

# ACOUSTICAL ANALYSIS REPORT

3730 Francis Avenue Battery Storage Project  
San Bernardino County, California

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194-1376-0001

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## Table of Contents

- 1.0 OVERVIEW.....1**
  - 1.1 Project Setting ..... 1
  - 1.2 Acoustical Metrics and Terminology..... 1
  - 1.3 Vibration Metrics and Terminology..... 4
  - 1.4 Noise Sensitive Areas..... 5
  
- 2.0 NOISE AND VIBRATION LEVEL REQUIREMENTS AND GUIDELINES .....5**
  - 2.1 California Environmental Quality Act ..... 5
  - 2.2 San Bernardino County Code of Ordinances..... 6
  
- 3.0 EXISTING SOUND ENVIRONMENT .....6**
  
- 4.0 PROJECT CONSTRUCTION.....6**
  - 4.1 Noise Calculation Methodology ..... 6
  - 4.2 Projected Noise Levels During Construction ..... 7
  - 4.3 Construction Noise Mitigation ..... 7
  - 4.4 Vibration Calculation Methodology ..... 10
  - 4.5 Projected Vibration Levels During Construction ..... 10
  
- 5.0 OPERATIONAL NOISE..... 10**
  - 5.1 Noise Prediction Model ..... 10
  - 5.2 Input To the Noise Prediction Model ..... 11
  - 5.3 Results Of the Noise Prediction Model..... 14
  
- 6.0 CONCLUSION..... 42**
  
- 7.0 REFERENCES ..... 42**

## List of Tables

Table 1.	Sound Pressure Levels and Relative Loudness of Noise Sources and Acoustic Environments .....	3
Table 2.	Acoustic Terms and Definitions .....	3
Table 3.	Typical Levels of Ground-Borne Vibration .....	4
Table 4.	Noise Standards for Stationary Noise Sources .....	6
Table 5.	Projected Construction Noise Levels by Stage (dBA L <sub>eq</sub> ) .....	9
Table 6.	Project Equipment Sound Power Levels .....	13
Table 7.	Project Equipment Mitigated Sound Power Levels.....	13
Table 8.	Transmission and Sub-transmission Line Voltage and Audible Noise Levels.....	13
Table 9.	Daytime Acoustic Modeling Results Summary with Mitigation.....	16
Table 10.	Nighttime Acoustic Modeling Results Summary with Mitigation .....	28
Table A-1.	Daytime Acoustic Modeling Results Summary without Mitigation .....	44
Table A-2.	Nighttime Acoustic Modeling Results Summary without Mitigation .....	56

## List of Figures

Figure 1.	Project Location .....	2
Figure 2.	Facility Equipment Layout .....	12
Figure 3.	Normal Project Operation, Received Sound Levels .....	15

## List of Appendices

Appendix A	Unmitigated Operational Sound Levels
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## Acronyms and Abbreviations

μPa	microPascal
ANSI	American National Standards Institute
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
dB(L)	linear decibel
FTA	Federal Transit Administration
HVAC	Heating, Ventilation and Air Conditioning
Hz	hertz
in/sec	inch per second
ISO	International Organization for Standardization
Leq	equivalent sound level
LP	sound pressure level
kV	kilovolt
NSA	Noise Sensitive Area
PPV	Peak-Particle-Velocity
Project	Crossroads Energy Storage
Tetra Tech	Tetra Tech, Inc.
USEPA	United States Environmental Protection Agency
VdB	vibration decibel

## 1.0 OVERVIEW

Tetra Tech, Inc. (Tetra Tech) has prepared this noise impact assessment for the proposed 3730 Francis Avenue Battery Storage Project (Project) to support an evaluation of compliance with applicable California Environmental Quality Act (CEQA) noise requirements and county noise ordinances, which are detailed in Section 2.0 of this report. Capacity Power Group LLC (Capacity Power) in coordination with ENGIE Distributed Storage Development LLC (ENGIE), is proposing to construct and operate the 3730 Francis Avenue Battery Storage Project, a 40-megawatt, 160-megawatt-hour stand-alone energy storage facility to provide reliable and flexible power to the local electrical system. The property on which the Project would be built on consists of approximately 1.5 acres of land that would interconnect at the immediately adjacent Southern California Edison (SCE) Francis Substation via a 66-kilovolt interconnection generation tie (gen-tie) line. The Project site and the substation are each located in the sphere of influence of the city of Chino in San Bernardino County, California.

### 1.1 PROJECT SETTING

The Project site is approximately 1 mile north of Highway 60 and approximately 2.8 miles south of Interstate 10, adjacent to the city of Pomona boundary (Figure 1). The SCE Francis Substation is directly north of the Project site. The physical address of the Project site is 3730 Francis Avenue, Chino, California 91766. The Project site is bounded by property owned by the SCE Francis Substation zoned as RS-1 to the north, a single-family residence on Single Residential (RS)-zoned property to the east, a shipping yard on Single-Residential Minimum 20,000 Square Feet (RS-20M)-zoned property to the south across Francis Avenue, and three properties consisting of a warehouse and shipping in the community industrial (CI) zone to the west across S. East End Avenue.

### 1.2 ACOUSTICAL METRICS AND TERMINOLOGY

All sounds originate with a source, whether it is a human voice, motor vehicles on a roadway, or a combustion turbine. Energy is required to produce sound and this sound energy is transmitted through the air in the form of sound waves – tiny, quick oscillations of pressure just above and just below atmospheric pressure. These oscillations, or sound pressures, impinge on the ear, creating the sound we hear. A sound source is defined by a sound power level (abbreviated “LW”), which is independent of any external factors. By definition, sound power is the rate at which acoustical energy is radiated outward and is expressed in units of watts.

A source sound power level cannot be measured directly. It is calculated from measurements of sound intensity or sound pressure at a given distance from the source outside the acoustic and geometric near-field. A sound pressure level (abbreviated “LP”) is a measure of the sound wave fluctuation at a given receiver location and can be obtained through the use of a microphone or calculated from information about the source sound power level and the surrounding environment. The sound pressure level in decibels (dB) is the logarithm of the ratio of the sound pressure of the source to the reference sound pressure of 20 microPascals ( $\mu\text{Pa}$ ), multiplied by 20. The range of sound pressures that can be detected by a person with normal hearing is very wide, ranging from about 20  $\mu\text{Pa}$  for very faint sounds at the threshold of hearing, to nearly 10 million  $\mu\text{Pa}$  for extremely loud sounds such as a jet during take-off at a distance of 300 feet.







Sound can be measured, modeled, and presented in various formats, with the most common metric being the equivalent sound level (Leq). Leq has been shown to provide both an effective and uniform method for comparing time-varying sound levels and is widely used in acoustic assessments in the State of California. Estimates of noise sources and outdoor acoustic environments, and the comparison of relative loudness are presented in Table 1. Table 2 presents additional reference information on terminology used in the report.

**Table 1. Sound Pressure Levels and Relative Loudness of Noise Sources and Acoustic Environments**

Noise Source or Activity	Sound Level (dBA)	Subjective Impression
Vacuum cleaner (10 feet)	70	Moderate
Passenger car at 65 miles per hour (25 feet)	65	
Large store air-conditioning unit (20 feet)	60	
Light auto traffic (100 feet)	50	Quiet
Quiet rural residential area with no activity	45	
Bedroom or quiet living room; Bird calls	40	Faint
Typical wilderness area	35	
Quiet library, soft whisper (15 feet)	30	Very quiet
Wilderness with no wind or animal activity	25	Extremely quiet
High-quality recording studio	20	
Acoustic test chamber	10	Just audible
	0	Threshold of hearing

Adapted from: Kurze and Beranek (1988) and USEPA (1971)

**Table 2. Acoustic Terms and Definitions**

Term	Definition
Noise	Typically defined as unwanted sound. This word adds the subjective response of humans to the physical phenomenon of sound. It is commonly used when negative effects on people are known to occur.
Sound Pressure Level (L <sub>p</sub> )	Pressure fluctuations in a medium. Sound pressure is measured in dB referenced to 20 μPa, the approximate threshold of human perception to sound at 1,000 Hz.
Sound Power Level (L <sub>w</sub> )	The total acoustic power of a noise source measured in dB referenced to picowatts (one trillionth of a watt). Noise specifications are provided by equipment manufacturers as sound power as it is independent of the environment in which it is located. A sound level meter does not directly measure sound power.
Equivalent Sound Level (L <sub>eq</sub> )	The L <sub>eq</sub> is the continuous equivalent sound level, defined as the single sound pressure level that, if constant over the stated measurement period, would contain the same sound energy as the actual monitored sound that is fluctuating in level over the measurement period.
A-Weighted Decibel (dBA)	Environmental sound is typically composed of acoustic energy across all frequencies. To compensate for the auditory frequency response of the human ear, an A-weighting filter is commonly used for describing environmental sound levels. Sound levels that are A-weighted are presented as dBA in this report.
Unweighted Decibels (dBL)	Unweighted sound levels are referred to as linear. Linear decibels are used to determine a sound's tonality and to engineer solutions to reduce or control noise as techniques are different for low and high frequency noise. Sound levels that are linear are presented as dBL in this report.
Propagation and Attenuation	Propagation is the decrease in amplitude of an acoustic signal due to geometric spreading losses with increased distance from the source. Additional sound attenuation factors include air absorption, terrain effects, sound interaction with the ground, diffraction of sound around objects and topographical features, foliage, and meteorological conditions including wind velocity, temperature, humidity, and atmospheric conditions.

Term	Definition
Community Noise Equivalent Level (CNEL)	The CNEL represents a 24-hour A-weighted sound level average conducted from midnight to midnight, where sound levels during the evening hours of 19:00 to 22:00 have an added 5 dB weighting and the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting.

### 1.3 VIBRATION METRICS AND TERMINOLOGY

Vibration is an oscillatory motion that is described in terms of displacement, velocity, or acceleration. Velocity is the most common descriptor used when evaluating human perception or structural damage. Velocity represents the instantaneous speed of movement and more accurately describes the response of humans, buildings, and equipment to vibrations.

Peak-Particle-Velocity (PPV) and root mean square velocity are typical metrics used to describe vibration levels in units of inches per second in the United States. However, to evaluate annoyance to humans, the vibration dB (VdB) notation is commonly used. The decibel notation acts to compress the range of numbers required to describe vibration. In the United States, the accepted velocity reference for converting to dB is  $1 \times 10^{-6}$  inches per second. The abbreviation “VdB” is used for vibration dB to reduce the potential for confusion with sound decibels.

In contrast to airborne noise, ground-borne vibration is not an everyday occurrence for humans. The background vibration velocity levels within residential areas are usually 50 VdB or lower, which is well below the human perception threshold of approximately 65 VdB. However, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. For a significant impact to occur, vibration levels must exceed 72 VdB during frequent events, 75 VdB for occasional events, and 80 VdB during infrequent events (Federal Transit Administration 2006). Outdoor sources that generate perceptible ground-borne vibrations are typically construction equipment, steel-wheeled trains, and traffic on rough roadways. Table 3 provides common vibration sources as well as human and structural response to ground-borne vibrations.

**Table 3. Typical Levels of Ground-Borne Vibration**

Human/Structural Response	PPV (in/sec)	Velocity Level (VdB)*	Typical sources (50 feet from source)
Threshold, Minor Cosmetic Damage, Fragile Buildings	0.4	100	Blasting from Construction Projects
	0.17-0.2	92-94	Heavy Tracked Construction Equipment
Difficulty with Tasks, Such as Reading a Computer Screen	0.125	90	
	0.074	85	Commuter Rail, Upper Range
Residential Annoyance, Infrequent Events	0.04	80	Rapid Transit, Upper Range
	0.013	75	Commuter Rail, Typical
	0.023	72	Bus or Truck Bump Over
Residential Annoyance, Frequent Events	0.013	70	Rapid Transit, Typical
Approximate Threshold of Human Perception	0.007	65	
	0.005	62	Bus or Truck, Typical
	0.0013	50	Typical Background Vibration Levels

\*RMS Vibration Velocity in VdB reference to  $10^{-6}$  inches/second  
Source: FTA (2006)



The degree of annoyance cannot always be explained by the magnitude of the vibrations alone. Phenomena, such as ground-borne noise and rattling, visual effects (e.g., movement of hanging objects), and time of day, all influence the response of individuals. The American National Standards Institute (ANSI) and the International Organization for Standardization (ISO) has developed criteria for evaluation of human exposure to vibrations. The recommendations of these standards and other studies evaluating human response to vibrations have been incorporated into the Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment Manual (May 2006). The criteria within this manual are used to assess noise and vibration impacts from transit operations.

## **1.4 NOISE SENSITIVE AREAS**

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause physiological and psychological stress and hearing loss. Given these effects, some land uses are considered more sensitive to noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. These locations are referred to as noise sensitive areas (NSAs). Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate also are NSAs. Commercial and industrial uses are considered the least noise sensitive. As shown in Figure 1, there are 509 NSAs identified within a half-mile of the proposed Project site.

## **2.0 NOISE AND VIBRATION LEVEL REQUIREMENTS AND GUIDELINES**

Potential noise impacts associated with the Project were evaluated with respect to the applicable CEQA noise requirements and the San Bernardino County Code of Ordinances. Details regarding each set of requirements are provided below.

### **2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT**

CEQA requires that significant environmental impacts be identified and that such impacts be eliminated or mitigated to the extent feasible. Appendix G of the CEQA Statutes and Guidelines (Association of Environmental Professionals, 2022) sets forth a series of suggested thresholds for determining a potentially significant impact. Under the thresholds suggested in Appendix G, the proposed project could be considered to have significant noise and vibration impacts if it results in one or more of the following:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b) Generation of excessive groundborne vibration or groundborne noise levels?
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The CEQA Statutes and Guidelines Appendix G thresholds for item (a) do not define the term “substantial”; however, the California Energy Commission provides guidelines for operational noise or permanent increases which indicate that an increase of 5 dBA over ambient conditions may be significant and an increase of 10 dBA is significant (CEC 2010).

## 2.2 SAN BERNARDINO COUNTY CODE OF ORDINANCES

San Bernardino County regulates noise through the County Code of Ordinances, Title 8: Development Code, Division 3: Countywide Development Standards, Chapter 83.01.080: General Performance Standards – Noise. Per table 83-2, exterior noise for stationary sources at noise sensitive areas is limited as shown in Table 4, depending on the receiving land use, measured immediately within the property line. A general standard for maximum vibration level is provided as 0.2 inches per second at the receiving property line, however temporary construction between 7:00 a.m. and 7:00 p.m. is exempt from this standard.

**Table 4. Noise Standards for Stationary Noise Sources**

Affected Land Uses (Receiving Noise)	7:00 a.m. - 10:00 p.m. Leq (dBA)	10:00 p.m. - 7:00 a.m. Leq (dBA)
Residential	55	45
Professional Services	55	55
Other Commercial	60	60
Industrial	70	70

## 3.0 EXISTING SOUND ENVIRONMENT

The Project site is surrounded by many residential properties, most immediately bounded by the SCE Francis Substation to the north, a single-family residence to the east, a shipping yard to the south across Francis Avenue, and three properties consisting of a warehouse and shipping to the west across S. East End Avenue. The ambient noise level at the Project address is 60 dBA CNEL, based on the County of San Bernadino existing noise contour map (County of San Bernardino 2020). This existing sound level is equivalent to a daytime sound level of 60 dBA  $L_{eq}$  and a nighttime sound level of 45 dBA  $L_{eq}$ .

The most significant sources of noise in the area are vehicular traffic on the local street network. Noise is also generated on individual parcels whether industrial, office, retail or residential.

## 4.0 PROJECT CONSTRUCTION

### 4.1 NOISE CALCULATION METHODOLOGY

Acoustic emission levels for activities associated with Project construction were based upon typical ranges of energy equivalent noise levels at construction sites, as documented by the United States Environmental Protection Agency (USEPA 1971) and the USEPA’s “Construction Noise Control Technology Initiatives” (USEPA 1980). The USEPA methodology distinguishes between type of construction and construction stage.

The basic model assumed spherical wave divergence from a point source located at the closest boundary line of the Project site to each receptor structure. Furthermore, the model conservatively assumed that all pieces of construction equipment associated with an activity would operate simultaneously for the duration of that activity. An additional level of conservatism was built into the construction noise model by excluding potential shielding effects due to intervening structures and buildings along the propagation path from the site to receiver locations.

## 4.2 PROJECTED NOISE LEVELS DURING CONSTRUCTION

The construction processes are anticipated to occur during a period of approximately 9 months and begin in mid-2023. Project construction would generally consist of four major stages:

1. Site and Substation Preparation and Grading
2. Energy Storage Enclosure and Substation Installation
3. Gen-tie Construction
4. Testing and Commissioning

Table 5 summarizes the projected noise levels at varying distances to Project construction. There is one residential structure located 30 feet from the project boundary, which is within the 80 dBA to 90 dBA noise range.

Noise levels resulting from the construction activities would vary significantly depending on several factors such as the type and age of equipment, specific equipment manufacture and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. Furthermore, all reasonable efforts would be made to minimize the impact of noise resulting from construction activities including implementation of standard noise reduction measures. Due to the infrequent nature of loud construction activities at the site, the limited hours of construction and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be a less than significant impact.

## 4.3 CONSTRUCTION NOISE MITIGATION

Since construction equipment operates intermittently, and the types of equipment in use at the Project site change with the stage of construction, noise emitted during construction would be mobile and highly variable, making it challenging to control. The construction management protocols would include the following noise mitigation measures to minimize noise impacts:

- Maintain all construction tools and equipment in good operating order according to manufacturers' specifications;
- Limit use of major excavating and earth-moving machinery to 7:00 am – 7:00 pm;
- To the extent practicable, schedule construction activity during normal working hours on weekdays when higher sound levels are typically present and are found acceptable. Some limited activities, such as concrete pours, would be required to occur continuously until completion;



- Equip any internal combustion engine used for any purpose on the job or related to the job with a properly operating muffler that is free from rust, holes, and leaks;
- For construction devices that utilize internal combustion engines, ensure the engine's housing doors are kept closed, and install noise-insulating material mounted on the engine housing consistent with manufacturers' guidelines, if possible;
- Limit possible evening shift work to low noise activities such as welding, wire pulling, and other similar activities, together with appropriate material handling equipment; and
- Utilize a Complaint Resolution Procedure to address any noise complaints received from residents.

**Table 5. Projected Construction Noise Levels by Stage (dBA L<sub>eq</sub>)**

Construction Stage	Equipment				Construction Noise Level, dBA					
	Equipment Type	Quantity	Usage Factor (%)	Noise Level (50 feet), dBA	50 feet	100 feet	250 feet	500 feet	1,000 feet	2,000 feet
Site and Substation Preparation and Grading Excavation	Graders	1	40	81	90	84	76	70	64	58
	Off-Highway Trucks	2	40	83						
	Rollers	1	20	78						
	Rubber Tired Dozers	1	40	81						
	Rubber Tired Loaders	1	40	76						
	Skid Steer Loaders	1	40	76						
	Tractors/Loaders/Backhoes	1	40	80						
	Trenchers	1	50	79						
	Air Compressor	2	40	79						
	Generator (24 hours)	2	50	82						
	Dump Truck	1	40	80						
	Water Trucks	1	40	51						
	Utilities/Sub-grade	Backhoe	1	40						
Compactor		1	20	73						
Air Compressor		1	40	76						
Crane		1	16	77						
Excavator		1	40	81						
Forklift		1	20	78						
Loader		1	40	76						
Generator		2	50	82						
Roller		1	20	78						
Tractor		1	40	80						
Construction	Air Compressor	2	40	79	87	81	73	67	61	55
	Crane	2	16	80						
	Forklift	2	20	81						
	Generator (24 hours)	2	50	82						
	Pumps	2	50	77						
	Welder	2	40	72						
Paving	Off-Highway Trucks	2	40	83	83	77	69	63	57	51

#### 4.4 VIBRATION CALCULATION METHODOLOGY

Vibration levels for activities associated with Project construction were based on the average of source levels in PPV published with the FTA (2018) Noise and Vibration Manual, which documents several types of construction equipment measured under a wide variety of construction activities. Using the documented vibration levels as input into a basic propagation model, construction vibration levels were calculated at the nearest Project site boundary and then at the NSA structure.

#### 4.5 PROJECTED VIBRATION LEVELS DURING CONSTRUCTION

As discussed in Section 4.2, Project construction would be completed in four work stages. This vibration analysis evaluated the worst-case vibration source, which would be the roller. Based on vibration propagation calculations, construction vibration levels are predicted to be 0.16 PPV in/sec, or 92 VdB, at the nearest non-participating residential receptor, which is approximately 65 feet from the site. These levels are based on the worst-case vibration producing equipment and it is expected that other vibration generating equipment proposed for the Project construction would result in lower vibration levels. Vibration levels at the nearest non-participating sensitive receptor will be above the human threshold of perception for vibration (65 VdB), as well as the threshold of significance for frequent events (72 VdB), but below San Bernardino County's construction vibration criteria (0.2 PPV in/sec).

### 5.0 OPERATIONAL NOISE

This section describes the model utilized for the assessment, input assumptions used to calculate noise levels due to the Project's normal operation, and the results of the noise impact analysis.

#### 5.1 NOISE PREDICTION MODEL

The Cadna-A® computer noise model was used to calculate sound pressure levels from the operation of the Project equipment in the vicinity of the Project site. An industry standard, Cadna-A® was developed by DataKustik GmbH to provide an estimate of sound levels at distances from sources of known emission. It is used by acousticians and acoustic engineers due to the capability to accurately describe noise emission and propagation from complex facilities consisting of various equipment types like the Project and in most cases, yields conservative results of operational noise levels in the surrounding community.

The current ISO standard for outdoor sound propagation, ISO 9613 Part 2 – “Attenuation of Sound during Propagation Outdoors,” was used within Cadna-A (ISO 1996). The method described in this standard calculates sound attenuation under weather conditions that are favorable for sound propagation, such as for downwind propagation or atmospheric inversion, conditions which are typically considered worst-case. The calculation of sound propagation from source to receiver locations consists of full octave band sound frequency algorithms, which incorporate the following physical effects:

- Geometric spreading wave divergence;
- Reflection from surfaces;



- Atmospheric absorption at 10 degrees Celsius and 70 percent relative humidity;
- Screening by topography and obstacles;
- The effects of terrain features including relative elevations of noise sources;
- Sound power levels from stationary and mobile sources;
- The locations of noise-sensitive land use types;
- Intervening objects including buildings and barrier walls, to the extent included in the design;
- Ground effects due to areas of pavement and unpaved ground;
- Sound power at multiple frequencies;
- Source directivity factors;
- Multiple noise sources and source type (point, area, and/or line); and
- Averaging predicted sound levels over a given time.

Cadna-A allows for three basic types of sound sources to be introduced into the model: point, line, and area sources. Each noise-radiating element was modeled based on its noise emission pattern. Larger dimensional sources such as the transformers were modeled as area sources.

Off-site topography was obtained using the publicly available United States Geological Survey digital elevation data. A default ground attenuation factor of 0.5 was assumed for off-site sound propagation over acoustically “mixed” ground.

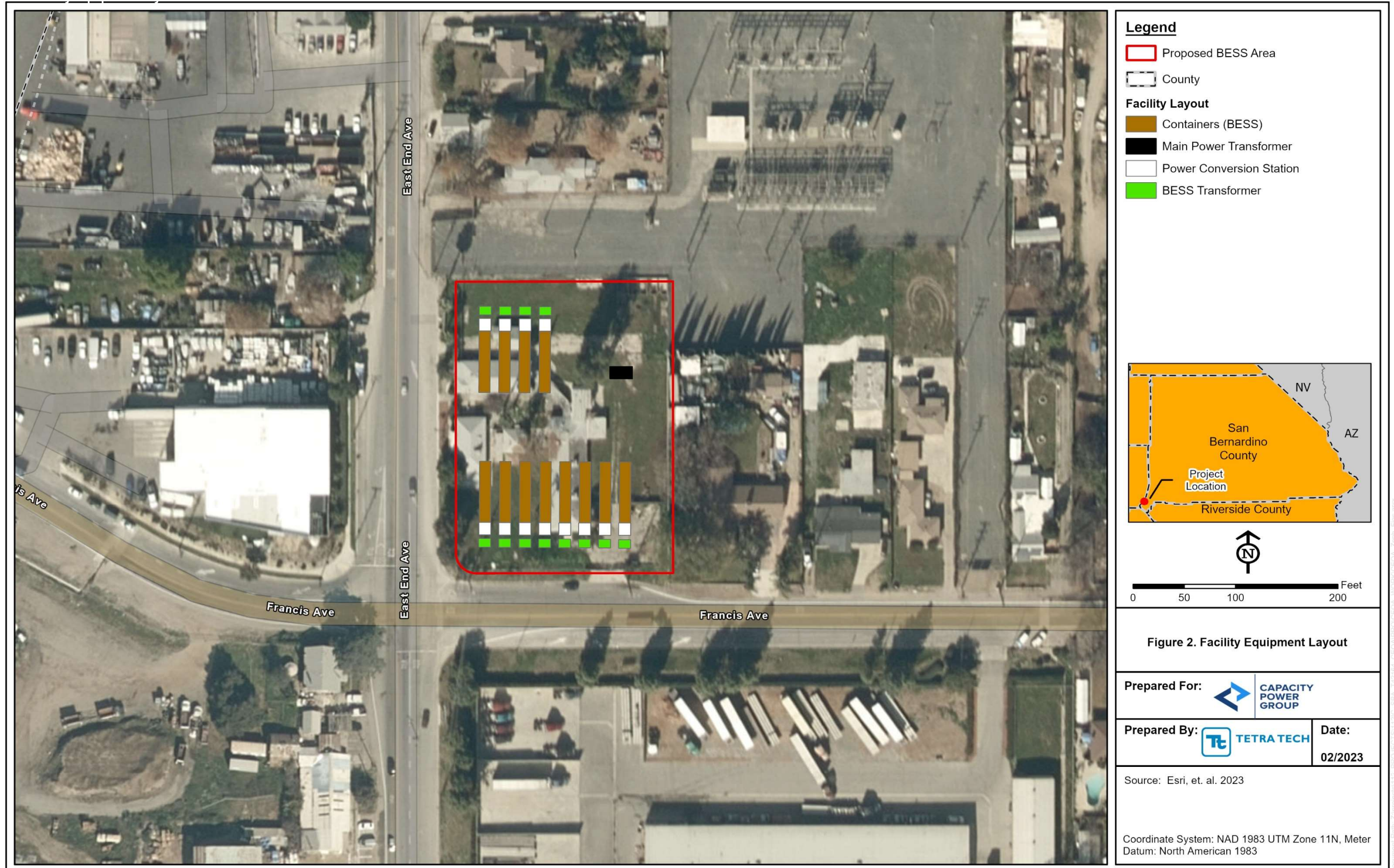
The output from Cadna-A includes tabular sound level results at selected receiver locations and colored noise contour maps (isopleths) that show areas of equal and similar sound levels.

## 5.2 INPUT TO THE NOISE PREDICTION MODEL

The Project’s general arrangement was reviewed and directly imported into the acoustic model so that on-site equipment could be easily identified; buildings and structures could be added; and sound emission data could be assigned to sources as appropriate. Figure 2 shows the Project equipment layout based on the layout, which was provided to Tetra Tech from Capacity Power.

The primary noise sources during operations are the transformers and battery storage Heating, Ventilation and Air Conditioning (HVAC) units. It is expected that all equipment would operate in a consistent manner during both daytime and nighttime hours. Reference sound power levels input to Cadna-A were provided by Capacity Power where available and supplemented by reasonable assumptions otherwise. Modeling was conducted iteratively, reducing equipment levels to determine the required equipment levels to avoid any exceedances. Tables 6 and 7 summarize the sound power levels in the acoustic model, before and after the mitigation iteration.





**Legend**

- Proposed BESS Area
- County

**Facility Layout**

- Containers (BESS)
- Main Power Transformer
- Power Conversion Station
- BESS Transformer

San Bernardino County  
Project Location  
Riverside County  
NV  
AZ

0 50 100 200 Feet

North Arrow

Figure 2. Facility Equipment Layout

Prepared For: CAPACITY POWER GROUP

Prepared By: TETRA TECH Date: 02/2023

Source: Esri, et. al. 2023

Coordinate System: NAD 1983 UTM Zone 11N, Meter Datum: North American 1983

Not for Construction



**Table 6. Project Equipment Sound Power Levels**

Equipment	Octave-Band Sound Power Levels (dBA)									
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Lw (dBA)
BESS Transformer	39	58	70	73	78	75	71	66	57	82
HVAC		57	56	64	71	75	73	66	58	79
Power Conversion Systems	41	63	80	88	93	93	89	82	73	97
Substation Transformer	59	78	90	92	98	95	91	86	77	101

**Table 7. Project Equipment Mitigated Sound Power Levels**

Equipment	Octave-Band Sound Power Levels (dBA)									
	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Lw (dBA)
BESS Transformer	36	55	67	70	75	72	68	63	54	79
HVAC		57	56	64	71	75	73	66	58	79
Power Conversion Systems	24	45	62	70	75	75	71	64	55	80
Substation Transformer	40	59	71	73	79	76	72	67	58	82

The proposed battery energy storage system would deliver power to the existing SCE Francis Substation located adjacent to the Project Site through a new 66 kilovolt gen-tie line. SCE would also install minor equipment upgrades to the existing Francis Substation. The Electric Power Research Institute has conducted several studies of corona effects (EPRI 1978, 1987). The typical noise levels for transmission lines with wet conductors are shown in Table 8. Since the Project gen-tie line is low-voltage, its noise contribution is considered to be insignificant. Therefore, the gen-tie line was not included in the acoustic model.

**Table 8. Transmission and Sub-transmission Line Voltage and Audible Noise Levels**

Line Voltage (kV)	Audible Noise Level Directly Below the Conductor (dBA)
138	34
240	40
360	51

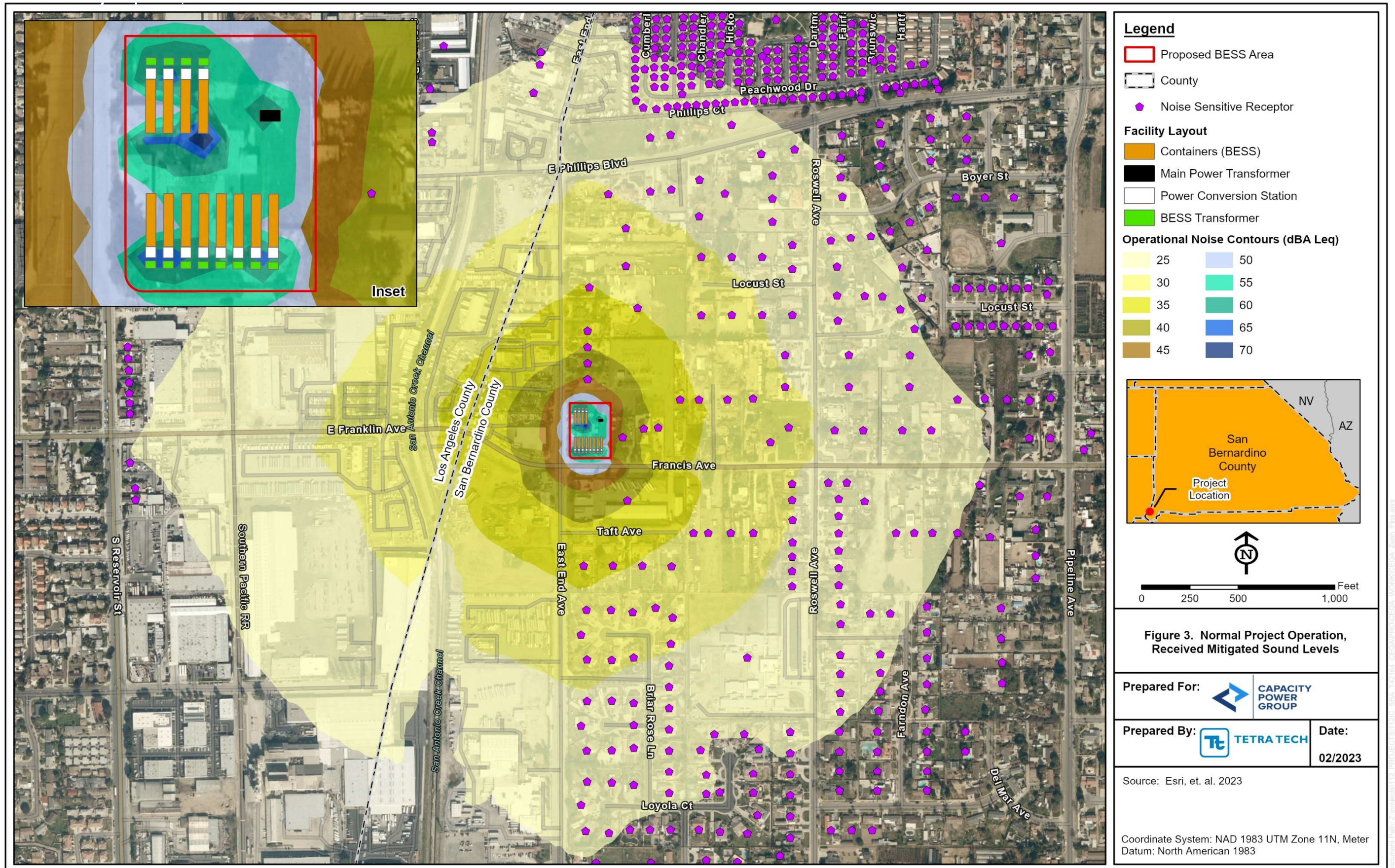


### 5.3 RESULTS OF THE NOISE PREDICTION MODEL

Broadband (dBA) sound pressure levels were calculated for expected normal Project operation assuming that all components identified previously are operating continuously and concurrently at the representative manufacturer-rated sound during daytime and nighttime hours. The sound energy was then summed to determine the equivalent continuous A-weighted downwind sound pressure level at a point of reception. Sound contour plots displaying the mitigated broadband (dBA) sound levels presented as color-coded isopleths are provided in Figure 3. The sound contours are graphical representations of the cumulative noise associated with full operation of the equipment and show how operational noise would be distributed over the surrounding area of the Project site. The contour lines shown are analogous to elevation contours on a topographic map, i.e., the noise contours are continuous lines of equal noise level around some source, or sources, of noise.

Tables 9 and 10 shows the projected exterior mitigated sound levels at the property boundary of each NSA for both the daytime and nighttime periods. Modeled noise levels at all receivers are less than 50 dBA, which represent a less than 1 dB increase in ambient noise levels for the daytime periods. The overall increase to the nighttime sound levels will be less than 3 dB. The results indicate that the Project will successfully comply with the applicable County of San Bernardino noise regulations. The unmitigated results are presented in Appendix A.





Not for Construction



**Table 9. Daytime Acoustic Modeling Results Summary with Mitigation**

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-1	433633	3767536	60	22	60	0
NSA-2	433482	3767673	60	22	60	0
NSA-3	433337	3767678	60	23	60	0
NSA-4	433369	3766274	60	24	60	0
NSA-5	433418	3766271	60	23	60	0
NSA-6	433485	3766281	60	23	60	0
NSA-7	433180	3766447	60	28	60	0
NSA-8	433220	3766448	60	27	60	0
NSA-9	433254	3766452	60	27	60	0
NSA-10	433578	3766817	60	28	60	0
NSA-11	433505	3766810	60	30	60	0
NSA-12	433181	3767033	60	45	60	0
NSA-13	433214	3767326	60	30	60	0
NSA-14	433280	3767330	60	29	60	0
NSA-15	433581	3767353	60	25	60	0
NSA-16	433643	3767524	60	22	60	0
NSA-17	433329	3767528	60	25	60	0
NSA-18	433346	3767528	60	25	60	0
NSA-19	433662	3767525	60	22	60	0
NSA-20	433551	3767528	60	23	60	0
NSA-21	433569	3767528	60	23	60	0
NSA-22	433374	3767532	60	25	60	0
NSA-23	433391	3767531	60	24	60	0
NSA-24	433259	3767616	60	24	60	0
NSA-25	433353	3767678	60	23	60	0
NSA-26	433380	3767678	60	22	60	0
NSA-27	433396	3767678	60	22	60	0
NSA-28	433360	3766448	60	26	60	0
NSA-29	433382	3766473	60	27	60	0
NSA-30	433452	3766449	60	22	60	0
NSA-31	433834	3766624	60	23	60	0
NSA-32	433717	3766634	60	25	60	0
NSA-33	433171	3766630	60	32	60	0
NSA-34	433581	3766647	60	27	60	0
NSA-35	433493	3767021	60	30	60	0
NSA-36	433594	3767021	60	28	60	0
NSA-37	433690	3767021	60	26	60	0
NSA-38	433652	3767336	60	24	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-39	433314	3767333	60	29	60	0
NSA-40	433473	3767356	60	27	60	0
NSA-41	433358	3767349	60	28	60	0
NSA-42	433419	3767535	60	24	60	0
NSA-43	433437	3767535	60	24	60	0
NSA-44	433691	3767530	60	22	60	0
NSA-45	433712	3767532	60	22	60	0
NSA-46	433597	3767534	60	23	60	0
NSA-47	433615	3767534	60	23	60	0
NSA-48	433257	3767539	60	25	60	0
NSA-49	433464	3767537	60	24	60	0
NSA-50	433481	3767537	60	24	60	0
NSA-51	433291	3767626	60	24	60	0
NSA-52	433288	3767686	60	23	60	0
NSA-53	433501	3766309	60	23	60	0
NSA-54	433429	3766473	60	26	60	0
NSA-55	433501	3766477	60	26	60	0
NSA-56	433579	3766477	60	25	60	0
NSA-57	433639	3766477	60	24	60	0
NSA-58	433310	3766481	60	27	60	0
NSA-59	433717	3766477	60	23	60	0
NSA-60	433778	3766477	60	23	60	0
NSA-61	433504	3766843	60	30	60	0
NSA-62	433181	3767059	60	42	60	0
NSA-63	433181	3767084	60	40	60	0
NSA-64	433327	3767001	60	36	60	0
NSA-65	433357	3767001	60	35	60	0
NSA-66	433398	3767327	60	28	60	0
NSA-67	433643	3767371	60	24	60	0
NSA-68	433723	3767379	60	23	60	0
NSA-69	433581	3767383	60	25	60	0
NSA-70	433780	3767379	60	22	60	0
NSA-71	433507	3767539	60	23	60	0
NSA-72	433272	3767523	60	26	60	0
NSA-73	433287	3767542	60	25	60	0
NSA-74	433304	3767541	60	25	60	0
NSA-75	433523	3767539	60	23	60	0
NSA-76	433644	3767540	60	22	60	0
NSA-77	433316	3767522	60	25	60	0
NSA-78	433330	3767544	60	25	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-79	433308	3767625	60	24	60	0
NSA-80	433424	3767689	60	22	60	0
NSA-81	433440	3767688	60	22	60	0
NSA-82	433180	3766669	60	34	60	0
NSA-83	433219	3766669	60	33	60	0
NSA-84	433578	3766844	60	29	60	0
NSA-85	433402	3767001	60	33	60	0
NSA-86	433443	3767003	60	32	60	0
NSA-87	433493	3767072	60	30	60	0
NSA-88	433594	3767072	60	27	60	0
NSA-89	433690	3767071	60	26	60	0
NSA-90	433765	3767001	60	25	60	0
NSA-91	433808	3767003	60	25	60	0
NSA-92	433843	3767001	60	24	60	0
NSA-93	433878	3767072	60	23	60	0
NSA-94	433912	3767076	60	22	60	0
NSA-95	433456	3767390	60	26	60	0
NSA-96	433508	3767397	60	25	60	0
NSA-97	433346	3767544	60	25	60	0
NSA-98	433662	3767540	60	22	60	0
NSA-99	433551	3767543	60	23	60	0
NSA-100	433569	3767543	60	23	60	0
NSA-101	433360	3767525	60	25	60	0
NSA-102	433374	3767547	60	24	60	0
NSA-103	433391	3767547	60	24	60	0
NSA-104	433419	3767550	60	24	60	0
NSA-105	433554	3767625	60	22	60	0
NSA-106	433572	3767625	60	22	60	0
NSA-107	433479	3767602	60	23	60	0
NSA-108	433259	3767631	60	24	60	0
NSA-109	433466	3767688	60	22	60	0
NSA-110	433215	3766317	60	25	60	0
NSA-111	433178	3766319	60	26	60	0
NSA-112	433171	3766486	60	29	60	0
NSA-113	433580	3766508	60	25	60	0
NSA-114	433641	3766510	60	25	60	0
NSA-115	433253	3766665	60	32	60	0
NSA-116	433289	3766672	60	32	60	0
NSA-117	433316	3766657	60	31	60	0
NSA-118	433434	3766594	60	28	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-119	433581	3766678	60	27	60	0
NSA-120	433628	3766663	60	26	60	0
NSA-121	433659	3766663	60	26	60	0
NSA-122	433717	3766674	60	25	60	0
NSA-123	433834	3766672	60	23	60	0
NSA-124	433645	3767406	60	24	60	0
NSA-125	433723	3767413	60	23	60	0
NSA-126	433780	3767414	60	22	60	0
NSA-127	433280	3767416	60	27	60	0
NSA-128	433312	3767420	60	27	60	0
NSA-129	433437	3767550	60	24	60	0
NSA-130	433597	3767549	60	23	60	0
NSA-131	433615	3767549	60	22	60	0
NSA-132	433257	3767555	60	25	60	0
NSA-133	433465	3767552	60	24	60	0
NSA-134	433481	3767553	60	24	60	0
NSA-135	433334	3767632	60	23	60	0
NSA-136	433379	3767632	60	23	60	0
NSA-137	433351	3767632	60	23	60	0
NSA-138	433395	3767632	60	23	60	0
NSA-139	433247	3767687	60	23	60	0
NSA-140	433248	3766322	60	25	60	0
NSA-141	433280	3766322	60	25	60	0
NSA-142	433313	3766322	60	25	60	0
NSA-143	433357	3766322	60	24	60	0
NSA-144	433390	3766319	60	24	60	0
NSA-145	433566	3766321	60	23	60	0
NSA-146	433598	3766321	60	23	60	0
NSA-147	433631	3766321	60	22	60	0
NSA-148	433434	3766316	60	24	60	0
NSA-149	433310	3766514	60	28	60	0
NSA-150	433715	3766512	60	24	60	0
NSA-151	433244	3766842	60	40	60	0
NSA-152	433562	3766870	60	29	60	0
NSA-153	433591	3766870	60	29	60	0
NSA-154	433349	3766790	60	34	60	0
NSA-155	433372	3766790	60	34	60	0
NSA-156	433408	3766790	60	32	60	0
NSA-157	433443	3766790	60	31	60	0
NSA-158	433504	3766868	60	30	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-159	433864	3766849	60	24	60	0
NSA-160	433907	3766849	60	23	60	0
NSA-161	433619	3766840	60	28	60	0
NSA-162	433583	3767419	60	24	60	0
NSA-163	433288	3767557	60	25	60	0
NSA-164	433304	3767557	60	25	60	0
NSA-165	433507	3767555	60	23	60	0
NSA-166	433523	3767555	60	23	60	0
NSA-167	433292	3767641	60	24	60	0
NSA-168	433309	3767641	60	23	60	0
NSA-169	433307	3767691	60	23	60	0
NSA-170	433287	3767702	60	23	60	0
NSA-171	433317	3767703	60	22	60	0
NSA-172	433336	3767704	60	22	60	0
NSA-173	433351	3767703	60	22	60	0
NSA-174	433367	3767703	60	22	60	0
NSA-175	433501	3766343	60	24	60	0
NSA-176	433450	3766345	60	24	60	0
NSA-177	433668	3766790	60	27	60	0
NSA-178	433697	3766790	60	26	60	0
NSA-179	433726	3766790	60	26	60	0
NSA-180	433765	3766790	60	25	60	0
NSA-181	433800	3766867	60	25	60	0
NSA-182	433817	3766784	60	24	60	0
NSA-183	433181	3767110	60	39	60	0
NSA-184	433763	3767117	60	24	60	0
NSA-185	433783	3767117	60	24	60	0
NSA-186	433802	3767117	60	23	60	0
NSA-187	433409	3767435	60	26	60	0
NSA-188	433643	3767437	60	23	60	0
NSA-189	433723	3767446	60	23	60	0
NSA-190	433290	3767460	60	26	60	0
NSA-191	433779	3767449	60	22	60	0
NSA-192	433644	3767556	60	22	60	0
NSA-193	433330	3767559	60	24	60	0
NSA-194	433347	3767559	60	24	60	0
NSA-195	433662	3767556	60	22	60	0
NSA-196	433551	3767559	60	23	60	0
NSA-197	433569	3767559	60	23	60	0
NSA-198	433424	3767643	60	23	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-199	433439	3767643	60	22	60	0
NSA-200	433465	3767643	60	22	60	0
NSA-201	433482	3767643	60	22	60	0
NSA-202	433509	3767642	60	22	60	0
NSA-203	433525	3767642	60	22	60	0
NSA-204	433382	3767703	60	22	60	0
NSA-205	433181	3766525	60	30	60	0
NSA-206	433220	3766526	60	29	60	0
NSA-207	433254	3766522	60	29	60	0
NSA-208	433820	3767118	60	23	60	0
NSA-209	433839	3767118	60	23	60	0
NSA-210	433857	3767118	60	23	60	0
NSA-211	433876	3767118	60	23	60	0
NSA-212	433698	3767113	60	25	60	0
NSA-213	433895	3767118	60	22	60	0
NSA-214	433916	3767117	60	22	60	0
NSA-215	433576	3767126	60	27	60	0
NSA-216	433308	3767464	60	26	60	0
NSA-217	433323	3767465	60	26	60	0
NSA-218	433338	3767466	60	26	60	0
NSA-219	433353	3767467	60	26	60	0
NSA-220	433269	3767463	60	27	60	0
NSA-221	433368	3767468	60	26	60	0
NSA-222	433384	3767469	60	25	60	0
NSA-223	433399	3767470	60	25	60	0
NSA-224	433414	3767471	60	25	60	0
NSA-225	433375	3767562	60	24	60	0
NSA-226	433392	3767562	60	24	60	0
NSA-227	433420	3767565	60	24	60	0
NSA-228	433457	3767544	60	24	60	0
NSA-229	433439	3767565	60	24	60	0
NSA-230	433335	3767648	60	23	60	0
NSA-231	433351	3767648	60	23	60	0
NSA-232	433379	3767647	60	23	60	0
NSA-233	433396	3767647	60	23	60	0
NSA-234	433171	3766361	60	26	60	0
NSA-235	433369	3766378	60	25	60	0
NSA-236	433580	3766538	60	26	60	0
NSA-237	433643	3766541	60	25	60	0
NSA-238	433310	3766548	60	29	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-239	433504	3766706	60	29	60	0
NSA-240	433578	3766708	60	27	60	0
NSA-241	433409	3767135	60	31	60	0
NSA-242	433457	3767135	60	30	60	0
NSA-243	433505	3767135	60	29	60	0
NSA-244	433361	3767134	60	33	60	0
NSA-245	433429	3767472	60	25	60	0
NSA-246	433444	3767473	60	25	60	0
NSA-247	433613	3767477	60	23	60	0
NSA-248	433460	3767475	60	25	60	0
NSA-249	433475	3767476	60	25	60	0
NSA-250	433258	3767474	60	27	60	0
NSA-251	433490	3767477	60	24	60	0
NSA-252	433505	3767477	60	24	60	0
NSA-253	433521	3767478	60	24	60	0
NSA-254	433537	3767479	60	24	60	0
NSA-255	433597	3767565	60	22	60	0
NSA-256	433616	3767565	60	22	60	0
NSA-257	433257	3767570	60	25	60	0
NSA-258	433288	3767572	60	25	60	0
NSA-259	433305	3767572	60	24	60	0
NSA-260	433644	3767571	60	22	60	0
NSA-261	433331	3767574	60	24	60	0
NSA-262	433348	3767574	60	24	60	0
NSA-263	433501	3766376	60	24	60	0
NSA-264	433443	3766380	60	24	60	0
NSA-265	433310	3766380	60	26	60	0
NSA-266	433579	3766384	60	24	60	0
NSA-267	433639	3766384	60	23	60	0
NSA-268	433717	3766384	60	23	60	0
NSA-269	433717	3766552	60	24	60	0
NSA-270	433836	3766554	60	22	60	0
NSA-271	433889	3766719	60	23	60	0
NSA-272	433504	3766730	60	29	60	0
NSA-273	433675	3767143	60	25	60	0
NSA-274	433907	3767167	60	22	60	0
NSA-275	433709	3767162	60	25	60	0
NSA-276	433575	3767165	60	27	60	0
NSA-277	433184	3767178	60	35	60	0
NSA-278	433260	3767146	60	35	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-279	433763	3767177	60	24	60	0
NSA-280	433783	3767177	60	23	60	0
NSA-281	433802	3767177	60	23	60	0
NSA-282	433553	3767480	60	24	60	0
NSA-283	433568	3767482	60	24	60	0
NSA-284	433675	3767486	60	23	60	0
NSA-285	433583	3767483	60	23	60	0
NSA-286	433331	3767484	60	26	60	0
NSA-287	433598	3767485	60	23	60	0
NSA-288	433256	3767493	60	26	60	0
NSA-289	433552	3767574	60	23	60	0
NSA-290	433569	3767574	60	22	60	0
NSA-291	433376	3767577	60	24	60	0
NSA-292	433393	3767577	60	24	60	0
NSA-293	433420	3767580	60	23	60	0
NSA-294	433291	3767656	60	23	60	0
NSA-295	433247	3767715	60	23	60	0
NSA-296	433288	3767718	60	23	60	0
NSA-297	433306	3767720	60	22	60	0
NSA-298	433181	3766398	60	27	60	0
NSA-299	433220	3766396	60	27	60	0
NSA-300	433580	3766568	60	26	60	0
NSA-301	433644	3766570	60	25	60	0
NSA-302	433578	3766735	60	28	60	0
NSA-303	433965	3766922	60	23	60	0
NSA-304	433820	3767177	60	23	60	0
NSA-305	433839	3767177	60	23	60	0
NSA-306	433858	3767177	60	22	60	0
NSA-307	433877	3767177	60	22	60	0
NSA-308	433909	3767188	60	22	60	0
NSA-309	433647	3767164	60	26	60	0
NSA-310	433619	3767165	60	26	60	0
NSA-311	433735	3767492	60	22	60	0
NSA-312	433614	3767488	60	23	60	0
NSA-313	433287	3767495	60	26	60	0
NSA-314	433303	3767495	60	26	60	0
NSA-315	433329	3767497	60	26	60	0
NSA-316	433346	3767498	60	25	60	0
NSA-317	433598	3767580	60	22	60	0
NSA-318	433616	3767580	60	22	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-319	433258	3767585	60	25	60	0
NSA-320	433309	3767656	60	23	60	0
NSA-321	433424	3767658	60	22	60	0
NSA-322	433254	3766392	60	26	60	0
NSA-323	433369	3766409	60	26	60	0
NSA-324	433310	3766581	60	30	60	0
NSA-325	433504	3766753	60	29	60	0
NSA-326	433470	3766934	60	32	60	0
NSA-327	433976	3766948	60	23	60	0
NSA-328	433237	3766942	60	45	60	0
NSA-329	433878	3766941	60	24	60	0
NSA-330	433242	3767212	60	33	60	0
NSA-331	433505	3767207	60	28	60	0
NSA-332	433575	3767211	60	27	60	0
NSA-333	433678	3767210	60	25	60	0
NSA-334	433361	3767226	60	30	60	0
NSA-335	433652	3767494	60	23	60	0
NSA-336	433668	3767496	60	22	60	0
NSA-337	433373	3767500	60	25	60	0
NSA-338	433390	3767501	60	25	60	0
NSA-339	433683	3767498	60	22	60	0
NSA-340	433289	3767587	60	24	60	0
NSA-341	433306	3767587	60	24	60	0
NSA-342	433440	3767658	60	22	60	0
NSA-343	433466	3767658	60	22	60	0
NSA-344	433482	3767658	60	22	60	0
NSA-345	433509	3767657	60	22	60	0
NSA-346	433369	3766218	60	23	60	0
NSA-347	433443	3766411	60	22	60	0
NSA-348	433501	3766410	60	25	60	0
NSA-349	433310	3766414	60	26	60	0
NSA-350	433579	3766415	60	24	60	0
NSA-351	433639	3766415	60	24	60	0
NSA-352	433717	3766415	60	23	60	0
NSA-353	433836	3766586	60	23	60	0
NSA-354	433578	3766762	60	28	60	0
NSA-355	433889	3766755	60	23	60	0
NSA-356	433175	3766738	60	37	60	0
NSA-357	433221	3766739	60	36	60	0
NSA-358	433268	3766739	60	35	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-359	433314	3766737	60	34	60	0
NSA-360	433912	3766941	60	23	60	0
NSA-361	433499	3766957	60	31	60	0
NSA-362	433409	3767226	60	30	60	0
NSA-363	433457	3767226	60	29	60	0
NSA-364	433505	3767245	60	28	60	0
NSA-365	433717	3767237	60	24	60	0
NSA-366	433565	3767252	60	26	60	0
NSA-367	433419	3767503	60	25	60	0
NSA-368	433437	3767504	60	25	60	0
NSA-369	433698	3767500	60	22	60	0
NSA-370	433713	3767501	60	22	60	0
NSA-371	433257	3767509	60	26	60	0
NSA-372	433464	3767506	60	24	60	0
NSA-373	433481	3767507	60	24	60	0
NSA-374	433332	3767589	60	24	60	0
NSA-375	433349	3767589	60	24	60	0
NSA-376	433552	3767589	60	22	60	0
NSA-377	433570	3767589	60	22	60	0
NSA-378	433259	3767661	60	24	60	0
NSA-379	433335	3767663	60	23	60	0
NSA-380	433352	3767663	60	23	60	0
NSA-381	433380	3767663	60	23	60	0
NSA-382	433396	3767662	60	22	60	0
NSA-383	433195	3766224	60	24	60	0
NSA-384	433282	3766224	60	23	60	0
NSA-385	433418	3766221	60	23	60	0
NSA-386	433485	3766234	60	22	60	0
NSA-387	433390	3766381	60	24	60	0
NSA-388	433580	3766598	60	26	60	0
NSA-389	433644	3766599	60	25	60	0
NSA-390	433717	3766593	60	24	60	0
NSA-391	433505	3766775	60	30	60	0
NSA-392	433571	3766953	60	29	60	0
NSA-393	433617	3766953	60	28	60	0
NSA-394	433678	3766953	60	27	60	0
NSA-395	433724	3766953	60	26	60	0
NSA-396	433597	3767257	60	26	60	0
NSA-397	433629	3767259	60	25	60	0
NSA-398	433242	3767272	60	31	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-399	433659	3767267	60	25	60	0
NSA-400	433473	3767283	60	27	60	0
NSA-401	433834	3767248	60	22	60	0
NSA-402	433507	3767508	60	24	60	0
NSA-403	433286	3767511	60	26	60	0
NSA-404	433303	3767511	60	26	60	0
NSA-405	433523	3767509	60	24	60	0
NSA-406	433329	3767513	60	25	60	0
NSA-407	433346	3767513	60	25	60	0
NSA-408	433377	3767592	60	23	60	0
NSA-409	433393	3767592	60	23	60	0
NSA-410	433405	3767551	60	24	60	0
NSA-411	433421	3767596	60	23	60	0
NSA-412	433339	3767660	60	23	60	0
NSA-413	433463	3767674	60	22	60	0
NSA-414	433485	3766258	60	22	60	0
NSA-415	433501	3766443	60	25	60	0
NSA-416	433180	3766591	60	31	60	0
NSA-417	433220	3766590	60	31	60	0
NSA-418	433254	3766594	60	30	60	0
NSA-419	433578	3766790	60	28	60	0
NSA-420	433270	3766955	60	40	60	0
NSA-421	433293	3766957	60	39	60	0
NSA-422	433358	3767291	60	29	60	0
NSA-423	433690	3767282	60	24	60	0
NSA-424	433473	3767319	60	27	60	0
NSA-425	433731	3767503	60	22	60	0
NSA-426	433551	3767511	60	23	60	0
NSA-427	433569	3767512	60	23	60	0
NSA-428	433374	3767516	60	25	60	0
NSA-429	433390	3767516	60	25	60	0
NSA-430	433419	3767519	60	25	60	0
NSA-431	433437	3767519	60	24	60	0
NSA-432	433598	3767595	60	22	60	0
NSA-433	433617	3767595	60	22	60	0
NSA-434	433258	3767600	60	24	60	0
NSA-435	433290	3767603	60	24	60	0
NSA-436	433307	3767602	60	24	60	0
NSA-437	433290	3767671	60	23	60	0
NSA-438	433309	3767671	60	23	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-439	433424	3767673	60	22	60	0
NSA-440	433440	3767673	60	22	60	0
NSA-441	433466	3767673	60	22	60	0
NSA-442	433514	3767571	60	23	60	0
NSA-443	433195	3766269	60	25	60	0
NSA-444	433282	3766269	60	24	60	0
NSA-445	433579	3766446	60	24	60	0
NSA-446	433310	3766447	60	27	60	0
NSA-447	433639	3766446	60	24	60	0
NSA-448	433717	3766446	60	23	60	0
NSA-449	433778	3766446	60	22	60	0
NSA-450	433313	3766615	60	30	60	0
NSA-451	433254	3766488	60	28	60	0
NSA-452	433889	3766796	60	23	60	0
NSA-453	433879	3767000	60	24	60	0
NSA-454	433912	3767004	60	23	60	0
NSA-455	433584	3767322	60	26	60	0
NSA-456	433720	3767305	60	23	60	0
NSA-457	433763	3767321	60	23	60	0
NSA-458	433809	3767321	60	22	60	0
NSA-459	433854	3767321	60	22	60	0
NSA-460	433597	3767517	60	23	60	0
NSA-461	433615	3767518	60	23	60	0
NSA-462	433257	3767524	60	26	60	0
NSA-463	433464	3767522	60	24	60	0
NSA-464	433481	3767522	60	24	60	0
NSA-465	433507	3767524	60	24	60	0
NSA-466	433287	3767526	60	25	60	0
NSA-467	433303	3767526	60	25	60	0
NSA-468	433523	3767524	60	23	60	0
NSA-469	433333	3767605	60	24	60	0
NSA-470	433349	3767605	60	24	60	0
NSA-471	433553	3767604	60	22	60	0
NSA-472	433571	3767604	60	22	60	0
NSA-473	433377	3767608	60	23	60	0
NSA-474	433394	3767608	60	23	60	0
NSA-475	432459	3766902	60	25	60	0
NSA-476	432467	3766861	60	24	60	0
NSA-477	432468	3766843	60	24	60	0
NSA-478	432457	3767047	60	24	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-479	432458	3767028	60	24	60	0
NSA-480	432459	3766979	60	25	60	0
NSA-481	432458	3766995	60	25	60	0
NSA-482	432458	3767011	60	24	60	0
NSA-483	432456	3767066	60	24	60	0
NSA-484	432456	3767085	60	24	60	0
NSA-485	432467	3767155	60	23	60	0
NSA-486	432466	3767173	60	23	60	0
NSA-487	432466	3767192	60	23	60	0
NSA-488	432465	3767210	60	23	60	0
NSA-489	432465	3767228	60	23	60	0
NSA-490	432464	3767246	60	23	60	0
NSA-491	432467	3767265	60	23	60	0
NSA-492	432954	3767560	60	24	60	0
NSA-493	433107	3767551	60	25	60	0
NSA-494	433146	3767676	60	24	60	0
NSA-495	433187	3767729	60	23	60	0
NSA-496	432952	3767644	60	23	60	0
NSA-497	432953	3767626	60	23	60	0
NSA-498	433096	3767486	60	26	60	0
NSA-499	433106	3767531	60	25	60	0
NSA-500	432933	3767492	60	25	60	0
NSA-501	432936	3767408	60	26	60	0
NSA-502	432936	3767423	60	26	60	0
NSA-503	432886	3767383	60	26	60	0
NSA-504	432782	3767463	60	24	60	0
NSA-505	432830	3767398	60	25	60	0
NSA-506	432849	3767398	60	25	60	0
NSA-507	432886	3767414	60	25	60	0
NSA-508	432858	3767439	60	25	60	0
NSA-509	432858	3767457	60	24	60	0

Table 10. Nighttime Acoustic Modeling Results Summary with Mitigation

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-1	433633	3767536	45	22	45	0
NSA-2	433482	3767673	45	22	45	0
NSA-3	433337	3767678	45	23	45	0



NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-4	433369	3766274	45	24	45	0
NSA-5	433418	3766271	45	23	45	0
NSA-6	433485	3766281	45	23	45	0
NSA-7	433180	3766447	45	28	45	0
NSA-8	433220	3766448	45	27	45	0
NSA-9	433254	3766452	45	27	45	0
NSA-10	433578	3766817	45	28	45	0
NSA-11	433505	3766810	45	30	45	0
NSA-12	433181	3767033	45	45	48	3
NSA-13	433214	3767326	45	30	45	0
NSA-14	433280	3767330	45	29	45	0
NSA-15	433581	3767353	45	25	45	0
NSA-16	433643	3767524	45	22	45	0
NSA-17	433329	3767528	45	25	45	0
NSA-18	433346	3767528	45	25	45	0
NSA-19	433662	3767525	45	22	45	0
NSA-20	433551	3767528	45	23	45	0
NSA-21	433569	3767528	45	23	45	0
NSA-22	433374	3767532	45	25	45	0
NSA-23	433391	3767531	45	24	45	0
NSA-24	433259	3767616	45	24	45	0
NSA-25	433353	3767678	45	23	45	0
NSA-26	433380	3767678	45	22	45	0
NSA-27	433396	3767678	45	22	45	0
NSA-28	433360	3766448	45	26	45	0
NSA-29	433382	3766473	45	27	45	0
NSA-30	433452	3766449	45	22	45	0
NSA-31	433834	3766624	45	23	45	0
NSA-32	433717	3766634	45	25	45	0
NSA-33	433171	3766630	45	32	45	0
NSA-34	433581	3766647	45	27	45	0
NSA-35	433493	3767021	45	30	45	0
NSA-36	433594	3767021	45	28	45	0
NSA-37	433690	3767021	45	26	45	0
NSA-38	433652	3767336	45	24	45	0
NSA-39	433314	3767333	45	29	45	0
NSA-40	433473	3767356	45	27	45	0
NSA-41	433358	3767349	45	28	45	0
NSA-42	433419	3767535	45	24	45	0
NSA-43	433437	3767535	45	24	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-44	433691	3767530	45	22	45	0
NSA-45	433712	3767532	45	22	45	0
NSA-46	433597	3767534	45	23	45	0
NSA-47	433615	3767534	45	23	45	0
NSA-48	433257	3767539	45	25	45	0
NSA-49	433464	3767537	45	24	45	0
NSA-50	433481	3767537	45	24	45	0
NSA-51	433291	3767626	45	24	45	0
NSA-52	433288	3767686	45	23	45	0
NSA-53	433501	3766309	45	23	45	0
NSA-54	433429	3766473	45	26	45	0
NSA-55	433501	3766477	45	26	45	0
NSA-56	433579	3766477	45	25	45	0
NSA-57	433639	3766477	45	24	45	0
NSA-58	433310	3766481	45	27	45	0
NSA-59	433717	3766477	45	23	45	0
NSA-60	433778	3766477	45	23	45	0
NSA-61	433504	3766843	45	30	45	0
NSA-62	433181	3767059	45	42	47	2
NSA-63	433181	3767084	45	40	46	1
NSA-64	433327	3767001	45	36	46	1
NSA-65	433357	3767001	45	35	45	0
NSA-66	433398	3767327	45	28	45	0
NSA-67	433643	3767371	45	24	45	0
NSA-68	433723	3767379	45	23	45	0
NSA-69	433581	3767383	45	25	45	0
NSA-70	433780	3767379	45	22	45	0
NSA-71	433507	3767539	45	23	45	0
NSA-72	433272	3767523	45	26	45	0
NSA-73	433287	3767542	45	25	45	0
NSA-74	433304	3767541	45	25	45	0
NSA-75	433523	3767539	45	23	45	0
NSA-76	433644	3767540	45	22	45	0
NSA-77	433316	3767522	45	25	45	0
NSA-78	433330	3767544	45	25	45	0
NSA-79	433308	3767625	45	24	45	0
NSA-80	433424	3767689	45	22	45	0
NSA-81	433440	3767688	45	22	45	0
NSA-82	433180	3766669	45	34	45	0
NSA-83	433219	3766669	45	33	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-84	433578	3766844	45	29	45	0
NSA-85	433402	3767001	45	33	45	0
NSA-86	433443	3767003	45	32	45	0
NSA-87	433493	3767072	45	30	45	0
NSA-88	433594	3767072	45	27	45	0
NSA-89	433690	3767071	45	26	45	0
NSA-90	433765	3767001	45	25	45	0
NSA-91	433808	3767003	45	25	45	0
NSA-92	433843	3767001	45	24	45	0
NSA-93	433878	3767072	45	23	45	0
NSA-94	433912	3767076	45	22	45	0
NSA-95	433456	3767390	45	26	45	0
NSA-96	433508	3767397	45	25	45	0
NSA-97	433346	3767544	45	25	45	0
NSA-98	433662	3767540	45	22	45	0
NSA-99	433551	3767543	45	23	45	0
NSA-100	433569	3767543	45	23	45	0
NSA-101	433360	3767525	45	25	45	0
NSA-102	433374	3767547	45	24	45	0
NSA-103	433391	3767547	45	24	45	0
NSA-104	433419	3767550	45	24	45	0
NSA-105	433554	3767625	45	22	45	0
NSA-106	433572	3767625	45	22	45	0
NSA-107	433479	3767602	45	23	45	0
NSA-108	433259	3767631	45	24	45	0
NSA-109	433466	3767688	45	22	45	0
NSA-110	433215	3766317	45	25	45	0
NSA-111	433178	3766319	45	26	45	0
NSA-112	433171	3766486	45	29	45	0
NSA-113	433580	3766508	45	25	45	0
NSA-114	433641	3766510	45	25	45	0
NSA-115	433253	3766665	45	32	45	0
NSA-116	433289	3766672	45	32	45	0
NSA-117	433316	3766657	45	31	45	0
NSA-118	433434	3766594	45	28	45	0
NSA-119	433581	3766678	45	27	45	0
NSA-120	433628	3766663	45	26	45	0
NSA-121	433659	3766663	45	26	45	0
NSA-122	433717	3766674	45	25	45	0
NSA-123	433834	3766672	45	23	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-124	433645	3767406	45	24	45	0
NSA-125	433723	3767413	45	23	45	0
NSA-126	433780	3767414	45	22	45	0
NSA-127	433280	3767416	45	27	45	0
NSA-128	433312	3767420	45	27	45	0
NSA-129	433437	3767550	45	24	45	0
NSA-130	433597	3767549	45	23	45	0
NSA-131	433615	3767549	45	22	45	0
NSA-132	433257	3767555	45	25	45	0
NSA-133	433465	3767552	45	24	45	0
NSA-134	433481	3767553	45	24	45	0
NSA-135	433334	3767632	45	23	45	0
NSA-136	433379	3767632	45	23	45	0
NSA-137	433351	3767632	45	23	45	0
NSA-138	433395	3767632	45	23	45	0
NSA-139	433247	3767687	45	23	45	0
NSA-140	433248	3766322	45	25	45	0
NSA-141	433280	3766322	45	25	45	0
NSA-142	433313	3766322	45	25	45	0
NSA-143	433357	3766322	45	24	45	0
NSA-144	433390	3766319	45	24	45	0
NSA-145	433566	3766321	45	23	45	0
NSA-146	433598	3766321	45	23	45	0
NSA-147	433631	3766321	45	22	45	0
NSA-148	433434	3766316	45	24	45	0
NSA-149	433310	3766514	45	28	45	0
NSA-150	433715	3766512	45	24	45	0
NSA-151	433244	3766842	45	40	46	1
NSA-152	433562	3766870	45	29	45	0
NSA-153	433591	3766870	45	29	45	0
NSA-154	433349	3766790	45	34	45	0
NSA-155	433372	3766790	45	34	45	0
NSA-156	433408	3766790	45	32	45	0
NSA-157	433443	3766790	45	31	45	0
NSA-158	433504	3766868	45	30	45	0
NSA-159	433864	3766849	45	24	45	0
NSA-160	433907	3766849	45	23	45	0
NSA-161	433619	3766840	45	28	45	0
NSA-162	433583	3767419	45	24	45	0
NSA-163	433288	3767557	45	25	45	0



NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-164	433304	3767557	45	25	45	0
NSA-165	433507	3767555	45	23	45	0
NSA-166	433523	3767555	45	23	45	0
NSA-167	433292	3767641	45	24	45	0
NSA-168	433309	3767641	45	23	45	0
NSA-169	433307	3767691	45	23	45	0
NSA-170	433287	3767702	45	23	45	0
NSA-171	433317	3767703	45	22	45	0
NSA-172	433336	3767704	45	22	45	0
NSA-173	433351	3767703	45	22	45	0
NSA-174	433367	3767703	45	22	45	0
NSA-175	433501	3766343	45	24	45	0
NSA-176	433450	3766345	45	24	45	0
NSA-177	433668	3766790	45	27	45	0
NSA-178	433697	3766790	45	26	45	0
NSA-179	433726	3766790	45	26	45	0
NSA-180	433765	3766790	45	25	45	0
NSA-181	433800	3766867	45	25	45	0
NSA-182	433817	3766784	45	24	45	0
NSA-183	433181	3767110	45	39	46	1
NSA-184	433763	3767117	45	24	45	0
NSA-185	433783	3767117	45	24	45	0
NSA-186	433802	3767117	45	23	45	0
NSA-187	433409	3767435	45	26	45	0
NSA-188	433643	3767437	45	23	45	0
NSA-189	433723	3767446	45	23	45	0
NSA-190	433290	3767460	45	26	45	0
NSA-191	433779	3767449	45	22	45	0
NSA-192	433644	3767556	45	22	45	0
NSA-193	433330	3767559	45	24	45	0
NSA-194	433347	3767559	45	24	45	0
NSA-195	433662	3767556	45	22	45	0
NSA-196	433551	3767559	45	23	45	0
NSA-197	433569	3767559	45	23	45	0
NSA-198	433424	3767643	45	23	45	0
NSA-199	433439	3767643	45	22	45	0
NSA-200	433465	3767643	45	22	45	0
NSA-201	433482	3767643	45	22	45	0
NSA-202	433509	3767642	45	22	45	0
NSA-203	433525	3767642	45	22	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-204	433382	3767703	45	22	45	0
NSA-205	433181	3766525	45	30	45	0
NSA-206	433220	3766526	45	29	45	0
NSA-207	433254	3766522	45	29	45	0
NSA-208	433820	3767118	45	23	45	0
NSA-209	433839	3767118	45	23	45	0
NSA-210	433857	3767118	45	23	45	0
NSA-211	433876	3767118	45	23	45	0
NSA-212	433698	3767113	45	25	45	0
NSA-213	433895	3767118	45	22	45	0
NSA-214	433916	3767117	45	22	45	0
NSA-215	433576	3767126	45	27	45	0
NSA-216	433308	3767464	45	26	45	0
NSA-217	433323	3767465	45	26	45	0
NSA-218	433338	3767466	45	26	45	0
NSA-219	433353	3767467	45	26	45	0
NSA-220	433269	3767463	45	27	45	0
NSA-221	433368	3767468	45	26	45	0
NSA-222	433384	3767469	45	25	45	0
NSA-223	433399	3767470	45	25	45	0
NSA-224	433414	3767471	45	25	45	0
NSA-225	433375	3767562	45	24	45	0
NSA-226	433392	3767562	45	24	45	0
NSA-227	433420	3767565	45	24	45	0
NSA-228	433457	3767544	45	24	45	0
NSA-229	433439	3767565	45	24	45	0
NSA-230	433335	3767648	45	23	45	0
NSA-231	433351	3767648	45	23	45	0
NSA-232	433379	3767647	45	23	45	0
NSA-233	433396	3767647	45	23	45	0
NSA-234	433171	3766361	45	26	45	0
NSA-235	433369	3766378	45	25	45	0
NSA-236	433580	3766538	45	26	45	0
NSA-237	433643	3766541	45	25	45	0
NSA-238	433310	3766548	45	29	45	0
NSA-239	433504	3766706	45	29	45	0
NSA-240	433578	3766708	45	27	45	0
NSA-241	433409	3767135	45	31	45	0
NSA-242	433457	3767135	45	30	45	0
NSA-243	433505	3767135	45	29	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-244	433361	3767134	45	33	45	0
NSA-245	433429	3767472	45	25	45	0
NSA-246	433444	3767473	45	25	45	0
NSA-247	433613	3767477	45	23	45	0
NSA-248	433460	3767475	45	25	45	0
NSA-249	433475	3767476	45	25	45	0
NSA-250	433258	3767474	45	27	45	0
NSA-251	433490	3767477	45	24	45	0
NSA-252	433505	3767477	45	24	45	0
NSA-253	433521	3767478	45	24	45	0
NSA-254	433537	3767479	45	24	45	0
NSA-255	433597	3767565	45	22	45	0
NSA-256	433616	3767565	45	22	45	0
NSA-257	433257	3767570	45	25	45	0
NSA-258	433288	3767572	45	25	45	0
NSA-259	433305	3767572	45	24	45	0
NSA-260	433644	3767571	45	22	45	0
NSA-261	433331	3767574	45	24	45	0
NSA-262	433348	3767574	45	24	45	0
NSA-263	433501	3766376	45	24	45	0
NSA-264	433443	3766380	45	24	45	0
NSA-265	433310	3766380	45	26	45	0
NSA-266	433579	3766384	45	24	45	0
NSA-267	433639	3766384	45	23	45	0
NSA-268	433717	3766384	45	23	45	0
NSA-269	433717	3766552	45	24	45	0
NSA-270	433836	3766554	45	22	45	0
NSA-271	433889	3766719	45	23	45	0
NSA-272	433504	3766730	45	29	45	0
NSA-273	433675	3767143	45	25	45	0
NSA-274	433907	3767167	45	22	45	0
NSA-275	433709	3767162	45	25	45	0
NSA-276	433575	3767165	45	27	45	0
NSA-277	433184	3767178	45	35	45	0
NSA-278	433260	3767146	45	35	45	0
NSA-279	433763	3767177	45	24	45	0
NSA-280	433783	3767177	45	23	45	0
NSA-281	433802	3767177	45	23	45	0
NSA-282	433553	3767480	45	24	45	0
NSA-283	433568	3767482	45	24	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-284	433675	3767486	45	23	45	0
NSA-285	433583	3767483	45	23	45	0
NSA-286	433331	3767484	45	26	45	0
NSA-287	433598	3767485	45	23	45	0
NSA-288	433256	3767493	45	26	45	0
NSA-289	433552	3767574	45	23	45	0
NSA-290	433569	3767574	45	22	45	0
NSA-291	433376	3767577	45	24	45	0
NSA-292	433393	3767577	45	24	45	0
NSA-293	433420	3767580	45	23	45	0
NSA-294	433291	3767656	45	23	45	0
NSA-295	433247	3767715	45	23	45	0
NSA-296	433288	3767718	45	23	45	0
NSA-297	433306	3767720	45	22	45	0
NSA-298	433181	3766398	45	27	45	0
NSA-299	433220	3766396	45	27	45	0
NSA-300	433580	3766568	45	26	45	0
NSA-301	433644	3766570	45	25	45	0
NSA-302	433578	3766735	45	28	45	0
NSA-303	433965	3766922	45	23	45	0
NSA-304	433820	3767177	45	23	45	0
NSA-305	433839	3767177	45	23	45	0
NSA-306	433858	3767177	45	22	45	0
NSA-307	433877	3767177	45	22	45	0
NSA-308	433909	3767188	45	22	45	0
NSA-309	433647	3767164	45	26	45	0
NSA-310	433619	3767165	45	26	45	0
NSA-311	433735	3767492	45	22	45	0
NSA-312	433614	3767488	45	23	45	0
NSA-313	433287	3767495	45	26	45	0
NSA-314	433303	3767495	45	26	45	0
NSA-315	433329	3767497	45	26	45	0
NSA-316	433346	3767498	45	25	45	0
NSA-317	433598	3767580	45	22	45	0
NSA-318	433616	3767580	45	22	45	0
NSA-319	433258	3767585	45	25	45	0
NSA-320	433309	3767656	45	23	45	0
NSA-321	433424	3767658	45	22	45	0
NSA-322	433254	3766392	45	26	45	0
NSA-323	433369	3766409	45	26	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-324	433310	3766581	45	30	45	0
NSA-325	433504	3766753	45	29	45	0
NSA-326	433470	3766934	45	32	45	0
NSA-327	433976	3766948	45	23	45	0
NSA-328	433237	3766942	45	45	48	3
NSA-329	433878	3766941	45	24	45	0
NSA-330	433242	3767212	45	33	45	0
NSA-331	433505	3767207	45	28	45	0
NSA-332	433575	3767211	45	27	45	0
NSA-333	433678	3767210	45	25	45	0
NSA-334	433361	3767226	45	30	45	0
NSA-335	433652	3767494	45	23	45	0
NSA-336	433668	3767496	45	22	45	0
NSA-337	433373	3767500	45	25	45	0
NSA-338	433390	3767501	45	25	45	0
NSA-339	433683	3767498	45	22	45	0
NSA-340	433289	3767587	45	24	45	0
NSA-341	433306	3767587	45	24	45	0
NSA-342	433440	3767658	45	22	45	0
NSA-343	433466	3767658	45	22	45	0
NSA-344	433482	3767658	45	22	45	0
NSA-345	433509	3767657	45	22	45	0
NSA-346	433369	3766218	45	23	45	0
NSA-347	433443	3766411	45	22	45	0
NSA-348	433501	3766410	45	25	45	0
NSA-349	433310	3766414	45	26	45	0
NSA-350	433579	3766415	45	24	45	0
NSA-351	433639	3766415	45	24	45	0
NSA-352	433717	3766415	45	23	45	0
NSA-353	433836	3766586	45	23	45	0
NSA-354	433578	3766762	45	28	45	0
NSA-355	433889	3766755	45	23	45	0
NSA-356	433175	3766738	45	37	46	1
NSA-357	433221	3766739	45	36	46	1
NSA-358	433268	3766739	45	35	45	0
NSA-359	433314	3766737	45	34	45	0
NSA-360	433912	3766941	45	23	45	0
NSA-361	433499	3766957	45	31	45	0
NSA-362	433409	3767226	45	30	45	0
NSA-363	433457	3767226	45	29	45	0



NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-364	433505	3767245	45	28	45	0
NSA-365	433717	3767237	45	24	45	0
NSA-366	433565	3767252	45	26	45	0
NSA-367	433419	3767503	45	25	45	0
NSA-368	433437	3767504	45	25	45	0
NSA-369	433698	3767500	45	22	45	0
NSA-370	433713	3767501	45	22	45	0
NSA-371	433257	3767509	45	26	45	0
NSA-372	433464	3767506	45	24	45	0
NSA-373	433481	3767507	45	24	45	0
NSA-374	433332	3767589	45	24	45	0
NSA-375	433349	3767589	45	24	45	0
NSA-376	433552	3767589	45	22	45	0
NSA-377	433570	3767589	45	22	45	0
NSA-378	433259	3767661	45	24	45	0
NSA-379	433335	3767663	45	23	45	0
NSA-380	433352	3767663	45	23	45	0
NSA-381	433380	3767663	45	23	45	0
NSA-382	433396	3767662	45	22	45	0
NSA-383	433195	3766224	45	24	45	0
NSA-384	433282	3766224	45	23	45	0
NSA-385	433418	3766221	45	23	45	0
NSA-386	433485	3766234	45	22	45	0
NSA-387	433390	3766381	45	24	45	0
NSA-388	433580	3766598	45	26	45	0
NSA-389	433644	3766599	45	25	45	0
NSA-390	433717	3766593	45	24	45	0
NSA-391	433505	3766775	45	30	45	0
NSA-392	433571	3766953	45	29	45	0
NSA-393	433617	3766953	45	28	45	0
NSA-394	433678	3766953	45	27	45	0
NSA-395	433724	3766953	45	26	45	0
NSA-396	433597	3767257	45	26	45	0
NSA-397	433629	3767259	45	25	45	0
NSA-398	433242	3767272	45	31	45	0
NSA-399	433659	3767267	45	25	45	0
NSA-400	433473	3767283	45	27	45	0
NSA-401	433834	3767248	45	22	45	0
NSA-402	433507	3767508	45	24	45	0
NSA-403	433286	3767511	45	26	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-404	433303	3767511	45	26	45	0
NSA-405	433523	3767509	45	24	45	0
NSA-406	433329	3767513	45	25	45	0
NSA-407	433346	3767513	45	25	45	0
NSA-408	433377	3767592	45	23	45	0
NSA-409	433393	3767592	45	23	45	0
NSA-410	433405	3767551	45	24	45	0
NSA-411	433421	3767596	45	23	45	0
NSA-412	433339	3767660	45	23	45	0
NSA-413	433463	3767674	45	22	45	0
NSA-414	433485	3766258	45	22	45	0
NSA-415	433501	3766443	45	25	45	0
NSA-416	433180	3766591	45	31	45	0
NSA-417	433220	3766590	45	31	45	0
NSA-418	433254	3766594	45	30	45	0
NSA-419	433578	3766790	45	28	45	0
NSA-420	433270	3766955	45	40	46	1
NSA-421	433293	3766957	45	39	46	1
NSA-422	433358	3767291	45	29	45	0
NSA-423	433690	3767282	45	24	45	0
NSA-424	433473	3767319	45	27	45	0
NSA-425	433731	3767503	45	22	45	0
NSA-426	433551	3767511	45	23	45	0
NSA-427	433569	3767512	45	23	45	0
NSA-428	433374	3767516	45	25	45	0
NSA-429	433390	3767516	45	25	45	0
NSA-430	433419	3767519	45	25	45	0
NSA-431	433437	3767519	45	24	45	0
NSA-432	433598	3767595	45	22	45	0
NSA-433	433617	3767595	45	22	45	0
NSA-434	433258	3767600	45	24	45	0
NSA-435	433290	3767603	45	24	45	0
NSA-436	433307	3767602	45	24	45	0
NSA-437	433290	3767671	45	23	45	0
NSA-438	433309	3767671	45	23	45	0
NSA-439	433424	3767673	45	22	45	0
NSA-440	433440	3767673	45	22	45	0
NSA-441	433466	3767673	45	22	45	0
NSA-442	433514	3767571	45	23	45	0
NSA-443	433195	3766269	45	25	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-444	433282	3766269	45	24	45	0
NSA-445	433579	3766446	45	24	45	0
NSA-446	433310	3766447	45	27	45	0
NSA-447	433639	3766446	45	24	45	0
NSA-448	433717	3766446	45	23	45	0
NSA-449	433778	3766446	45	22	45	0
NSA-450	433313	3766615	45	30	45	0
NSA-451	433254	3766488	45	28	45	0
NSA-452	433889	3766796	45	23	45	0
NSA-453	433879	3767000	45	24	45	0
NSA-454	433912	3767004	45	23	45	0
NSA-455	433584	3767322	45	26	45	0
NSA-456	433720	3767305	45	23	45	0
NSA-457	433763	3767321	45	23	45	0
NSA-458	433809	3767321	45	22	45	0
NSA-459	433854	3767321	45	22	45	0
NSA-460	433597	3767517	45	23	45	0
NSA-461	433615	3767518	45	23	45	0
NSA-462	433257	3767524	45	26	45	0
NSA-463	433464	3767522	45	24	45	0
NSA-464	433481	3767522	45	24	45	0
NSA-465	433507	3767524	45	24	45	0
NSA-466	433287	3767526	45	25	45	0
NSA-467	433303	3767526	45	25	45	0
NSA-468	433523	3767524	45	23	45	0
NSA-469	433333	3767605	45	24	45	0
NSA-470	433349	3767605	45	24	45	0
NSA-471	433553	3767604	45	22	45	0
NSA-472	433571	3767604	45	22	45	0
NSA-473	433377	3767608	45	23	45	0
NSA-474	433394	3767608	45	23	45	0
NSA-475	432459	3766902	45	25	45	0
NSA-476	432467	3766861	45	24	45	0
NSA-477	432468	3766843	45	24	45	0
NSA-478	432457	3767047	45	24	45	0
NSA-479	432458	3767028	45	24	45	0
NSA-480	432459	3766979	45	25	45	0
NSA-481	432458	3766995	45	25	45	0
NSA-482	432458	3767011	45	24	45	0
NSA-483	432456	3767066	45	24	45	0

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-484	432456	3767085	45	24	45	0
NSA-485	432467	3767155	45	23	45	0
NSA-486	432466	3767173	45	23	45	0
NSA-487	432466	3767192	45	23	45	0
NSA-488	432465	3767210	45	23	45	0
NSA-489	432465	3767228	45	23	45	0
NSA-490	432464	3767246	45	23	45	0
NSA-491	432467	3767265	45	23	45	0
NSA-492	432954	3767560	45	24	45	0
NSA-493	433107	3767551	45	25	45	0
NSA-494	433146	3767676	45	24	45	0
NSA-495	433187	3767729	45	23	45	0
NSA-496	432952	3767644	45	23	45	0
NSA-497	432953	3767626	45	23	45	0
NSA-498	433096	3767486	45	26	45	0
NSA-499	433106	3767531	45	25	45	0
NSA-500	432933	3767492	45	25	45	0
NSA-501	432936	3767408	45	26	45	0
NSA-502	432936	3767423	45	26	45	0
NSA-503	432886	3767383	45	26	45	0
NSA-504	432782	3767463	45	24	45	0
NSA-505	432830	3767398	45	25	45	0
NSA-506	432849	3767398	45	25	45	0
NSA-507	432886	3767414	45	25	45	0
NSA-508	432858	3767439	45	25	45	0
NSA-509	432858	3767457	45	24	45	0



## 6.0 CONCLUSION

Reasonable efforts would be made to minimize the impact of noise resulting from construction activities at proximate noise sensitive areas through the use of noise mitigation. Because of the temporary nature of the construction noise, no adverse or long-term effects are expected.

During Project construction, the worst-case vibration source would be rollers. Based on vibration propagation calculations, construction vibration levels are predicted to be 0.0501 PPV in/sec, or 82 VdB, at the nearest non-participating residential receptor, which is approximately 65 feet from the site. These levels are based on the worst-case vibration producing equipment and it is expected that other vibration generating equipment proposed for the Project construction would result in lower vibration levels.

Normal Project operations would occur during the daytime and nighttime periods. The highest mitigated total sound level is associated with receptor NSA-328, which would be receiving 45 dBA. Noise modeling shows that the Project will successfully meet compliance with all applicable regulations with mitigation.

## 7.0 REFERENCES

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## **Appendix A: Unmitigated Operational Sound Levels**

**Table A-1. Daytime Acoustic Modeling Results Summary without Mitigation**

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-1	433633	3767536	60	37	60	0
NSA-2	433482	3767673	60	36	60	0
NSA-3	433337	3767678	60	37	60	0
NSA-4	433369	3766274	60	39	60	0
NSA-5	433418	3766271	60	38	60	0
NSA-6	433485	3766281	60	38	60	0
NSA-7	433180	3766447	60	43	60	0
NSA-8	433220	3766448	60	43	60	0
NSA-9	433254	3766452	60	42	60	0
NSA-10	433578	3766817	60	43	60	0
NSA-11	433505	3766810	60	45	60	0
NSA-12	433181	3767033	60	60	63	3
NSA-13	433214	3767326	60	45	60	0
NSA-14	433280	3767330	60	44	60	0
NSA-15	433581	3767353	60	39	60	0
NSA-16	433643	3767524	60	37	60	0
NSA-17	433329	3767528	60	40	60	0
NSA-18	433346	3767528	60	39	60	0
NSA-19	433662	3767525	60	37	60	0
NSA-20	433551	3767528	60	38	60	0
NSA-21	433569	3767528	60	37	60	0
NSA-22	433374	3767532	60	39	60	0
NSA-23	433391	3767531	60	39	60	0
NSA-24	433259	3767616	60	39	60	0
NSA-25	433353	3767678	60	37	60	0
NSA-26	433380	3767678	60	37	60	0
NSA-27	433396	3767678	60	37	60	0
NSA-28	433360	3766448	60	42	60	0
NSA-29	433382	3766473	60	42	60	0
NSA-30	433452	3766449	60	37	60	0
NSA-31	433834	3766624	60	38	60	0
NSA-32	433717	3766634	60	39	60	0
NSA-33	433171	3766630	60	47	60	0
NSA-34	433581	3766647	60	42	60	0
NSA-35	433493	3767021	60	45	60	0
NSA-36	433594	3767021	60	43	60	0
NSA-37	433690	3767021	60	41	60	0
NSA-38	433652	3767336	60	39	60	0
NSA-39	433314	3767333	60	43	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-40	433473	3767356	60	41	60	0
NSA-41	433358	3767349	60	42	60	0
NSA-42	433419	3767535	60	39	60	0
NSA-43	433437	3767535	60	39	60	0
NSA-44	433691	3767530	60	36	60	0
NSA-45	433712	3767532	60	36	60	0
NSA-46	433597	3767534	60	37	60	0
NSA-47	433615	3767534	60	37	60	0
NSA-48	433257	3767539	60	40	60	0
NSA-49	433464	3767537	60	38	60	0
NSA-50	433481	3767537	60	38	60	0
NSA-51	433291	3767626	60	38	60	0
NSA-52	433288	3767686	60	38	60	0
NSA-53	433501	3766309	60	38	60	0
NSA-54	433429	3766473	60	41	60	0
NSA-55	433501	3766477	60	40	60	0
NSA-56	433579	3766477	60	40	60	0
NSA-57	433639	3766477	60	39	60	0
NSA-58	433310	3766481	60	43	60	0
NSA-59	433717	3766477	60	38	60	0
NSA-60	433778	3766477	60	37	60	0
NSA-61	433504	3766843	60	45	60	0
NSA-62	433181	3767059	60	57	62	2
NSA-63	433181	3767084	60	55	61	1
NSA-64	433327	3767001	60	51	61	1
NSA-65	433357	3767001	60	50	60	0
NSA-66	433398	3767327	60	42	60	0
NSA-67	433643	3767371	60	39	60	0
NSA-68	433723	3767379	60	37	60	0
NSA-69	433581	3767383	60	39	60	0
NSA-70	433780	3767379	60	37	60	0
NSA-71	433507	3767539	60	38	60	0
NSA-72	433272	3767523	60	40	60	0
NSA-73	433287	3767542	60	40	60	0
NSA-74	433304	3767541	60	40	60	0
NSA-75	433523	3767539	60	38	60	0
NSA-76	433644	3767540	60	37	60	0
NSA-77	433316	3767522	60	40	60	0
NSA-78	433330	3767544	60	39	60	0
NSA-79	433308	3767625	60	38	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-80	433424	3767689	60	37	60	0
NSA-81	433440	3767688	60	37	60	0
NSA-82	433180	3766669	60	49	60	0
NSA-83	433219	3766669	60	48	60	0
NSA-84	433578	3766844	60	44	60	0
NSA-85	433402	3767001	60	48	60	0
NSA-86	433443	3767003	60	47	60	0
NSA-87	433493	3767072	60	45	60	0
NSA-88	433594	3767072	60	42	60	0
NSA-89	433690	3767071	60	41	60	0
NSA-90	433765	3767001	60	40	60	0
NSA-91	433808	3767003	60	40	60	0
NSA-92	433843	3767001	60	39	60	0
NSA-93	433878	3767072	60	38	60	0
NSA-94	433912	3767076	60	37	60	0
NSA-95	433456	3767390	60	40	60	0
NSA-96	433508	3767397	60	40	60	0
NSA-97	433346	3767544	60	39	60	0
NSA-98	433662	3767540	60	36	60	0
NSA-99	433551	3767543	60	37	60	0
NSA-100	433569	3767543	60	37	60	0
NSA-101	433360	3767525	60	39	60	0
NSA-102	433374	3767547	60	39	60	0
NSA-103	433391	3767547	60	39	60	0
NSA-104	433419	3767550	60	38	60	0
NSA-105	433554	3767625	60	36	60	0
NSA-106	433572	3767625	60	36	60	0
NSA-107	433479	3767602	60	37	60	0
NSA-108	433259	3767631	60	39	60	0
NSA-109	433466	3767688	60	36	60	0
NSA-110	433215	3766317	60	40	60	0
NSA-111	433178	3766319	60	41	60	0
NSA-112	433171	3766486	60	44	60	0
NSA-113	433580	3766508	60	40	60	0
NSA-114	433641	3766510	60	39	60	0
NSA-115	433253	3766665	60	48	60	0
NSA-116	433289	3766672	60	47	60	0
NSA-117	433316	3766657	60	46	60	0
NSA-118	433434	3766594	60	43	60	0
NSA-119	433581	3766678	60	42	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-120	433628	3766663	60	41	60	0
NSA-121	433659	3766663	60	40	60	0
NSA-122	433717	3766674	60	40	60	0
NSA-123	433834	3766672	60	38	60	0
NSA-124	433645	3767406	60	38	60	0
NSA-125	433723	3767413	60	37	60	0
NSA-126	433780	3767414	60	37	60	0
NSA-127	433280	3767416	60	42	60	0
NSA-128	433312	3767420	60	42	60	0
NSA-129	433437	3767550	60	38	60	0
NSA-130	433597	3767549	60	37	60	0
NSA-131	433615	3767549	60	37	60	0
NSA-132	433257	3767555	60	40	60	0
NSA-133	433465	3767552	60	38	60	0
NSA-134	433481	3767553	60	38	60	0
NSA-135	433334	3767632	60	38	60	0
NSA-136	433379	3767632	60	38	60	0
NSA-137	433351	3767632	60	38	60	0
NSA-138	433395	3767632	60	37	60	0
NSA-139	433247	3767687	60	38	60	0
NSA-140	433248	3766322	60	40	60	0
NSA-141	433280	3766322	60	40	60	0
NSA-142	433313	3766322	60	40	60	0
NSA-143	433357	3766322	60	40	60	0
NSA-144	433390	3766319	60	39	60	0
NSA-145	433566	3766321	60	38	60	0
NSA-146	433598	3766321	60	38	60	0
NSA-147	433631	3766321	60	37	60	0
NSA-148	433434	3766316	60	39	60	0
NSA-149	433310	3766514	60	43	60	0
NSA-150	433715	3766512	60	38	60	0
NSA-151	433244	3766842	60	55	61	1
NSA-152	433562	3766870	60	44	60	0
NSA-153	433591	3766870	60	44	60	0
NSA-154	433349	3766790	60	49	60	0
NSA-155	433372	3766790	60	48	60	0
NSA-156	433408	3766790	60	47	60	0
NSA-157	433443	3766790	60	46	60	0
NSA-158	433504	3766868	60	45	60	0
NSA-159	433864	3766849	60	39	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-160	433907	3766849	60	38	60	0
NSA-161	433619	3766840	60	43	60	0
NSA-162	433583	3767419	60	39	60	0
NSA-163	433288	3767557	60	39	60	0
NSA-164	433304	3767557	60	39	60	0
NSA-165	433507	3767555	60	38	60	0
NSA-166	433523	3767555	60	37	60	0
NSA-167	433292	3767641	60	38	60	0
NSA-168	433309	3767641	60	38	60	0
NSA-169	433307	3767691	60	37	60	0
NSA-170	433287	3767702	60	37	60	0
NSA-171	433317	3767703	60	37	60	0
NSA-172	433336	3767704	60	37	60	0
NSA-173	433351	3767703	60	37	60	0
NSA-174	433367	3767703	60	37	60	0
NSA-175	433501	3766343	60	39	60	0
NSA-176	433450	3766345	60	39	60	0
NSA-177	433668	3766790	60	41	60	0
NSA-178	433697	3766790	60	41	60	0
NSA-179	433726	3766790	60	40	60	0
NSA-180	433765	3766790	60	40	60	0
NSA-181	433800	3766867	60	40	60	0
NSA-182	433817	3766784	60	39	60	0
NSA-183	433181	3767110	60	53	61	1
NSA-184	433763	3767117	60	39	60	0
NSA-185	433783	3767117	60	39	60	0
NSA-186	433802	3767117	60	38	60	0
NSA-187	433409	3767435	60	40	60	0
NSA-188	433643	3767437	60	38	60	0
NSA-189	433723	3767446	60	37	60	0
NSA-190	433290	3767460	60	41	60	0
NSA-191	433779	3767449	60	36	60	0
NSA-192	433644	3767556	60	36	60	0
NSA-193	433330	3767559	60	39	60	0
NSA-194	433347	3767559	60	39	60	0
NSA-195	433662	3767556	60	36	60	0
NSA-196	433551	3767559	60	37	60	0
NSA-197	433569	3767559	60	37	60	0
NSA-198	433424	3767643	60	37	60	0
NSA-199	433439	3767643	60	37	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-200	433465	3767643	60	37	60	0
NSA-201	433482	3767643	60	37	60	0
NSA-202	433509	3767642	60	37	60	0
NSA-203	433525	3767642	60	36	60	0
NSA-204	433382	3767703	60	37	60	0
NSA-205	433181	3766525	60	45	60	0
NSA-206	433220	3766526	60	44	60	0
NSA-207	433254	3766522	60	44	60	0
NSA-208	433820	3767118	60	38	60	0
NSA-209	433839	3767118	60	38	60	0
NSA-210	433857	3767118	60	38	60	0
NSA-211	433876	3767118	60	37	60	0
NSA-212	433698	3767113	60	40	60	0
NSA-213	433895	3767118	60	37	60	0
NSA-214	433916	3767117	60	37	60	0
NSA-215	433576	3767126	60	42	60	0
NSA-216	433308	3767464	60	41	60	0
NSA-217	433323	3767465	60	41	60	0
NSA-218	433338	3767466	60	40	60	0
NSA-219	433353	3767467	60	40	60	0
NSA-220	433269	3767463	60	41	60	0
NSA-221	433368	3767468	60	40	60	0
NSA-222	433384	3767469	60	40	60	0
NSA-223	433399	3767470	60	40	60	0
NSA-224	433414	3767471	60	40	60	0
NSA-225	433375	3767562	60	39	60	0
NSA-226	433392	3767562	60	38	60	0
NSA-227	433420	3767565	60	38	60	0
NSA-228	433457	3767544	60	38	60	0
NSA-229	433439	3767565	60	38	60	0
NSA-230	433335	3767648	60	38	60	0
NSA-231	433351	3767648	60	38	60	0
NSA-232	433379	3767647	60	37	60	0
NSA-233	433396	3767647	60	37	60	0
NSA-234	433171	3766361	60	42	60	0
NSA-235	433369	3766378	60	40	60	0
NSA-236	433580	3766538	60	40	60	0
NSA-237	433643	3766541	60	40	60	0
NSA-238	433310	3766548	60	44	60	0
NSA-239	433504	3766706	60	44	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-240	433578	3766708	60	42	60	0
NSA-241	433409	3767135	60	46	60	0
NSA-242	433457	3767135	60	45	60	0
NSA-243	433505	3767135	60	44	60	0
NSA-244	433361	3767134	60	47	60	0
NSA-245	433429	3767472	60	39	60	0
NSA-246	433444	3767473	60	39	60	0
NSA-247	433613	3767477	60	38	60	0
NSA-248	433460	3767475	60	39	60	0
NSA-249	433475	3767476	60	39	60	0
NSA-250	433258	3767474	60	41	60	0
NSA-251	433490	3767477	60	39	60	0
NSA-252	433505	3767477	60	39	60	0
NSA-253	433521	3767478	60	38	60	0
NSA-254	433537	3767479	60	38	60	0
NSA-255	433597	3767565	60	37	60	0
NSA-256	433616	3767565	60	37	60	0
NSA-257	433257	3767570	60	40	60	0
NSA-258	433288	3767572	60	39	60	0
NSA-259	433305	3767572	60	39	60	0
NSA-260	433644	3767571	60	36	60	0
NSA-261	433331	3767574	60	39	60	0
NSA-262	433348	3767574	60	39	60	0
NSA-263	433501	3766376	60	39	60	0
NSA-264	433443	3766380	60	39	60	0
NSA-265	433310	3766380	60	41	60	0
NSA-266	433579	3766384	60	38	60	0
NSA-267	433639	3766384	60	38	60	0
NSA-268	433717	3766384	60	37	60	0
NSA-269	433717	3766552	60	39	60	0
NSA-270	433836	3766554	60	37	60	0
NSA-271	433889	3766719	60	38	60	0
NSA-272	433504	3766730	60	44	60	0
NSA-273	433675	3767143	60	40	60	0
NSA-274	433907	3767167	60	37	60	0
NSA-275	433709	3767162	60	40	60	0
NSA-276	433575	3767165	60	42	60	0
NSA-277	433184	3767178	60	50	60	0
NSA-278	433260	3767146	60	49	60	0
NSA-279	433763	3767177	60	39	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-280	433783	3767177	60	38	60	0
NSA-281	433802	3767177	60	38	60	0
NSA-282	433553	3767480	60	38	60	0
NSA-283	433568	3767482	60	38	60	0
NSA-284	433675	3767486	60	37	60	0
NSA-285	433583	3767483	60	38	60	0
NSA-286	433331	3767484	60	40	60	0
NSA-287	433598	3767485	60	38	60	0
NSA-288	433256	3767493	60	41	60	0
NSA-289	433552	3767574	60	37	60	0
NSA-290	433569	3767574	60	37	60	0
NSA-291	433376	3767577	60	38	60	0
NSA-292	433393	3767577	60	38	60	0
NSA-293	433420	3767580	60	38	60	0
NSA-294	433291	3767656	60	38	60	0
NSA-295	433247	3767715	60	37	60	0
NSA-296	433288	3767718	60	37	60	0
NSA-297	433306	3767720	60	37	60	0
NSA-298	433181	3766398	60	42	60	0
NSA-299	433220	3766396	60	42	60	0
NSA-300	433580	3766568	60	41	60	0
NSA-301	433644	3766570	60	40	60	0
NSA-302	433578	3766735	60	42	60	0
NSA-303	433965	3766922	60	38	60	0
NSA-304	433820	3767177	60	38	60	0
NSA-305	433839	3767177	60	38	60	0
NSA-306	433858	3767177	60	37	60	0
NSA-307	433877	3767177	60	37	60	0
NSA-308	433909	3767188	60	37	60	0
NSA-309	433647	3767164	60	41	60	0
NSA-310	433619	3767165	60	41	60	0
NSA-311	433735	3767492	60	36	60	0
NSA-312	433614	3767488	60	37	60	0
NSA-313	433287	3767495	60	40	60	0
NSA-314	433303	3767495	60	40	60	0
NSA-315	433329	3767497	60	40	60	0
NSA-316	433346	3767498	60	40	60	0
NSA-317	433598	3767580	60	37	60	0
NSA-318	433616	3767580	60	36	60	0
NSA-319	433258	3767585	60	39	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-320	433309	3767656	60	38	60	0
NSA-321	433424	3767658	60	37	60	0
NSA-322	433254	3766392	60	41	60	0
NSA-323	433369	3766409	60	41	60	0
NSA-324	433310	3766581	60	45	60	0
NSA-325	433504	3766753	60	44	60	0
NSA-326	433470	3766934	60	46	60	0
NSA-327	433976	3766948	60	37	60	0
NSA-328	433237	3766942	60	60	63	3
NSA-329	433878	3766941	60	39	60	0
NSA-330	433242	3767212	60	47	60	0
NSA-331	433505	3767207	60	43	60	0
NSA-332	433575	3767211	60	41	60	0
NSA-333	433678	3767210	60	40	60	0
NSA-334	433361	3767226	60	45	60	0
NSA-335	433652	3767494	60	37	60	0
NSA-336	433668	3767496	60	37	60	0
NSA-337	433373	3767500	60	40	60	0
NSA-338	433390	3767501	60	39	60	0
NSA-339	433683	3767498	60	37	60	0
NSA-340	433289	3767587	60	39	60	0
NSA-341	433306	3767587	60	39	60	0
NSA-342	433440	3767658	60	37	60	0
NSA-343	433466	3767658	60	37	60	0
NSA-344	433482	3767658	60	37	60	0
NSA-345	433509	3767657	60	36	60	0
NSA-346	433369	3766218	60	38	60	0
NSA-347	433443	3766411	60	38	60	0
NSA-348	433501	3766410	60	39	60	0
NSA-349	433310	3766414	60	41	60	0
NSA-350	433579	3766415	60	39	60	0
NSA-351	433639	3766415	60	38	60	0
NSA-352	433717	3766415	60	38	60	0
NSA-353	433836	3766586	60	37	60	0
NSA-354	433578	3766762	60	43	60	0
NSA-355	433889	3766755	60	38	60	0
NSA-356	433175	3766738	60	52	61	1
NSA-357	433221	3766739	60	51	60	0
NSA-358	433268	3766739	60	50	60	0
NSA-359	433314	3766737	60	48	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-360	433912	3766941	60	38	60	0
NSA-361	433499	3766957	60	45	60	0
NSA-362	433409	3767226	60	44	60	0
NSA-363	433457	3767226	60	43	60	0
NSA-364	433505	3767245	60	42	60	0
NSA-365	433717	3767237	60	39	60	0
NSA-366	433565	3767252	60	41	60	0
NSA-367	433419	3767503	60	39	60	0
NSA-368	433437	3767504	60	39	60	0
NSA-369	433698	3767500	60	37	60	0
NSA-370	433713	3767501	60	36	60	0
NSA-371	433257	3767509	60	41	60	0
NSA-372	433464	3767506	60	39	60	0
NSA-373	433481	3767507	60	38	60	0
NSA-374	433332	3767589	60	39	60	0
NSA-375	433349	3767589	60	38	60	0
NSA-376	433552	3767589	60	37	60	0
NSA-377	433570	3767589	60	37	60	0
NSA-378	433259	3767661	60	38	60	0
NSA-379	433335	3767663	60	38	60	0
NSA-380	433352	3767663	60	37	60	0
NSA-381	433380	3767663	60	37	60	0
NSA-382	433396	3767662	60	37	60	0
NSA-383	433195	3766224	60	39	60	0
NSA-384	433282	3766224	60	39	60	0
NSA-385	433418	3766221	60	38	60	0
NSA-386	433485	3766234	60	37	60	0
NSA-387	433390	3766381	60	39	60	0
NSA-388	433580	3766598	60	41	60	0
NSA-389	433644	3766599	60	40	60	0
NSA-390	433717	3766593	60	39	60	0
NSA-391	433505	3766775	60	44	60	0
NSA-392	433571	3766953	60	44	60	0
NSA-393	433617	3766953	60	43	60	0
NSA-394	433678	3766953	60	42	60	0
NSA-395	433724	3766953	60	41	60	0
NSA-396	433597	3767257	60	40	60	0
NSA-397	433629	3767259	60	40	60	0
NSA-398	433242	3767272	60	46	60	0
NSA-399	433659	3767267	60	39	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-400	433473	3767283	60	42	60	0
NSA-401	433834	3767248	60	37	60	0
NSA-402	433507	3767508	60	38	60	0
NSA-403	433286	3767511	60	40	60	0
NSA-404	433303	3767511	60	40	60	0
NSA-405	433523	3767509	60	38	60	0
NSA-406	433329	3767513	60	40	60	0
NSA-407	433346	3767513	60	40	60	0
NSA-408	433377	3767592	60	38	60	0
NSA-409	433393	3767592	60	38	60	0
NSA-410	433405	3767551	60	39	60	0
NSA-411	433421	3767596	60	38	60	0
NSA-412	433339	3767660	60	38	60	0
NSA-413	433463	3767674	60	37	60	0
NSA-414	433485	3766258	60	37	60	0
NSA-415	433501	3766443	60	40	60	0
NSA-416	433180	3766591	60	46	60	0
NSA-417	433220	3766590	60	46	60	0
NSA-418	433254	3766594	60	46	60	0
NSA-419	433578	3766790	60	43	60	0
NSA-420	433270	3766955	60	55	61	1
NSA-421	433293	3766957	60	54	61	1
NSA-422	433358	3767291	60	43	60	0
NSA-423	433690	3767282	60	39	60	0
NSA-424	433473	3767319	60	41	60	0
NSA-425	433731	3767503	60	36	60	0
NSA-426	433551	3767511	60	38	60	0
NSA-427	433569	3767512	60	38	60	0
NSA-428	433374	3767516	60	39	60	0
NSA-429	433390	3767516	60	39	60	0
NSA-430	433419	3767519	60	39	60	0
NSA-431	433437	3767519	60	39	60	0
NSA-432	433598	3767595	60	36	60	0
NSA-433	433617	3767595	60	36	60	0
NSA-434	433258	3767600	60	39	60	0
NSA-435	433290	3767603	60	39	60	0
NSA-436	433307	3767602	60	39	60	0
NSA-437	433290	3767671	60	38	60	0
NSA-438	433309	3767671	60	38	60	0
NSA-439	433424	3767673	60	37	60	0



NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-440	433440	3767673	60	37	60	0
NSA-441	433466	3767673	60	37	60	0
NSA-442	433514	3767571	60	37	60	0
NSA-443	433195	3766269	60	40	60	0
NSA-444	433282	3766269	60	39	60	0
NSA-445	433579	3766446	60	39	60	0
NSA-446	433310	3766447	60	42	60	0
NSA-447	433639	3766446	60	39	60	0
NSA-448	433717	3766446	60	38	60	0
NSA-449	433778	3766446	60	37	60	0
NSA-450	433313	3766615	60	45	60	0
NSA-451	433254	3766488	60	43	60	0
NSA-452	433889	3766796	60	38	60	0
NSA-453	433879	3767000	60	39	60	0
NSA-454	433912	3767004	60	38	60	0
NSA-455	433584	3767322	60	40	60	0
NSA-456	433720	3767305	60	38	60	0
NSA-457	433763	3767321	60	38	60	0
NSA-458	433809	3767321	60	37	60	0
NSA-459	433854	3767321	60	36	60	0
NSA-460	433597	3767517	60	37	60	0
NSA-461	433615	3767518	60	37	60	0
NSA-462	433257	3767524	60	40	60	0
NSA-463	433464	3767522	60	38	60	0
NSA-464	433481	3767522	60	38	60	0
NSA-465	433507	3767524	60	38	60	0
NSA-466	433287	3767526	60	40	60	0
NSA-467	433303	3767526	60	40	60	0
NSA-468	433523	3767524	60	38	60	0
NSA-469	433333	3767605	60	38	60	0
NSA-470	433349	3767605	60	38	60	0
NSA-471	433553	3767604	60	37	60	0
NSA-472	433571	3767604	60	37	60	0
NSA-473	433377	3767608	60	38	60	0
NSA-474	433394	3767608	60	38	60	0
NSA-475	432459	3766902	60	38	60	0
NSA-476	432467	3766861	60	38	60	0
NSA-477	432468	3766843	60	38	60	0
NSA-478	432457	3767047	60	37	60	0
NSA-479	432458	3767028	60	38	60	0

NSA Property Line	UTM Coordinates (meters)		Existing Daytime Sound Levels $L_{eq}$ , dBA	Daytime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-480	432459	3766979	60	38	60	0
NSA-481	432458	3766995	60	38	60	0
NSA-482	432458	3767011	60	38	60	0
NSA-483	432456	3767066	60	37	60	0
NSA-484	432456	3767085	60	37	60	0
NSA-485	432467	3767155	60	37	60	0
NSA-486	432466	3767173	60	37	60	0
NSA-487	432466	3767192	60	37	60	0
NSA-488	432465	3767210	60	36	60	0
NSA-489	432465	3767228	60	36	60	0
NSA-490	432464	3767246	60	36	60	0
NSA-491	432467	3767265	60	36	60	0
NSA-492	432954	3767560	60	38	60	0
NSA-493	433107	3767551	60	40	60	0
NSA-494	433146	3767676	60	38	60	0
NSA-495	433187	3767729	60	38	60	0
NSA-496	432952	3767644	60	37	60	0
NSA-497	432953	3767626	60	38	60	0
NSA-498	433096	3767486	60	41	60	0
NSA-499	433106	3767531	60	40	60	0
NSA-500	432933	3767492	60	39	60	0
NSA-501	432936	3767408	60	41	60	0
NSA-502	432936	3767423	60	40	60	0
NSA-503	432886	3767383	60	40	60	0
NSA-504	432782	3767463	60	38	60	0
NSA-505	432830	3767398	60	40	60	0
NSA-506	432849	3767398	60	40	60	0
NSA-507	432886	3767414	60	40	60	0
NSA-508	432858	3767439	60	39	60	0
NSA-509	432858	3767457	60	39	60	0

Table A-2. Nighttime Acoustic Modeling Results Summary without Mitigation

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-1	433633	3767536	45	37	46	1
NSA-2	433482	3767673	45	36	46	1
NSA-3	433337	3767678	45	37	46	1
NSA-4	433369	3766274	45	39	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-5	433418	3766271	45	38	46	1
NSA-6	433485	3766281	45	38	46	1
NSA-7	433180	3766447	45	43	47	2
NSA-8	433220	3766448	45	43	47	2
NSA-9	433254	3766452	45	42	47	2
NSA-10	433578	3766817	45	43	47	2
NSA-11	433505	3766810	45	45	48	3
NSA-12	433181	3767033	45	60	60	15
NSA-13	433214	3767326	45	45	48	3
NSA-14	433280	3767330	45	44	47	2
NSA-15	433581	3767353	45	39	46	1
NSA-16	433643	3767524	45	37	46	1
NSA-17	433329	3767528	45	40	46	1
NSA-18	433346	3767528	45	39	46	1
NSA-19	433662	3767525	45	37	46	1
NSA-20	433551	3767528	45	38	46	1
NSA-21	433569	3767528	45	37	46	1
NSA-22	433374	3767532	45	39	46	1
NSA-23	433391	3767531	45	39	46	1
NSA-24	433259	3767616	45	39	46	1
NSA-25	433353	3767678	45	37	46	1
NSA-26	433380	3767678	45	37	46	1
NSA-27	433396	3767678	45	37	46	1
NSA-28	433360	3766448	45	42	47	2
NSA-29	433382	3766473	45	42	47	2
NSA-30	433452	3766449	45	37	46	1
NSA-31	433834	3766624	45	38	46	1
NSA-32	433717	3766634	45	39	46	1
NSA-33	433171	3766630	45	47	49	4
NSA-34	433581	3766647	45	42	47	2
NSA-35	433493	3767021	45	45	48	3
NSA-36	433594	3767021	45	43	47	2
NSA-37	433690	3767021	45	41	46	1
NSA-38	433652	3767336	45	39	46	1
NSA-39	433314	3767333	45	43	47	2
NSA-40	433473	3767356	45	41	46	1
NSA-41	433358	3767349	45	42	47	2
NSA-42	433419	3767535	45	39	46	1
NSA-43	433437	3767535	45	39	46	1
NSA-44	433691	3767530	45	36	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-45	433712	3767532	45	36	46	1
NSA-46	433597	3767534	45	37	46	1
NSA-47	433615	3767534	45	37	46	1
NSA-48	433257	3767539	45	40	46	1
NSA-49	433464	3767537	45	38	46	1
NSA-50	433481	3767537	45	38	46	1
NSA-51	433291	3767626	45	38	46	1
NSA-52	433288	3767686	45	38	46	1
NSA-53	433501	3766309	45	38	46	1
NSA-54	433429	3766473	45	41	46	1
NSA-55	433501	3766477	45	40	46	1
NSA-56	433579	3766477	45	40	46	1
NSA-57	433639	3766477	45	39	46	1
NSA-58	433310	3766481	45	43	47	2
NSA-59	433717	3766477	45	38	46	1
NSA-60	433778	3766477	45	37	46	1
NSA-61	433504	3766843	45	45	48	3
NSA-62	433181	3767059	45	57	57	12
NSA-63	433181	3767084	45	55	55	10
NSA-64	433327	3767001	45	51	52	7
NSA-65	433357	3767001	45	50	51	6
NSA-66	433398	3767327	45	42	47	2
NSA-67	433643	3767371	45	39	46	1
NSA-68	433723	3767379	45	37	46	1
NSA-69	433581	3767383	45	39	46	1
NSA-70	433780	3767379	45	37	46	1
NSA-71	433507	3767539	45	38	46	1
NSA-72	433272	3767523	45	40	46	1
NSA-73	433287	3767542	45	40	46	1
NSA-74	433304	3767541	45	40	46	1
NSA-75	433523	3767539	45	38	46	1
NSA-76	433644	3767540	45	37	46	1
NSA-77	433316	3767522	45	40	46	1
NSA-78	433330	3767544	45	39	46	1
NSA-79	433308	3767625	45	38	46	1
NSA-80	433424	3767689	45	37	46	1
NSA-81	433440	3767688	45	37	46	1
NSA-82	433180	3766669	45	49	50	5
NSA-83	433219	3766669	45	48	50	5
NSA-84	433578	3766844	45	44	47	2

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-85	433402	3767001	45	48	50	5
NSA-86	433443	3767003	45	47	49	4
NSA-87	433493	3767072	45	45	48	3
NSA-88	433594	3767072	45	42	47	2
NSA-89	433690	3767071	45	41	46	1
NSA-90	433765	3767001	45	40	46	1
NSA-91	433808	3767003	45	40	46	1
NSA-92	433843	3767001	45	39	46	1
NSA-93	433878	3767072	45	38	46	1
NSA-94	433912	3767076	45	37	46	1
NSA-95	433456	3767390	45	40	46	1
NSA-96	433508	3767397	45	40	46	1
NSA-97	433346	3767544	45	39	46	1
NSA-98	433662	3767540	45	36	46	1
NSA-99	433551	3767543	45	37	46	1
NSA-100	433569	3767543	45	37	46	1
NSA-101	433360	3767525	45	39	46	1
NSA-102	433374	3767547	45	39	46	1
NSA-103	433391	3767547	45	39	46	1
NSA-104	433419	3767550	45	38	46	1
NSA-105	433554	3767625	45	36	46	1
NSA-106	433572	3767625	45	36	46	1
NSA-107	433479	3767602	45	37	46	1
NSA-108	433259	3767631	45	39	46	1
NSA-109	433466	3767688	45	36	46	1
NSA-110	433215	3766317	45	40	46	1
NSA-111	433178	3766319	45	41	46	1
NSA-112	433171	3766486	45	44	47	2
NSA-113	433580	3766508	45	40	46	1
NSA-114	433641	3766510	45	39	46	1
NSA-115	433253	3766665	45	48	50	5
NSA-116	433289	3766672	45	47	49	4
NSA-117	433316	3766657	45	46	49	4
NSA-118	433434	3766594	45	43	47	2
NSA-119	433581	3766678	45	42	47	2
NSA-120	433628	3766663	45	41	46	1
NSA-121	433659	3766663	45	40	46	1
NSA-122	433717	3766674	45	40	46	1
NSA-123	433834	3766672	45	38	46	1
NSA-124	433645	3767406	45	38	46	1



NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-125	433723	3767413	45	37	46	1
NSA-126	433780	3767414	45	37	46	1
NSA-127	433280	3767416	45	42	47	2
NSA-128	433312	3767420	45	42	47	2
NSA-129	433437	3767550	45	38	46	1
NSA-130	433597	3767549	45	37	46	1
NSA-131	433615	3767549	45	37	46	1
NSA-132	433257	3767555	45	40	46	1
NSA-133	433465	3767552	45	38	46	1
NSA-134	433481	3767553	45	38	46	1
NSA-135	433334	3767632	45	38	46	1
NSA-136	433379	3767632	45	38	46	1
NSA-137	433351	3767632	45	38	46	1
NSA-138	433395	3767632	45	37	46	1
NSA-139	433247	3767687	45	38	46	1
NSA-140	433248	3766322	45	40	46	1
NSA-141	433280	3766322	45	40	46	1
NSA-142	433313	3766322	45	40	46	1
NSA-143	433357	3766322	45	40	46	1
NSA-144	433390	3766319	45	39	46	1
NSA-145	433566	3766321	45	38	46	1
NSA-146	433598	3766321	45	38	46	1
NSA-147	433631	3766321	45	37	46	1
NSA-148	433434	3766316	45	39	46	1
NSA-149	433310	3766514	45	43	47	2
NSA-150	433715	3766512	45	38	46	1
NSA-151	433244	3766842	45	55	55	10
NSA-152	433562	3766870	45	44	48	3
NSA-153	433591	3766870	45	44	47	2
NSA-154	433349	3766790	45	49	50	5
NSA-155	433372	3766790	45	48	50	5
NSA-156	433408	3766790	45	47	49	4
NSA-157	433443	3766790	45	46	49	4
NSA-158	433504	3766868	45	45	48	3
NSA-159	433864	3766849	45	39	46	1
NSA-160	433907	3766849	45	38	46	1
NSA-161	433619	3766840	45	43	47	2
NSA-162	433583	3767419	45	39	46	1
NSA-163	433288	3767557	45	39	46	1
NSA-164	433304	3767557	45	39	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-165	433507	3767555	45	38	46	1
NSA-166	433523	3767555	45	37	46	1
NSA-167	433292	3767641	45	38	46	1
NSA-168	433309	3767641	45	38	46	1
NSA-169	433307	3767691	45	37	46	1
NSA-170	433287	3767702	45	37	46	1
NSA-171	433317	3767703	45	37	46	1
NSA-172	433336	3767704	45	37	46	1
NSA-173	433351	3767703	45	37	46	1
NSA-174	433367	3767703	45	37	46	1
NSA-175	433501	3766343	45	39	46	1
NSA-176	433450	3766345	45	39	46	1
NSA-177	433668	3766790	45	41	47	2
NSA-178	433697	3766790	45	41	46	1
NSA-179	433726	3766790	45	40	46	1
NSA-180	433765	3766790	45	40	46	1
NSA-181	433800	3766867	45	40	46	1
NSA-182	433817	3766784	45	39	46	1
NSA-183	433181	3767110	45	53	54	9
NSA-184	433763	3767117	45	39	46	1
NSA-185	433783	3767117	45	39	46	1
NSA-186	433802	3767117	45	38	46	1
NSA-187	433409	3767435	45	40	46	1
NSA-188	433643	3767437	45	38	46	1
NSA-189	433723	3767446	45	37	46	1
NSA-190	433290	3767460	45	41	46	1
NSA-191	433779	3767449	45	36	46	1
NSA-192	433644	3767556	45	36	46	1
NSA-193	433330	3767559	45	39	46	1
NSA-194	433347	3767559	45	39	46	1
NSA-195	433662	3767556	45	36	46	1
NSA-196	433551	3767559	45	37	46	1
NSA-197	433569	3767559	45	37	46	1
NSA-198	433424	3767643	45	37	46	1
NSA-199	433439	3767643	45	37	46	1
NSA-200	433465	3767643	45	37	46	1
NSA-201	433482	3767643	45	37	46	1
NSA-202	433509	3767642	45	37	46	1
NSA-203	433525	3767642	45	36	46	1
NSA-204	433382	3767703	45	37	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-205	433181	3766525	45	45	48	3
NSA-206	433220	3766526	45	44	48	3
NSA-207	433254	3766522	45	44	47	2
NSA-208	433820	3767118	45	38	46	1
NSA-209	433839	3767118	45	38	46	1
NSA-210	433857	3767118	45	38	46	1
NSA-211	433876	3767118	45	37	46	1
NSA-212	433698	3767113	45	40	46	1
NSA-213	433895	3767118	45	37	46	1
NSA-214	433916	3767117	45	37	46	1
NSA-215	433576	3767126	45	42	47	2
NSA-216	433308	3767464	45	41	46	1
NSA-217	433323	3767465	45	41	46	1
NSA-218	433338	3767466	45	40	46	1
NSA-219	433353	3767467	45	40	46	1
NSA-220	433269	3767463	45	41	47	2
NSA-221	433368	3767468	45	40	46	1
NSA-222	433384	3767469	45	40	46	1
NSA-223	433399	3767470	45	40	46	1
NSA-224	433414	3767471	45	40	46	1
NSA-225	433375	3767562	45	39	46	1
NSA-226	433392	3767562	45	38	46	1
NSA-227	433420	3767565	45	38	46	1
NSA-228	433457	3767544	45	38	46	1
NSA-229	433439	3767565	45	38	46	1
NSA-230	433335	3767648	45	38	46	1
NSA-231	433351	3767648	45	38	46	1
NSA-232	433379	3767647	45	37	46	1
NSA-233	433396	3767647	45	37	46	1
NSA-234	433171	3766361	45	42	47	2
NSA-235	433369	3766378	45	40	46	1
NSA-236	433580	3766538	45	40	46	1
NSA-237	433643	3766541	45	40	46	1
NSA-238	433310	3766548	45	44	48	3
NSA-239	433504	3766706	45	44	47	2
NSA-240	433578	3766708	45	42	47	2
NSA-241	433409	3767135	45	46	48	3
NSA-242	433457	3767135	45	45	48	3
NSA-243	433505	3767135	45	44	47	2
NSA-244	433361	3767134	45	47	49	4

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-245	433429	3767472	45	39	46	1
NSA-246	433444	3767473	45	39	46	1
NSA-247	433613	3767477	45	38	46	1
NSA-248	433460	3767475	45	39	46	1
NSA-249	433475	3767476	45	39	46	1
NSA-250	433258	3767474	45	41	46	1
NSA-251	433490	3767477	45	39	46	1
NSA-252	433505	3767477	45	39	46	1
NSA-253	433521	3767478	45	38	46	1
NSA-254	433537	3767479	45	38	46	1
NSA-255	433597	3767565	45	37	46	1
NSA-256	433616	3767565	45	37	46	1
NSA-257	433257	3767570	45	40	46	1
NSA-258	433288	3767572	45	39	46	1
NSA-259	433305	3767572	45	39	46	1
NSA-260	433644	3767571	45	36	46	1
NSA-261	433331	3767574	45	39	46	1
NSA-262	433348	3767574	45	39	46	1
NSA-263	433501	3766376	45	39	46	1
NSA-264	433443	3766380	45	39	46	1
NSA-265	433310	3766380	45	41	46	1
NSA-266	433579	3766384	45	38	46	1
NSA-267	433639	3766384	45	38	46	1
NSA-268	433717	3766384	45	37	46	1
NSA-269	433717	3766552	45	39	46	1
NSA-270	433836	3766554	45	37	46	1
NSA-271	433889	3766719	45	38	46	1
NSA-272	433504	3766730	45	44	47	2
NSA-273	433675	3767143	45	40	46	1
NSA-274	433907	3767167	45	37	46	1
NSA-275	433709	3767162	45	40	46	1
NSA-276	433575	3767165	45	42	47	2
NSA-277	433184	3767178	45	50	51	6
NSA-278	433260	3767146	45	49	51	6
NSA-279	433763	3767177	45	39	46	1
NSA-280	433783	3767177	45	38	46	1
NSA-281	433802	3767177	45	38	46	1
NSA-282	433553	3767480	45	38	46	1
NSA-283	433568	3767482	45	38	46	1
NSA-284	433675	3767486	45	37	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-285	433583	3767483	45	38	46	1
NSA-286	433331	3767484	45	40	46	1
NSA-287	433598	3767485	45	38	46	1
NSA-288	433256	3767493	45	41	46	1
NSA-289	433552	3767574	45	37	46	1
NSA-290	433569	3767574	45	37	46	1
NSA-291	433376	3767577	45	38	46	1
NSA-292	433393	3767577	45	38	46	1
NSA-293	433420	3767580	45	38	46	1
NSA-294	433291	3767656	45	38	46	1
NSA-295	433247	3767715	45	37	46	1
NSA-296	433288	3767718	45	37	46	1
NSA-297	433306	3767720	45	37	46	1
NSA-298	433181	3766398	45	42	47	2
NSA-299	433220	3766396	45	42	47	2
NSA-300	433580	3766568	45	41	46	1
NSA-301	433644	3766570	45	40	46	1
NSA-302	433578	3766735	45	42	47	2
NSA-303	433965	3766922	45	38	46	1
NSA-304	433820	3767177	45	38	46	1
NSA-305	433839	3767177	45	38	46	1
NSA-306	433858	3767177	45	37	46	1
NSA-307	433877	3767177	45	37	46	1
NSA-308	433909	3767188	45	37	46	1
NSA-309	433647	3767164	45	41	46	1
NSA-310	433619	3767165	45	41	46	1
NSA-311	433735	3767492	45	36	46	1
NSA-312	433614	3767488	45	37	46	1
NSA-313	433287	3767495	45	40	46	1
NSA-314	433303	3767495	45	40	46	1
NSA-315	433329	3767497	45	40	46	1
NSA-316	433346	3767498	45	40	46	1
NSA-317	433598	3767580	45	37	46	1
NSA-318	433616	3767580	45	36	46	1
NSA-319	433258	3767585	45	39	46	1
NSA-320	433309	3767656	45	38	46	1
NSA-321	433424	3767658	45	37	46	1
NSA-322	433254	3766392	45	41	47	2
NSA-323	433369	3766409	45	41	46	1
NSA-324	433310	3766581	45	45	48	3



NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-325	433504	3766753	45	44	48	3
NSA-326	433470	3766934	45	46	49	4
NSA-327	433976	3766948	45	37	46	1
NSA-328	433237	3766942	45	60	60	15
NSA-329	433878	3766941	45	39	46	1
NSA-330	433242	3767212	45	47	49	4
NSA-331	433505	3767207	45	43	47	2
NSA-332	433575	3767211	45	41	47	2
NSA-333	433678	3767210	45	40	46	1
NSA-334	433361	3767226	45	45	48	3
NSA-335	433652	3767494	45	37	46	1
NSA-336	433668	3767496	45	37	46	1
NSA-337	433373	3767500	45	40	46	1
NSA-338	433390	3767501	45	39	46	1
NSA-339	433683	3767498	45	37	46	1
NSA-340	433289	3767587	45	39	46	1
NSA-341	433306	3767587	45	39	46	1
NSA-342	433440	3767658	45	37	46	1
NSA-343	433466	3767658	45	37	46	1
NSA-344	433482	3767658	45	37	46	1
NSA-345	433509	3767657	45	36	46	1
NSA-346	433369	3766218	45	38	46	1
NSA-347	433443	3766411	45	38	46	1
NSA-348	433501	3766410	45	39	46	1
NSA-349	433310	3766414	45	41	47	2
NSA-350	433579	3766415	45	39	46	1
NSA-351	433639	3766415	45	38	46	1
NSA-352	433717	3766415	45	38	46	1
NSA-353	433836	3766586	45	37	46	1
NSA-354	433578	3766762	45	43	47	2
NSA-355	433889	3766755	45	38	46	1
NSA-356	433175	3766738	45	52	52	7
NSA-357	433221	3766739	45	51	52	7
NSA-358	433268	3766739	45	50	51	6
NSA-359	433314	3766737	45	48	50	5
NSA-360	433912	3766941	45	38	46	1
NSA-361	433499	3766957	45	45	48	3
NSA-362	433409	3767226	45	44	47	2
NSA-363	433457	3767226	45	43	47	2
NSA-364	433505	3767245	45	42	47	2

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-365	433717	3767237	45	39	46	1
NSA-366	433565	3767252	45	41	46	1
NSA-367	433419	3767503	45	39	46	1
NSA-368	433437	3767504	45	39	46	1
NSA-369	433698	3767500	45	37	46	1
NSA-370	433713	3767501	45	36	46	1
NSA-371	433257	3767509	45	41	46	1
NSA-372	433464	3767506	45	39	46	1
NSA-373	433481	3767507	45	38	46	1
NSA-374	433332	3767589	45	39	46	1
NSA-375	433349	3767589	45	38	46	1
NSA-376	433552	3767589	45	37	46	1
NSA-377	433570	3767589	45	37	46	1
NSA-378	433259	3767661	45	38	46	1
NSA-379	433335	3767663	45	38	46	1
NSA-380	433352	3767663	45	37	46	1
NSA-381	433380	3767663	45	37	46	1
NSA-382	433396	3767662	45	37	46	1
NSA-383	433195	3766224	45	39	46	1
NSA-384	433282	3766224	45	39	46	1
NSA-385	433418	3766221	45	38	46	1
NSA-386	433485	3766234	45	37	46	1
NSA-387	433390	3766381	45	39	46	1
NSA-388	433580	3766598	45	41	46	1
NSA-389	433644	3766599	45	40	46	1
NSA-390	433717	3766593	45	39	46	1
NSA-391	433505	3766775	45	44	48	3
NSA-392	433571	3766953	45	44	48	3
NSA-393	433617	3766953	45	43	47	2
NSA-394	433678	3766953	45	42	47	2
NSA-395	433724	3766953	45	41	46	1
NSA-396	433597	3767257	45	40	46	1
NSA-397	433629	3767259	45	40	46	1
NSA-398	433242	3767272	45	46	48	3
NSA-399	433659	3767267	45	39	46	1
NSA-400	433473	3767283	45	42	47	2
NSA-401	433834	3767248	45	37	46	1
NSA-402	433507	3767508	45	38	46	1
NSA-403	433286	3767511	45	40	46	1
NSA-404	433303	3767511	45	40	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-405	433523	3767509	45	38	46	1
NSA-406	433329	3767513	45	40	46	1
NSA-407	433346	3767513	45	40	46	1
NSA-408	433377	3767592	45	38	46	1
NSA-409	433393	3767592	45	38	46	1
NSA-410	433405	3767551	45	39	46	1
NSA-411	433421	3767596	45	38	46	1
NSA-412	433339	3767660	45	38	46	1
NSA-413	433463	3767674	45	37	46	1
NSA-414	433485	3766258	45	37	46	1
NSA-415	433501	3766443	45	40	46	1
NSA-416	433180	3766591	45	46	49	4
NSA-417	433220	3766590	45	46	48	3
NSA-418	433254	3766594	45	46	48	3
NSA-419	433578	3766790	45	43	47	2
NSA-420	433270	3766955	45	55	56	11
NSA-421	433293	3766957	45	54	54	9
NSA-422	433358	3767291	45	43	47	2
NSA-423	433690	3767282	45	39	46	1
NSA-424	433473	3767319	45	41	47	2
NSA-425	433731	3767503	45	36	46	1
NSA-426	433551	3767511	45	38	46	1
NSA-427	433569	3767512	45	38	46	1
NSA-428	433374	3767516	45	39	46	1
NSA-429	433390	3767516	45	39	46	1
NSA-430	433419	3767519	45	39	46	1
NSA-431	433437	3767519	45	39	46	1
NSA-432	433598	3767595	45	36	46	1
NSA-433	433617	3767595	45	36	46	1
NSA-434	433258	3767600	45	39	46	1
NSA-435	433290	3767603	45	39	46	1
NSA-436	433307	3767602	45	39	46	1
NSA-437	433290	3767671	45	38	46	1
NSA-438	433309	3767671	45	38	46	1
NSA-439	433424	3767673	45	37	46	1
NSA-440	433440	3767673	45	37	46	1
NSA-441	433466	3767673	45	37	46	1
NSA-442	433514	3767571	45	37	46	1
NSA-443	433195	3766269	45	40	46	1
NSA-444	433282	3766269	45	39	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-445	433579	3766446	45	39	46	1
NSA-446	433310	3766447	45	42	47	2
NSA-447	433639	3766446	45	39	46	1
NSA-448	433717	3766446	45	38	46	1
NSA-449	433778	3766446	45	37	46	1
NSA-450	433313	3766615	45	45	48	3
NSA-451	433254	3766488	45	43	47	2
NSA-452	433889	3766796	45	38	46	1
NSA-453	433879	3767000	45	39	46	1
NSA-454	433912	3767004	45	38	46	1
NSA-455	433584	3767322	45	40	46	1
NSA-456	433720	3767305	45	38	46	1
NSA-457	433763	3767321	45	38	46	1
NSA-458	433809	3767321	45	37	46	1
NSA-459	433854	3767321	45	36	46	1
NSA-460	433597	3767517	45	37	46	1
NSA-461	433615	3767518	45	37	46	1
NSA-462	433257	3767524	45	40	46	1
NSA-463	433464	3767522	45	38	46	1
NSA-464	433481	3767522	45	38	46	1
NSA-465	433507	3767524	45	38	46	1
NSA-466	433287	3767526	45	40	46	1
NSA-467	433303	3767526	45	40	46	1
NSA-468	433523	3767524	45	38	46	1
NSA-469	433333	3767605	45	38	46	1
NSA-470	433349	3767605	45	38	46	1
NSA-471	433553	3767604	45	37	46	1
NSA-472	433571	3767604	45	37	46	1
NSA-473	433377	3767608	45	38	46	1
NSA-474	433394	3767608	45	38	46	1
NSA-475	432459	3766902	45	38	46	1
NSA-476	432467	3766861	45	38	46	1
NSA-477	432468	3766843	45	38	46	1
NSA-478	432457	3767047	45	37	46	1
NSA-479	432458	3767028	45	38	46	1
NSA-480	432459	3766979	45	38	46	1
NSA-481	432458	3766995	45	38	46	1
NSA-482	432458	3767011	45	38	46	1
NSA-483	432456	3767066	45	37	46	1
NSA-484	432456	3767085	45	37	46	1

NSA Property Line	UTM Coordinates (meters)		Nighttime Daytime Sound Levels $L_{eq}$ , dBA	Nighttime Operational $L_{eq}$ , dBA	Combined Sound Level (Project + Existing) $L_{eq}$ , dBA	Overall Increase (dB)
	Easting	Northing				
NSA-485	432467	3767155	45	37	46	1
NSA-486	432466	3767173	45	37	46	1
NSA-487	432466	3767192	45	37	46	1
NSA-488	432465	3767210	45	36	46	1
NSA-489	432465	3767228	45	36	46	1
NSA-490	432464	3767246	45	36	46	1
NSA-491	432467	3767265	45	36	46	1
NSA-492	432954	3767560	45	38	46	1
NSA-493	433107	3767551	45	40	46	1
NSA-494	433146	3767676	45	38	46	1
NSA-495	433187	3767729	45	38	46	1
NSA-496	432952	3767644	45	37	46	1
NSA-497	432953	3767626	45	38	46	1
NSA-498	433096	3767486	45	41	46	1
NSA-499	433106	3767531	45	40	46	1
NSA-500	432933	3767492	45	39	46	1
NSA-501	432936	3767408	45	41	46	1
NSA-502	432936	3767423	45	40	46	1
NSA-503	432886	3767383	45	40	46	1
NSA-504	432782	3767463	45	38	46	1
NSA-505	432830	3767398	45	40	46	1
NSA-506	432849	3767398	45	40	46	1
NSA-507	432886	3767414	45	40	46	1
NSA-508	432858	3767439	45	39	46	1
NSA-509	432858	3767457	45	39	46	1