3	48
	20:17:30	20:17:30		62.8	86.9	72	48.5
	20:18:00	20:18:00		52.4	67.6	56.6	49.9
	20:18:30	20:18:30		60.6	87.3	72.5	45.8
	20:19:00	20:19:00		45.8	62.2	48	44.4
	20:19:30	20:19:30		47.6	63.4	49	45.9
	20:20:00	20:20:00		47.5	62.9	48.7	46.2
	20:20:30	20:20:30		66.7	92	77.9	46.2
	20:21:00	20:21:00		68.1	90.7	76	45.4
	20:21:30	20:21:30		64.7	91.6	76.7	45.1
	20:22:00	20:22:00		69.4	95.5	80.4	49.3
	20:22:30	20:22:30		60	85.8	71.5	47.5
	20:23:00	20:23:00		61.2	87.8	73	47.4
	20:23:30	20:23:30		49.4	72	57.8	47.1
	20:24:00	20:24:00		64.5	91.2	76.5	48.4
	20:24:30	20:24:30		49.6	67.7	51.6	47.3
	20:25:00	20:25:00		66.2	90.9	75.8	48.9
	20:25:30	20:25:30		63.5	91.3	75.3	47.8
	20:26:00	20:26:00		67.3	92.1	75.4	49.9
	20:26:30	20:26:30		50.2	73.3	58	48.4
	20:27:00	20:27:00		61.2	87.5	72.2	47.2
	20:27:30	20:27:30		49.4	69.2	53.3	47.5
	20:28:00	20:28:00		65.2	92.2	77.4	47.2
	20:28:30	20:28:30		65.9	88.1	75.7	47.5
	20:29:00	20:29:00		61.1	87.1	72.4	47.3
	20:29:30	20:29:30		51	71.4	57	47.9
	20:30:00	20:30:00		60.5	85.9	72	47.7
	20:30:30	20:30:30		66.6	93.1	76.9	50.2

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	20:31:00	20:31:00		67.7	93.2	77	54.4
	20:31:30	20:31:30		63.2	90.4	75.2	46.6
	20:32:00	20:32:00		67.9	93	78	47.5
	20:32:30	20:32:30		57.2	67.3	71	46.2
	20:33:00	20:33:00		51.6	76.5	63.1	46.5
	20:33:30	20:33:30		71.9	93.3	79.6	58.4
	20:34:00	20:34:00		53.7	83.3	65.1	47.1
	20:34:30	20:34:30		69.4	94.2	79.8	50
	20:35:00	20:35:00		52.7	80.2	64.8	49
	20:35:30	20:35:30		66.5	93.7	75.1	47.5
	20:36:00	20:36:00		64.2	89.7	73.9	50.3
	20:36:30	20:36:30		69.2	92	75.8	47.4
	20:37:00	20:37:00		77.2	105.1	89.8	48.9
	20:37:30	20:37:30		62.1	87.7	73.8	47.7
	20:38:00	20:38:00		64.6	89.9	75.1	47.4
	20:38:30	20:38:30		66	93.2	77.9	44.9
	20:39:00	20:39:00		46	66.2	47.8	43.8
	20:39:30	20:39:30		46.6	67.1	48.7	44.8
	20:40:00	20:40:00		60.7	87.6	71.8	46.1
	20:40:30	20:40:30		65	89.5	74.5	48.5
	20:41:00	20:41:00		64.2	88.1	73.9	49.2
	20:41:30	20:41:30		67.7	92.5	78.1	46.8
	20:42:00	20:42:00		72.8	96.4	82.3	47.9
	20:42:30	20:42:30		48.8	69.4	53.6	45.9
	20:43:00	20:43:00		69.1	94.1	77.4	50.4
	20:43:30	20:43:30		71	96.4	81.8	52.9
	20:44:00	20:44:00		55.7	71.7	68.3	49.1
	20:44:30	20:44:30		61.3	88	73	48.3
	20:45:00	20:45:00		60.8	86.6	72.5	49
	20:45:30	20:45:30		71.1	92.6	79.5	51.2
	20:46:00	20:46:00		70.4	96.4	81.6	48.7
	20:46:30	20:46:30		64.8	89.2	74.5	48.8
	20:47:00	20:47:00		63.7	91	75.7	46.7
	20:47:30	20:47:30		60.9	87	72.5	46.9
	20:48:00	20:48:00		63.4	90.2	75.3	47.2
	20:48:30	20:48:30		67.6	92.9	76.1	45.8
	20:49:00	20:49:00		60.6	87.5	72.4	45.3
	20:49:30	20:49:30		52.2	72.7	64.4	45.6
	20:50:00	20:50:00		46.5	63.2	49.1	43.9
	20:50:30	20:50:30		66.5	90.3	76.9	45.6
	20:51:00	20:51:00		52	78.7	60.9	45.8
	20:51:30	20:51:30		51.5	80.7	60.8	46.8
	20:52:00	20:52:00		54.3	77.5	60.3	46.9
	20:52:30	20:52:30		64.7	89.5	75.6	45.5
	20:53:00	20:53:00		53.8	85	64.5	46.1
	20:53:30	20:53:30		53.4	82.2	57.9	47.9
	20:54:00	20:54:00		59.2	89.6	69.7	51.4
	20:54:30	20:54:30		67.1	91.9	78.3	47.6
	20:55:00	20:55:00		62	88.1	74	46.5
	20:55:30	20:55:30		59.9	85.7	71.6	45.8
	20:56:00	20:56:00		62.5	90.5	74.3	44.8
	20:56:30	20:56:30		66.8	91.4	77.1	44.7
	20:57:00	20:57:00		60.7	85.7	71.9	44.2
	20:57:30	20:57:30		60.5	86.7	72.2	46.8
	20:58:00	20:58:00		71.5	100.7	85.2	45.9
	20:58:30	20:58:30		63.4	65.9	77.9	46.1
	20:59:00	20:59:00		74.4	102.8	85.1	51.5
	20:59:30	20:59:30		63.1	90.3	75.2	45.5
	21:00:00	21:00:00		64.7	90.6	76	46.8
	21:00:30	21:00:30		61.9	83.6	72.9	45.6
	21:01:00	21:01:00		58.9	86.5	70.6	46.9
	21:01:30	21:01:30		70.5	99.1	82	47.4
	21:02:00	21:02:00		46.4	63.1	53.6	44.3
	21:02:30	21:02:30		69.7	94.9	80.5	45.3
	21:03:00	21:03:00		68.3	92.8	77.9	48.7
	21:03:30	21:03:30		66.4	90.7	75.8	46
	21:04:00	21:04:00		66.7	91.5	76.1	42.1
	21:04:30	21:04:30		43.7	59.1	45.2	42.2
	21:05:00	21:05:00		44.4	62.3	46.4	43.3
	21:05:30	21:05:30		43.6	60.8	44.9	42.5
	21:06:00	21:06:00		61.3	91.2	75.8	43
	21:06:30	21:06:30		66.4	91.5	77.1	44.1
	21:07:00	21:07:00		45.5	64.2	50.2	43.9
	21:07:30	21:07:30		67.2	91	75.1	43.5
	21:08:00	21:08:00		44.2	61.4	45.6	43.1
	21:08:30	21:08:30		45	64.6	48.6	42.6
	21:09:00	21:09:00		63.2	88.2	75.1	43.9

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	21:09:30	21:09:30		47.4	64.3	51.9	44.3
	21:10:00	21:10:00		62.8	90.8	74.9	44.2
	21:10:30	21:10:30		45.1	62.4	47.4	43.8
	21:11:00	21:11:00		60.3	94.1	73.2	45.4
	21:11:30	21:11:30		61	89.7	74	42.7
	21:12:00	21:12:00		61.4	89.2	73.8	43.1
	21:12:30	21:12:30		62.4	89.7	74.5	42.5
	21:13:00	21:13:00		43.5	64.2	47.6	42.2
	21:13:30	21:13:30		45.4	65.7	47.6	43.1
	21:14:00	21:14:00		62.9	88.1	74.8	46.9
	21:14:30	21:14:30		45.5	66.4	49.2	43.9
	21:15:00	21:15:00		67.1	91.8	75.9	47.6
	21:15:30	21:15:30		64	92.3	76.6	43.9
	21:16:00	21:16:00		64.2	90	75.3	44.7
	21:16:30	21:16:30		60.6	82.9	74.6	43.4
	21:17:00	21:17:00		46	61	47.9	43.6
	21:17:30	21:17:30		65.6	88.7	73.7	45.9
	21:18:00	21:18:00		64.7	89.9	74.8	45
	21:18:30	21:18:30		45.6	62.8	49.6	43.3
	21:19:00	21:19:00		61.2	88.1	73.1	44
	21:19:30	21:19:30		44.7	61.9	47	43.5
	21:20:00	21:20:00		64.7	88.2	74	45.1
	21:20:30	21:20:30		62.3	88.9	74.3	44.3
	21:21:00	21:21:00		66.8	89.4	74.8	49.7
	21:21:30	21:21:30		65.4	89.1	75.6	42.3
	21:22:00	21:22:00		43.8	63.7	46.6	41.8
	21:22:30	21:22:30		62.8	89.3	74.9	43.4
	21:23:00	21:23:00		65.9	89.4	75.1	45
	21:23:30	21:23:30		47.4	65.3	51.8	43.2
	21:24:00	21:24:00		51.4	66.7	53.3	48
	21:24:30	21:24:30		54.4	78.1	64.6	44.1
	21:25:00	21:25:00		45	61.7	48	43.1
	21:25:30	21:25:30		47	71.7	56.6	42.8
	21:26:00	21:26:00		66.8	95.4	79.5	43.2
	21:26:30	21:26:30		64.5	91.4	76.8	43.1
	21:27:00	21:27:00		47.8	63.9	57.4	43.1
	21:27:30	21:27:30		73	98.5	84.7	43.3
	21:28:00	21:28:00		44.8	64.1	48	42.3
	21:28:30	21:28:30		58.4	85.5	69.6	41.8
	21:29:00	21:29:00		43.6	64.4	49	41.3
	21:29:30	21:29:30		42.6	56.6	43.9	41.4
	21:30:00	21:30:00		43.2	59	46.2	41.6
	21:30:30	21:30:30		71.4	98.7	83.5	46.2
	21:31:00	21:31:00		61.6	87.2	72.2	43.2
	21:31:30	21:31:30		43.6	59.3	49.2	41.8
	21:32:00	21:32:00		43.7	71.4	45.6	42.1
	21:32:30	21:32:30		43.8	59.2	45.5	42.8
	21:33:00	21:33:00		50.3	66.6	54.1	44.3
	21:33:30	21:33:30		61.8	88.5	73.7	43.6
	21:34:00	21:34:00		47.3	72.9	57.3	43
	21:34:30	21:34:30		43.3	61.6	47.3	41.4
	21:35:00	21:35:00		42.3	62.2	46.2	41.3
	21:35:30	21:35:30		44.5	66.2	49.3	42.8
	21:36:00	21:36:00		59.7	88.9	73.4	41.7
	21:36:30	21:36:30		65.6	90.3	76.2	43.4
	21:37:00	21:37:00		43.6	66	48.7	41.9
	21:37:30	21:37:30		66.4	91.9	77.1	42.7
	21:38:00	21:38:00		62.4	87.9	73.1	41.4
	21:38:30	21:38:30		44.2	65.5	49.7	41.1
	21:39:00	21:39:00		44.5	63.8	46.3	41.2
	21:39:30	21:39:30		41.6	62.7	43.3	40.7
	21:40:00	21:40:00		61.9	88	73.5	40.7
	21:40:30	21:40:30		42.7	57.5	50	40.2
	21:41:00	21:41:00		42	64.8	46.4	40.1
	21:41:30	21:41:30		42.6	58.5	44.3	41.4
	21:42:00	21:42:00		49.3	79.7	63.6	42.1
	21:42:30	21:42:30		64.2	88	73.7	44.2
	21:43:00	21:43:00		48.5	64	59.8	43.7
	21:43:30	21:43:30		44.2	59.9	45.9	42.9
	21:44:00	21:44:00		42.7	63.2	43.9	41.5
	21:44:30	21:44:30		46.1	69.4	49.7	41.7
	21:45:00	21:45:00		46.1	69.1	49.4	42
	21:45:30	21:45:30		43.6	70.8	48.2	42.2
	21:46:00	21:46:00		43.2	58.1	44.9	41.9
	21:46:30	21:46:30		61	88.9	72.7	43.4
	21:47:00	21:47:00		44.5	60.3	50.3	42.1
	21:47:30	21:47:30		68.9	96.8	80	42.6

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	21:48:00	21:48:00		54.6	89.4	72.2	42.5
	21:48:30	21:48:30		61.7	90.5	74.4	40.9
	21:49:00	21:49:00		42.9	59.7	45	41.7
	21:49:30	21:49:30		43.1	58.3	44.5	41.8
	21:50:00	21:50:00		44	58.1	45.3	42.4
	21:50:30	21:50:30		47	74.8	56.9	41.5
	21:51:00	21:51:00		42.8	59.1	44.1	41.4
	21:51:30	21:51:30		43.5	57.8	44.5	42.5
	21:52:00	21:52:00		43.6	59.9	46.2	42.2
	21:52:30	21:52:30		67.2	92.2	77.6	42.7
	21:53:00	21:53:00		63.3	89.3	75.5	42.7
	21:53:30	21:53:30		58.2	84.6	69.4	40.1
	21:54:00	21:54:00		41.4	70.4	48	39.6
	21:54:30	21:54:30		41.7	63.4	43.5	40.2
	21:55:00	21:55:00		43	63.4	45.7	41.3
	21:55:30	21:55:30		44.1	60.1	45.4	42.9
	21:56:00	21:56:00		42	61.6	43.8	40.4
	21:56:30	21:56:30		64.2	91.4	76.2	41.5
	21:57:00	21:57:00		63	91	75.4	42.6
	21:57:30	21:57:30		47.2	67.1	52.6	41.7
	21:58:00	21:58:00		41.2	56.3	43	40.3
	21:58:30	21:58:30		41.6	61.5	43.9	40.1
	21:59:00	21:59:00		58.1	85.1	70.1	41.7
	21:59:30	21:59:30		53.3	70.9	64.6	45.6
	22:00:00	22:00:00		61	85.8	71.4	50.1
	22:00:30	22:00:30		60.9	87.4	72.9	42.3
	22:01:00	22:01:00		58.2	84.6	69.5	42.8
	22:01:30	22:01:30		43.1	62.3	44.9	42.2
	22:02:00	22:02:00		43.5	58.7	44.9	42.4
	22:02:30	22:02:30		43.6	59.2	46.5	41.9
	22:03:00	22:03:00		70.1	94	79.6	42.3
	22:03:30	22:03:30		46.6	61.7	56.3	43.2
	22:04:00	22:04:00		44.5	59.4	46.1	41.3
	22:04:30	22:04:30		42.4	60.7	47	40.1
	22:05:00	22:05:00		59.1	84.6	70.4	47
	22:05:30	22:05:30		50.7	67.1	54.4	44.5
	22:06:00	22:06:00		61.4	89.2	73.7	40.8
	22:06:30	22:06:30		41.1	58.3	42.7	39.2
	22:07:00	22:07:00		40.3	57.4	42.3	39.2
	22:07:30	22:07:30		40.3	60.6	43	39.3
	22:08:00	22:08:00		39.9	60.3	40.9	39
	22:08:30	22:08:30		62.5	90.2	74.8	38.8
	22:09:00	22:09:00		40.1	54.4	41.5	38.7
	22:09:30	22:09:30		41.1	62.9	42.9	39.6
	22:10:00	22:10:00		43.1	63.5	49.4	39.9
	22:10:30	22:10:30		67.2	94.4	74.6	46.2
	22:11:00	22:11:00		48.4	69.5	53.2	44.9
	22:11:30	22:11:30		68.5	97.1	81.3	48.6
	22:12:00	22:12:00		60.6	87.3	72.1	41.9
	22:12:30	22:12:30		64.2	89.7	76	41.6
	22:13:00	22:13:00		50.7	65.9	53.7	47.2
	22:13:30	22:13:30		59.6	85.5	71	42.4
	22:14:00	22:14:00		44.2	64	50.5	41
	22:14:30	22:14:30		41.7	57.1	42.4	41
	22:15:00	22:15:00		41.8	66.3	46.3	40.3
	22:15:30	22:15:30		64.6	89.8	74.4	41.7
	22:16:00	22:16:00		41.4	59.4	44.1	40.4
	22:16:30	22:16:30		41.5	57.3	43.7	40.5
	22:17:00	22:17:00		41.1	57.7	43.5	39.9
	22:17:30	22:17:30		42.6	59.3	44.7	41.1
	22:18:00	22:18:00		41.3	56.6	43.2	39.2
	22:18:30	22:18:30		43.4	65.7	51.7	39.3
	22:19:00	22:19:00		61.1	88	73.2	40
	22:19:30	22:19:30		40.7	57.1	42.4	39.5
	22:20:00	22:20:00		64.1	87	73.6	40.4
	22:20:30	22:20:30		54.3	70.4	66.9	43
	22:21:00	22:21:00		60.6	87.9	72.6	42.9
	22:21:30	22:21:30		42.5	66.1	47.1	39.8
	22:22:00	22:22:00		40.4	57.7	41.6	39.4
	22:22:30	22:22:30		59.8	86.3	71.7	40.2
	22:23:00	22:23:00		42	58.3	45	39.3
	22:23:30	22:23:30		73	96.4	82.7	43.7
	22:24:00	22:24:00		54.5	68.2	68.5	40.1
	22:24:30	22:24:30		40.5	57.8	43.2	39.4
	22:25:00	22:25:00		40.5	65.5	42.3	39.2
	22:25:30	22:25:30		41.5	65.6	49	39.4
	22:26:00	22:26:00		40.8	58.7	42.7	39.6

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	22:26:30	22:26:30		41.7	58.1	44.4	40.5
	22:27:00	22:27:00		41.2	59.6	42.4	40.5
	22:27:30	22:27:30		57.7	84.3	68.9	40.7
	22:28:00	22:28:00		41.2	60.2	42.9	39.7
	22:28:30	22:28:30		40.5	59	42.3	39.6
	22:29:00	22:29:00		67	93.8	79.3	42.3
	22:29:30	22:29:30		60.7	87.4	73.3	39.2
	22:30:00	22:30:00		42.3	65.7	47.7	39.6
	22:30:30	22:30:30		41.2	55.9	42.7	39.7
	22:31:00	22:31:00		42.6	59.9	44.8	41.1
	22:31:30	22:31:30		60.1	86.5	71.6	40.6
	22:32:00	22:32:00		43.2	61.9	46	40.4
	22:32:30	22:32:30		52.1	67.4	54.7	45.9
	22:33:00	22:33:00		48.8	66.1	52.5	42.7
	22:33:30	22:33:30		43.2	61.9	45.6	39.3
	22:34:00	22:34:00		41.4	58.3	44	39.7
	22:34:30	22:34:30		42.7	60.4	46.7	40.4
	22:35:00	22:35:00		42.9	59.7	44.8	41.7
	22:35:30	22:35:30		43.1	60.8	46.6	41.4
	22:36:00	22:36:00		42.5	63.2	48.6	39.8
	22:36:30	22:36:30		43.7	63.3	49.3	39.8
	22:37:00	22:37:00		44.4	66.9	51.7	39.9
	22:37:30	22:37:30		43.2	61.2	48.4	40.3
	22:38:00	22:38:00		43.7	63.6	49.1	40.6
	22:38:30	22:38:30		43.6	63.9	45.7	41.6
	22:39:00	22:39:00		46.5	65.8	48.1	44.7
	22:39:30	22:39:30		65.5	92.8	77.2	42.3
	22:40:00	22:40:00		42.2	63.7	43.5	40.6
	22:40:30	22:40:30		43	60.6	45	41.4
	22:41:00	22:41:00		41.9	59	44	40.4
	22:41:30	22:41:30		57.3	82.7	68.3	40.9
	22:42:00	22:42:00		42.2	63.7	44.2	40
	22:42:30	22:42:30		63.7	96.4	75.4	40
	22:43:00	22:43:00		60.7	88.6	72.7	40.9
	22:43:30	22:43:30		45.8	67.3	52	41.5
	22:44:00	22:44:00		58.2	85.4	69.4	41.1
	22:44:30	22:44:30		59.1	87.7	70.6	40.3
	22:45:00	22:45:00		41.4	56.2	46.8	39.8
	22:45:30	22:45:30		41.4	60.8	42.5	40.1
	22:46:00	22:46:00		40.4	63	44	38.2
	22:46:30	22:46:30		40.8	58.8	41.9	39.1
	22:47:00	22:47:00		41.6	58.5	43.3	40.3
	22:47:30	22:47:30		42.4	59.7	44.8	40.5
	22:48:00	22:48:00		41.2	58.3	42.5	40.2
	22:48:30	22:48:30		42.8	61.6	44.7	41.5
	22:49:00	22:49:00		42.6	62.1	44.3	41.3
	22:49:30	22:49:30		41.1	59.8	42.8	39.1
	22:50:00	22:50:00		40.1	62.6	42.4	38.9
	22:50:30	22:50:30		40.6	62.8	43.4	39.1
	22:51:00	22:51:00		42.5	59.7	45.5	40.8
	22:51:30	22:51:30		42.3	61.2	43.6	40.6
	22:52:00	22:52:00		44.4	60.1	47.8	41.9
	22:52:30	22:52:30		45.1	63	49.5	40.7
	22:53:00	22:53:00		48.4	64.4	52.7	44.4
	22:53:30	22:53:30		47.2	61.5	50.9	43.8
	22:54:00	22:54:00		50.3	64.6	53.7	46.8
	22:54:30	22:54:30		51	67.3	54.1	47.4
	22:55:00	22:55:00		46.1	62.3	50.4	41
	22:55:30	22:55:30		53.5	68	57.7	48
	22:56:00	22:56:00		45.3	60.6	50.5	39.2
	22:56:30	22:56:30		41.3	58.7	42.5	39.6
	22:57:00	22:57:00		43.7	62.6	47.7	40
	22:57:30	22:57:30		41.7	63.1	44.5	39.9
	22:58:00	22:58:00		43.2	67.5	45.8	41.9
	22:58:30	22:58:30		41.5	62	43	39.6
	22:59:00	22:59:00		40.6	61.2	42.6	39.2
	22:59:30	22:59:30		41	58.8	43.5	38.9
	23:00:00	23:00:00		42.2	62.3	47.1	39.7
	23:00:30	23:00:30		44.4	61.7	48.1	42.3
	23:01:00	23:01:00		44.8	70.8	50.1	40.3
	23:01:30	23:01:30		41.7	60.4	42.7	40.2
	23:02:00	23:02:00		43.8	61.7	46.8	41.6
	23:02:30	23:02:30		63.7	89.3	75.2	44.1
	23:03:00	23:03:00		53.6	69.5	56.9	50.2
	23:03:30	23:03:30		54.7	71.2	57	51.3
	23:04:00	23:04:00		48.9	65.8	53.1	41.3
	23:04:30	23:04:30		41.7	62.4	43.6	39.4

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	23:05:00	23:05:00		39.5	56.7	42.1	38
	23:05:30	23:05:30		42.6	60.4	46.1	38.3
	23:06:00	23:06:00		62.1	90.9	76.1	39.7
	23:06:30	23:06:30		58.2	73.2	72.7	39
	23:07:00	23:07:00		40.3	59.3	42.2	38.4
	23:07:30	23:07:30		60.4	86.9	72.5	39.5
	23:08:00	23:08:00		40.5	64	43.1	39.3
	23:08:30	23:08:30		54.9	95.4	72.1	39.3
	23:09:00	23:09:00		60.2	86.5	72.8	39.6
	23:09:30	23:09:30		40.7	58.7	44	38.6
	23:10:00	23:10:00		46.4	61.2	49.8	40.9
	23:10:30	23:10:30		40.1	60.1	44.1	37.8
	23:11:00	23:11:00		38.3	54.6	40.9	37.1
	23:11:30	23:11:30		39.7	62.2	41.7	38.2
	23:12:00	23:12:00		38.9	55.5	41.1	38
	23:12:30	23:12:30		39.7	59.1	40.4	39
	23:13:00	23:13:00		41.3	57.9	44	39.3
	23:13:30	23:13:30		40.1	57.4	41.8	38.5
	23:14:00	23:14:00		39.6	54.5	42.7	38.3
	23:14:30	23:14:30		38.7	55.8	39.8	37.6
	23:15:00	23:15:00		41.1	60.5	45.3	38.1
	23:15:30	23:15:30		42.7	60.1	45.3	40.8
	23:16:00	23:16:00		58.7	84.9	71.6	38.9
	23:16:30	23:16:30		58.1	78.5	71.2	38.8
	23:17:00	23:17:00		39.3	57.9	40.6	38.2
	23:17:30	23:17:30		45.7	63.2	53.2	38.6
	23:18:00	23:18:00		51.4	64.1	54.2	44.7
	23:18:30	23:18:30		49.7	78	58.7	41.8
	23:19:00	23:19:00		64.8	92.5	77.5	41.7
	23:19:30	23:19:30		40.1	63.1	44.9	37.8
	23:20:00	23:20:00		39.8	61	44.7	38
	23:20:30	23:20:30		59.9	85.8	71.2	39.4
	23:21:00	23:21:00		41.4	58.8	46.1	39.5
	23:21:30	23:21:30		39.5	59.1	41.5	38.1
	23:22:00	23:22:00		40.6	58.3	43.6	39
	23:22:30	23:22:30		42.1	71.9	48.5	38.7
	23:23:00	23:23:00		46.1	68.7	52	40.5
	23:23:30	23:23:30		46.4	71.1	50.3	42
	23:24:00	23:24:00		46.4	77.4	54.5	41.9
	23:24:30	23:24:30		43.9	62	45.9	42
	23:25:00	23:25:00		44.9	64	48.5	42.3
	23:25:30	23:25:30		46.6	63.8	48.5	44.6
	23:26:00	23:26:00		44.1	61.9	47.4	41.2
	23:26:30	23:26:30		42.8	60.9	47.5	39.6
	23:27:00	23:27:00		58.5	85.9	70	38.6
	23:27:30	23:27:30		39.1	54.9	41.7	38.2
	23:28:00	23:28:00		40	58.8	42.5	38.4
	23:28:30	23:28:30		40.9	58.3	42.3	39.8
	23:29:00	23:29:00		60.9	90.6	73.4	40.3
	23:29:30	23:29:30		60.5	87.8	72.9	40.8
	23:30:00	23:30:00		44.3	57.8	56	39.9
	23:30:30	23:30:30		42.6	61.2	45.6	41.1
	23:31:00	23:31:00		56.7	83	68.1	41.2
	23:31:30	23:31:30		55.7	70.7	63.1	47.8
	23:32:00	23:32:00		55.6	73.6	60.9	47.9
	23:32:30	23:32:30		44.7	62.3	49.2	40
	23:33:00	23:33:00		41	66.7	42.5	39.3
	23:33:30	23:33:30		39.6	53.6	40.5	38.6
	23:34:00	23:34:00		39.9	56.7	40.8	39
	23:34:30	23:34:30		40.4	57.5	43	38.9
	23:35:00	23:35:00		39.9	54.7	42.3	38.2
	23:35:30	23:35:30		59.3	86.7	71.4	39.3
	23:36:00	23:36:00		41.9	64.5	44.6	40.3
	23:36:30	23:36:30		43.3	60	45.6	41.9
	23:37:00	23:37:00		49.9	68.4	54.1	43.1
	23:37:30	23:37:30		50.1	66.6	54.4	45.2
	23:38:00	23:38:00		43.1	59.5	47.1	41.2
	23:38:30	23:38:30		42.6	69.8	45.1	40.9
	23:39:00	23:39:00		44.8	62.3	47.7	41.7
	23:39:30	23:39:30		45.7	61.3	47.6	42.7
	23:40:00	23:40:00		63.6	89.1	75.1	42.6
	23:40:30	23:40:30		58.5	84.5	70	41
	23:41:00	23:41:00		40.6	62.5	42.3	39.2
	23:41:30	23:41:30		44.6	68.8	50.3	39.7
	23:42:00	23:42:00		52.3	69.2	55.1	48.6
	23:42:30	23:42:30		46.5	63.8	51.6	41.3
	23:43:00	23:43:00		40.9	59.8	43.7	39.5

Long-Duration (24-Hour) Noise Data

Receptor N1

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
	23:43:30	23:43:30		41.1	58.1	43.5	40
	23:44:00	23:44:00		40.3	58.2	42.2	38.7
	23:44:30	23:44:30		39.6	55.1	40.9	38.3
	23:45:00	23:45:00		38.6	60.7	42.6	37.2
	23:45:30	23:45:30		38.7	59.6	41.2	37.6
	23:46:00	23:46:00		40	55.3	41.8	38.5
	23:46:30	23:46:30		39.9	60.3	43.2	38
	23:47:00	23:47:00		38.1	56	40.4	36.7
	23:47:30	23:47:30		40.5	61.1	43	38.9
	23:48:00	23:48:00		43.1	62.3	45.6	40.2
	23:48:30	23:48:30		43.9	59.6	46.5	41.9
	23:49:00	23:49:00		42.2	60	45	39.7
	23:49:30	23:49:30		43.1	61.3	46	40.6
	23:50:00	23:50:00		40.4	59.1	42.7	38.6
	23:50:30	23:50:30		39.5	56	42.8	37.8
	23:51:00	23:51:00		65.9	92.9	78.9	40.7
	23:51:30	23:51:30		62.9	85.4	75.4	42.2
	23:52:00	23:52:00		40.9	56.7	43	39.2
	23:52:30	23:52:30		40.3	54.4	41.8	39.3
	23:53:00	23:53:00		40.6	57.2	41.8	39.4
	23:53:30	23:53:30		39.7	58.9	41.6	37.8
	23:54:00	23:54:00		60.4	88	72.2	38.1
	23:54:30	23:54:30		39	54.9	40.5	37.9
	23:55:00	23:55:00		39.1	62.7	41.3	38.1
	23:55:30	23:55:30		39.3	56.3	41.7	37.9
	23:56:00	23:56:00		40.6	61	42.4	38.5
	23:56:30	23:56:30		39.1	59.8	42.3	37.5
	23:57:00	23:57:00		61.8	89.6	74.2	38.1
	23:57:30	23:57:30		40.8	68.3	48.7	38.2
	23:58:00	23:58:00		45.3	63	49	41.2
	23:58:30	23:58:30		45.4	61.1	47.7	41.6
	23:59:00	23:59:00		42.4	62.5	44.4	39.8
	23:59:30	23:59:30		45	85.3	53.6	40.3
	24:00:00	24:00:00		52.5	79.8	59.7	43.9

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N2	0:00:10	0:00:10		45.3	73.2	51.2	38.7
(15 Min)	0:00:20	0:00:20		37.6	63	43.9	34.5
	0:00:30	0:00:30		34.9	50.8	35.7	34.2
	0:00:40	0:00:40		37.9	63	40.1	35.3
	0:00:50	0:00:50		36.2	61.5	38.4	34.8
	0:01:00	0:01:00		36.1	59.8	38.7	34.9
	0:01:10	0:01:10		36	53.2	37.7	34.9
	0:01:20	0:01:20		34.2	47.6	35.8	33.6
	0:01:30	0:01:30		34.3	54.4	35.8	33.6
	0:01:40	0:01:40		34.5	52.1	35.5	33.8
	0:01:50	0:01:50		33.8	49.1	34.3	33.4
	0:02:00	0:02:00		34.6	53.5	36	33.4
	0:02:10	0:02:10		33.7	48.9	34.4	33
	0:02:20	0:02:20		34.1	52.2	35.3	32.9
	0:02:30	0:02:30		34.2	51.5	35.1	33.4
	0:02:40	0:02:40		34.6	51.6	38	32.8
	0:02:50	0:02:50		34.1	50.1	36	33.4
	0:03:00	0:03:00		34.4	54.2	39.2	33.4
	0:03:10	0:03:10		36	52.9	39.6	34
	0:03:20	0:03:20		36.3	59.1	41	33.9
	0:03:30	0:03:30		34.7	51.7	36.3	33.8
	0:03:40	0:03:40		35.6	62.4	39.7	33.6
	0:03:50	0:03:50		34.2	52.1	36.2	33.3
	0:04:00	0:04:00		34.7	52.8	36	33.4
	0:04:10	0:04:10		35.7	51.8	38.4	34
	0:04:20	0:04:20		36.8	65.8	43.5	34.2
	0:04:30	0:04:30		39.3	66.8	44	35.2
	0:04:40	0:04:40		38	65	41.4	34.8
	0:04:50	0:04:50		36.9	63.7	39.4	34.1
	0:05:00	0:05:00		34.9	56.2	36.8	34.2
	0:05:10	0:05:10		34.1	54.1	36.8	33.1
	0:05:20	0:05:20		35	49.9	37	33.8
	0:05:30	0:05:30		41.7	58.2	44.9	36.1
	0:05:40	0:05:40		47.5	63.8	49.2	44.8
	0:05:50	0:05:50		48.6	62	49.9	47.2
	0:06:00	0:06:00		49.6	63.9	51.4	47.4
	0:06:10	0:06:10		47.7	62.2	49.7	45.5
	0:06:20	0:06:20		46.4	59.7	49.7	43.7
	0:06:30	0:06:30		43.7	58.1	45.3	42.1
	0:06:40	0:06:40		40.9	53.2	42.2	39.5
	0:06:50	0:06:50		39.4	54.2	40.9	37.9
	0:07:00	0:07:00		38.5	53.1	39.7	36.4
	0:07:10	0:07:10		41.9	66	48.7	34.6
	0:07:20	0:07:20		45.6	67.2	49.7	37.8
	0:07:30	0:07:30		42.6	66.7	47.6	36.8
	0:07:40	0:07:40		40.4	66.6	47.4	34.8
	0:07:50	0:07:50		41.1	66.6	46.9	34.7
	0:08:00	0:08:00		34.2	51	34.8	33.7
	0:08:10	0:08:10		34.7	56.2	38.5	33.5
	0:08:20	0:08:20		34.3	56	35.5	33.4
	0:08:30	0:08:30		34.8	51.1	36	33.6
	0:08:40	0:08:40		35.3	49.4	35.9	34.3
	0:08:50	0:08:50		36.1	54.2	38.1	34.9
	0:09:00	0:09:00		35.4	52.5	36.4	34.8
	0:09:10	0:09:10		35.6	51.3	37.7	34.2
	0:09:20	0:09:20		36.5	60	37.2	35.6
	0:09:30	0:09:30		37.1	53.2	40.9	34.5
	0:09:40	0:09:40		36.7	54.2	39.5	34.7
	0:09:50	0:09:50		36.6	56.1	42.1	34.2
	0:10:00	0:10:00		36.7	51.4	41.3	34.6
	0:10:10	0:10:10		37.1	55.3	42	34.3
	0:10:20	0:10:20		36.8	55.4	39.2	35.2
	0:10:30	0:10:30		40.6	60.1	45	37.9
	0:10:40	0:10:40		40.8	59.8	46.3	37.9
	0:10:50	0:10:50		49.3	67.8	54.6	43.6
	0:11:00	0:11:00		51.9	67.6	54.4	46.9
	0:11:10	0:11:10		54.6	70	56.9	48
	0:11:20	0:11:20		45.3	62.5	50.9	38.5
	0:11:30	0:11:30		38.3	63	46	35.7
	0:11:40	0:11:40		45.4	62.5	50.7	37.9
	0:11:50	0:11:50		38.4	57.2	41.2	35.3
	0:12:00	0:12:00		35.7	50.4	37.2	34.2
	0:12:10	0:12:10		40.8	61.2	47.8	33.6
	0:12:20	0:12:20		46.4	62.2	49.9	39.7
	0:12:30	0:12:30		50.7	71.5	57.2	42.3
	0:12:40	0:12:40		39.1	59.6	45	34.7
	0:12:50	0:12:50		40.3	59	47	33.7
	0:13:00	0:13:00		33.2	51.8	34.1	32.7
	0:13:10	0:13:10		35.7	54.5	40.5	33
	0:13:20	0:13:20		34.3	54.1	36.2	33.3
	0:13:30	0:13:30		39.9	58.1	43.6	35.5
	0:13:40	0:13:40		38.1	59	41.9	35.2
	0:13:50	0:13:50		43.3	60	47.2	41.8
	0:14:00	0:14:00		46.3	66.1	52.2	40.6
	0:14:10	0:14:10		64.2	96.6	76.6	46.5
	0:14:20	0:14:20		71.2	92.8	78.4	44.1
	0:14:30	0:14:30		40.4	56.1	44.1	37.8
	0:14:40	0:14:40		42.9	65.1	50.5	33.8
	0:14:50	0:14:50		39.5	60.9	47.4	32.9
	0:15:00	0:15:00		34.9	55.4	39.6	33.3

Start: 11:21:07 AM
End: 11:36:07 AM

Baseline N2

L_{eq}
52.9

L_{max}
78.4

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N3	0:00:10	0:15:10		46.3	70.3	51.8	40.9
(15 Min)	0:00:20	0:15:20		49.4	70.9	53.8	47.4
	0:00:30	0:15:30		59.6	78	64.5	53.7
	0:00:40	0:15:40		61	76.9	64.6	55.4
	0:00:50	0:15:50		52.9	70.4	56.5	46.7
	0:01:00	0:16:00		45.2	61.1	47.1	43
	0:01:10	0:16:10		49.7	81.7	55.8	43.1
	0:01:20	0:16:20		49.2	82	51.9	46.3
	0:01:30	0:16:30		48	69.2	51	41.7
	0:01:40	0:16:40		39.5	55.8	41.7	38.2
	0:01:50	0:16:50		38.7	55.7	40.8	36.5
	0:02:00	0:17:00		37	54.2	38.4	35.5
	0:02:10	0:17:10		36.7	54.1	38.4	35.3
	0:02:20	0:17:20		36.1	64.8	39	34.3
	0:02:30	0:17:30		50.5	68.8	56.4	34.3
	0:02:40	0:17:40		48.5	68.7	52.1	44.6
	0:02:50	0:17:50		46.7	62.7	49.3	44.8
	0:03:00	0:18:00		43	56.8	45.3	41.3
	0:03:10	0:18:10		38.6	63.3	41.3	36.3
	0:03:20	0:18:20		37.7	58.8	39.8	36.2
	0:03:30	0:18:30		38.2	56.8	39.8	36.1
	0:03:40	0:18:40		36.9	51.3	37.8	35.9
	0:03:50	0:18:50		36.6	59.8	38.1	35.3
	0:04:00	0:19:00		35.9	52.8	36.8	34.8
	0:04:10	0:19:10		38.1	53.7	40.5	36.1
	0:04:20	0:19:20		44	59.7	46.7	40.6
	0:04:30	0:19:30		39.7	54.4	42.6	36.8
	0:04:40	0:19:40		42.9	59.6	45.5	41.8
	0:04:50	0:19:50		45.6	60.8	46.8	43.5
	0:05:00	0:20:00		47.9	65.3	50.8	42.7
	0:05:10	0:20:10		51.3	68.9	55.4	49
	0:05:20	0:20:20		53.7	70	57.5	47.1
	0:05:30	0:20:30		43.2	58.3	47.4	40.7
	0:05:40	0:20:40		41.4	59.2	43.1	39.2
	0:05:50	0:20:50		41.8	57.8	42.9	40.5
	0:06:00	0:21:00		39.9	57	41.8	38.3
	0:06:10	0:21:10		41	64.3	43.1	39.2
	0:06:20	0:21:20		41.3	60.8	45.8	39.1
	0:06:30	0:21:30		42.3	63.8	47.2	38.2
	0:06:40	0:21:40		40.6	58.2	42.8	38.9
	0:06:50	0:21:50		40.7	61.5	42.2	38.6
	0:07:00	0:22:00		42	59.2	45.1	39.9
	0:07:10	0:22:10		43.6	60.7	45.6	40.9
	0:07:20	0:22:20		40.9	61	43.2	38.4
	0:07:30	0:22:30		38.6	55.3	40	36.9
	0:07:40	0:22:40		37.7	59	39.8	36.1
	0:07:50	0:22:50		37.6	61.4	39.4	36.2
	0:08:00	0:23:00		37.4	62.6	40	35.4
	0:08:10	0:23:10		38	66.3	42	35.7
	0:08:20	0:23:20		38.5	55.5	40.3	37.1
	0:08:30	0:23:30		44.1	67.5	48.1	39.2
	0:08:40	0:23:40		48	64.3	51.1	41.2
	0:08:50	0:23:50		46.2	61.6	48.1	42.8
	0:09:00	0:24:00		47.3	68.5	50.5	42.4
	0:09:10	0:24:10		50.9	70.6	54.5	42.1
	0:09:20	0:24:20		53.8	72.7	57.5	46.9
	0:09:30	0:24:30		49.1	65.9	51.6	45.7
	0:09:40	0:24:40		45.4	65.1	50.5	41.5
	0:09:50	0:24:50		43.6	61.8	45.1	41.4
	0:10:00	0:25:00		44.3	64.6	47.1	42.1
	0:10:10	0:25:10		48.5	66.6	50.4	46.4
	0:10:20	0:25:20		45.1	62.7	47.8	42.5
	0:10:30	0:25:30		44.3	61.7	45.9	42.3
	0:10:40	0:25:40		42.9	63.3	45.9	41.6
	0:10:50	0:25:50		42.8	63.2	44	41.3
	0:11:00	0:26:00		42.8	60.4	45.3	40.3
	0:11:10	0:26:10		42.6	60.9	44.7	39.5
	0:11:20	0:26:20		42.7	63.9	45.6	40.8
	0:11:30	0:26:30		42.7	60.6	44.9	38.6
	0:11:40	0:26:40		38.1	55.3	41.4	36.3
	0:11:50	0:26:50		38.5	55.1	39.9	37.2
	0:12:00	0:27:00		39.2	57.6	41.5	37.1
	0:12:10	0:27:10		39.8	58.8	41.9	38.1
	0:12:20	0:27:20		38.6	56.3	40.1	37.4
	0:12:30	0:27:30		37.9	54.2	39.1	36.4
	0:12:40	0:27:40		39.7	56.4	41.7	37.4
	0:12:50	0:27:50		45	64	48	41.4
	0:13:00	0:28:00		46.5	65.2	49.8	44.1
	0:13:10	0:28:10		44.3	65.9	47.4	40.7
	0:13:20	0:28:20		43.7	62.9	47.2	41
	0:13:30	0:28:30		61.9	82.9	67.3	44.5
	0:13:40	0:28:40		46.5	63.4	49.4	43.7
	0:13:50	0:28:50		43.6	62.2	48	40.5
	0:14:00	0:29:00		40.2	59.9	43.2	39.1
	0:14:10	0:29:10		45.3	67.9	49.5	41.3
	0:14:20	0:29:20		42.2	61.9	45.9	37.2
	0:14:30	0:29:30		40.7	59	44.3	37.6
	0:14:40	0:29:40		39.9	60.2	41.9	38
	0:14:50	0:29:50		38.6	56.4	40.9	37.5
	0:15:00	0:30:00		39.1	55.7	40.9	36.8

Start: 11:39:07 AM
End: 11:54:07 AM

Baseline N3

L_{eq}
48.7

L_{max}
67.3

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N4	0:00:10	0:30:10		51.1	78.1	62.2	38.3
(15 Min)	0:00:20	0:30:20		85.6	106.3	90.7	62.5
	0:00:30	0:30:30		89.1	109.7	93.2	86.4
	0:00:40	0:30:40		82	100.7	86.8	79.3
	0:00:50	0:30:50		86.6	108.4	90.6	80.6
	0:01:00	0:31:00		83	103.7	87.5	70.1
	0:01:10	0:31:10		72.5	94.9	77	59.7
	0:01:20	0:31:20		54	71.6	59.7	43.7
	0:01:30	0:31:30		41.1	55.8	43.7	38.3
	0:01:40	0:31:40		37.9	51.6	38.4	37.2
	0:01:50	0:31:50		37.6	52	38.1	37
	0:02:00	0:32:00		37.6	55	38.7	37.1
	0:02:10	0:32:10		68.7	90.9	75.2	38.7
	0:02:20	0:32:20		51.7	59.8	61.3	39.1
	0:02:30	0:32:30		38.2	52.6	39.2	37.6
	0:02:40	0:32:40		42.5	57.6	44	38.6
	0:02:50	0:32:50		42	55.8	42.8	40.2
	0:03:00	0:33:00		41.3	66.1	42.9	40.2
	0:03:10	0:33:10		42.8	59.6	44.1	40.3
	0:03:20	0:33:20		40.4	54.4	41.2	39.9
	0:03:30	0:33:30		41.8	56.5	43.4	41
	0:03:40	0:33:40		48	67.7	52.5	43.4
	0:03:50	0:33:50		54.1	74.1	57.1	51.3
	0:04:00	0:34:00		62.3	87.1	71.3	55.5
	0:04:10	0:34:10		81.1	103	86.1	70.6
	0:04:20	0:34:20		70.4	86.3	77.4	59
	0:04:30	0:34:30		59.1	75.9	62.9	53.6
	0:04:40	0:34:40		61.2	79.6	65.1	55.1
	0:04:50	0:34:50		56.5	72.3	60.6	53.2
	0:05:00	0:35:00		58.1	76.6	61.4	55.3
	0:05:10	0:35:10		53.4	70.8	56.6	50.1
	0:05:20	0:35:20		53.4	70.1	56.1	50.3
	0:05:30	0:35:30		50.4	66	53.5	48.5
	0:05:40	0:35:40		46.9	61.6	49.1	43.5
	0:05:50	0:35:50		44.1	59	45.3	42.6
	0:06:00	0:36:00		44.3	58.3	45.1	43.1
	0:06:10	0:36:10		42.7	60.9	44.9	41.8
	0:06:20	0:36:20		70	91.2	76.7	44.9
	0:06:30	0:36:30		43.8	52.3	52.6	37.7
	0:06:40	0:36:40		37.6	54.1	38.6	36.6
	0:06:50	0:36:50		39.1	69.3	46.8	36
	0:07:00	0:37:00		69.1	93.9	75.5	46.9
	0:07:10	0:37:10		41.3	48.2	50.4	33.8
	0:07:20	0:37:20		34.4	51.4	35.1	33.8
	0:07:30	0:37:30		34.3	49.6	35.6	34
	0:07:40	0:37:40		37.2	52.1	39.1	35.6
	0:07:50	0:37:50		38.8	53.5	39.4	38.3
	0:08:00	0:38:00		40.9	60.2	42.7	38.3
	0:08:10	0:38:10		38.9	52.8	41.6	37.1
	0:08:20	0:38:20		36	60.9	38	35
	0:08:30	0:38:30		36.6	53.6	38.4	35.4
	0:08:40	0:38:40		38.7	58.1	39.9	37.1
	0:08:50	0:38:50		37.6	58.9	38.6	36.9
	0:09:00	0:39:00		39.5	53.5	40.1	38.4
	0:09:10	0:39:10		39.6	54.6	40.2	38.8
	0:09:20	0:39:20		37.9	56.8	39.4	36.6
	0:09:30	0:39:30		40	60.1	47.5	36.7
	0:09:40	0:39:40		45.7	61.7	47.8	43.1
	0:09:50	0:39:50		43.7	58.9	45.2	40.4
	0:10:00	0:40:00		38.6	53.6	40.4	37.1
	0:10:10	0:40:10		35.5	51.8	37.1	34.8
	0:10:20	0:40:20		35	56.6	35.8	34.1
	0:10:30	0:40:30		34.6	49.3	35.6	34
	0:10:40	0:40:40		35.6	50.3	36.8	33.3
	0:10:50	0:40:50		33.2	48.3	33.6	32.9
	0:11:00	0:41:00		33.4	48.8	34.3	33.1
	0:11:10	0:41:10		34.5	49.5	35.9	33.4
	0:11:20	0:41:20		33.7	48.9	34.1	33.3
	0:11:30	0:41:30		34.1	51	35.6	33.6
	0:11:40	0:41:40		34.3	52.3	35	33.8
	0:11:50	0:41:50		35.3	49.7	35.9	34.3
	0:12:00	0:42:00		35.3	53.8	35.8	34.8
	0:12:10	0:42:10		34.5	49.6	35	34
	0:12:20	0:42:20		34.2	48.4	34.7	33.8
	0:12:30	0:42:30		34.5	55.1	35.8	33.9
	0:12:40	0:42:40		37.9	60.4	38.8	35.7
	0:12:50	0:42:50		36.6	52.3	38.2	35.3
	0:13:00	0:43:00		37	52.4	39.1	35.8
	0:13:10	0:43:10		38.5	53.1	40.2	36.8
	0:13:20	0:43:20		38	55.2	39.8	36.7
	0:13:30	0:43:30		39.5	53.2	40.1	38.9
	0:13:40	0:43:40		38.5	54.3	40	37.1
	0:13:50	0:43:50		36.7	50.6	38.2	35.5
	0:14:00	0:44:00		36.4	50.3	37.7	35.4
	0:14:10	0:44:10		39.1	54.1	41.4	37.4
	0:14:20	0:44:20		38	56	39.3	36.7
	0:14:30	0:44:30		39.8	54.6	41.4	39
	0:14:40	0:44:40		42.7	71.8	45.6	40.5
	0:14:50	0:44:50		40.2	70.9	45.8	37
	0:15:00	0:45:00		39	54.4	39.5	37.8

Start: 11:59:17 AM
End: 12:14:17 PM

Baseline N4

L_{eq}
73.8

L_{max}
93.2

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N5	0:00:10	0:45:10		48.9	79	52	45.8
(15 Min)	0:00:20	0:45:20		45	61.8	46.7	43.5
	0:00:30	0:45:30		46.7	62.6	48.4	44.7
	0:00:40	0:45:40		47.9	62	49.6	45.3
	0:00:50	0:45:50		66.4	84	70.3	49.4
	0:01:00	0:46:00		67	84	71.1	57.1
	0:01:10	0:46:10		64.6	86.9	70.3	55.7
	0:01:20	0:46:20		57.2	75.4	62.6	43.5
	0:01:30	0:46:30		40.3	57.7	43.6	38.5
	0:01:40	0:46:40		43	60.8	48.2	39.6
	0:01:50	0:46:50		64.4	81	67.8	48.2
	0:02:00	0:47:00		58.9	76.6	63.1	46.2
	0:02:10	0:47:10		44.3	60.9	46.2	42.4
	0:02:20	0:47:20		40.3	57.1	44.8	36.2
	0:02:30	0:47:30		37.8	53.1	39.3	36.6
	0:02:40	0:47:40		61	78.8	66.1	39.3
	0:02:50	0:47:50		52.4	72.5	58.6	47.1
	0:03:00	0:48:00		58.8	77.4	63.1	46.9
	0:03:10	0:48:10		46.1	59.6	53.7	37.7
	0:03:20	0:48:20		38.1	53.8	40	36.7
	0:03:30	0:48:30		50.3	76.3	61.8	40
	0:03:40	0:48:40		58.8	78.1	64.7	41.4
	0:03:50	0:48:50		46.6	76.4	59.9	40
	0:04:00	0:49:00		64.4	82	67	57.1
	0:04:10	0:49:10		54.6	79.9	59.5	50.6
	0:04:20	0:49:20		61.1	80.7	67.4	50.5
	0:04:30	0:49:30		59.9	78.3	67.5	46.9
	0:04:40	0:49:40		49.2	64.6	51.7	46.2
	0:04:50	0:49:50		51.1	71.2	57.5	48.6
	0:05:00	0:50:00		56.2	73.2	60	49.6
	0:05:10	0:50:10		52.5	67.3	55	48.1
	0:05:20	0:50:20		56.7	77.2	63.2	47.5
	0:05:30	0:50:30		57.7	74.7	63.2	54
	0:05:40	0:50:40		53.2	73.5	55.9	49.9
	0:05:50	0:50:50		63.6	81.6	69	49.2
	0:06:00	0:51:00		60	80.8	67.8	54.1
	0:06:10	0:51:10		70.2	92.2	78.3	59.9
	0:06:20	0:51:20		78	98	82.7	67.6
	0:06:30	0:51:30		63.3	81.7	68.8	56.4
	0:06:40	0:51:40		59.3	77.7	65.2	44.2
	0:06:50	0:51:50		46.3	64.4	50.7	42.3
	0:07:00	0:52:00		58.4	75.8	63	47.6
	0:07:10	0:52:10		46.2	60.2	53.8	41.9
	0:07:20	0:52:20		43.7	60.7	46.2	40.4
	0:07:30	0:52:30		38.4	53.4	40.4	37.4
	0:07:40	0:52:40		42.7	61.7	49.6	38.1
	0:07:50	0:52:50		57.7	81.1	62	49.4
	0:08:00	0:53:00		60.3	78.6	66.3	46.4
	0:08:10	0:53:10		61.4	87	65	55.4
	0:08:20	0:53:20		52.9	67.1	60.6	45.4
	0:08:30	0:53:30		42.4	58.1	45.4	40.5
	0:08:40	0:53:40		38.3	52.5	40.8	35.7
	0:08:50	0:53:50		38.5	53.2	40.8	35.6
	0:09:00	0:54:00		37.1	51.7	39.9	35.3
	0:09:10	0:54:10		37.1	51.9	38.7	35.2
	0:09:20	0:54:20		35.3	52.2	35.7	34.8
	0:09:30	0:54:30		37.9	53.9	39.7	35
	0:09:40	0:54:40		41.5	61.3	46.6	38.1
	0:09:50	0:54:50		62.8	82	67	46.7
	0:10:00	0:55:00		55.8	71.3	64.5	40.3
	0:10:10	0:55:10		38.3	54.9	40.3	35
	0:10:20	0:55:20		43.5	61.3	48	34.2
	0:10:30	0:55:30		39.4	56.4	42.9	37.4
	0:10:40	0:55:40		53.1	68.4	54.8	42.2
	0:10:50	0:55:50		54	69.6	56.9	45.1
	0:11:00	0:56:00		40.7	53.6	45.1	37.3
	0:11:10	0:56:10		41.3	61.7	48.4	35.8
	0:11:20	0:56:20		52.3	66.6	55.4	48.3
	0:11:30	0:56:30		46.4	63.1	50.1	38
	0:11:40	0:56:40		42.4	61.2	47.7	37.9
	0:11:50	0:56:50		48.2	65.7	52.9	42.8
	0:12:00	0:57:00		45.4	63.2	50.3	40.8
	0:12:10	0:57:10		63.8	83.6	69.6	43.3
	0:12:20	0:57:20		55.1	73	57.4	52.1
	0:12:30	0:57:30		50.8	66.5	54.8	48
	0:12:40	0:57:40		66.7	86.7	73	52.9
	0:12:50	0:57:50		68.1	82.8	72.2	63.3
	0:13:00	0:58:00		57.6	73.7	63.3	52.5
	0:13:10	0:58:10		58.5	73.3	61.4	52.1
	0:13:20	0:58:20		48.2	61.4	52	46.2
	0:13:30	0:58:30		44.5	58.9	48.1	39.2
	0:13:40	0:58:40		43.3	61	48.6	37.2
	0:13:50	0:58:50		47.2	63.7	50.1	44.9
	0:14:00	0:59:00		43.8	62.6	46.2	41.1
	0:14:10	0:59:10		47.2	63.6	50.5	44.9
	0:14:20	0:59:20		59.8	77.5	64.4	50.5
	0:14:30	0:59:30		54.6	72	59.5	49.2
	0:14:40	0:59:40		48.2	68.7	52.4	42.4
	0:14:50	0:59:50		49.4	68.6	55.3	42.7
	0:15:00	1:00:00		68.6	88.3	74.9	55.4

Start: 12:18:40 PM
End: 12:33:40 PM

Baseline N5

L_{eq}
61.9

L_{max}
82.7

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N6	0:00:10	0:00:10		78.5	93.3	80.2	70.7
(15 Min)	0:00:20	0:00:20		74.9	90.1	78.6	69.2
	0:00:30	0:00:30		65.6	78.7	69.1	63.4
	0:00:40	0:00:40		67.5	85.9	71.8	62.1
	0:00:50	0:00:50		56	72.8	62.1	52.4
	0:01:00	0:01:00		56.3	75	61.8	51.4
	0:01:10	0:01:10		55.9	71.9	61.2	54
	0:01:20	0:01:20		55.7	72.2	57.7	53.5
	0:01:30	0:01:30		56.2	70.9	57.6	55
	0:01:40	0:01:40		62.7	88	70.1	56.2
	0:01:50	0:01:50		63	80.9	70.1	55
	0:02:00	0:02:00		55.1	69.9	57	52.8
	0:02:10	0:02:10		53.8	70.1	55.5	52.6
	0:02:20	0:02:20		69.6	88.8	76	55
	0:02:30	0:02:30		70.1	86.1	73.4	64.6
	0:02:40	0:02:40		76.3	91.8	78	72.6
	0:02:50	0:02:50		74.9	91.7	78	65.1
	0:03:00	0:03:00		64.2	79.5	67.3	59.7
	0:03:10	0:03:10		58	74.5	60.9	55.3
	0:03:20	0:03:20		68.6	87.4	73	57.8
	0:03:30	0:03:30		57.6	69.2	64.6	53.6
	0:03:40	0:03:40		54.7	70	57.3	53.1
	0:03:50	0:03:50		71.2	90.9	78.8	57.4
	0:04:00	0:04:00		70.2	86.9	78.7	52.6
	0:04:10	0:04:10		61.5	81.6	67.3	53.9
	0:04:20	0:04:20		51.6	68.8	57.1	48.6
	0:04:30	0:04:30		49.3	64.8	50.1	48.3
	0:04:40	0:04:40		50.2	68	52	48.5
	0:04:50	0:04:50		52.7	67.1	54	50.5
	0:05:00	0:05:00		50.5	69.5	51.9	49.2
	0:05:10	0:05:10		51.2	68.9	52.6	49.2
	0:05:20	0:05:20		51.1	69.3	54.3	49
	0:05:30	0:05:30		54.3	70.5	57.2	50.9
	0:05:40	0:05:40		59.6	76.3	63.4	54.9
	0:05:50	0:05:50		63.8	87.2	67.7	53.2
	0:06:00	0:06:00		50.1	72.4	56	47.4
	0:06:10	0:06:10		63.7	82.7	68.8	56
	0:06:20	0:06:20		53.8	67.1	59.8	50.7
	0:06:30	0:06:30		50.5	69.1	52.4	49.5
	0:06:40	0:06:40		68.8	87.6	74.7	51.8
	0:06:50	0:06:50		64.8	79.7	71.8	57.7
	0:07:00	0:07:00		53.2	67.4	60.6	48.2
	0:07:10	0:07:10		49.2	75	52.4	48.1
	0:07:20	0:07:20		48.8	63.9	49.4	48.3
	0:07:30	0:07:30		48.5	67.7	49.7	46.8
	0:07:40	0:07:40		49.4	65.6	52.9	47.8
	0:07:50	0:07:50		55.9	73.5	60.9	48.1
	0:08:00	0:08:00		51.2	66.4	52.9	49.2
	0:08:10	0:08:10		50.4	64.4	51.3	49.4
	0:08:20	0:08:20		55.4	77.7	62.7	49.5
	0:08:30	0:08:30		66.2	84.5	71.1	50.4
	0:08:40	0:08:40		49.4	74.1	51.8	47.9
	0:08:50	0:08:50		50.9	67	54	48.6
	0:09:00	0:09:00		60.3	77	64	52.8
	0:09:10	0:09:10		60.4	82.8	69.5	52.8
	0:09:20	0:09:20		61.8	80.7	69.6	49.8
	0:09:30	0:09:30		59.9	77.4	64.4	50.6
	0:09:40	0:09:40		51.3	67.4	57.1	49.2
	0:09:50	0:09:50		52.3	71	55.8	49.6
	0:10:00	0:10:00		52.8	71.3	54.7	51.5
	0:10:10	0:10:10		61.2	83.3	68.3	51.9
	0:10:20	0:10:20		57.5	73.4	66.4	48.7
	0:10:30	0:10:30		60	79.3	65	49.1
	0:10:40	0:10:40		73.1	92	77.3	61.5
	0:10:50	0:10:50		59.6	75.2	64.6	48.8
	0:11:00	0:11:00		50	65.5	50.7	48.8
	0:11:10	0:11:10		50.7	71.8	51.8	49.9
	0:11:20	0:11:20		60	80.1	65.8	48.5
	0:11:30	0:11:30		53.4	68.1	58.3	51
	0:11:40	0:11:40		59.3	79.4	64.6	53.6
	0:11:50	0:11:50		58.9	75	61.8	54.1
	0:12:00	0:12:00		56.7	70.6	59.5	54.7
	0:12:10	0:12:10		60.1	80.1	65.5	52.4
	0:12:20	0:12:20		56.6	77	62.8	50.7
	0:12:30	0:12:30		58.5	76.9	64.3	47.3
	0:12:40	0:12:40		50.6	73.3	52.5	47.9
	0:12:50	0:12:50		66.1	86.1	72.1	51.5
	0:13:00	0:13:00		63.4	78.9	70.1	53.4
	0:13:10	0:13:10		66.9	84	71	54.6
	0:13:20	0:13:20		56.7	75.2	61.2	51.8
	0:13:30	0:13:30		55.3	74	61.1	52.5
	0:13:40	0:13:40		60.8	77.2	64.2	53
	0:13:50	0:13:50		53.7	67.9	61.3	48.6
	0:14:00	0:14:00		49	76.7	53.2	46.5
	0:14:10	0:14:10		47.3	67.3	48.8	46
	0:14:20	0:14:20		46.6	64.5	47.6	45.3
	0:14:30	0:14:30		50.3	67.9	52.3	46.9
	0:14:40	0:14:40		49	80.9	52.1	47.1
	0:14:50	0:14:50		48.4	66.8	50.5	47.2
	0:15:00	0:15:00		48.7	74.7	52.2	47.1

Start: 1:03:05 PM
End: 1:18:05 PM

Baseline N6

L_{eq}
65.5

L_{max}
80.2

Short-Duration (15-Minute) Noise Data

Receptors N2, N3, N4, N5, N6 and N7

9/29/2016 + 9/30/2016

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1
N7	0:00:10	0:15:10		78.4	97.4	83.5	69.8
(15 Min)	0:00:20	0:15:20		68	86	73.2	56.7
	0:00:30	0:15:30		77.3	99.8	82.6	56.5
	0:00:40	0:15:40		74.6	91.2	78.8	63.4
	0:00:50	0:15:50		55.8	74.6	63.4	44
	0:01:00	0:16:00		69.8	89.7	75.5	43.4
	0:01:10	0:16:10		74.2	90.2	76.6	67.7
	0:01:20	0:16:20		61.4	74.6	67.6	57.6
	0:01:30	0:16:30		75.7	98.8	85.6	61.1
	0:01:40	0:16:40		77.9	96.2	85.6	69
	0:01:50	0:16:50		61.7	77.2	69.6	49.2
	0:02:00	0:17:00		51	78.2	52.2	50.2
	0:02:10	0:17:10		50	74.6	52.4	47.5
	0:02:20	0:17:20		52.4	77.8	53.9	50.2
	0:02:30	0:17:30		64.4	81.1	68.1	53.7
	0:02:40	0:17:40		64.5	84.7	70.9	55.9
	0:02:50	0:17:50		75.8	90.6	79.3	69.9
	0:03:00	0:18:00		67.3	83.1	72.3	61.3
	0:03:10	0:18:10		57.7	79.9	61.7	49.3
	0:03:20	0:18:20		47.5	74.3	50.6	45.2
	0:03:30	0:18:30		71.3	92.8	77.8	50.7
	0:03:40	0:18:40		75.1	94.9	80.6	63
	0:03:50	0:18:50		75.8	101.5	81.2	68.7
	0:04:00	0:19:00		78.7	96.5	83.8	63.9
	0:04:10	0:19:10		79.8	97	83.2	69
	0:04:20	0:19:20		69.9	93.4	79.8	56.4
	0:04:30	0:19:30		71.4	90.1	79.7	57.6
	0:04:40	0:19:40		76.3	93.8	80.9	58.4
	0:04:50	0:19:50		75.7	93.6	81	64.5
	0:05:00	0:20:00		59.2	75.7	64.4	49.4
	0:05:10	0:20:10		63.4	83.3	69	50.9
	0:05:20	0:20:20		60.1	78.2	66.3	51
	0:05:30	0:20:30		47.3	62.5	50.9	45.4
	0:05:40	0:20:40		61.8	88.4	74.1	45.2
	0:05:50	0:20:50		72.5	89.4	76.2	64.7
	0:06:00	0:21:00		62.2	78.1	65.3	50.7
	0:06:10	0:21:10		44.9	60.6	50.6	41.8
	0:06:20	0:21:20		42.2	57.2	43.5	40.9
	0:06:30	0:21:30		42.4	57.6	43.4	40.9
	0:06:40	0:21:40		40.2	54.2	42.6	38.7
	0:06:50	0:21:50		40.5	53.8	42	39.7
	0:07:00	0:22:00		52.3	79.8	63	42
	0:07:10	0:22:10		78	98	80.8	63.1
	0:07:20	0:22:20		71.1	86	76.7	65.6
	0:07:30	0:22:30		73.7	94.4	76.9	67.3
	0:07:40	0:22:40		58.7	75.5	67.3	44.6
	0:07:50	0:22:50		47.2	63.2	49.9	43.8
	0:08:00	0:23:00		46.7	64	48.2	45
	0:08:10	0:23:10		48.2	63.3	49.6	46.2
	0:08:20	0:23:20		65.8	90.9	76.6	46.1
	0:08:30	0:23:30		72.2	91.2	77.4	57.2
	0:08:40	0:23:40		54.2	70.3	58.1	44.8
	0:08:50	0:23:50		68.8	89.8	74.5	44.2
	0:09:00	0:24:00		60.9	77	67	55.8
	0:09:10	0:24:10		71.1	92.6	77.8	51.3
	0:09:20	0:24:20		71.3	86.9	74.7	63.5
	0:09:30	0:24:30		65.6	80.9	72.8	58.1
	0:09:40	0:24:40		54.5	68.6	58.1	49.3
	0:09:50	0:24:50		46	60	49.3	43.5
	0:10:00	0:25:00		44.3	59.5	46.1	42.9
	0:10:10	0:25:10		50.2	75.3	61.3	44.1
	0:10:20	0:25:20		77.3	97.1	82.6	61.4
	0:10:30	0:25:30		72.8	92	77.3	59.4
	0:10:40	0:25:40		55.5	70.9	59.3	50.2
	0:10:50	0:25:50		47.5	63.4	50.2	45.6
	0:11:00	0:26:00		54.1	78.6	63.5	47.9
	0:11:10	0:26:10		73.5	98.9	79.7	59.8
	0:11:20	0:26:20		75.9	97.3	83.7	56.1
	0:11:30	0:26:30		74.2	92.5	79.9	63.6
	0:11:40	0:26:40		70.3	85.7	78.3	62.2
	0:11:50	0:26:50		56	73.3	62.3	47.1
	0:12:00	0:27:00		73.9	99.8	84.5	49.8
	0:12:10	0:27:10		77.8	94.1	84.4	57.1
	0:12:20	0:27:20		52.6	68.7	57	48.9
	0:12:30	0:27:30		68.4	97.4	75.1	50.1
	0:12:40	0:27:40		60.9	74.9	69.6	49.2
	0:12:50	0:27:50		46.5	63	50.2	44
	0:13:00	0:28:00		45.4	59.2	47.1	42.8
	0:13:10	0:28:10		45.1	58.5	46.5	43.2
	0:13:20	0:28:20		75.3	96.3	81.8	46.1
	0:13:30	0:28:30		75.3	89.8	77.1	71.3
	0:13:40	0:28:40		76.2	93.8	78.8	71.1
	0:13:50	0:28:50		75.2	95.3	80	64.4
	0:14:00	0:29:00		71.2	89.1	75.5	64.3
	0:14:10	0:29:10		59.1	80.9	65.9	51
	0:14:20	0:29:20		75.9	93.2	78.3	66
	0:14:30	0:29:30		74.1	91.9	77.8	64.6
	0:14:40	0:29:40		58.8	75.3	64.6	47.5
	0:14:50	0:29:50		67.6	92.9	77.5	50
	0:15:00	0:30:00		75.1	90.6	77.5	69.7

Start: 1:26:02 PM
End: 1:41:02 PM

Baseline N7

L_{eq}
72.0

L_{max}
85.6

APPENDIX C

Source Noise/Vibration Levels at Receptors

Initial Ground Preparation (Removal of Overburden)

Source Noise Data + Impacts to Receptors

Initial Ground Preparation (Overburden Removal) - Source Noise Data						
Equipment	**L_{eq} @ 50-feet**	**Reference Distance (ft.)**	**Usage Factor (%)**	**L_{max} @ 100-feet[2]**	**L_{eq} @ 100-feet[1]**	
Scraper (x2):	80	100	40%	82.0	74.0	
Concrete/Asphalt Plant:	---	100	---	91.1	87.4	
			Total:	**91.6**	**87.6**	**dBA**

Scrapper (x2) Noise Source: Bollard Acoustical Consultants, Inc. (2005). Federal Highway Administration (2006).

Concrete/Asphalt Plant Noise Source: Based on field measurements of portable concrete/asphalt processing plant from previous Sespe studies (Hanson Aggregates, 2007)

Initial Ground Preparation (Overburden Removal) - Predicted Noise Levels @ Receptor Locations					
Receptor	**Distance Source to Receptor (ft.)[3]**	**Predicted Outdoor Source Noise Level @ Receptor Location[1,2]**		**Predicted Indoor Source Noise Level @ Receptor Location[4]**	
		L_{eq}	**L_{max}**	**L_{eq}**	**L_{max}**
N1	117	86.2	90.2	66.2	70.2
N2	1,758	62.7	66.7	42.7	46.7
N3	1,874	62.1	66.1	42.1	46.1
N4	987	67.7	71.7	47.7	51.7
N5	156	83.7	87.7	63.7	67.7
N6	2,412	59.9	64.0	39.9	44.0
N7	2,734	58.9	62.9	38.9	42.9

Note: All values in units of dBA. Data shown represents daytime (7:00 AM-10:00 PM) noise levels at receptors.

FOOTNOTES:

1 - L_{eq}(h), dBA = L_{max} @ 50-feet - 20log(D/50) + 10log(UF). D = distance of interest (100-feet). UF = usage factor. Source is CalTrans *Technical Noise Supplement* (2013).

2 - L_{max}Calc (dBA) = selected_L_{max} - 20*Log_{10}(distance source to receptor/reference distance). L_{max} @ 50-feet for a scrapper is 88 dB. Source is the FHWA's *Roadway Construction Noise Model* (2006).

3 - Distances estimated using Google Earth. Represents distance between active mining area and the receptor. Per the 2008 FEIR, a 45-foot setback from the Carli property boundary and the mining area is included.

4 - Based on the EPA's *Protective Noise Levels* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. This takes into account the average noise reduction provided while windows are closed (25 dBA) and while windows are open (15 dBA). This is a conservatively low estimate of noise attenuation as residence are expected to generally keep windows closed, especially those facing sources of noise. The 20 dBA attenuation is applied to the daytime L_{eq} and L_{max} values.

Mining Operation (Extraction of Aggregate)

Source Noise Data + Impacts to Receptors

Mining Operations (Aggregate Extraction) - Source Noise Data					
Equipment	**L_{max} @ 50-feet**	**Usage Factor (%)**	**Reference Distance (ft.)**	**L_{eq} @ 100-feet[1]**	**Arithmetic SPL ($10^{(Lavg/10)}$)**
Dozer:	85	40%	100	75	31622776.6
Excavator:	85	40%	100	75	31622776.6
Front-End Loader:	80	40%	100	70	10000000
Front-End Loader:	80	40%	100	70	10000000
Haul Truck:	84	40%	100	74	25118864.32
Haul Truck:	84	40%	100	74	25118864.32
Water/Service Truck:	84	40%	100	74	25118864.32
Concrete/Asphalt Plant:	97.2	---	100	87.4	549540873.9
				Average:	**88.5** **dBA**

Source: Federal Highway Administration (2006). Please note, for the haul trucks and the water/service truck, the FHWA default values for a "flat bed truck" were utilized.

Concrete/Asphalt Plant Noise Source: Based on field measurements of portable concrete/asphalt processing plant from previous Sespe studies (Hanson Aggregates, 2007)

Mining Operations (Aggregate Extraction) - Predicted Noise Levels @ Receptor Locations					
Receptor	**Distance Source to Receptor (ft.)[2]**	**Predicted Source Noise Level @ Receptor Location[1,3]**		**Predicted Indoor Source Noise Level @ Receptor Location[4]**	
		L_{eq}	**L_{max}**	**L_{eq}**	**L_{max}**
N1	117	63.3	67.2	43.3	47.2
N2	1,758	39.7	43.7	19.7	23.7
N3	1,874	39.2	43.1	19.2	23.1
N4	987	44.7	48.7	24.7	28.7
N5	156	60.8	64.7	40.8	44.7
N6	2,412	37.0	41.0	17.0	21.0
N7	2,734	35.9	39.9	15.9	19.9

Note: A -19.9 dB reduction is applied to predicted source noise levels at each receptor to account for natural noise attenuation due to the excavation pit walls. Mining equipment will not begin operating until the excavation pit reaches a depth of 20-feet, and the earthen berms surrounding the pit will provide natural noise attenuation. See the mining operation insertion loss calculations presented in Appendix F [Mining Operation (Aggregate Excavation) - Insertion Loss Calculations] for more detail.

FOOTNOTES:

1 - L_{eq}(h), dBA = L_{max} @ 50-feet - 20log(D/50) + 10log(UF). D = distance of interest (100-feet). UF = usage factor. Source is CalTrans*Technical Noise Supplement* (2013).

2 - Distances estimated using Google Earth. Represents distance between active mining area and the receptor. Please note, per the 2008 FEIR, a 45-foot setback from the Carli property boundary and the mining area is included.

3 - L_{eq}(h), dBA = L_{max} @ 50-feet - 20log(D/50) + 10log(UF). D = distance of interest (100-feet). UF = usage factor. Source is CalTrans*Technical Noise Supplement* (2013).

4 - Based on the EPA's *Protective Noise Levels* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. This takes into account the average noise reduction provided while windows are closed (25 dBA) and while windows are open (15 dBA). This is a conservatively low estimate of noise attenuation as residence are expected to generally keep windows closed, especially those facing sources of noise. The 20 dBA attenuation is applied to the daytime L_{eq} and L_{max} values.

Vibration Impact Assessment

Reference Vibration Source		
Equipment	**Distance (ft.)**	**PPV (in/sec)**
Large Bulldozer	25	0.089

Source: *Transportation and Construction Induced Vibration Guidance Manual* (Caltrans, 2013).

Note: Large Bulldozer represents the largest, most powerful vibration source operating onsite. Therefore it is used to calculate worst-case vibration impacts to nearby receivers.

Human Responses to Transient Vibration	
PPV (in/sec)	**Human Response**
2	Severe
0.9	Strongly Perceptible
0.24	Distinctly Perceptible
0.035	Barely Perceptible

Source: *Transportation and Construction Induced Vibration Guidance Manual* (Caltrans, 2013).

Vibration Impact Assessment

Site	Receiver Type	Distance (ft.)[2]	Predicted Vibration PPV @ Receiver (in/sec)[1]	Applicable PPV Threshold (in/sec)	Predicted Human Vibration Response @ Receptor	Significant?
N1	Residential	117	0.016	≤ 0.035	Barely Perceptible	No
N2	Residential	1,758	0.001	≤ 0.035	Barely Perceptible	No
N3	Residential	1,874	0.001	≤ 0.035	Barely Perceptible	No
N4	Residential	987	0.002	≤ 0.035	Barely Perceptible	No
N5	Residential	156	0.012	≤ 0.035	Barely Perceptible	No
N6	Residential	2,412	0.001	≤ 0.035	Barely Perceptible	No
N7	Residential	2,734	0.001	≤ 0.035	Barely Perceptible	No

FOOTNOTES:

1 - $PPV_{Equipment} = PPV_{Ref} (25/D)^{n}$. PPV_{Ref} = reference PPV @ 25-ft. D = distance from equipment to the receiver in ft. n = 1.1 (the value related to the attenuation rate through ground) Source is the CalTrans *Transportation and Construction Induced Vibration Guidance Manual* (2013).

2 - Distances estimated using Google Earth. Represents distance between active mining area and the receptor. Please note, per the 2008 FEIR, a 45-foot setback from the Carli property boundary and the mining area is included.

APPENDIX D

Sacramento County General Plan – Noise Element

General Plan

Noise Element

Adopted: December 15, 1993
Amended: November 9, 2011

County of Sacramento
Community Planning and Development Department

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SACRAMENTO COUNTY GENERAL PLAN
NOISE ELEMENT

SECTION I

INTRODUCTION

Purpose of the Noise Element

The Noise Element of the Sacramento County General Plan provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of Sacramento County from excessive noise exposure. The fundamental goals of the Noise Element are as follows:

- To provide sufficient information concerning the community noise environment so that noise may be effectively considered in the land use planning process.

- To develop strategies for abating excessive noise exposure through cost-effective mitigation measures in combination with appropriate zoning to avoid incompatible land uses.

- To protect those existing regions of the planning area whose noise environments are deemed acceptable and also those locations throughout the community deemed "noise sensitive".

- To protect existing noise-producing commercial and industrial uses in Sacramento County from encroachment by noise-sensitive land uses.

Noise Element Requirements

The noise element requirements contained in California Government Code Section 65302(f) are summarized as follows:

- A noise element shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all major sources of noise within the County.

- Noise contours shall be shown for major noise sources and stated in terms of the day/night average level (Ldn) or other appropriate noise descriptors. The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified above.

- The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The noise element shall include policies, implementation measures and possible solutions that address existing and foreseeable noise problems, if any.

Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of noise.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response. All noise level measurements and noise standards associated with this Noise Element are provided in terms of A-weighted sound levels.

Capacity Enhancing A roadway project which would increase roadway capacity. Examples include new roadway construction projects or widening projects. Projects which only re-stripe or otherwise alter roadway configuration without increasing capacity are not included in this definition

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Decibel or dB Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.

Frequency The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.

Infill Project A project which is consistent with the General Plan Land Use Map designations, zoning, and community plan for the property in which at least 50% of the project site is bounded by similar uses and a project which would not expand the perimeter of the development area.

Ldn Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

Leq Equivalent or energy-averaged sound level.

L50 Median noise level, or level exceeded 50% of time.

Lmax The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Noise Unwanted sound.

Noise Reducing Pavement

Pavement types for which local studies have identified noise-reducing benefits.

Sensitive Outdoor Areas

The primary outdoor activity area associated with any given land use at which noise-sensitivity exists and the location at which the County's exterior noise level standards are applied.

Single-Family Residential Uses: Normally considered to be back yard spaces, or distinct rear patio/deck areas of single-family residential uses. Front yard spaces, elevated balconies front courtyards, front decks, side yards, etc., are not commonly considered to be sensitive outdoor activity areas. Where the location of outdoor activity areas for large lot residential properties cannot be determined, the County's exterior noise level standards shall be applied within 50 feet of the rear of the residence.

Multi-family Residential Uses: Common outdoor recreation areas, such as pools, tot-lots, tennis courts, etc., of multi-family uses are considered to be the sensitive outdoor area. Individual patios and balconies of multi-family developments are not considered to be sensitive outdoor areas.

Residential Component of Mixed-Use Developments: Mixed use developments will commonly consist of residential units on elevated floors above office or commercial uses. As a result, such uses may not include a clearly delineated sensitive outdoor area, in which case satisfaction with the County's interior noise level standards will be considered adequate.

Small Lot Detached Single Family Developments: In higher density detached single family residential developments (RD-10 or greater density), outdoor activity areas may be small patios or courtyards, or the development may not propose outdoor areas. If small lot developments provide a common outdoor recreation area for the residents of the community (much like an apartment complex), the standards of the Noise Element shall be applied at that location. Otherwise, the standards shall be applied at individual patio/courtyard areas of these developments.

Fundamentals of Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second) they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness. Figure 1 shows examples of noise levels for several common noise sources and environments.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this document are in terms of A-weighted levels.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The Day-Night Average Level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

TABLE 1

TYPICAL A-WEIGHTED SOUND LEVELS OF COMMON NOISE SOURCES

Loudness Ratio Level	A-Weighted Sound Level (dBA)	
128	130	Threshold of pain
64	120	Jet aircraft take-off at 100 feet
32	110	Riveting machine at operators position
16	100	Cut-off saw at operators position
8	90	Bulldozer at 50 feet
4	80	Diesel locomotive at 300 feet
2	70	Commercial jet aircraft interior during flight
1	60	Normal conversation speech at 5-10 feet
1/2	50	Open office background level
1/4	40	Background level within a residence
1/8	30	soft whisper at 2 feet
1/16	20	Interior of recording studio

Noise in the community has been characterized as a health problem, not in terms of actual physiological damages such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities such as sleep, speech, recreation and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being are the bases for land use planning policies preventing exposures to excessive community noise levels.

To control noise from fixed sources which have developed from processes other than zoning or land use planning, many jurisdictions have adopted community noise control ordinances. Such ordinances are intended to abate noise nuisances and to control noise from existing sources. They may also be used as performance standards to judge the creation of a potential nuisance, or potential encroachment of sensitive uses upon noise-producing facilities. Community noise control ordinances are generally designed to resolve noise problems on a short-term basis (usually by means of hourly noise level criteria), rather than on the basis of 24-hour or annual cumulative noise exposures.

In addition to the A-weighted noise level, other factors should be considered in establishing criteria for noise sensitive land uses. For example, sounds with noticeable tonal content such as whistles, horns, droning or high-pitched sounds may be more annoying than the A-weighted sound level alone suggests. Many noise standards apply a penalty, or correction, of 5 dBA to such sounds. The effects of unusual tonal content are generally more of a concern at nighttime, when residents may notice the sound in contrast to low levels of background noise.

Because many rural residential areas experience very low noise levels, residents may express concern about the loss of "peace and quiet" due to the introduction of a sound which was not audible previously. In very quiet environments, the introduction of virtually any change in local activities will cause an increase in noise levels. A change in noise level and the loss of "peace and quiet" is the inevitable result of land use or activity changes in such areas. Audibility of a new noise source and/or increases in noise levels within recognized acceptable limits are not usually considered to be significant noise impacts, but these concerns should be addressed and considered in the planning and environmental review processes.

Background on Criteria for Acceptable Noise Exposure

The State Office of Planning and Research (OPR) Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The OPR guidelines contain a land use compatibility table which describes the compatibility of different land uses with a range of environmental noise levels in terms of Ldn. A noise environment of 60 dB Ldn or less is considered to be normally acceptable for residential uses according to those guidelines.

The U.S. Environmental Protection Agency (EPA) also offers guidelines for community noise exposure in the publication "Information on the Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety". These guidelines consider occupational noise exposure as well as noise exposure in the home. The "Levels Document" recognizes an exterior noise level of 55 dB Ldn as a goal to protect the public from hearing loss, activity interference, sleep disturbance and annoyance. The EPA notes, however, that this level is not a regulatory goal, but is a level defined by a negotiated scientific consensus without concern for economic and technological feasibility or the needs and desires of any particular community. The EPA and other Federal agencies have suggested land use compatibility guidelines which indicate that residential noise exposures of 55 to 65 dB Ldn are acceptable.

The U.S. Environmental Protection Agency has also prepared a Model Community Noise Control Ordinance, using Leq as the means of defining allowable residential noise level limits. The EPA model contains no specific recommendations for local noise level standards, but reports a range of Leq values as adopted by various local jurisdictions. The mean daytime residential noise standard reported by the EPA is 57 dBA (Leq); the mean nighttime residential noise standard is 52 dBA (Leq). Other state laws and regulations regarding noise control are directed towards aircraft, motor vehicles and noise in general.

The California Vehicle Code sets noise emission standards for new vehicles including autos, trucks, motorcycles and off-road vehicles. Performance standards also apply to all vehicles operated on public streets and roadways. Section 216 of the Streets and Highways Code regulates traffic noise received at schools near freeways.

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SACRAMENTO COUNTY GENERAL PLAN
NOISE ELEMENT

SECTION II

NOISE ELEMENT GOALS AND POLICIES

GOAL 1 **To protect the existing and future citizens of Sacramento County from the harmful effects of exposure to excessive noise. More specifically, to protect existing noise-sensitive land uses from new uses that would generate noise levels which are incompatible with those uses, and to discourage new noise-sensitive land uses from being developed near sources of high noise levels.**

GOAL 2 **To protect the economic base of Sacramento County by preventing the encroachment of noise-sensitive land uses into areas affected by existing noise-producing uses. More specifically, to recognize that noise is an inherent by-product of many land uses and to prevent new noise-sensitive land uses from being developed in areas affected by existing noise-producing uses.**

GOAL 3 **To provide the County with flexibility in the development of infill properties which may be located in elevated noise environments.**

GOAL 4 **To provide sufficient noise exposure information so that existing and potential future noise impacts may be effectively addressed in the land use planning and project review processes.**

Traffic And Railroad Noise Sources

NO-1. The noise level standards for noise-sensitive areas of ***new*** uses affected by traffic or railroad noise sources in Sacramento County are shown by Table 1. Where the noise level standards of Table 1 are predicted to be exceeded at new uses proposed within Sacramento County which are affected by traffic or railroad noise, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 1 standards.

Aircraft Noise Sources

NO-2. Proposals for new development within Sacramento County which may be affected by aircraft noise shall be evaluated relative to Table 4: *Land Use Compatibility for Aircraft Noise*.

NO-3. New residential development within the 60 CNEL noise contours adopted by the County for planning purposes at any airport or Helipad within Sacramento County shall be prohibited. This policy is not applicable to Executive Airport.

NO-4. New residential development within adopted Airport Policy Area boundaries, but outside the 60 CNEL, shall be subject to the following conditions:

A. Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.

B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within an Airport Policy Area.

C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento, recorded with the Sacramento County Recorder, and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within an Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the subject Airport.

Exceptions: New accessory residential dwellings on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural and between the 60 and 65 CNEL contours, shall be permitted within adopted Airport Policy Area boundaries, but would be subject to the conditions listed above.

Non-Transportation Noise Sources

NO-5. The interior and exterior noise level standards for noise-sensitive areas of new uses affected by existing non-transportation noise sources in Sacramento County are shown by Table 2. Where the noise level standards of Table 2 are predicted to be exceeded at a proposed noise-sensitive area due to existing non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table 2 standards within sensitive areas.

NO-6. Where a project would consist of or include non-transportation noise sources, the noise generation of those sources shall be mitigated so as not exceed the interior and exterior noise level standards of Table 2 at existing noise-sensitive areas in the project vicinity.

NO-7. The "last use there" shall be responsible for noise mitigation. However, if a noise-generating use is proposed adjacent to lands zoned for uses which may have sensitivity to noise, then the noise generating use shall be responsible for mitigating its noise generation to a state of compliance with the Table 2 standards at the property line of the generating use in anticipation of the future neighboring development.

Construction Noise

NO-8. Noise associated with construction activities shall adhere to the County Code requirements. Specifically, Section 6.68.090(e) addresses construction noise within the County.

Transportation Projects

NO-9. For capacity enhancing roadway or rail projects, or the construction of new roadways or railways, a noise analysis shall be prepared in accordance with the Table 3 requirements. If projected post-project traffic noise levels at existing uses exceed the noise standards of Table 1, then feasible methods of reducing noise to levels consistent with the Table 1 standards shall be analyzed as part of the noise analysis. In the case of existing residential uses, sensitive outdoor areas shall be mitigated to 60 dB, when possible, through the application of feasible methods to reduce noise. If 60 dB cannot be achieved after the application of all feasible methods of reducing noise, then noise levels up to 65 dB are allowed.

If pre-project traffic noise levels for existing uses already exceed the noise standards of Table 1 and the increase is significant as defined below, feasible methods of reducing noise to levels consistent with the Table 1 standards should be applied. In no case shall the long-term noise exposure for non-industrial uses be greater than 75 dB; long-term noise exposure above this level has the potential to result in hearing loss.

A significant increase is defined as follows:

Pre-Project Noise Environment (Ldn)	Significant Increase
Less than 60 dB	5+ dB
60 - 65 dB	3+ dB
Greater than 65 dB	1.5+ dB

NO-10. For interim capacity enhancing roadway or rail projects, or the construction of new interim roadways or railways, it may not be practical or feasible to provide mitigation if the ultimate roadway or railway design would render the interim improvements ineffective or obsolete. An example would be a noise barrier constructed for an interim project which would need to be removed to accommodate the ultimate project. The following factors should be considered in determining whether or not noise mitigation will be implemented for interim projects, but in general, noise mitigation for interim projects would not be provided:

a. The severity of the impact
b. The cost and effectiveness of the mitigation.
c. The number of properties which would benefit from the mitigation.
d. The foreseeable duration between interim and ultimate improvements.
e. Aesthetic, safety and engineering considerations.

NO-11. If noise-reducing pavement is to be utilized in conjunction with a roadway improvement project, of if such paving existing adjacent to a proposed new noise-sensitive land use, the acoustical benefits of such pavement shall be included in the noise analysis prepared for the project.

General Noise Policy

NO-12. All noise analyses prepared to determine compliance with the noise level standards contained within this Noise Element shall be prepared in accordance with Table 3.

NO-13. Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design to the extent feasible, prior to consideration of the use of noise barriers.

NO-14. Noise analyses prepared for multi-family residential projects, town homes, mixed-use, condominiums, or other residential projects where floor ceiling assemblies or party-walls shall be common to different owners/occupants, shall be consistent with the State of California Noise Insulation standards.

NO-15. The County shall have the flexibility to consider the application of 5 dB less restrictive exterior noise standards than those prescribed in Tables 1 and 2 in cases where it is impractical or infeasible to reduce exterior noise levels within infill projects to a state of compliance with the Table 1 or 2 standards. In such cases, the rational for such consideration shall be clearly presented and disclosure statements and noise easements should be included as conditions of project approval. The interior noise level standards of Tables 1 and 2 would still apply. The maximum allowable long-term noise exposure permissible for non-industrial uses is 75 dB.

Exemptions

NO-16. The following sources of noise shall be exempt from the provisions of this Noise Element:

a. Emergency warning devices and equipment operated in conjunction with emergency situations, such as sirens and generators which are activated during power outages. The routine testing of such warning devices and equipment shall also be exempt provided such testing occurs during daytime hours.

b. Activities associated with events for which a permit has been obtained from the County.

Table 1
Noise Standards for New Uses Affected by Traffic and Railroad Noise
Sacramento County Noise Element

New Land Use	Sensitive[1] Outdoor Area - Ldn	Sensitive Interior[2] Area - Ldn	Notes
All Residential	65	45	5
Transient Lodging	65	45	3,5
Hospitals & Nursing Homes	65	45	3, 4, 5
Theaters & Auditoriums	---	35	3
Churches, Meeting Halls	65	40	3
Schools, Libraries, etc.	65	40	3
Office Buildings	65	45	3
Commercial Buildings	---	50	3
Playgrounds, Parks, etc.	70	---	
Industry	65	50	3

Notes:

1. Sensitive areas are defined in acoustic terminology section.
2. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
3. Where there are no sensitive exterior spaces proposed for these uses, only the interior noise level standard shall apply.
4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
5. If this use is affected by railroad noise, a maximum (Lmax) noise level standard of 70 dB shall be applied to all sleeping rooms to reduce the potential for sleep disturbance during nighttime train passages.

Table 2
Non-Transportation Noise Standards
Sacramento County Noise Element
Median (L50) / Maximum (Lmax)[1]

Receiving Land Use	Outdoor Area[2] Daytime	Outdoor Area[2] Nighttime	Interior[3] Day & Night	Notes
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5, 6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	---	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 / 70	6

Notes:

1. The Table 2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 2, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
2. Sensitive areas are defined acoustic terminology section.
3. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
4. Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
5. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
6. The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.
7. Where median (L50) noise level data is not available for a particular noise source, average (Leq) values may be substituted for the standards of this table provided the noise source in question operates for at least 30 minutes of an hour. If the source in question operates less than 30 minutes per hour, then the maximum noise level standards shown would apply.

Table 3
Requirements for Acoustical Analyses Prepared in Sacramento County

An acoustical analysis prepared pursuant to the Noise Element shall:

1. Be the responsibility of the applicant.
2. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics.
3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
4. Estimate projected future (20 year) noise levels in terms of the Standards of Tables 1 and 2, and compare those levels to the adopted policies of the Noise Element.
5. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.
6. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.

Table 4
Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
RESIDENTIAL[1,8]					
• Single-family detached[2]	No[6]	No	No	No	No
• Two-family dwelling	No[6]	No	No	No	No
• Multi-family dwelling (3+ families)	No[6]	No	No	No	No
• Group Quarters & Rooming Houses	No[6]	No	No	No	No
• Mobile Home Parks or Courts	No[6]	No	No	No	No
• Agricultural/Residential (min. 2ac parcel size)	Yes[6,9]	Yes[6,9]	No	No	No
INDUSTRIAL MANUFACTURING					
• Food and kindred products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Textiles and apparel	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Transportation equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Lumber and wood products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Furniture and fixtures	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Paper and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Printing and publishing	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Chemicals and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Asphalt paving and miscellaneous petroleum	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Petroleum refining	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Rubber and plastics	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Stone, glass, clay, and concrete products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Primary and fabricated metals	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Electrical and electronic equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Leather products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Industrial, commercial, & computer equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Photo, optical and medical equipment	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Miscellaneous manufacturing	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
TRANSPORTATION, COMMUNICATIONS, & UTILITIES					
• Streets, roads, and highways	Yes	Yes	Yes	Yes	Yes
• Heavy rail lines: freight and passenger	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Light rail lines: passenger	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Trucking and rail freight terminals	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Warehousing and storage	Yes	Yes	Yes[3]	Yes[3]	Yes[3]

Table 4
Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
• Passenger terminals and stations	Yes	Yes	Yes[3]	Yes[3]	No
• Water transportation: freight and passenger	Yes	Yes	Yes[3]	Yes[3]	No
• Parking lots	Yes	Yes	Yes[3]	Yes[3]	Yes
• Transportation services	Yes	Yes	Yes[3]	Yes[3]	No
• Radio, television, and telephone	Yes	Yes	Yes[3]	Yes[3]	No
• Cellular radio transmission antenna	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Courier service	Yes	Yes	Yes[3]	Yes[3]	No
• Electrical and natural gas generation and switching	Yes	Yes	Yes[3]	Yes[3]	Yes[3,7]
• Natural gas and petroleum pipelines and storage	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Water treatment plants	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Sewer treatment plants	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Sanitary landfills	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Recycling and transfer facilities	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Hazardous material facilities	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
WHOLESALE TRADE					
• Paints, varnishes, and supplies	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Chemicals and allied products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Petroleum terminals and wholesalers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Miscellaneous wholesale trade	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
RETAIL TRADE					
• Department and variety stores (single)	Yes	Yes	Yes[3]	Yes[3]	No
• Lumber, building materials, and nurseries	Yes	Yes	Yes[3]	No	No
• Grocery and drug stores	Yes	Yes	Yes[3]	Yes[3]	No
• Paint, glass, wallpaper, and hardware	Yes	Yes	Yes[3]	Yes[3]	No
• Auto, truck, boat, & recreational vehicle dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Mobile home dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Auto and truck service stations	Yes	Yes	Yes[3]	Yes[3]	No
• Fuel dealers	Yes	Yes	Yes[3]	Yes[3]	No
• Apparel and shoes	Yes	Yes	Yes[3]	Yes[3]	No
• Home furnishings	Yes	Yes	Yes[3]	Yes[3]	No
• Eating and drinking	Yes	Yes	Yes[3]	Yes[3]	No
• Miscellaneous retail trade	Yes	Yes	Yes[3]	Yes[3]	No

Table 4
Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
BUSINESS AND PERSONAL SERVICES					
• Auto, truck, boat, RV, and miscellaneous repair	Yes	Yes	Yes[3]	Yes[3]	No
• Mobile home repair	Yes	Yes	Yes[3]	Yes[3]	No
• Commercial laundries and cleaning	Yes	Yes	Yes[3]	Yes[3]	No
• Coin operated laundries	Yes	Yes	Yes[3]	Yes[3]	No
• Photographers, beauty and barber, shoe repair	Yes	Yes	Yes[3]	Yes[3]	No
• Funeral services	Yes	Yes	Yes[3]	Yes[3]	No
• Business Services	Yes	Yes	Yes[3]	Yes[3]	No
• Computer programming and data processing	Yes	Yes	Yes[3,7]	Yes[3]	No
• Travel agencies	Yes	Yes	Yes[3]	Yes[3]	No
• Legal and engineering	Yes	Yes	Yes[3]	Yes[3]	No
• Banks, credit unions, and financial	Yes	Yes	Yes[3]	Yes[3]	No
• Hotels, motels, inns, bed and breakfast	Yes	Yes	Yes[3]	Yes[3,4]	No
• Business parks and industrial clusters	Yes	Yes	Yes[3]	Yes[3]	No
• Office (for rent or lease)	Yes	Yes	Yes[3]	Yes[3]	No
• Business and vocational schools	Yes	Yes	Yes[3]	Yes[3]	No
• Construction businesses	Yes	Yes	Yes[3]	Yes[3]	No
• Miscellaneous personal services	Yes	Yes	Yes[3]	Yes[3]	No
SHOPPING DISTRICTS					
• Neighborhood shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Community shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Regional shopping centers	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
PUBLIC AND QUASI-PUBLIC SERVICES					
• Post offices	Yes	Yes	Yes[3]	Yes[3]	No
• Government offices	Yes	Yes	Yes[3]	Yes[3]	No
• Government social services	Yes	Yes	Yes[3]	Yes[3]	No
• Elementary and Secondary schools	Yes	Yes[3,4]	No	No	No
• College and universities	Yes	Yes[3,4]	No	No	No
• Hospitals	Yes	Yes[3,4]	Yes[3,4]	No	No
• Medical and dental laboratories	Yes	Yes	Yes[3]	Yes[3]	No
• Doctor and dentist offices	Yes	Yes	Yes[3]	Yes[3]	No

Table 4
Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
• Museum and art galleries	Yes	Yes[3,4]	No	No	No
• Libraries	Yes	Yes[3,4]	No	No	No
• Churches	Yes	Yes[3,4]	No	No	No
• Cemeteries	Yes	Yes	Yes[3]	Yes[3]	No
• Jails and detention centers	Yes	Yes	Yes[3]	No	No
• Child care programs (six or more children)	Yes	Yes[3,4]	No	No	No
• Nursing care facilities	Yes	Yes[3,4]	No	No	No
RECREATION					
• Neighborhood parks	Yes	Yes	Yes[3]	No	No
• Community-wide and regional parks	Yes	Yes	Yes[3]	No	No
• Riding stables	Yes	Yes	Yes[3]	No	No
• Golf courses	Yes	Yes	Yes[3]	No	No
• Open space and natural areas	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Natural water areas	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Recreation and amusement centers	Yes	Yes	Yes[3]	Yes[3]	No
• Physical fitness and gyms	Yes	Yes	Yes[3]	Yes[3]	No
• Camps, campgrounds, & recreational vehicle parks	Yes	Yes	No	No	No
• Dance halls, studios, and schools	Yes	Yes	Yes[3]	Yes[3]	No
• Theaters - live performance	Yes	Yes[3,5]	Yes[3,5]	No	No
• Motion picture theater - single or double	Yes	Yes[3]	Yes[3]	No	No
• Motion picture theater complex - three or more	Yes	Yes[3]	Yes[3]	No	No
• Professional sports	Yes	Yes	Yes	No	No
• Stadiums and arenas	Yes	Yes	Yes	No	No
• Auditoriums, concert halls, and amphitheaters	Yes	Yes[3,5]	Yes[3,5]	No	No
• Fairgrounds and expositions	Yes	Yes	Yes	No	No
• Racetracks	Yes	Yes	Yes	No	No
• Theme parks	Yes	Yes	Yes	No	No
AGRICULTURAL AND MINING					
• Row and field crops	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Tree crop	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Intensive livestock	Yes	Yes	Yes[3]	No	No
• Nursery products	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Poultry	Yes	Yes	Yes[3]	No	No
• Pasture and grazing	Yes	Yes	Yes[3]	Yes[3]	Yes[3]

Table 4
Land Use Compatibility for Airport Noise

Land Use Designation	60-65 CNEL	65-70 CNEL	70-75 CNEL	75-80 CNEL	80-85 CNEL
• Agricultural services	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Mining and quarrying	Yes	Yes	Yes[3]	Yes[3]	Yes[3]
• Oil and gas extraction	Yes	Yes	Yes[3]	Yes[3]	Yes[3]

Footnotes to Land Use Compatibility Table for Airport Noise:

A. This compatibility table does not apply to Borges-Clarksburg Airport, as no noise contours exist there. Also, it does not apply to Executive Airport, as the noise contours do not extend into the unincorporated area of Sacramento County.

B. These guidelines define only compatible land uses within noise contours. Where proposed land uses fall within the established Safety Areas or may penetrate any of the imaginary height surfaces, additional restrictions do apply, which can be found in the safety and height policy sections of this Plan.

1. Caretaker residences are a compatible use within all CNEL ranges, provided that they are ancillary to the primary use of a property, intended for the purpose of property protection or maintenance, and subject to the condition that all residential units be designed to limit intruding noise such that interior levels do not exceed 45 CNEL, with windows closed, in any habitable room.
2. Second residential units are a compatible use within all CNEL ranges, subject to the condition that the proposed second unit be consistent with the provisions of Section 65852.1 and 65852.2 of the California Government Code.
3. Measures to achieve an interior noise level of 50 CNEL must be incorporated into the design and construction of portions where the public is received, office areas, and other areas where people work or congregate.
4. Measures to achieve an interior noise level of 45 CNEL must be incorporated into the design and construction of all noise sensitive areas including, but not limited to, rooms designed for the purpose of sleep, libraries, churches, and areas intended for indoor entertainment events.
5. Only indoor uses permitted.
6. Compatible at Sacramento International Airport and Franklin Field only if the residential use is directly related to agricultural uses, such as dwelling units for the land owner, the owner's immediate family, or for employees. All residential units shall be designed to limit

intruding noise such that interior noise levels do not exceed 45 CNEL, with windows closed, in any habitable room.

7. Use not compatible at Mather Airport.
8. New residential uses within 60 CNEL are not compatible, with the exception of accessory residential dwellings on parcels zoned Agricultural, Agricultural-Residential, Interim Agricultural, Interim General Agricultural, or Interim Limited Agricultural. New residential development within the Mather Airport Policy Area boundaries but outside the 60 CNEL shall be subject to the following conditions:
   A. Provide minimum noise insulation to provide 45dB within new residential dwellings, including detached single family dwellings, with windows closed, in any habitable room.
   B. Notification in the Public Report prepared by the California Department of Real Estate disclosing the fact to prospective buyers that the parcel is located within the Mather Airport Policy Area.
   C. An Avigation Easement prepared by the Sacramento County Counsel's Office granted to the County of Sacramento and recorded with the Sacramento County Recorder and filed with Department of Airports. Such Avigation Easement shall acknowledge the property location within the Mather Airport Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of Mather Airport.
9. Compatible with McClellan Park and Mather Airfield only up to 70dB CNEL.

APPENDIX E

Project Noise Significance Determination & Mitigated Impacts

Sacramento County Significance Thresholds

Adjusted Sacramento County Significance Thresholds									
Site	Receptor Type[2]	Ambient Noise[1]				Applicable Sacramento County Significance Thresholds[3]			
		Outdoor Area		Interior		Outdoor Area		Interior	
		Daytime		Daytime & Nighttime		Daytime		Daytime & Nighttime	
		L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
N1	Residential	63.7	99.8	43.7	79.8	65	105	45	85
N2	Residential	65.2	103.3	45.2	83.3	70	105	50	85
N3	Residential	63.6	98.0	43.6	78.0	65	100	45	80
N4	Residential	62.4	95.3	42.4	75.3	65	100	45	80
N5	Residential	70.5	104.9	50.5	84.9	75	110	55	90
N6	Residential	72.4	98.4	52.4	78.4	75	100	55	80
N7	Residential	80.3	107.2	60.3	87.2	85	110	65	90

Note: All values in units of dBA. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

FOOTNOTES:

1 - Please see Appendix B (Ambient Noise Summary) for the ambient noise measurement data and resulting ambient noise calculations for each receptor.

2 - Each receptor is assumed to be residential. This is the most conservative approach, as the Sacramento County General Plan noise thresholds for residential receptors are the most restrictive. See Appendix D (Sacramento County General Plan Noise Element) for more detail.

3 - Per Sacramento County General Plan guidelines, if the existing ambient noise levels at receptors exceeds the applicable standards, then the noise level standards have been increased by +5 dB increments to encompass the ambient. Additionally, if ambient noise levels are within 1 dB of the applicable significance standard, the Sacramento County noise level standard is increased by +5 dB to encompass the ambient (e.g. ambient level of 79.5 dB results in a significance threshold of 85 dB rather than 80 dB).

Initial Ground Preparation (Overburden Removal) - Sacramento County Significance Determination (dBA)												
Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?
N1	**86.2**	**65**	**Yes**	90.2	105	No	**66.2**	**45**	**Yes**	70.2	85	No
N2	62.7	70	No	66.7	105	No	42.7	50	No	46.7	85	No
N3	62.1	65	No	66.1	100	No	42.1	45	No	46.1	80	No
N4	**67.7**	**65**	**Yes**	71.7	100	No	**47.7**	**45**	**Yes**	51.7	80	No
N5	**83.7**	**75**	**Yes**	87.7	110	No	**63.7**	**55**	**Yes**	67.7	90	No
N6	59.9	75	No	64.0	100	No	39.9	55	No	44.0	80	No
N7	58.9	85	No	62.9	110	No	38.9	65	No	42.9	90	No

Note: Values shown in **bold** represent an exceedance of the applicable Sacramento County General Plan significance threshold. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

Mining Operation (Aggregate Extraction) - Sacramento County Significance Determination (dBA)												
Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?
N1	63.3	65	No	67.2	105	No	43.3	45	No	47.2	85	No
N2	39.7	70	No	43.7	105	No	19.7	50	No	23.7	85	No
N3	39.2	65	No	43.1	100	No	19.2	45	No	23.1	80	No
N4	44.7	65	No	48.7	100	No	24.7	45	No	28.7	80	No
N5	60.8	75	No	64.7	110	No	40.8	55	No	44.7	90	No
N6	37.0	75	No	41.0	100	No	17.0	55	No	21.0	80	No
N7	35.9	85	No	39.9	110	No	15.9	65	No	19.9	90	No

Note: Values shown in **bold** represent an exceedance of the applicable Sacramento County General Plan significance threshold. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

FOOTNOTES:

1 - Please see the source noise calculations for Initial Ground Preparation (Removal of Overburden) and Mining Operation (Extraction of Aggregate) presented in Appendix C. Values shown represents the noise level at each receptor resulting for operation of Project noise sources (i.e. mining equipment & concrete/asphalt plant).

2 - Significance thresholds shown represent appropriate Sacramento County General Plan noise thresholds (see Appendix D for more detail). Please note that per Sacramento County General Plan guidelines, if the existing ambient noise levels at receptors exceeded the applicable standards, then the noise level standards were increased by +5 dB increments to encompass the ambient.

Project-Related Noise Level Increase

Initial Ground Preparation (Overburden Removal) - Project-Related Noise Level Increases @ Receptors							
Site	**Receptor Type**	**Ambient Daytime L_{eq}**	**Predicted Equipment Noise @ Receptor**	**Total Project Noise Level @ Receptors**	**Change (dBA)[1]**	**Subjective Reaction[2]**	**Significant**
N1	Residential	63.7	86.2	86.3	**22.5**	**About Four Times as Loud**	**Yes**
N2	Residential	65.2	62.7	67.1	1.9	Imperceptible	No
N3	Residential	63.6	62.1	65.9	2.3	Just Barely Perceptible	No
N4	Residential	62.4	67.7	68.8	**6.4**	**Clearly Noticeable**	**Yes**
N5	Residential	70.5	83.7	83.9	**13.4**	**About Twice as Loud**	**Yes**
N6	Residential	72.4	59.9	72.6	0.2	Imperceptible	No
N7	Residential	80.3	58.9	80.3	0.0	Imperceptible	No

Note: All values in units of dBA. Values shown in **bold** represent potentially significant impact. See Footnote #2 below for more detail.

Mining Operations (Aggregate Extraction) - Project-Related Noise Level Increases @ Receptors							
Site	**Receptor Type**	**Ambient Daytime L_{eq}**	**Predicted Equipment Noise @ Receptor**	**Total Project Noise Level @ Receptors**	**Change (dBA)[1]**	**Subjective Reaction[2]**	**Significant**
N1	Residential	63.7	63.3	66.5	2.8	Just Barely Perceptible	No
N2	Residential	65.2	39.7	65.2	0.0	Imperceptible	No
N3	Residential	63.6	39.2	63.6	0.0	Imperceptible	No
N4	Residential	62.4	44.7	62.5	0.1	Imperceptible	No
N5	Residential	70.5	60.8	70.9	0.4	Imperceptible	No
N6	Residential	72.4	37.0	72.4	0.0	Imperceptible	No
N7	Residential	80.3	35.9	80.3	0.0	Imperceptible	No

Note: All values in units of dBA. Values shown in **bold** represent potentially significant impact. See Footnote #2 below for more detail.

FOOTNOTES:

1 - Values shown represents the dBA increase in noise experienced at each receptor resulting from Project noise sources (i.e. mining equipment + concrete/asphalt plant). Please note, the noise levels shown for Initial Ground Preparation conservatively assumes that all mining equipment (i.e. scrappers) and the concrete/asphalt plant would be operating in the area immediately adjacent to each receptor. Please see the setback mitigation calculations in Appendix E, specifically the concrete/asphalt plant required setback of 1,600 feet, for required measures to reduce noise impacts.

2 - Subjective reaction shown based on test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). 1 dBA change = "Imperceptible", 3 dBA change = "Just Barely Perceptible", 6 dBA change = "Clearly Noticeable", 10 dBA change = "About Twice as Loud". Source: Fundamentals of Noise and Vibration Analysis for Engineers (Norton & Karczub, 2003) & Bollard Acoustical Consultants, Inc. (Bollard, 2005).

Concrete/Asphalt Plant Setback Mitigation

Mitigation Distance Propagation Calculations

Initial Ground Preparation (Overburden Removal) - Source Noise Data						
Equipment	**L_{eq} @ 50-feet**	**Reference Distance (ft.)**	**Usage Factor (%)**	**L_{max} @ 100-feet[2]**	**L_{eq} @ 100-feet[1]**	
Scraper (x2):	80	100	40%	82.0	74.0	
Concrete/Asphalt Plant:	---	100	---	91.1	87.4	
			Total:	**91.6**	**87.6**	**dBA**

Scrapper (x2) Noise Source: Bollard Acoustical Consultants, Inc. (2005). Federal Highway Administration (2006).

Concrete/Asphalt Plant Noise Source: Based on field measurements of portable concrete/asphalt processing plant from previous Sespe studies (Hanson Aggregates, 2007)

Mining Operations (Aggregate Extraction) - Source Noise Data						
Equipment	**L_{max} @ 50-feet**	**Usage Factor (%)**	**Reference Distance (ft.)**	**L_{eq} @ 100-feet[1]**	**Arithmetic SPL ($10^{(Lavg/10)}$)**	
Dozer:	85	40%	100	75	31622776.6	
Excavator:	85	40%	100	75	31622776.6	
Front-End Loader:	80	40%	100	70	10000000	
Front-End Loader:	80	40%	100	70	10000000	
Haul Truck:	84	40%	100	74	25118864.32	
Haul Truck:	84	40%	100	74	25118864.32	
Water/Service Truck:	84	40%	100	74	25118864.32	
Concrete/Asphalt Plant:	97.2	---	100	87.4	549540873.9	
				Average:	**88.5**	**dBA**

Mobile Equipment (i.e. dozer, excavator, loaders) Noise Source: Federal Highway Administration (2006).

Concrete/Asphalt Plant Noise Source: Based on field measurements of portable concrete/asphalt processing plant from previous Sespe studies (Hanson Aggregates, 2007)

Concrete/Asphalt Plant Distance Attenuation Calculations		
Distance (ft.)	**L_{max}**	**L_{eq}**
100	91.1	87.4
200	85.1	81.4
400	79.1	75.4
800	73.0	69.3
1,600	**67.0**	**63.3**
2,000	65.1	61.4

Note: The distance propagation calculations above show the expected noise reduction from setting the concrete/asphalt processing plant back from affecting receptors a minimum of 1,600 feet. This setback is expected to mitigate noise impacts at Receptor 4 (N4) and 5 (N5) to less than significant (see following calculations sheets).

Concrete/Asphalt Plant Setback Mitigation

Mitigation Distance Propagation Calculations

Mitigated Initial Ground Preparation Noise				
Equipment	**Reference Distance (ft.)**	**L_{max}**	**L_{eq}**	
Scraper (x2):	100	82.0	74.0	
Concrete/Asphalt Plant:	1,600	67.0	63.3	
Total:		**82.1**	**74.3**	**dBA**

Mitigated Initial Ground Preparation Noise				
Equipment	**Reference Distance (ft.)**	**L_{eq}**	**Arithmetic SPL ($10^{(Lavg/10)}$)**	
Dozer:	100	75.0	31622776.6	
Excavator:	100	75.0	31622776.6	
Front-End Loader:	100	70.0	10000000	
Front-End Loader:	100	70.0	10000000	
Haul Truck:	100	74.0	25118864.32	
Haul Truck:	100	74.0	25118864.32	
Water/Service Truck:	100	74.0	25118864.32	
Concrete/Asphalt Plant:	1,600	63.3	2146644.039	
Total:		**82.1**		**dBA**

Initial Ground Preparation (Overburden Removal) - Predicted Noise Levels @ Receptor Locations					
Receptor	**Distance Source to Receptor (ft.)[3]**	**Predicted Outdoor Source Noise Level @ Receptor Location[1,2]**		**Predicted Indoor Source Noise Level @ Receptor Location[4]**	
		L_{eq}	**L_{max}**	**L_{eq}**	**L_{max}**
N1	117	73.0	80.8	53.0	60.8
N4	987	54.5	62.2	34.5	42.2
N5	156	70.5	78.3	50.5	58.3

Note: All values in units of dBA. Data shown represents daytime (7:00 AM-10:00 PM) noise levels at receptors.

Mining Operations (Aggregate Extraction) - Predicted Noise Levels @ Receptor Locations					
Receptor	**Distance Source to Receptor (ft.)[2]**	**Predicted Source Noise Level @ Receptor Location[1,3]**		**Predicted Indoor Source Noise Level @ Receptor Location[4]**	
		L_{eq}	**L_{max}**	**L_{eq}**	**L_{max}**
N1	117	68.4	72.4	48.4	52.4

Note: All values in units of dBA. Data shown represents daytime (7:00 AM-10:00 PM) noise levels at receptors.

FOOTNOTES:

Note: Noise levels shown above for Initial Ground Preparation and Mining Operations take into account the 1,600-foot concrete/asphalt plant setback (see previous calculations sheets).

1 - $L_{eq}(h)$, dBA = L_{max} @ 50-feet - 20log(D/50). D = distance of interest (100-feet). Source is CalTrans *Technical Noise Supplement* (2013).

2 - L_{max}Calc (dBA) = selected_L_{max} - 20*Log_{10}(distance source to receptor/reference distance). Source is the FHWA's *Roadway Construction Noise Model* (2006).

3 - Distances estimated using Google Earth. Represents distance between active mining area and the receptor. Per the 2008 FEIR, a 45-foot setback from the Carli property boundary and the mining area is included.

4 - Based on the EPA's *Protective Noise Levels* document (March, 1974), an outdoor to indoor attenuation of 20 dBA is assumed. This takes into account the average noise reduction provided while windows are closed (25 dBA) and while windows are open (15 dBA). This is a conservatively low estimate of noise attenuation as residence are expected to generally keep windows closed, especially those facing sources of noise. The 20 dBA attenuation is applied to the daytime L_{eq} and L_{max} values.

Initial Ground Preparation (Overburden Removal) - Mitigated Project Impacts

Due to 1,600-foot Concrete/Asphalt Plant Setback

Initial Ground Preparation (Overburden Removal) - Mitigated Noise Levels & Sacramento County Significance Determination

Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?
N1	**73.0**	**65**	**Yes**	80.8	105	No	**53.0**	**45**	**Yes**	60.8	85	No
N4	54.5	65	No	62.2	100	No	34.5	45	No	42.2	80	No
N5	70.5	75	No	78.3	110	No	50.5	55	No	58.3	90	No

Note: Values shown in **bold** represent an exceedance of the applicable Sacramento County General Plan significance threshold. Daytime = 7:00 AM-10:00 PM, Nighttime = 10:00 PM-7:00 AM.

Note: Project noise levels shown above take into account noise attenuation from the concrete/asphalt plant setback of 1,600 feet (see previous calculation sheet). The concrete/asphalt plant will be setback a minimum of 1,600 feet from impacted receptors (i.e. N1, N4, N5) as a mitigation measure to reduce noise impacts. The Facility areas farther than 1,600 feet from nearby receptors are displayed in Figure 6 (Appendix A). Per required mitigation measures, the concrete/asphalt should only operate in the areas shown on Figure 6 to ensure noise impacts to nearby receptors are less than significant.

Initial Ground Preparation (Overburden Removal) - Mitigated Project-Related Noise Level Increases @ Receptors

Site	Receptor Type	Ambient Daytime L_{eq}	Mitigated Equipment Noise @ Receptor[1]	Total Mitigated Noise Level @ Receptors	Change (dBA)[3]	Subjective Reaction[4]	Significant
N1	Residential	63.7	73.0	73.5	**9.7**	**About Twice as Loud**	**Yes**
N4	Residential	62.4	54.5	63.0	0.6	Imperceptible	No
N5	Residential	70.5	70.5	73.5	3.0	Just Barely Perceptible	No

Note: All values in units of dBA. Values shown in **bold** represent potentially significant impact. See Footnote #4 below for more detail.

Note: Project noise levels shown above take into account noise attenuation from the concrete/asphalt plant setback of 1,600 feet (see previous calculation sheet). The concrete/asphalt plant will be setback a minimum of 1,600 feet from impacted receptors (i.e. N1, N4, N5) as a mitigation measure to reduce noise impacts. The Facility areas farther than 1,600 feet from nearby receptors are displayed in Figure 6 (Appendix A). Per required mitigation measures, the concrete/asphalt should only operate in the areas shown on Figure 6 to ensure noise impacts to nearby receptors are less than significant.

FOOTNOTES:

1 - Please see the mitigation distance propagation noise calculations for concrete/asphalt plant presented in Appendix E. Project noise levels shown above take into account noise attenuation from the concrete/asphalt plant setback of 1,600 feet (see Appendix E). The concrete/asphalt plant minimum setback of 1,600 feet from impacted receptors (i.e. N1, N4, N5) will be required as a mitigation measure to reduce noise impacts to less than significant.

2 - Significance thresholds shown represent appropriate Sacramento County General Plan noise thresholds (see Appendix D for more detail). Please note that per Sacramento County General Plan guidelines, if the existing ambient noise levels at receptors exceeded the applicable standards, then the noise level standards were increased by +5 dB increments to encompass the ambient.

3 - Values shown represents the dBA increase in noise experienced at each receptor resulting from Project noise sources (i.e. mining equipment + concrete/asphalt plant). Please note, this noise level/noise increase takes into account the noise attenuation from the concrete/asphalt plant setback of 1,600 feet (see Appendix E). The concrete/asphalt plant minimum setback of 1,600 feet from impacted receptors (i.e. N1, N4, N5) will be required as a mitigation measure to reduce noise impacts. Also see Figure 6 (Appendix A) for Facility areas where concrete/asphalt plant operations (i.e. minimum of 1,600 feet from receptors) should be allowed.

4 - Subjective reaction shown based on test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). 1 dBA change = "Imperceptible", 3 dBA change = "Just Barely Perceptible", 6 dBA change = "Clearly Noticeable", 10 dBA change = "About Twice as Loud". Source: *Fundamentals of Noise and Vibration Analysis for Engineers* (Norton & Karczub, 2003) & Bollard Acoustical Consultants, Inc. (Bollard, 2005).

Initial Ground Preparation (Overburden Removal) - Mitigated Project Impacts

Due to 12-foot Mitigation Berm @ N1

Initial Ground Preparation (Overburden Removal) - Mitigated Noise Levels & Sacramento County Significance Determination

Site	Outdoor Area						Interior					
	Daytime						Daytime & Nighttime					
	L_{eq}			L_{max}			L_{eq}			L_{max}		
	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?	Project[1]	Threshold[2]	Significant?
N1	58.5	65	No	66.3	105	No	38.5	45	No	46.3	85	No

Note: A -14.5 dB reduction is applied to predicted source noise levels at Receptor N1 to account for noise attenuation provided by the installation of a 12-foot berm along the property boundary facing Receptor N1. Please see the berm insertion loss calculations presented in Appendix F (Mitigation Earthen Berm Insertion Loss Calculations) for the berm noise attenuation calculations. Also see the berm location shown on Figure 5 (Appendix A).

Initial Ground Preparation (Overburden Removal) - Mitigated Project-Related Noise Level Increases @ Receptors

Site	Receptor Type	Ambient Daytime L_{eq}	Mitigated Equipment Noise @ Receptor[1]	Total Mitigated Noise Level @ Receptors	Change (dBA)[3]	Subjective Reaction[4]	Significant
N1	Residential	63.7	59.0	65.0	1.2	Just Barely Perceptible	No

Note: A -14.5 dB reduction is applied to predicted source noise levels at Receptor N1 to account for noise attenuation provided by the installation of a 12-foot berm along the property boundary facing Receptor N1. Please see the berm insertion loss calculations presented in Appendix F (Mitigation Earthen Berm Insertion Loss Calculations) for the berm noise attenuation calculations. Also see the berm location shown on Figure 5 (Appendix A).

FOOTNOTES:

1 - Please see the source noise calculations for Initial Ground Preparation (Removal of Overburden) and Mining Operation (Extraction of Aggregate) presented in Appendix C. Values shown represents the noise level at each receptor resulting from operation of Project noise sources (i.e. mining equipment + RAP Plant). The -14.5 dB noise reduction due to the 12-foot tall mitigation berm is applied to the noise level at Receptor N1.

2 - Significance thresholds shown represent appropriate Sacramento County General Plan noise thresholds (see Appendix D for more detail). Please note that per Sacramento County General Plan guidelines, if the existing ambient noise levels at receptors exceeded the applicable standards, then the noise level standards were increased by +5 dB increments to encompass the ambient.

3 - Values shown represents the dBA increase in noise experienced at each receptor resulting from Project noise sources (i.e. mining equipment + RAP Plant). The -14.5 dB noise reduction due to the 12-foot tall berm is applied to the noise level at Receptor N1.

4 - Subjective reaction shown based on test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). 1 dBA change = "Imperceptible", 3 dBA change = "Just Barely Perceptible", 6 dBA change = "Clearly Noticeable", 10 dBA change = "About Twice as Loud". Source: *Fundamentals of Noise and Vibration Analysis for Engineers* (Norton & Karczub, 2003) & Bollard Acoustical Consultants, Inc. (Bollard, 2005).

APPENDIX F

Predicted Noise Attenuation due to Barrier Insertion Loss

Mining Operation (Aggregate Excavation) - Insertion Loss Calculations

Excavation Pit Wall Noise Attenuation (20-feet)

Insertion Loss Calculations @ N1

Insertion Loss (IL) Equation = 5dB + 20log((√2πN)/tanh(√2πN))dB

Source: Center for Transportation Research's *Design Guide for Highway Noise Barriers* (2003)

CalTrans *Technical Noise Supplement* offers the following guidance (CalTrans, 2013):
"Given the same site cross section, distance between source and receiver, and barrier height, a berm allows greater barrier attenuation than the thin screen (wedge), such as a soundwall. In general the actual extra attenuation associated with a berm is somewhere between 1 and 3 dBA."

Fresnel Number (N): $((a + b - \lambda)f)/c_0$

Note: Fresnel number (N) is a nondimensional measure of how much farther the sound must travel as a result of the barrier.

- λ - The original length of the direct path from source to receiver (ft.)
- a - Path length from barrier to source (ft.)
- b - Path length from barrier to receiver (ft.)
- f - Equipment sound frequency in hertz (Hz)
- c_0 - Speed of sound propagation in air (approximately 1,100 ft./sec.)

Project Data

λ -	117.04	feet[1]	(total distance between mining equipment and N1)
a -	45.71	feet[1]	(distance between proposed earthen berm and mining equipment)
b -	72.17	feet[1]	(distance between proposed earthen berm @ Facility boundary and N1)
f -	2000	hertz	(2000 is appropriate for crushing/screening)

Insertion Calculations @ N1

Barrier Height (ft.)	Top of Barrier to Source (a)	Top of Barrier to Receiver (b)	Source to Receiver (c)	Fresnel Number (N)	Estimated Insertion Loss (dB)[2]
20	**46.57**	**72.17**	**117.04**	**3.10**	**19.9**
22	47.13	72.17	117.04	4.11	21.1
24	47.76	72.17	117.04	5.26	22.2
26	48.47	72.17	117.04	6.55	23.1
28	49.24	72.17	117.04	7.96	24.0
30	50.09	72.17	117.04	9.50	24.8
32	51.00	72.17	117.04	11.15	25.5

Note: Normal mining operations will commence at a depth of 20-feet below grade, following initial ground preparation.

1 - Distances estimated using Google Earth. Represents distance between active mining area and the receptor. Please note, per the 2008 FEIR, a 45-foot setback from the Carli property boundary and the mining area is included.

2 - Per CalTrans *Technical Noise Supplement* (2013) guidance referenced above, an additional -2 dB of noise attenuation is assumed due to barrier being constructed of "earthen berm" as opposed to a soundwall.

Mitigation Berm Insertion Loss Calculations

Berm Sound Barrier Noise Attenuation

Insertion Loss Calculations @ N1

Insertion Loss (IL) Equation = 5dB + 20log((√2πN)/tanh(√2pN))dB

Source: Center for Transportation Research's *Design Guide for Highway Noise Barriers* (2003)

CalTrans *Technical Noise Supplement* offers the following guidance (CalTrans, 2013):
"Given the same site cross section, distance between source and receiver, and barrier height, a berm allows greater barrier attenuation than the thin screen (wedge), such as a soundwall. In general the actual extra attenuation associated with a berm is somewhere between 1 and 3 dBA."

Fresnel Number (N): $((a + b - \ell)f)/c_0$

Note: Fresnel number (N) is a nondimensional measure of how much farther the sound must travel as a result of the barrier.

- ℓ - The original length of the direct path from source to receiver (ft.)
- a - Path length from barrier to source (ft.)
- b - Path length from barrier to receiver (ft.)
- f - Equipment sound frequency in hertz (Hz)
- c_0 - Speed of sound propagation in air (approximately 1,100 ft./sec.)

Project Data

ℓ -	117.04	feet	(total distance between mining equipment and N1)
a -	45.71	feet	(distance between proposed earthen berm and mining equipment)
b -	72.17	feet	(distance between proposed earthen berm @ Facility boundary and N1)
f -	2000	hertz	(2000 is appropriate for crushing/screening)

Sound Berm Attenuation @ N1

Barrier Height (ft.)	Top of Barrier to Source (a)	Top of Barrier to Receiver (b)	Source to Receiver (c)	Fresnel Number (N)	Estimated Insertion Loss (dB)[1]
8	45.00	72.06	117.04	0.04	7.7
10	45.04	72.17	117.04	0.33	11.1
12	**45.18**	**72.34**	**117.04**	**0.87**	**14.5**
14	45.40	72.56	117.04	1.67	17.2
16	45.71	72.84	117.04	2.73	19.4
18	46.10	73.16	117.04	4.04	21.0
20	46.57	73.55	117.04	5.60	22.5
22	47.13	73.98	117.04	7.40	23.7

Note: Mining equipment (e.g. graders, excavators, dozers, etc.) height is estimated to be 8 feet. Therefore, to ensure line-of-sight is broken between equipment and receiver (i.e. N1), the minimum sound berm height should be 8 feet.

1 - Per CalTrans *Technical Noise Supplement* (2013) guidance referenced above, an additional -2 dB of noise attenuation is assumed due to barrier being constructed of "earthen berm" as opposed to a soundwall.

Berm Length Determination

Initial Ground Preparation (Overburden Removal) - Source Noise Data					
Equipment	**L_{eq} @ 50-feet**	**Reference Distance (ft.)**	**Usage Factor (%)**	**L_{eq} @ 100-feet[1]**	
Scraper (x2):	80	100	40%	**74.0**	**dBA**

Source: Bollard Acoustical Consultants, Inc. (2005). Federal Highway Administration (2006).

Receptor 1 (N1) - Initial Ground Preparation (Overburden Removal) Distance Propagation Calculations (dBA)						
Distance Source to Receptor (ft.)	**Predicted Outdoor Source Noise Level @ Receptor**			**Predicted Indoor Source Noise Level @ Receptor**		
	L_{eq}	**Threshold[2]**	**Significant?**	**L_{eq}**	**Threshold[2]**	**Significant?**
117	72.6	65	Yes	52.6	45.0	Yes
152	70.3	65	Yes	50.3	45.0	Yes
187	68.5	65	Yes	48.5	45.0	Yes
222	67.1	65	Yes	47.1	45.0	Yes
257	65.8	65	Yes	45.8	45.0	Yes
292	**64.7**	**65**	**No**	**44.7**	**45.0**	**No**
327	63.7	65	No	43.7	45.0	No

Receptor 1 (N1) - Initial Ground Preparation (Overburden Removal) Project-Related Noise Level Increases (dBA)						
Distance Source to Receptor (ft.)	**Ambient Daytime L_{eq}**	**Predicted Equipment Noise @ Receptor**	**Total Project Noise Level @ Receptors**	**Change (dBA)[3]**	**Subjective Reaction[4]**	**Significant**
292	63.7	64.7	67.2	3.5	Just Barely Perceptible	No

Note: As shown in the tables above, Project noise levels at Receptor 1 (N1) are expected to fall below the applicable Sacramento County General Plan noise thresholds and change criterion threshold (i.e. +6 dBA) once mining equipment is operating a minimum of 292-feet away from the receptor. As such, it is recommended the mitigation berm installed adjacent to N1 be a minimum of 300-feet long extending from the northwest corner of the mining boundary (Figure 5, Appendix A) to ensure noise impacts to N1 are less than significant.

FOOTNOTES:

1 - L_{eq}(h), dBA = L_{max} @ 50-feet - 20log(D/50) + 10log(UF). D = distance of interest (100-feet). UF = usage factor. Source is CalTrans *Technical Noise Supplement* (2013).

2 - Significance thresholds shown represent appropriate outdoor and indoor L_{eq} Sacramento County General Plan noise thresholds for Receptor 1 (N1).

3 - Value shown represents the dBA increase in noise experienced at N1 resulting from Project noise sources (i.e. mining equipment) when operating 292-feet away.

4 - Subjective reaction shown based on test subjects' reaction to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source (i.e. mining equipment). 1 dBA change = "Imperceptible", 3 dBA change = "Just Barely Perceptible", 6 dBA change = "Clearly Noticeable", 10 dBA change = "About Twice as Loud". Source: *Fundamentals of Noise and Vibration Analysis for Engineers* (Norton & Karczub, 2003) & Bollard Acoustical Consultants, Inc. (Bollard, 2005).

Mitigation Sound Barrier Insertion Loss Calculations

Concrete/Asphalt Plant Sound Barrier Noise Attenuation

Insertion Loss Calculations @ N1

Insertion Loss (IL) Equation = 5dB + 20log((√2πN)/tanh(√2pN))dB

Source: Center for Transportation Research's *Design Guide for Highway Noise Barriers* (2003)

Fresnel Number (N): $((a + b - \ell)f)/c_0$

Note: Fresnel number (N) is a nondimensional measure of how much farther the sound must travel as a result of the barrier.

ℓ - The original length of the direct path from source to receiver (ft.)
a - Path length from barrier to source (ft.)
b - Path length from barrier to receiver (ft.)
f - Equipment sound frequency in hertz (Hz)
c_0 - Speed of sound propagation in air (approximately 1,100 ft./sec.)

Project Data

ℓ -	117.04	feet	(total distance between mining equipment and N1)
a -	45.71	feet	(distance between proposed earthen berm and portable concrete/asphalt processing plant)
b -	72.17	feet	(distance between proposed sound barrier @ Facility boundary and N1)
f -	2000	hertz	(2000 is appropriate for crushing/screening)

Sound Barrier Attenuation @ N1

Barrier Height (ft.)	Top of Barrier to Source (a)	Top of Barrier to Receiver (b)	Source to Receiver (c)	Fresnel Number (N)	Estimated Insertion Loss (dB)
14	45.40	72.56	117.04	1.67	15.2
16	45.71	72.84	117.04	2.73	17.4
18	46.10	73.16	117.04	4.04	19.0
20	46.57	73.55	117.04	5.60	20.5
22	**47.13**	**73.98**	**117.04**	**7.40**	**21.7**
24	47.76	74.46	117.04	9.43	22.7
26	48.47	75.00	117.04	11.69	23.7
28	49.24	75.58	117.04	14.16	24.5

Note: The portable concrete/asphalt processing plant height is estimated to be 14 feet. Therefore, to ensure line-of-sight is broken between the plant and receivers (i.e. N1), the minimum sound berm height should be 14 feet.

APPENDIX G

Quest DL SoundPro & Quest QC-10 Certificates of Compliance & Calibration

Certificate of Compliance and Calibration

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Calibrated for:
Mr. Garrett Zuleger
Sespe Consulting, Inc.
374 Poli Street
Suite 200
Ventura, CA 93001

EDI Job#S-0422 Client#S-100 ID# 103

Manufacturer: Quest Technologies
Model Number: SoundPro DL-2-1/3 Sound Level Meter
Serial No.: BGI040008
Calibration Date: 15-Feb-16
Calibration Due Date: 15-Feb-17
Calibrated By: Stuart McGregor

As-Received Pre-Calibration Values	ANSI S1.4, 2006 Lower Tolerance	Actual Value	ANSI S1.4, 2006 Upper Tolerance	Compliance
Sound Pressure Level, dB at 1000 Hz	113.0 dB	**114.0 dB**	115.0 dB	Yes

Post-Calibration Values	ANSI S1.4, 2006 Lower Tolerance	Actual Value	ANSI S1.4, 2006 Upper Tolerance	Compliance
Sound Pressure Level, dB at 1000 Hz	113.0 dB	**114.0 dB**	115.0 dB	Yes

Acoustical Parameter Check	ANSI S1.4, 2006 Lower Tolerance	Actual Value	ANSI S1.4, 2006 Upper Tolerance	Compliance
Fast Response	107.0 dB	**109.0**	110.0 dB	Yes
Slow Response	104.9 dB	**105.6**	106.9 dB	Yes
Crest Factor	109.5 dB	**109.9**	111.0 dB	Yes
Peak Response	112.5 dB	**113.0**	113.5 dB	Yes

Linearity Check	dB Input Level at 1000 Hz				
	120.0 dB	110.0 dB	100.0 dB	90.0 dB	80.0 dB
Linearity Tolerance ±0.4 dB	120.1	110.0	100.0	90.1	80.1
Compliance	Yes	Yes	Yes	Yes	Yes

Range Check (at 1000 Hz)	100 dB Input Level			80 dB Input Level	
	120.0 dB	110.0 dB	100.0 dB	90.0 dB	80.0 dB
Range Tolerance ±0.7 dB	100.1	100.1	100.0	80.1	80.0
Compliance	Yes	Yes	Yes	Yes	Yes

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Certificate of Compliance and Calibration

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A-weighted Frequency Response with 100 dB Input					
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB
16	---	43.3	48.3	-56.7	+5/-∞
31.5	57.6	61.4	63.6	-39.4	± 3
63	71.8	73.8	75.8	-26.2	± 2
125	82.4	83.8	85.4	-16.1	± 1.5
250	89.9	91.3	92.9	-8.6	± 1.5
500	95.3	96.7	98.3	-3.2	± 1.5
1K REF.	98.5	100.0	101.5	0	± 1.5
2K	99.2	101.2	103.2	1.2	± 2
4K	98.0	101.4	104.0	1.0	± 3
8K	93.9	94.1	103.9	-1.1	± 5
16K	---	82.7	98.4	-6.6	+5/-∞

C-weighted Frequency Response with 100 dB Input					
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB
16	---	93.3	94.5	-8.5	+5/-∞
31.5	94.0	97.2	100.0	-3.0	± 3
63	97.2	99.1	101.2	-0.8	± 2
125	98.3	99.7	101.3	-0.2	± 1.5
250	98.5	99.9	101.5	0.0	± 1.5
500	98.5	99.9	101.5	0.0	± 1.5
1K REF.	98.5	99.9	101.5	0.0	± 1.5
2K	97.8	99.7	101.8	-0.2	± 2
4K	96.2	99.4	102.2	-0.8	± 3
8K	92.0	92.1	102.0	-3.0	± 5
16K	---	80.8	96.5	-8.5	+5/-∞

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Z-weighted Frequency Response with 100 dB Input					
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB
16	---	99.8	105.0	-1.0	+5/-∞
31.5	97.0	99.9	103.0	0.0	± 3
63	98.0	99.8	102.0	0.0	± 2
125	98.5	99.9	101.5	0.0	± 1.5
250	98.5	99.9	101.5	0.0	± 1.5
500	98.5	99.9	101.5	0.0	± 1.5
1K REF.	98.5	99.9	101.5	0.0	± 1.5
2K	98.0	99.8	102.0	0.0	± 2
4K	97.0	100.0	103.0	0.0	± 3
8K	95.0	95.4	105.0	0.0	± 5
16K	---	86.8	105.0	0.0	+5/-∞

F-weighted Frequency Response with 100 dB Input					
Frequency (Hz)	Min. dB	Response Level dB	Max. dB	Relative Response Level dB	Tolerance Limit dB
16	---	99.8	105.0	-1.0	+5/-∞
31.5	97.0	100.0	103.0	0.0	± 3
63	98.0	99.8	102.0	0.0	± 2
125	98.5	99.9	101.5	0.0	± 1.5
250	98.5	99.9	101.5	0.0	± 1.5
500	98.5	99.9	101.5	0.0	± 1.5
1K REF.	98.5	99.9	101.5	0.0	± 1.5
2K	98.0	99.9	102.0	0.0	± 2
4K	97.0	100.2	103.0	0.0	± 3
8K	95.0	95.1	105.0	0.0	± 5
16K	---	88.9	105.0	0.0	+5/-∞

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Certificate of Compliance and Calibration

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Laboratory Conditions during Calibration

Atmospheric Pressure	832.5 hPa
Laboratory Air Temperature	22.9 Deg. C
Laboratory Air Humidity	24.9%

Standards Used and Their Due Dates:

Measuring Amp	**B&K 2636**	**SN: 812847**	**Cert CAS-35712-B6Y0B0-101**	**02/12/17**
Piston Phone	**B&K 4228**	**SN: 1747024**	**Cert CAS-35720-Q4M3H8-902**	**02/23/17**
Calibrator	**B&K 4231**	**SN: 2122969**	**Cert CAS-35720-Q4M3H8-901**	**02/23/17**
Multimeter	**HP 34401A**	**SN: 3146A14478**	**Cert 1-6542185701-1**	**08/09/16**

Engineering Dynamics, Inc. does hereby certify that the above referenced SOUND LEVEL METER meets the requirements of the American National Standards Institute and/or, if applicable; OSHA, MSHA, and the Manufacturer's Specifications, and is traceable to NIST.

Certification of this instrument is valid for 1-year from the calibration date listed above. This certificate shall not be reproduced, except in full, without the written approval of Engineering Dynamics, Inc.

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Certificate of Compliance and Calibration

Calibrated for:
Mr. Garrett Zuleger
Sespe Consulting, Inc.
468 Poli Street
Suite 2E
Ventura, CA 93001

Job # CR-5497 ID: 103 Client #S-100

Manufacturer:	Quest Technologies
Model Number:	SoundPro DL Sound Level Meter
Serial No.:	BIJ090010
Calibration Date:	16-Sep-15
Calibration Due Date:	16-Sep-16

Calibration Conditions:

Pre-Calibration: Initial testing found the equipment to be **IN-SPECIFICATION** at the points tested – 114.0dB/1KHz=114.2dB

Post-calibration: At the completion of the calibration, measured values were **IN-SPECIFICATION** at the points tested – 114.0dB/1KHz=114.0dB

Laboratory Atmospheric Conditions during Calibration:

Pressure: 834.1 hPa. Temperature: 23.3 deg. C Humidity: 32.2 %

Standards Used and Their Due Dates:

Measuring Amp	B&K 2636	SN: 812847 Cert CAS-35712-B6Y0B0-101		02/12/17
Piston Phone	B&K 4228	SN: 1747024Cert CAS-35720-Q4M3H8-902		02/23/17
Calibrator	B&K 4231	SN: 2122969Cert CAS-35720-Q4M3H8-901		02/23/17
Multimeter	HP 34401A	SN: 3146A14478	Cert 1-6542185701-1	02/09/16

Engineering Dynamics, Inc. does hereby certify that the above referenced SOUND LEVEL METER meets the requirements of the American National Standards Institute and/or, if applicable; OSHA, MSHA, and the Manufacturer's Specifications, and is traceable to NIST.

Certification of this instrument is valid for 1-year from the calibration date listed above. This certificate shall not be reproduced, except in full, without the written approval of Engineering Dynamics, Inc.

SDM
CALIBRATED BY

Wednesday, September 16, 2015
DATE

Certificate of Compliance and Calibration

edi engineering dynamics incorporated

Calibrated for:
Mr. Garrett Zuleger
Sespe Consulting, Inc.
374 Poli Street
Suite 200
Ventura, CA 93001

EDI Job#S-0422 Client#S-100 ID# 103

Manufacturer: Quest Technologies
Model Number: QC-10 Calibrator
Serial No. : QIB070141
Calibration Date: 15-Feb-16
Calibration Due Date: 15-Feb-17
Calibrated By: Stuart McGregor

As-Received Pre-Calibration Values:

	ANSI S1.40, 2006 Lower Tolerance	Actual Value	ANSI S1.40, 2006 Upper Tolerance	Compliance
Sound Pressure Level, dB	113.6	114.0 dB	114.4	Yes
Acoustic Frequency, Hz	980.0	1,012.1 Hz	1020.0	Yes
AC Output Voltage	NA	1.002 Volts	NA	NA
AC Output Frequency	NA	1,012.1 Hz	NA	NA

Post-Calibration Values:

	ANSI S1.40, 2006 Lower Tolerance	Actual Value	ANSI S1.40, 2006 Upper Tolerance	Compliance
Acoustic Amplitude	113.6	114.0 dB	114.4	Yes
Acoustic Frequency	980.0	1,012.1 Hz	1020.0	Yes
AC Output Voltage	NA	1.002 Volts	NA	NA
AC Output Frequency	NA	1,012.1 Hz	NA	NA

Laboratory Conditions during Calibration

Atmospheric Pressure	832.5 hPa
Laboratory Air Temperature	22.9 Deg. C
Laboratory Air Humidity	24.9%

Standards Used and Their Due Dates:

Measuring Amp	**B&K 2636**	**SN: 812847**	**Cert CAS-35712-B6Y0B0-101**	**02/12/17**
Piston Phone	**B&K 4228**	**SN: 1747024**	**Cert CAS-35720-Q4M3H8-902**	**02/23/17**
Calibrator	**B&K 4231**	**SN: 2122969**	**Cert CAS-35720-Q4M3H8-901**	**02/23/17**
Multimeter	**HP 34401A**	**SN: 3146A14478**	**Cert 1-6542185701-1**	**08/09/16**

Engineering Dynamics, Inc. does hereby certify that the above referenced DOSIMETER meets the requirements of the American National Standards Institute and/or, if applicable; OSHA, MSHA, and the Manufacturer's Specifications, and is traceable to NIST.

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Certificate of Compliance and Calibration

Calibrated for:
Mr. Garrett Zuleger
Sespe Consulting, Inc.
468 Poli Street
Suite 2E
Ventura, CA 93001

Job # CR-5497 ID: 103 Client #S-100

Model Number: QC-10 Calibrator
Serial No. : QIJ090052
Calibration Date: 16-Sep-15
Calibration Due Date: 16-Sep-16

Calibration Conditions:
Pre-Calibration: Initial testing found the equipment to be **IN-SPECIFICATION** at the points tested.
114.0dB/1KHz=114.0dB
Post-calibration: At the completion of the calibration, measured values were **IN-SPECIFICATION** at the points tested 114.0dB/1KHz=114.0dB

Laboratory Atmospheric Conditions:
PRESSURE: 834.1 hPa. TEMPERATURE: 23.3 deg. C HUMIDITY: 32.2 %

Standards Used and Their Due Dates:

Measuring Amp	**B&K 2636**	**SN: 812847**	**Cert CAS-35712-B6Y0B0-101**	**02/12/17**
Piston Phone	**B&K 4228**	**SN: 1747024**	**Cert CAS-35720-Q4M3H8-902**	**02/23/17**
Calibrator	**B&K 4231**	**SN: 2122969**	**Cert CAS-35720-Q4M3H8-901**	**02/23/17**
Multimeter	**HP 34401A**	**SN: 3146A14478**	**Cert 1-6542185701-1**	**02/09/16**

Engineering Dynamics, Inc. does hereby certify that the above referenced DOSIMETER meets the requirements of the American National Standards Institute and/or, if applicable; OSHA, MSHA, and the Manufacturer's Specifications, and is traceable to NIST.

Certification for this instrument is valid for *one year* from the calibration date of this certificate. This certificate shall not be reproduced, except in full, without the written approval of Engineering Dynamics, Inc.

SDM Wednesday, September 16, 2015
CALIBRATED BY **DATE**