.

NOISE IMPACT ANALYSIS

VALLEY CENTER STORAGE PROJECT

COUNTY OF SAN DIEGO

Lead Agency:

County of San Diego
Planning & Development Services
5510 Overland Avenue #110
San Diego, CA 92123

Prepared by:

Vista Environmental
1021 Didrickson Way
Laguna Beach, California 92651
949 510 5355
Greg Tonkovich, INCE

Project No. 19098

May 20, 2020

TABLE OF CONTENTS

APPENDIX

LIST OF FIGURES

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
BESS	Battery energy storage system
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
County	County of San Diego
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
FHWA	Federal Highway Administration
EPA	Environmental Protection Agency
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
ONAC	Federal Office of Noise Abatement and Control
OSB	Oriented Strand Board
Project	Valley Center Storage Project
PDC	Power Distribution Center
SDG&E	San Diego Gas & Electric
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine potential noise impacts associated with the Valley Center Storage Project (Project). The following is provided in this report:

- A description of the study area and the Project;
- Information regarding the fundamentals of noise;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the Project; and
- An analysis of long-term operations-related noise impacts from the Project.

Valley Center ESS, LLC (Developer) plans to construct, own and operate the Valley Center Storage Project, a lithium-ion based battery energy storage facility capable of delivering up to 140 megawatts (MW) for approximately 4 hours on an 8.93-acre parcel and associated utility and access easement in Valley Center, San Diego County (the Project). The Project will interconnect to the existing, adjacent San Diego Gas & Electric (SDG&E) 69kV Valley Center Substation via an approximately 0.3-mile underground generation tie line (gen-tie line). The Project will be comprised of sets of four battery enclosures (each enclosure approximately 31.6 feet long by 5.7 feet wide by 8.6 feet high) that will house the integrated Battery Energy Storage System (BESS) including battery cells, modules, racks, a fully integrated fire and safety systems, HVAC systems, and other electrical systems. The batteries will be charged from the CAISO (California Independent System Operator) grid via the Project's interconnection to the SDG&E Valley Center Substation. Energy stored in the Project will then be discharged back into the grid when the energy is needed, providing essential electricity reliability services to the local area. The Project plans to start construction in the fourth quarter of 2020 and begin operations by August 1, 2021.

1.2 Project Site Location and Study Area

The Project is located in the northwestern portion on the County of San Diego (County) at 29523 Valley Center Road, Valley Center, California on parcel APN 189-013-20-00. The approximately 8.93-acre Project site is currently vacant. Surrounding land uses include Limited Impact Industrial to the north, Semi-Rural Residential (SR-4 and SR-2) to the east and south, and Medium Impact Industrial to the west. The Project location is shown in Figure 1.

Climate and Meteorology

Meteorological trends within the Valley Center area are generally similar to that of Escondido daytime highs ranging between 65ºF in the winter to approximately 88ºF in the summer with August usually being the hottest month. Median temperatures range from approximately 57ºF in the winter to approximately 78ºF in the summer. Precipitation is generally about 16.2 inches per year (WRCC, 2018). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant pattern though throughout the year is usually from the west or westerly (WRCC, 2018).

1.3 Project Description

The Project will be comprised of lithium ion battery modules housed in cabinets within up to 58 sets of 4 non-walk-in enclosures on dedicated foundations that will be capable of charging and delivering up to 140MW for approximately 4 hours. Each enclosure will contain integrated battery, heat/fire and safety management systems including electrical and mechanical controls, ventilation systems, HVAC, fire alarm detection and heat management systems. From the BESS containers, low voltage cables will connect to low profile, pad- inverter/transformers located adjacent to the BESS units, and to a control center enclosure called a Power Distribution Center (PDC).

Major Project equipment and facilities include:

- Up to 58 sets of 4 BESS enclosures including battery modules and integrated battery, fire and safety management systems.
- Up to 58 pad-mounted inverter/transformers located adjacent to each set of BESS enclosures to convert direct current into alternative current and step the units' voltage up to 34.5 kV.
- 2 PDC enclosures which are modular electrical equipment enclosures housing energy management systems, communications/SCADA equipment, and other electrical equipment.
- A BSU (Battery Step-Up Transformer), circuits will enter the BSU from the PDC at 34.5 kV where voltage will be stepped up to 69kV.
- An approximately 0.3-mile 69kV gen-tie line will be constructed from the Project BSU north across Valley Center Road to SDG&E 69kV Valley Center Substation.
- Security lighting and fencing
- Stormwater drainage and retention basins
- Signage

The size and quantity of the battery storage containers and inverter transformers may vary depending on the battery and BESS manufacturer(s) selected for the Project.

Access to the Project site is provided from Valley Center Road via a permanent Project-controlled easement. The site access road will comply with County regulations and be stabilized using gravel in order to provide access to operational, fire department, and emergency vehicle access to the facility. Project site equipment and facilities (with the exception of stormwater drainage and retention basins) will be surrounded by a solid, 8-foot tall vinyl wall or a similar solid wall/fence. The fence will be built flush with the ground and have the appearance of a paneled wood fence. Existing fences surrounding the property boundary will remain.

1.4 Project Construction

Project construction includes site preparation and grading, installation of drainage and retention basins, foundations/supports, setting battery enclosures, wiring and electrical system installation, and assembly of the accessory components including inverter transformers and generation step-up transformers. The Project would require the grading of approximately 3,000 cubic yards of soils, balanced on site (no net import or export). The approximately 0.3-mile gen-tie line will be installed underground by the Project to the SDG&E 69kV Valley Center substation.

Construction Schedule, Sequence and Phasing

In accordance with the County Noise Ordinance, Project construction will occur between the hours of 7:00AM and 7:00PM Monday through Saturday. Construction of the Project is anticipated to occur over approximately 6 months, beginning as early as fourth quarter 2020. Project construction would likely occur in two phases:

- Phase 1 – Installation of battery storage enclosures and associated civil, electrical and structural features placed outside of the floodplain. During Phase 1, ancillary features, such as graveled access roads and underground electrical components, that are not considered "encroachment" would be installed within the floodplain.
- Phase 2 – Installation of remaining battery storage enclosures and associated civil, electrical and structural features placed within the floodplain; includes features, such as pad-mounted switchgear, step-up transformer(s), and a control center enclosure, that could be considered "encroachment" within the floodplain.

The two construction phases would likely be executed consecutively; Phase 1 followed by Phase 2. However, for the purposes of preparing a worst-case CEQA analysis, technical analyses were completed assuming the two construction phases would occur simultaneously over a period of approximately 6-12 months.

The sequence of construction activities for the BESS would generally occur as follows (with activities limited within the floodplain as described in Phase 1 and Phase 2 above):

1. Equipment staging and mobilization
2. Site preparation and grading
3. Preparation of equipment foundations
4. Site compaction and gravel as necessary
5. Excavating footings and pads
6. Pour-in-place concrete footings, pad foundations, and/or piers
7. Install below-ground conduit banks
8. Install PCS, power distribution systems, and pad-mounted transformers
9. Install below-ground and above-ground conduit
10. Install safety features, permanent fencing and security lighting
11. Commissioning

Construction Personnel and Equipment

Construction personnel are expected to consist of approximately 10 to 15 workers on average, depending on the construction activities. Project laydown and construction staff parking is expected to be located on-site to the extent practicable. The Project may need to utilize an offsite temporary use area, up to approximately 2 acres in size, for equipment storage during construction. Should it be needed, the temporary use area would be located within 2 miles of the Project site, on a site that has been previously disturbed, and where temporary equipment storage is an allowable use and compatible with the existing uses on the property. The technical analyses prepared for the Project have been conducted assuming use

of a temporary offsite area following these parameters. If it is determined that use of a temporary offsite area is needed during Project construction, the selected location will be submitted to the County and shown to be consistent with the technical analyses performed for the Project.

Typical equipment expected to be used during Project construction and commissioning:

- Excavator (2)
- Backhoe (2)
- Dozer (1)
- Roller/Compactor (1)
- Dump truck (2)
- Concrete mixer (3)
- Flatbed-mounted utility crane (1)
- Portable generator and welding equipment (1)
- Forklift (1)
- Pickup trucks (4)
- Utility line trucks (2)

1.5 Executive Summary

Construction Noise

As detailed in Section 6.0 of this report, the greatest noise impacts during construction would occur during grading activities on the Project site, with a noise level as high as 73 dBA Leq averaged over 8 hours at the nearest property line. Therefore, through adherence to the limitations of the hours of noise producing construction activities provided in Sections 36.408 and 36.409 of the County's Noise Ordinance, a less than significant noise impact would occur from construction activities associated with the Project.

Operation Noise

As detailed in Section 7.0 of this report, the Project site equipment and facilities (with the exception of stormwater drainage and retention basins) will be surrounded by a solid, 8-foot tall vinyl fence or a similar solid fence flush to the ground with no gaps with a Sound Transmission Class (STC) rating of 18 or greater (see Project Design Feature 1). The Project operational noise level created at all adjacent property lines would be within the County noise standards. Therefore the Project would not require any additional noise abatement.

1.6 Project Design Features Incorporated into the Proposed Project

This analysis was based on implementation of the following project design feature that is depicted on the plans for the project.

Project Design Feature 1:
The project applicant shall construct the 8 foot high perimeter sound wall as depicted on the Preliminary Site Plan (see Figure 2). The perimeter sound wall shall be constructed of a solid material that is free of any decorative cut-outs or opening and has a minimum Sound Transmission Class (STC) rating of 18 STC.

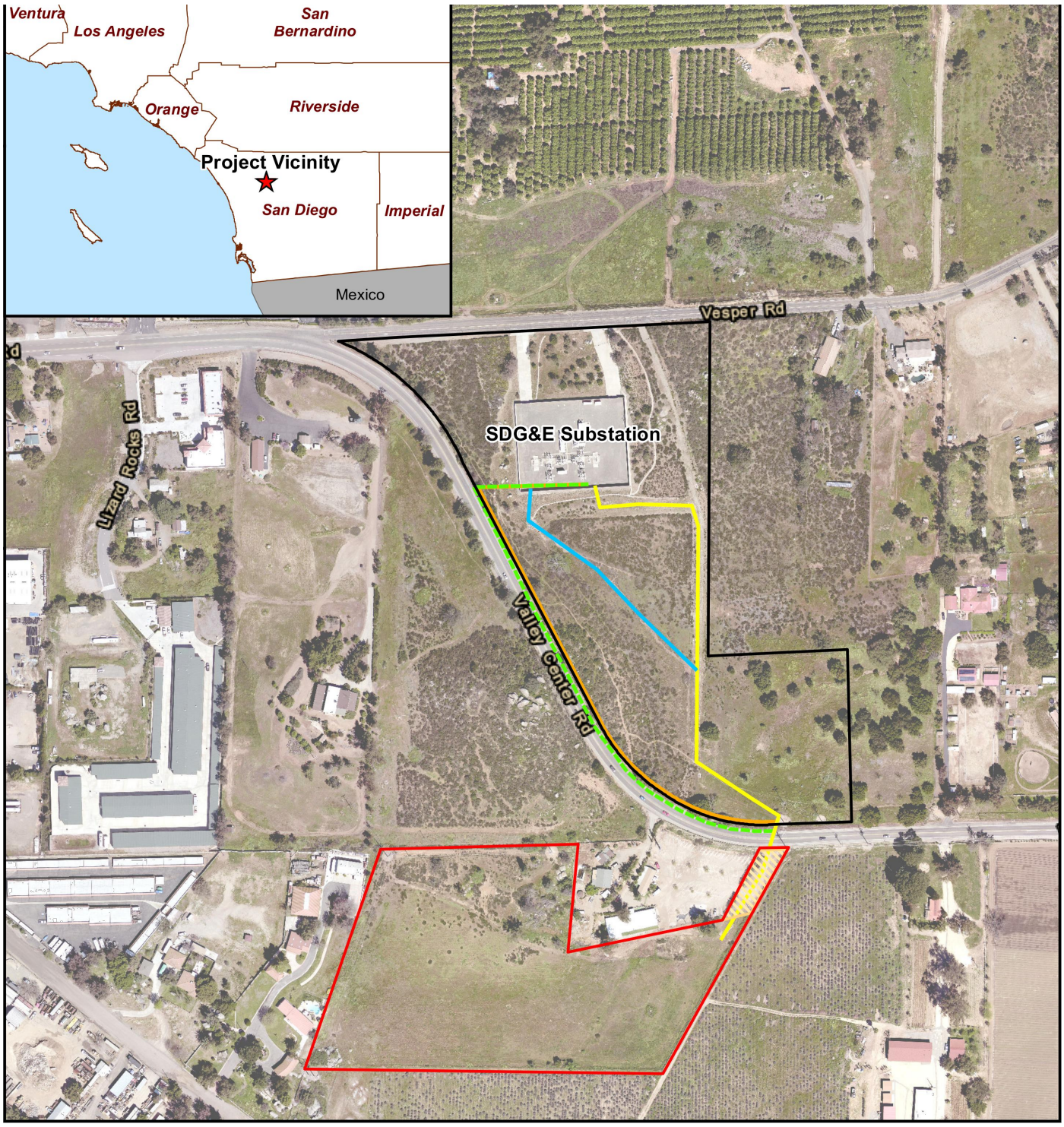
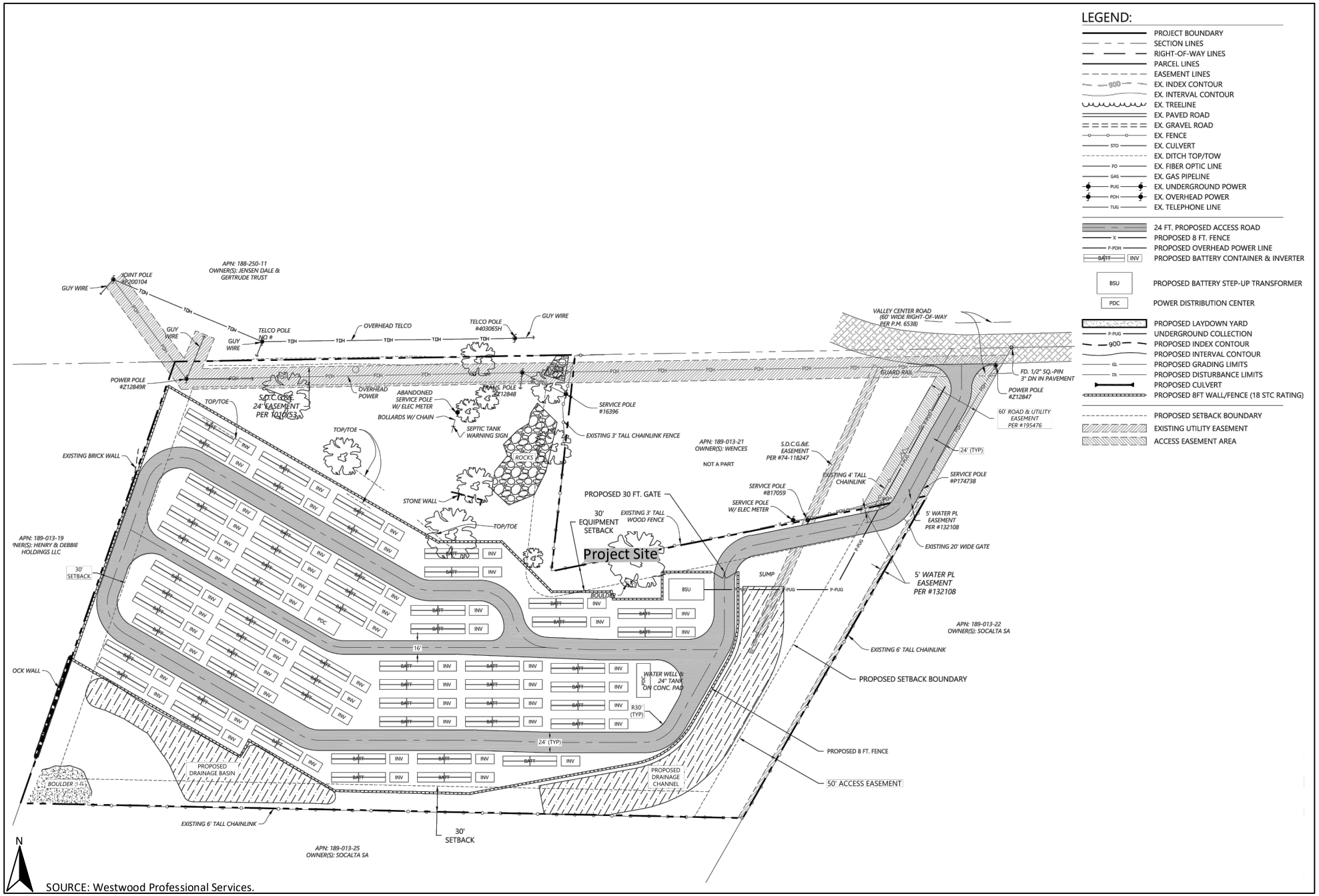


Figure 1
Valley Center Storage Project
Project Site

VISTA ENVIRONMENTAL

Figure 1
Project Location Map



SOURCE: Westwood Professional Services.

VISTA ENVIRONMENTAL

Figure 2
Preliminary Site Plan

2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour Leq is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (Ldn) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The County of San Diego relies on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound

from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 REGULATORY SETTING

The Project site is located in unincorporated Valley Center in the County of San Diego. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

3.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration agency prohibits exposure of workers to excessive sound levels. The Department of Transportation assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration. Transit noise is regulated by the federal Urban Mass Transit Administration, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

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

3.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise. The land use compatibility guidelines developed by ONC along with other parameters from the California Governor's Office of Planning and Research were used by the County of San Diego to develop its own land use compatibility standards as described below under Local Regulations.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family

detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

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

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

3.3 Local Regulations

The County of San Diego General Plan and Municipal Code establishes the following applicable policies related to noise.

County of San Diego General Plan

The following applicable goals and policies to the Project are from the Noise Element of the General Plan.

Goal N-1: Land Use Compatibility.

A noise environment throughout the unincorporated County that is compatible with the land uses.

Policy N-1.1
Noise Compatibility Guidelines. Use the Noise Compatibility Guidelines (Table N-1 [see Figure 3]) and the Noise Standards (Table N-2 [see Table A) as a guide in determining the acceptability of exterior and interior noise for proposed land uses.

Table A – County of San Diego General Plan Noise Element Noise Standards

	Table N-2 Noise Standard
1.	The exterior noise level (as defined in Item 3) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
2.	The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
3.	The exterior noise level standard for Categories D and G shall be 65 CNEL and the interior noise level standard shall be50 dBA Leq (one hour average).
4.	For single-family detached dwelling units, "exterior noise level" is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
5.	For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which are provided for private or group usable open space purposes. "Private Usable Open Space" is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. "Group Usable Open Space" is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.
6.	For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.
7.	For noise sensitive land uses where people normally do not sleep at night, the exterior and interior noise standard may be measured using either CNEL or the one-hour average noise level determined at the loudest hour during the period when the facility is normally occupied.
8.	The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library.
9.	For Categories E and F the exterior noise level standard shall not exceed the limit defined as "Acceptable" in Table N-1 or an equivalent one-hour noise standard.

Note: Exterior Noise Level compatibility guidelines for Land Use Categories A-H are identified in Table N-1, Noise Compatibility Guidelines.
Source: Table N-2 from County of San Diego General Plan Noise Element, 2011.

Goal N-5: Noise-Generating Industrial Facilities.

Locate noise-generating industrial facilities at the maximum practical distance from residential zones. Use setbacks between noise generating equipment and noise sensitive uses and limit the operation of noise generating activities to daytime hours as appropriate where such activities may affect residential uses.

Policy N-5.2

Noise-Generating Industrial Facilities. Locate noise-generating industrial facilities at the maximum practical distance from residential zones. Use setbacks between noise generating equipment and noise sensitive uses and limit the operation of noise generating activities to daytime hours as appropriate where such activities may affect residential uses.

Table N-1 Noise Compatibility Guidelines

Land Use Category		Exterior Noise Level (CNEL)						
			55	60	65	70	75	80
A	Residential—single family residences, mobile homes, senior housing, convalescent homes							
B	Residential—multi-family residences, mixed-use (commercial/residential)							
C	Transient lodging—motels, hotels, resorts							
D*	Schools, churches, hospitals, nursing homes, child care facilities							
E*	Passive recreational parks, nature preserves, contemplative spaces, cemeteries							
F*	Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation							
G*	Office\professional, government, medical\dental, commercial, retail, laboratories							
H*	Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair							

	ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.
	CONDITIONALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table N-2, Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate county decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.
	UNACCEPTABLE—New construction or development shall not be undertaken.

* Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL (refer to Table N-2).

Note: For projects located within an Airport Influence Area of an adopted Airport Land Use Compatibility Plan (ALUCP), additional Noise Compatibility Criteria restrictions may apply as specified in the ALUCP.

SOURCE: San Diego County General Plan, August 2011.

VISTA ENVIRONMENTAL

Figure 3
County of San Diego Noise Compatibility Guidelines

Goal N-6: Temporary and/or Nuisance Noise.

Minimal effects of intermittent, short-term, or other nuisance noise sources to noise sensitive land uses.

Policy N-6.4

Hours of Construction. Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

County of San Diego Municipal Code

The County of San Diego Municipal Code establishes the following applicable standards related to noise.

§36.404 General Sound Level Limits.

(a) Except as provided in section 36.409 of this chapter, it shall be unlawful for any person to cause or allow the creation of any noise, which exceeds the one-hour average sound level limits in Table 36.404 (see Table B), when the one-hour average sound level is measured at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise.

Table B – County of San Diego Municipal Code Sound levels Limits

Zone	Time	One-Hour Average Sound Level Limits(dBA)
1. RS, RD, RR, RMH, A70, A72, S80, S81, S90, S92, RV, and RU with a General Plan Land Use Designation density of less than 10.9 dwelling units per acre.	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
2. RRO, RC, RM, S86, V5, RV and RU with a General Plan Land Use Designation density of 10.9 or more dwelling units per acre.	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
3. S94, V4, and all other commercial zones.	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
4. V1, V2	7 a.m. to 7 p.m.	60
	7 p.m. to 10 p.m.	55
V1	10 p.m. to 7 a.m.	55
V2	10 p.m. to 7 a.m.	50
V3	7 a.m. to 10 p.m.	70
	10 p.m. to 7 a.m.	65
5. M50, M52, M54	Anytime	70
6. S82, M56, and M58.	Anytime	75
7. S88 (see subsection (c) below)		

Note:
Source: Table 36.404 from the County of San Diego Noise Ordinance.

(b) Where a noise study has been conducted and the noise mitigation measures recommended by that study have been made conditions of approval of a Major Use Permit which authorizes the noise-generating use or activity and the decision making body approving the Major Use Permit determined that

those mitigation measures reduce potential noise impacts to a level below significance, implementation and compliance with those noise mitigation measures shall constitute compliance with subsection (a) above.

(c) S88 zones are Specific Planning Areas which allow different uses. The sound level limits in Table 36.404 [Table C] above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404 [Table C], subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

(d) If the measured ambient noise level exceed the applicable limit in Table 36.404 [Table C], the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located.

(f) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section measured at or beyond six feet from the boundary of the easement upon which the facility is located.

§36.408 Hours of Operation of Construction Equipment.

Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

(a) Between 7 p.m. and 7 a.m.

(b) On a Sunday or a holiday. For purposes of this section, a holiday means January 1st, the last Monday in May, July 4th, the first Monday in September, December 25th and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10 a.m. and 5 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in sections 36.409 and 36.410

§36.409 Sound Level Limitations on Construction Equipment.

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 decibels for an eight-hour period, between 7 a.m. and 7 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

4.0 EXISTING NOISE CONDITIONS

4.1 Setting and Locations

The Project is located at 29523 Valley Center Road, Valley Center, California on parcel APN 189-013-20-00 within San Diego County. The County of San Diego (County) identifies land use and zoning of the Project site as Medium Impact Industrial (I-2) and General Impact Industrial (M54) use regulation.

Uses in the Medium Impact Industrial zone are limited primarily to manufacturing, processing, and assembly; warehousing and distribution; large equipment supplies and sales; and other industrial or commercial activities.

The M54 use regulation allows for unenclosed commercial and industrial operations having potential nuisance characteristics such as construction sales and services. Minor Impact Utilities, such as the Project, refers to public utilities which have a local impact on surrounding properties and are necessary to provide essential services. As such, Minor Impact Utilities are permitted by right within the M54 use regulation. Additionally, the Project site is located in an area under County Special Area Regulations, Designator B: Community Design Review Area, where Visual Impacts criteria must be met through a limited Site Plan approval process. These regulations are intended to ensure that added consideration is provided in areas of special interest or unusual value. Surrounding land uses include Limited Impact Industrial to the north, Semi-Rural Residential (SR-4 and SR-2) to the east and south, and Medium Impact Industrial to the west.

Sensitive Receptors in Project Vicinity

The nearest existing sensitive receptor to the Project site is a single-family home located adjacent to the western property line of the Project site. The nearest school to the Project site is Valley Center Elementary School, which is located approximately 0.5-mile northwest of the Project site. Table C shows the surrounding land use.

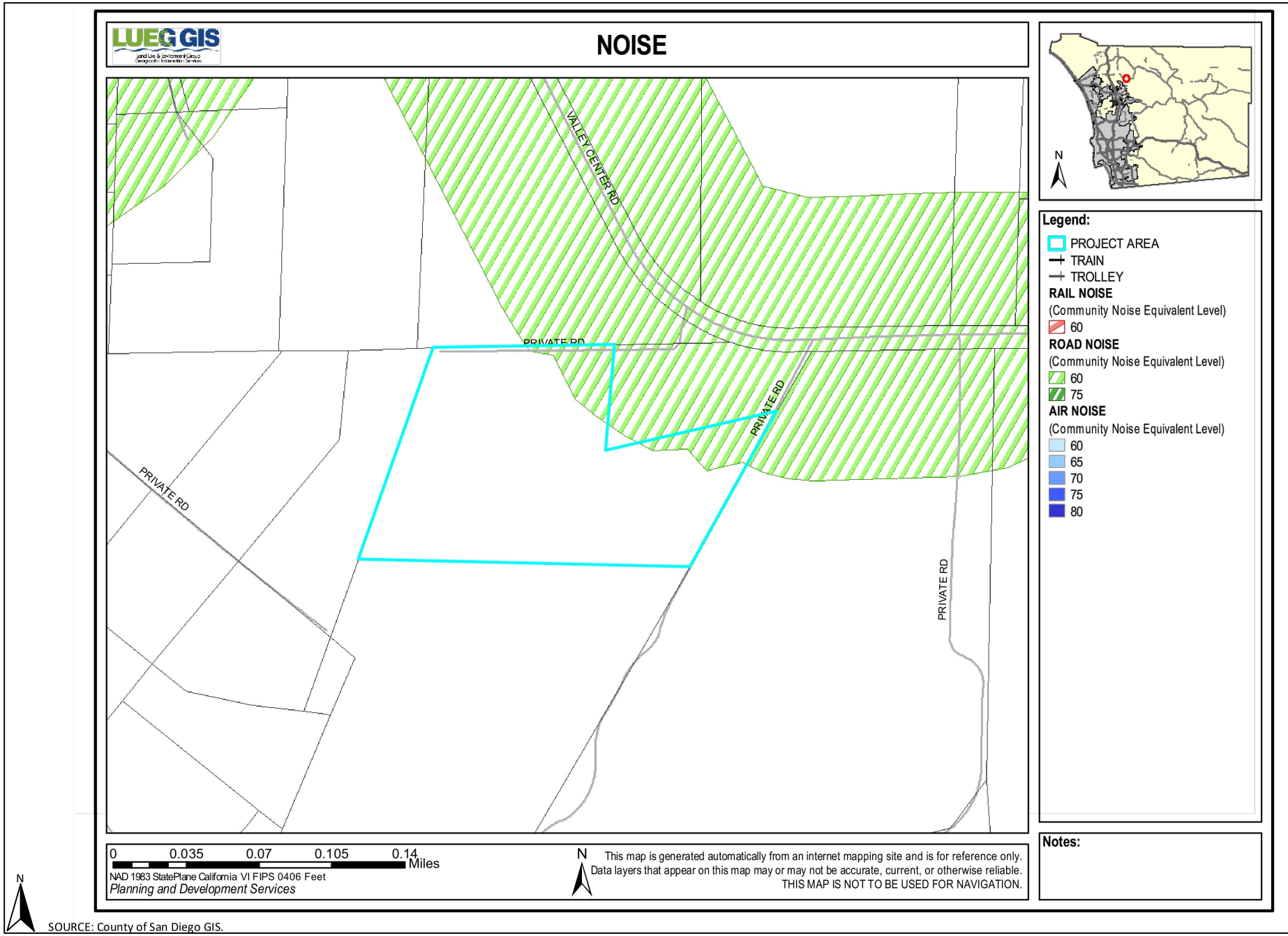
Table C – Surrounding Land Use

APN	Location	Existing Land Use	Zoning
189-013-20-00	Project Site	Vacant Land	M54 – General Impact Industrial
188-250-11-00	North	Vacant Land	M52 – Limited Impact Industrial
189-013-21-00	North	Commercial / Rural Residential	M52 – Limited Impact Industrial
189-013-25-00	South	Agricultural	RR – Rural Residential
189-013-22-00	East	Agricultural	A70 – Limited Agricultural and RR – Rural Residential
189-013-19-00	West	Commercial / Rural Residential	M54 – General Impact Industrial

Source: https://sdgis.sandag.org/

4.2 Existing Noise Conditions

The Project site is located south of Valley Center Road. Valley Center Road is a Boulevard with Raised Median (4.2A) roadway in the County of San Diego's Circulation Element. Existing noise occurs mainly from vehicular traffic traveling on nearby roadways. The existing noise contours for the Project site that were obtained from the County's GIS system at https://gis-public.co.san-diego.ca.us/ISRP/home is shown in Figure 4.



SOURCE: County of San Diego GIS.

VISTA ENVIRONMENTAL

Figure 4
Existing Noise Contours on the Project Site

5.0 MODELING PARAMETERS AND ASSUMPTIONS

5.1 Construction Noise

Potential noise impacts from Project construction have been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel Project in Boston. Assumptions for noise levels generated by on-site grading and off-site generation tie-line installation are based on the *Noise Assessment for AES Battery Energy Storage System* prepared by Ldn Consulting Inc. (February 7, 2019) for the County of San Diego. The report provides a good example of best available information regarding the noise generation parameters in lieu of having a specific technology selected at this stage of Project design. The on-site equipment installation phase was based on equipment assumptions provided by the Developer. Table D below provides a list of the construction equipment anticipated to be used for each phase of Project construction as detailed above in Section 1.4.

Table D – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Number of Equipment	Acoustical Use Factor[1] (percent)	Spec 721.560 Lmax at 50 feet[2] (dBA, slow[3])	Actual Measured Lmax at 50 feet[4] (dBA, slow[3])
On-site Grading				
Dozer	1	40	85	82
Grader	1	40	85	83
Tractor, Loader, or Backhoe	1	40	84	N/A
On-site Equipment Installation				
Crane	1	16	85	81
Forklift (Gradall)	1	40	85	83
Concrete Mixer Truck	1	50	80	80
Concrete Pump Truck	1	20	82	81
Tractor, Loader, or Backhoe	1	40	84	N/A
Off-site Improvements				
Roller	1	20	85	80
Excavator	1	40	85	81

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.
[4] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
Source: Federal Highway Administration, 2006.

Table D also shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Potential construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors listed in Table D and through use of the RCNM. For each phase of construction, the equipment was placed 200 feet from the nearest property line, since that is the nearest average distance that construction equipment would likely operate over an 8-hour time period and is what the County's construction noise standard is based on.

5.2 Operational Noise

SoundPlan Model

Potential noise impacts to adjacent properties due to Project operations have been analyzed through use of the SoundPlan Version 8.2 noise modeling software. The SoundPlan model accounts for Project noise sources as well as sound walls, terrain contour lines, and structures. For each noise source the frequency spectrum can be entered into the model. In order to provide an accurate representation of the Project site, the AutoCad version of the preliminary site plan along with the topographical survey terrain lines were entered into the SoundPlan Model. The default temperature of 20 degrees Celsius (68 degrees Fahrenheit) and default humidity of 50 percent, which can vary the propagation of noise, were used in the analysis and represent reasonable assumptions, since they are near the averages experienced in the Project vicinity.

On-site Operational Equipment Noise Sources

The Project will be comprised of lithium ion battery modules housed within 58 sets of 4 non-walk-in enclosures that will be capable of charging and delivering up to 140MW for approximately 4 hours. Each enclosure would be approximately 31.6 feet long by 5.7 feet wide by 8.6 feet high. However, depending on the battery and BESS manufacturer(s) selected for the Project, the number and configuration of battery modules could change, but the Project footprint would remain significantly the same. From the BESS containers, low voltage cables will connect to 58 low profile, pad- inverter/transformers located adjacent to the BESS units, two (2) control center enclosures called Power Distribution Center (PDCs), and a Battery Step Up Transformer (BSU).

The equipment that is anticipated to generate audible noise levels would consist of: 1) 232 Cube Pro battery enclosures contained within the 58 sets, where the primary source of noise would be the air conditioning units mounted on the battery modules; 2) 58 inverter-transformers, where the primary source of noise is from the inverter equipment; 3) two (2) PDCs, where the primary source of noise is from the air conditioning unit mounted on the PDCs; and 4) one (1) Battery Step Up (BSU) transformer, where the primary source of noise is from the auxiliary transformer. Each noise source was modeled in the SoundPlan model as an area source and the noise parameters for each source is detailed in Table E and the equipment noise specification data sheets are provided in Appendix C.

Table E – Proposed Equipment Modeling Parameters Entered into the SoundPlan Model

Equipment	Number of Units	Equipment Noise Specifications[1]		Sound Power Level (dBA)
		Distance (meters)	Noise Level (dBA)	
Battery Modules	232	1	75	86
Inverters	58	1	79	90
PDCs	2	3	78.9	92
BSU – Aux Transformer	1	1	81	92

Notes:
[1] Noise Specifications Data Sheet provided in Appendix C.

In order to provide a conservative analysis, all equipment was modeled as active 100 percent of the time. The battery modules and PDCs were based on frequency spectrums for air conditioning units and the inverters and BSU were based on the frequency spectrum for the inverters.

Sound Wall Assumptions

The Project site equipment and facilities (with the exception of stormwater drainage and retention basins) will be surrounded by a solid, 8-foot tall vinyl wall or a similar solid fence/wall flush to the ground with no gaps with a Sound Transmission Class (STC) rating of 18 or greater. This was modeled in the SoundPlan model for the with Project conditions. The sound wall was modeled in the SoundPlan model based on no reflection1.

1 Depending on the height of the wall, noise can reflect off the wall and the model could need to account for that. Because the project is utilizing an 8 foot wall, the reflection is nominal, so the exact type of material used in the wall construction was not required to be entered into the model.

6.0 SHORT-TERM CONSTRUCTION NOISE

Construction noise represents a short-term increase in ambient noise levels. Potential noise impacts from Project construction activities would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The construction activities would consist of grading the Project site, installation of the equipment and other on-site improvements, and off-site installation of the interconnect to the existing SDG&E Valley Center Substation via an underground generation tie-line that, upon leaving the Project site will cross Valley Center Road heading north onto SDG&E property for approximately 0.3-mile.

In order for construction activities to create a significant impact, noise level would have to exceed 75 dB L_{eq} for an eight-hour period, between 7 a.m. and 7 p.m. on any occupied property where the noise is being received or construction activities are undertaken at anytime other than the hours of 7 a.m. and 7 p.m. Monday through Saturday.

Potential construction noise impacts onto the nearby sensitive receptors have been calculated according to the methodology presented in Section 2.0 and through the use of the RCNM. The greatest construction noise is anticipated to occur during on-site grading activities, when the simultaneous operation of a dozer, backhoe, and dump truck may occur. The RCNM was run for the nearest property line to each activity. Estimated noise levels associated with Project construction is shown in Table F, and the RCNM printouts are provided in Appendix C.

Table F – Modeled Construction Noise Levels for Each Phase of Project Construction at Nearest Property Line

Construction Phase	Calculated Noise Level[1] (dBA Leq)	County Noise Standard[2]	Exceed Standard?
On-site Grading	73	75	No
On-site Improvements	72	75	No
Off-site Improvements	66	75	No

Notes:
[1] Construction noise levels calculated with the FHWA RCNM Model version 1.1.
[2] County Noise Standard from Section 36.409 of the Noise Ordinance.

Table F shows that the greatest noise impacts would occur during the on-site grading activities, with a noise level as high as 73 dBA Leq averaged over 8 hours at the nearest property line. Therefore, through adherence to the limitations of the hours of noise producing construction activities provided in Sections 36.408 and 36.409 of the County's Noise Ordinance, a less than significant noise impact would occur from construction activities associated with the Project.

7.0 LONG-TERM OPERATIONAL NOISE

The Project would create operational noise from the on-site operation of: 1) 232 Cube Pro battery modules (within the 58 containers), where the primary source of noise would be the air conditioning units mounted on the battery modules; 2) 58 inverter-transformers, where the primary source of noise is from the inverter equipment; 3) Two (2) PDCs, where the primary source of noise is from the air conditioning units mounted on the PDCs; and 4) One (1) BSU, where the primary source of noise is from the auxiliary transformer.

As detailed in Section 5.2 above, the Project site is zoned M54 – General Impact Industrial and the surrounding land uses are zoned a mixture of M52 – Limited Impact Industrial, RR – Rural Residential, and A70 – Limited Agriculture. As such, the operational noise standards are different for the adjacent properties with different zoning. The County includes Section 36.404(e) that states that if the Project site is located on the boundary of two zones, the noise standard is the arithmetic mean of the two zones. The applicable noise standards for the adjacent properties is shown in Table G. Since the Project has the potential to operate at any time of the day, for the properties that have both day and night noise standards, only the worst-case nighttime noise standard has been utilized in this analysis.

Table G – Applicable Operational Noise Standards for Adjacent Properties

Receiver	Location	Zoning	Noise Standard by Zoning[1] (day/night) (dBA Leq 1-hour)	Noise Standard Utilized in Analysis (dBA Leq 1-hour)
1	North	M52 – Limited Impact Industrial	70	70
2	North	M52 – Limited Impact Industrial	70	70
3	South	RR – Rural Residential	50/45	57.5[1]
4	East	A70 – Limited Agricultural and RR – Rural Residential	50/45	57.5[1]
5	West	M54 – General Impact Industrial	70	70

Notes:
[1] Obtained from Table 36.404 of the County's Noise Ordinance
[2] Calculated based on the arithmetic average of the project site industrial zone noise standard of 70 dB and the adjacent property nighttime noise standard of 45 dB, which equates to 57.5 dBA.

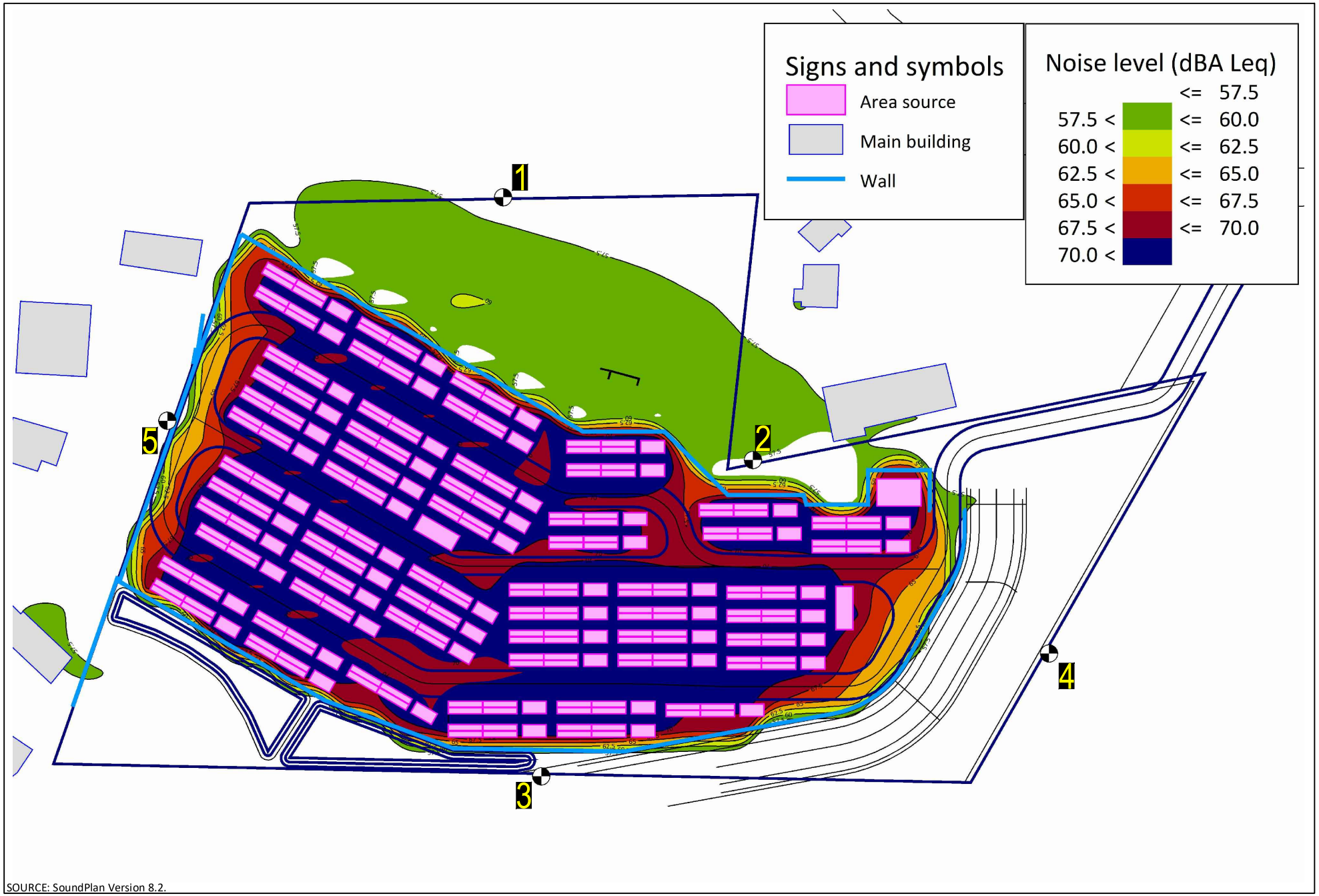
As detailed in Section 6.2 above, noise levels at adjacent property lines were calculated through use of the SoundPlan model. Model results are shown in Table H and Figure 5 shows model results for operational noise contours.

Table H – Modeled Operational Noise Levels at the Adjacent Property Lines

Receiver	Location	Calculated Noise Level[1] (dBA Leq)	County Noise Standard	Exceed Noise Standard?
1	North	57.1	70	No
2	North	56.9	70	No
3	South	56.6	57.5[1]	No
4	East	55.0	57.5	No
5	West	51.6	70	No

Notes:
[1] Calculated with SoundPlan Version 8.2 (see Appendix B)

As shown in Table H and Figure 5, with installation of a solid, 8-foot tall vinyl wall or a similar solid fence/wall flush to the ground with no gaps with a Sound Transmission Class (STC) rating of 18 or greater surrounding the Project site equipment and facilities (with the exception of stormwater drainage and retention basins) the operational noise level created at all adjacent property lines would be within the County noise standards. Therefore the Project would not require any additional noise abatement.



SOURCE: SoundPlan Version 8.2.

VISTA ENVIRONMENTAL

Figure 5
Operational Noise Level Contours

8.0 REFERENCES

California Department of Transportation, *2016 Annual Average Daily Truck Traffic on the California State Highway System*, 2018.

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analytics Protocol*, September 2013.

County of San Diego, *San Diego County General Plan*, August 2011.

County of San Diego, County of *San Diego Guidelines for Determining Significance Noise*, January 2009.

County of San Diego, *San Diego County Code of Regulatory Ordinances Chapter 4. Noise Abatement and Control*, 2009.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* May 2006.

Ldn Consulting, Inc., *Noise Assessment AES Battery Energy Storage System MPA-18-010; San Diego County, CA,* February 7, 2019.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide,* January, 2006.

WRCC. (2018). Retrieved from https://wrcc.dri.edu/Climate/comp_table_show.php?stype=wind_dir_avg

WRCC. (2018). ESCONDIDO, CALIFORNIA (042862). Retrieved from https://wrcc.dri.edu/summary/Climsmsca.html: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2862

APPENDIX A

RCNM Model Construction Noise Calculation Printouts

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/23/2020
Case Description: Valley Center Storage Project - Onsite Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Propety Line	Industrial	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	200	0
Grader	No	40	85		200	0
Tractor	No	40	84		200	0

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		69.6	65.6	N/A	N/A	N/A	N/A
Grader		73.0	69.0	N/A	N/A	N/A	N/A
Tractor		72.0	68.0	N/A	N/A	N/A	N/A
	Total	**73**	**73**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/23/2020
Case Description: Valley Center Storage Project - Onsite Equipment Installation

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Propety Line	Industrial	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	200	0
Gradall	No	40		83.4	200	0
Concrete Mixer Truck	No	40		78.8	200	0
Concrete Pump Truck	No	20		81.4	200	0
Tractor	No	40	84		200	0

		Calculated (dBA)		Results Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane		68.5	60.6	N/A	N/A	N/A	N/A
Gradall		71.4	67.4	N/A	N/A	N/A	N/A
Concrete Mixer Truck		66.8	63	N/A	N/A	N/A	N/A
Concrete Pump Truck		69.4	62.4	N/A	N/A	N/A	N/A
Tractor		72.0	68.0	N/A	N/A	N/A	N/A
	Total	**72**	**72**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/23/2020
Case Description: Valley Center Storage Project - Offsite Improvements

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Propety Line	Industrial	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	200	0
Roller	No	20		80	200	0

		Calculated (dBA)		Results	Noise Limits (dBA)		
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		68.7	64.7	N/A	N/A	N/A	N/A
Roller		68.0	61.0	N/A	N/A	N/A	N/A
	Total	**69**	**66**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX B

SoundPlan Model Operational Noise Calculation Printouts

Valley Center Energy Storage
Assessed receiver levels - Mitigated With Project

Name	Floor	X m	Y m	Z m	Ldn dB(A)	Leq,d dB(A)	Leq,n dB(A)	
1 - North 188-250-11-00	G	1928308.4	617973.6	427.4	63.5	57.1	57.1	
2 - North 189-013-21-00	G	1928378.7	617899.6	419.8	63.3	56.9	56.9	
3 - South 189-013-25-00	G	1928319.1	617810.6	417.6	63.0	56.6	56.6	
4 - East 189-013-22-00	G	1928462.1	617845.2	419.2	61.4	55.0	55.0	
5 - West 189-013-19-00	G	1928213.9	617910.7	418.7	58.0	51.6	51.6	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 1	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 2	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 3	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 4	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 5	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 6	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 7	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 8	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 9	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 10	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 11	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 12	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 13	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 14	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 15	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 16	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 17	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 18	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 19	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 20	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 21	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 22	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 23	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 24	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 25	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 26	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 27	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 28	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 29	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 30	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 31	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 32	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 33	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 34	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 35	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 36	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 37	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 38	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 39	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 40	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 41	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 42	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 43	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 44	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 45	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 46	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 47	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 48	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 49	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 50	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 51	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 52	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 53	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 54	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 55	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 56	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 57	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 58	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 59	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 60	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 61	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 62	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 63	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 64	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 65	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 66	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 67	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 68	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 69	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 70	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 71	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 72	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 73	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 74	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 75	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 76	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 77	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 78	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 79	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 80	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 81	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 82	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 83	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 84	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 85	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 86	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 87	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 88	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 89	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 90	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 91	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 92	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 93	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 94	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 95	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 96	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 97	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 98	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 99	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 100	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 101	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 102	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 103	Area	16.40	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 104	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 105	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 106	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 107	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 108	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 109	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 110	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 111	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 112	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 113	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 114	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 115	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 116	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 117	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 118	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 119	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 120	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 121	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 122	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 123	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 124	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 125	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 126	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 127	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 128	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 129	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 130	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 131	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 132	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 133	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 134	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 135	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 136	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 137	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 138	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 139	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 140	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 141	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 142	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 143	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 144	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 145	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 146	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 147	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 148	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 149	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 150	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 151	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 152	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 153	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 154	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 155	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 156	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 157	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 158	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 159	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 160	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 161	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 162	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 163	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 164	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 165	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 166	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 167	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 168	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 169	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 170	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 171	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 172	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 173	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 174	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 175	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 176	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 177	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 178	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 179	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 180	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 181	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 182	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 183	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 184	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 185	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 186	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 187	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 188	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 189	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 190	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 191	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 192	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 193	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 194	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 195	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 196	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 197	Area	16.48	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 198	Area	16.51	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 199	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 200	Area	16.42	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 201	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 202	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 203	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 204	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 205	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 206	Area	16.38	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 207	Area	16.42	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 208	Area	16.43	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 209	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 210	Area	16.42	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 211	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 212	Area	16.40	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 213	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 214	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 215	Area	16.43	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 216	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 217	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Battery Cube Pro 218	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 219	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 220	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 221	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 222	Area	16.34	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 223	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 224	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 225	Area	16.35	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 226	Area	16.36	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 227	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 228	Area	16.37	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 229	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 230	Area	16.39	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 231	Area	16.40	73.9	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Cube Pro 232	Area	16.41	73.8	86.0	0.0	0.0	Battery Storage Container	AC Unit	22.37	38.5	57.9	66.3	77.4	81.3	81.2	76.6	73.1	66.7	59.7	
Battery Storage Unit - Aux Transformer	Area	95.23	72.2	92.0	0.0	0.0	Inverter	HEM Inverter			73.0	78.3	82.5	87.6	85.9	85.1	74.0	68.7		
Inverter 1	Area	23.50	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 2	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 3	Area	23.50	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 4	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 5	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 6	Area	23.55	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 7	Area	23.57	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 8	Area	23.54	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 9	Area	23.54	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 10	Area	23.52	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 11	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 12	Area	23.52	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 13	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 14	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Inverter 15	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 16	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 17	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 18	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 19	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 20	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 21	Area	23.50	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 22	Area	23.50	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 23	Area	23.57	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 24	Area	23.53	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 25	Area	23.54	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 26	Area	23.58	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 27	Area	23.58	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 28	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 29	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 30	Area	23.55	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 31	Area	23.55	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 32	Area	23.53	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 33	Area	23.54	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 34	Area	23.54	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 35	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 36	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 37	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 38	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 39	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 40	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 41	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 42	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 43	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 44	Area	23.50	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 45	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		

Valley Center Energy Storage
Octave spectra of the sources in dB(A) - Mitigated With Project

Name	Source type	l or A	L'w	Lw	KI	KT	Day histogram	Spectrum	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	
		m,m²	dB(A)	dB(A)	dB	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Inverter 46	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 47	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 48	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 49	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 50	Area	23.70	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 51	Area	23.56	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 52	Area	23.62	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 53	Area	23.62	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 54	Area	23.59	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 55	Area	23.59	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 56	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 57	Area	23.51	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
Inverter 58	Area	23.57	76.3	90.0	0.0	0.0	Inverter	HEM Inverter			71.0	76.3	80.5	85.6	83.9	83.1	72.0	66.7		
PDC 1	Area	59.53	74.3	92.0	0.0	0.0	Battery Storage Container	AC Unit	28.37	44.5	63.9	72.3	83.4	87.3	87.2	82.6	79.1	72.7	65.7	
PDC 2	Area	59.47	74.3	92.0	0.0	0.0	Battery Storage Container	AC Unit	28.37	44.5	63.9	72.3	83.4	87.3	87.2	82.6	79.1	72.7	65.7	