

April 13, 2023

00986.00007.021

Sue Richardson, Director of Community Services
City of La Mesa Community Services Department
4975 Memorial Drive
La Mesa, CA 91942

Subject: Waite Park Project Noise Analysis

Dear Ms. Richardson:

HELIX Environmental Planning, Inc. (HELIX) has performed a noise analysis for the Waite Park Project (project). This analysis addresses construction noise; operational noise from on-site uses and vehicular traffic; aircraft noise; and land use compatibility. No significant impacts related to noise have been identified for the proposed project.

PROJECT LOCATION

The project site is located at 7410 Waite Drive, at the corner of Waite Drive and Murray Hill Road in the City of La Mesa (City), San Diego County, California (Figure 1, *Regional Location*). The 2.84-acre project site is currently vacant, fenced on all sides, and is being used for construction material laid down by the City (Figure 2, *Aerial Photograph*). The project site is zoned as Urban Residential (R1) and no change to this designation is proposed. The project site is located just north of State Route (SR) 94. Surrounding land uses include single-family residences, multi-family residences, and open space.

PROJECT DESCRIPTION

The project involves the redevelopment of a vacant and disturbed site into a community park. The proposed park would include a nature-themed playground, a tot lot playground area, a dog run with a decomposed granite surface, a large lawn area, a fitness zone, a shade structure with picnic tables, and a half-court basketball court. Additionally, an 8-foot-wide accessible concrete walking loop would traverse the project site, connecting the various amenities. The park would also provide a family style restroom with an accessible outdoor sink and water station, with a garage and storage on the back side of the structure (Figure 3, *Site Plan*).

An elevated wooden ramp and concrete stairs would be located along the eastern edge of the site, providing a connection to the park for pedestrians accessing the site from Murray Hill Road. Vehicles would enter the site from Waite Drive, which would also include pedestrian access. The project would

provide 13 parking spaces, including 2 accessible parking spaces. Bicycle racks would be provided adjacent to the proposed parking spaces. The project would replace the existing 6-foot-tall fence along the western site boundary with an 8-foot-tall wooden fence, providing screening for residences located at this site boundary. A bio-retention basin would extend along the entire length of the western edge of the site and would provide stormwater storage for the site.

FUNDAMENTALS OF NOISE

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ} , with a specified duration.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is approximately 0 dBA, which corresponds to 20 micro-Pascals (mPa). Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

No known studies have directly correlated the ability of a healthy human ear to discern specific levels of change in traffic noise over a 24-hour period. Many ordinances, however, specify a change of 3 Community Noise Equivalent Level (CNEL) as the significant impact threshold. This is based on the concept of a doubling in noise energy resulting in a 3 dBA change in noise, which is the amount of change in noise necessary for the increase to be perceptible to the average healthy human ear.

Vibration effects can be described by their peak and root mean square (RMS) amplitudes. Building damage is often discussed in terms of peak velocity, or peak particle velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration signal. PPV is related to the stresses that are experienced by buildings; it is often used in monitoring of blasting vibration and to discuss construction vibration.

NOISE REGULATIONS

Applicable noise standards for the project are codified in the following City regulations.

City of La Mesa General Plan Noise Element

The purpose of the Noise Element of the La Mesa General Plan (City 2013) is to limit community exposure to excessive noise by identifying existing and potential noise sources and providing guidelines to protect City residents from unacceptable noise levels. The Noise Element establishes guidelines to evaluate the compatibility of land uses and noise exposure levels. Table 1, *Exterior Land Use Compatibility Guidelines*, summarizes the City's normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable exterior noise compatibility guidelines for various land uses. Proposed land uses that would not be compatible with the exterior noise level may require treatment to minimize noise exposure.

Table 1
EXTERIOR LAND USE COMPATIBILITY GUIDELINES

Land Use Category	Community Noise Exposure (dB CNEL)						
	55	60	65	70	75	80	85
Residential – Low Density Single Family, Duplex, Mobile Home							
Residential – Multiple Family							
Transient Lodging – Motels, Hotels							
*Schools, Libraries, Churches, Hospitals, and Nursing Homes							
*Auditoriums, Concert Halls, Amphitheaters							
*Sports Arena, Outdoor Spectator Sports							
*Playgrounds, Neighborhood Parks							
*Golf Courses, Riding Stables, Water Recreation, Cemeteries							
*Offices Buildings, Business, Commercial, and Professional							
*Industrial, Manufacturing, Utilities, Agriculture							
	Normally Acceptable						
	Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
	Conditionally Acceptable						
	New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.						
	Normally Unacceptable						
	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
	Clearly Unacceptable						
	New construction or development should generally not be undertaken.						

Source: City 2013

*Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL.

dB = decibel; CNEL = Community Noise Equivalent Level

As shown in Table 1, for the project's land use (neighborhood parks), the Noise Element specifies exterior noise levels up to 70 dBA L_{EQ} as normally compatible and up to 75 dBA L_{EQ} as conditionally compatible. Hourly noise levels exceeding 75 dBA L_{EQ} are generally incompatible with neighborhood park land uses. In accordance with the Noise Element, an hourly standard would be applicable for the proposed facility type, as it is only operational for a portion of the day.

City of La Mesa Noise Ordinance

La Mesa Municipal Code Chapter 10.80, *Noise Regulation*, prohibits unnecessary, excessive, and annoying noises. Sections of this chapter provide specific limits and regulations related to noise in the City. Applicable sections of Municipal Code Chapter 10.80 are described below.

Ambient Base Noise Level - Municipal Code Section 10.80.040

Section 10.80.040 establishes standards for exterior noise levels for each zone, which are summarized in Table 2, *Applicable Exterior Property Line Noise Limits*. Where the ambient noise level is less than designated in Table 2, the applicable noise level in Table 2 is the exterior noise standard. The noise level

to be observed is the level specified for the zone applicable to the property adjoining the property on which the noise is generated and closest to the noise source.

Table 2
APPLICABLE EXTERIOR PROPERTY LINE NOISE LIMITS

Zone	Time	Hourly Average Sound Level (dBA L _{EQ})
R1 & R2	10:00 p.m. to 7:00 a.m.	50
R1 & R2	7:00 p.m. to 10:00 p.m.	55
R1 & R2	7:00 a.m. to 7:00 p.m.	60
R3 & RB	10:00 p.m. to 7:00 a.m.	55
R3 & RB	7:00 a.m. to 10:00 p.m.	60
C, CN, CD & CM	10:00 p.m. to 7:00 a.m.	60
C, CN, CD & CM	7:00 a.m. to 10:00 p.m.	65
M	Anytime	70

Source: La Mesa Municipal Code Section 10.80.040

dBA = A-weighted decibels; L_{EQ} = time-averaged noise level; R1 = Urban Residential; R2 = Medium Low Density Residential; R3 = Multiple Unit Residential; RB - Residential Business; C - General Commercial; CN - Neighborhood Commercial; CD - Downtown Commercial; CM - Light Industrial and Commercial Service; M - Industrial Service and Manufacturing.

Construction of Buildings and Projects – Municipal Code Section 10.80.100

Section 10.80.100 regulates construction noise, and states that it is unlawful for any person within a residential zone or CN (neighborhood commercial) zone, or within 500 feet of these zones, to operate equipment or perform any outside construction or repair work between the hours of 10:00 p.m. of one day and 7:00 a.m. of the next day. Construction work is also prohibited on Sundays unless a special permit authorizing the activity has been duly obtained from the chief building official. The City's exterior noise limits identified in Table 2 do not apply to construction activities.

EXISTING CONDITIONS

The existing noise environment primarily consists of traffic noise from Waite Drive, Murray Hill Road, and more distant traffic noise from SR 94.

Noise Survey

Three 15-minute ambient noise measurements were taken for the existing noise survey. The first measurement (M1) was recorded at the southern edge of the project site along Waite Drive. The second measurement (M2) was recorded in the northwestern portion of the project site adjacent single-family residential land uses. The third measurement was recorded along Murray Hill Drive, at the northeastern edge of the project site. The measured noise levels are shown in Table 3, *Noise Measurement Results*, and measurement locations are shown on Figure 2.

Table 3
NOISE MEASUREMENT RESULTS

M1	
Date:	March 24, 2023
Time:	10:59 a.m. – 11:14 a.m.
Location:	Waite Drive at western side of existing project driveway.
Notes:	Prominent freeway noise, bird activity.
Measured Noise Level:	64.5 dBA L _{EQ}
M2	
Date:	March 24, 2023
Time:	11:17 a.m. – 11:32 a.m.
Location:	Northwestern portion of project site, east of 3825 Harris Street.
Notes:	Audible freeway noise, bird activity.
Measured Noise Level:	61.2 dBA L _{EQ}
M3	
Date:	March 24, 2023
Time:	11:36 a.m. – 11:51 a.m.
Location:	Murray Hill Road, west of 3849 Murray Hill Road.
Notes:	Elevated from project site, prominent freeway noise, distant landscaping noise.
Measured Noise Level:	68.9 dBA L _{EQ}

dBA = A-weighted decibel; L_{EQ} = time-averaged sound level

A 15-minute traffic count was conducted at the locations of M1 and M3 to estimate the breakdown of heavy trucks (three or more axles), medium trucks (double tires/two axles), and automobiles along Sorrento Valley Boulevard. Traffic counts for the timed measurements and the one-hour equivalent volumes are shown in Table 4, *Recorded Traffic Volume and Vehicle Mix*.

Table 4
RECORDED TRAFFIC VOLUME AND VEHICLE MIX

Measurement	Roadway	Traffic	Autos	MT ¹	HT ²
M1	Waite Drive	15-minute count	39	0	0
		One-hour equivalent	156	0	0
		Percent	100%	0%	0%
M3	Murray Hill Road	15-minute count	98	0	1
		One-hour equivalent	392	0	4
		Percent	99%	0%	1%

¹ Medium Trucks (double tires/two axles)

² Heavy Trucks (three or more axles)

Noise Sensitive Land Uses

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors are individual locations that may be affected by noise. NSLUs in the project vicinity include residences located west, east, and south of the project site, as shown in Figure 2.

METHODOLOGY AND ASSUMPTIONS

Noise Modeling Software

Project construction noise was analyzed using the U.S. Department of Transportation (USDOT) Roadway Construction Noise Model (RCNM), which utilizes estimates of sound levels from standard construction equipment (USDOT 2008).

Project operation noise generation and exposure was analyzed using a computer noise model: Computer Aided Noise Abatement (CadnaA) version 2022. CadnaA is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA allows for the input of project related information, such as noise source data, barriers, structures, and topography to create a detailed CadnaA model, and predict outdoor noise impacts. Precise grading plans for the proposed project were not available at the time of this report; therefore, the model used the existing topography. CadnaA traffic noise prediction is based on the data and methodology used in the USDOT Traffic Noise Model.

Construction Assumptions

Construction of the project is anticipated to require the use of equipment for site preparation, grading, physical construction, and paving, which would occur over an approximately 8-month period beginning in December 2024. Equipment assumed to be required for these activities was based on information provided by the City and typical construction equipment required for similar projects.

Hauling of material during demolition and site preparation is anticipated to require four truck loads. This would result in no more than one hauling trip per day added to nearby roadways. Grading of the project site would be balanced on-site and no soil hauling is anticipated to be required.

Operation Assumptions

The proposed project's operational noise sources are anticipated to include vehicular traffic, outdoor play area activities, and dog run activities. It is not anticipated that the restroom facility would require the installation of stationary equipment generating substantial noise beyond the structure. During operation, the project would also be exposed to vehicular traffic noise from Murray Hill Road and Waite Drive.

Vehicular Traffic

Based on the transportation assessment prepared by Linscott, Law, & Green Engineers (LLG; 2023) for the project, 142 new average daily trips (ADT) would be generated by the project. Half of these trips would exit the project site and travel west along Waite Drive while the other half would travel east and onto Murray Hill Road. The existing, project, and existing plus project traffic volumes for the adjacent roadway segments are provided in Table 5, *Traffic Data by Segment*. Based on the site visit, traffic on Murray Hill Road and Waite Drive was assumed to consist of 98 percent automobiles, 1 percent medium trucks, and 1 percent heavy trucks.

Table 5
TRAFFIC DATA BY SEGMENT

Roadway Segment	Existing ADT	Project ADT	Existing + Project ADT
Murray Hill Road north of Waite Drive	6,460	71	6,531
Waite Drive west of Murray Hill Road	4,510	71	4,581

Source: LLG 2023

ADT = Average Daily Trips

According to data from the California Department of Transportation (Caltrans), SR 94 carries approximately 138,000 ADT, consisting of approximately 3 percent of medium trucks and 1 percent heavy trucks (Caltrans 2020a).

Human Voices

Noise from human voices associated with outdoor recreation was modeled with a standard assumption of an average sound power level of 82.6 dBA. Modeling for the project assumed that up to 40 people would be located throughout the park, including the lawn, playground, and basketball court areas. Modeling was conducted for a given hour and that assumed people would be speaking for 40 minutes of the hour.

Dog Park

The primary noise source within the dog park would be generated by dogs barking. While barks may vary widely, a dog bark is anticipated to have a typical maximum noise level of less than 85 dBA L_{EQ} at about 5 feet and have a duration of less than 0.2 second. For the purposes of modeling, it was assumed that up to 10 dogs would use the dog park within a given hour and would each bark up to 30 times within that hour, totaling 1 minute of barking events at 0.2 second.

SIGNIFICANCE CRITERIA

Thresholds used to evaluate potential noise impacts are based on applicable criteria in the State's California Environmental Quality Act (CEQA) Guidelines Appendix G. A significant noise impact could occur if the project would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generation of excessive groundborne vibration or groundborne noise levels;
3. Exposure of people residing or working in the project area to excessive airport noise levels; or
4. Land uses which are not compatible with noise levels in the project vicinity.

ANALYSIS OF NOISE LEVELS

Issue 1: Project Noise Generation

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

Construction Noise

The La Mesa Municipal Code does not provide a specific noise limit for construction activities. Rather, to minimize the impact of construction noise on surrounding land uses, Municipal Code Section 10.80.100 limits the days and hours of construction work for construction occurring within 500 feet of a residential or CN (neighborhood commercial) zone to the hours between 7:00 a.m. and 10:00 p.m. Mondays through Saturdays. Construction of the proposed project would occur during the allowable hours and would not conflict with the City Municipal Code.

While it would not conflict with the Municipal Code, construction of the project would result in elevated noise levels at residential NSLUs surrounding the project site. For informational purposes, Table 6, *Construction Equipment Noise Levels*, provides the 50-foot noise levels for equipment anticipated to be used during construction. See Attachment A, *Roadway Construction Noise Model Output*, for the RCNM output. These noise levels are conservative estimates, as they do not consider topography, existing structures such as buildings or fences, or the movement of construction equipment. The magnitude of construction noise would depend on the phase of construction, distance between the equipment and receiver, and any intervening structures.

Table 6
CONSTRUCTION EQUIPMENT NOISE LEVELS

Unit	Percent Operating Time	dBA L _{EQ} at 50 feet
Backhoe	40	73.6
Compressor (Air)	40	73.7
Concrete Mixer Truck	40	74.8
Concrete Pump Truck	20	74.4
Concrete Saw	20	82.6
Crane	16	72.6
Dozer	40	77.7
Excavator	40	75.1
Front End Loader	50	77.6
Grader	40	81.0
Paver	50	74.2
Roller	20	73.0
Scraper	40	79.6
Tractor	40	80.0

Source: USDOT 2008 ; Attachment A

dBA = A-weighted decibel; L_{EQ} = equivalent sound level

The project would comply with Municipal Code regulations related to the timing of construction activities, with construction occurring between 7:00 a.m. and 10:00 p.m. Mondays through Saturdays. The construction equipment presented above would not all operate at the same time or in the same location and would not be in constant use during the operating day. With construction activities limited to daytime hours, construction would not result in substantial conflicts with noise levels in nearby residential or neighborhood commercial zones. Impacts would be less than significant.

Operational Noise

On-site Noise Generation

The project site is bordered by properties zoned as R1 to the west and R1S-MH to the north. Across roadways east and south of the site, properties are zoned R1S-H to the east and R3 to the south. The park would not be open for use during the nighttime hours; therefore, compliance with the noise level requirements for the hours between 10:00 p.m. and 7:00 a.m. are not analyzed further. Pursuant to La Mesa Municipal Code Section 10.80.040, the applicable hourly noise level limits at R1 (including all overlays) property lines are up to 60 dBA L_{EQ} during the hours of 7:00 a.m. to 7:00 p.m. and up to 55 dBA L_{EQ} during the hours of 7:00 p.m. to 10:00 p.m. At the R3 zone property lines, noise levels of up to 60 dBA L_{EQ} during the hours of 7:00 a.m. and 10:00 p.m. are allowed.

As described above, modeling included human and dog noise sources anticipated to be associated with the project. In CadnaA, noise receivers were placed along the adjacent residential property lines at the locations shown on Figure 2. The resulting noise level at each receiver for comparison with the applicable noise level limit is presented in Table 7, *Modeled Noise Levels at Property Line*.

Table 7
MODELED NOISE LEVELS AT PROPERTY LINE

Receiver	Adjacent Property Zoning	Hourly Noise Limit ¹ (dBA L_{EQ})	Project Noise Level (dBA L_{EQ})	Exceed Allowable Noise Level?
R1	R1	55	45.3	No
R2	R1	55	50.5	No
R3	R1	55	52.5	No
R4	R1	55	52.4	No
R5	R3	60	51.5	No
R6	R3	60	51.4	No
R7	R1	55	52.2	No
R8	R1	55	48.6	No

¹ La Mesa Municipal Code Section 10.80.040 limits noise levels at R1 property lines to 55 dBA L_{EQ} between 7:00 p.m. and 10:00 p.m. and at R3 property lines to 60 dBA L_{EQ} between 7:00 a.m. and 10:00 p.m.
dBA = A-weighted decibel; L_{EQ} = hourly sound level

As shown in Table 7, the project's operational noise sources would not exceed the residential (R1 or R3) noise limits provided by La Mesa Municipal Code Section 10.80.040. Therefore, operation of the project would not result in permanent on-site noise sources exceeding applicable standards and impacts would be less than significant.

Off-site Traffic Generation

As described above, the project would generate 142 new daily trips, split between Murray Hill Road and Waite Drive (LLG 2023). In general, to generate a significant increase in noise levels a noise source would need to double, thereby increasing noise levels by approximately 3 dBA. The project would add 71 ADT to segments of Murray Hill Road and Waite Drive that currently carry 6,460 and 4,510 ADT, respectively (see Table 5). As the project would not result in a doubling of vehicle trips on adjacent roadway segments, it would not lead to a perceptible (3 dBA) change in traffic noise levels and impacts related to project-generated traffic noise would be less than significant.

Issue 2: Project Vibration Generation

Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

A possible source of vibration during project construction activities would be a vibratory roller, which may be used for ground compaction prior to paving. At its closest, a vibratory roller is anticipated to be used approximately 50 feet from the nearest off-site residential structure to the west. According to data from Caltrans, a vibratory roller generates approximately 0.210 inch per second PPV at a distance of 25 feet (Caltrans 2020b). Therefore, at the nearest residence 50 feet away, project construction would be anticipated to result in a vibration levels of up to 0.098 inch per second PPV.¹ This level of vibration would be lower than the structural damage threshold for impacts to older residential structures of 0.3 inch per second PPV and would not exceed the severe annoyance threshold of 0.4 inch per second PPV for humans. Vibration of 0.1 inch per second PPV is considered “strongly perceptible” to human receptors; therefore, at time residents may be able to perceive vibration from project construction activities. However, off-site exposure to such groundborne vibration would be temporary as the roller would move throughout the site and its use would be limited to the short-term construction period. Temporary impacts associated with the roller (and other potential equipment) would be less than significant.

The project does not propose equipment or land uses that would generate excessive groundborne vibration. No impacts related to vibration would occur during project operation.

Issue 3: Airport Noise

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

Airports nearest the project site include Gillespie Field 6.1 miles to the northeast, Montgomery-Gibbs Executive Airport 7 miles to the northwest, and the San Diego International Airport 8 miles to the west. The project site is within Airport Influence Review Area 2 for the Montgomery-Gibbs Executive Airport but is outside of the noise contours for all airports in the region (San Diego County Regional Airport Authority 2023). Therefore, while the project may be exposed to distant aircraft noise at times, noise

¹ Equipment PPV = Reference PPV * (25/D)ⁿ (inches per second), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

levels from airports in the project region would not expose users of the park to excessive noise levels. Impacts would be less than significant.

Issue 4: Land Use Compatibility

Would the proposed land use be compatible with the noise environment at the project site?

The General Plan Noise Element states that parks are normally acceptable where hourly noise levels are up to 70 dBA L_{EQ} and conditionally acceptable where hourly noise levels are between 70 and 75 dBA L_{EQ} (Table 1). The three hourly-equivalent noise levels recorded at the project site during the noise survey were below 70 dBA L_{EQ} , as shown in Table 3. To provide a modeled estimate of noise levels that would be experienced at the project site, future (existing plus project) traffic noise was modeled in CadnaA assuming that peak hour traffic consists of 10 percent of ADT. Within the noise model, receivers were placed within the recreational areas (lawn, playgrounds, and dog run) at a height of five feet. At these locations, hourly noise levels were modeled to range from 62.8 to 65.9 dBA L_{EQ} during peak hour traffic. Noise levels at the project site are not anticipated to exceed the normally acceptable hourly noise level of 70 dBA L_{EQ} for parks. Therefore, no special design features would be required to achieve land use's compatibility with noise levels at the project site and no impact would occur.

CONCLUSIONS

The proposed project would not result in significant impacts related to noise. Construction equipment would not result in significant temporary noise or vibration impacts at off-site NSLUs, as construction activity would comply with City regulations. Operation of the project would not result in noise levels exceeding the City's limits at adjacent property lines and traffic generated by the project would not noticeably increase noise levels along nearby roadways. The project is not within an airport noise zone and would not expose users of the project to excessive noise. Existing noise levels at the project site comply with the General Plan Noise Element compatibility limits for park uses. Impacts related to noise for the proposed project would be less than significant.

Sincerely,



Jason Runyan
Senior Noise Specialist



Shelby Bocks
Noise Specialist

Attachments:

- | | |
|--------------|---|
| Figure 1 | Regional Location |
| Figure 2 | Aerial Photograph |
| Figure 3 | Site Plan |
| Attachment A | Roadway Construction Noise Model Output |

REFERENCES

California Department of Transportation (Caltrans). 2020a. Traffic Census Program. Available from:
<https://dot.ca.gov/programs/traffic-operations/census>.

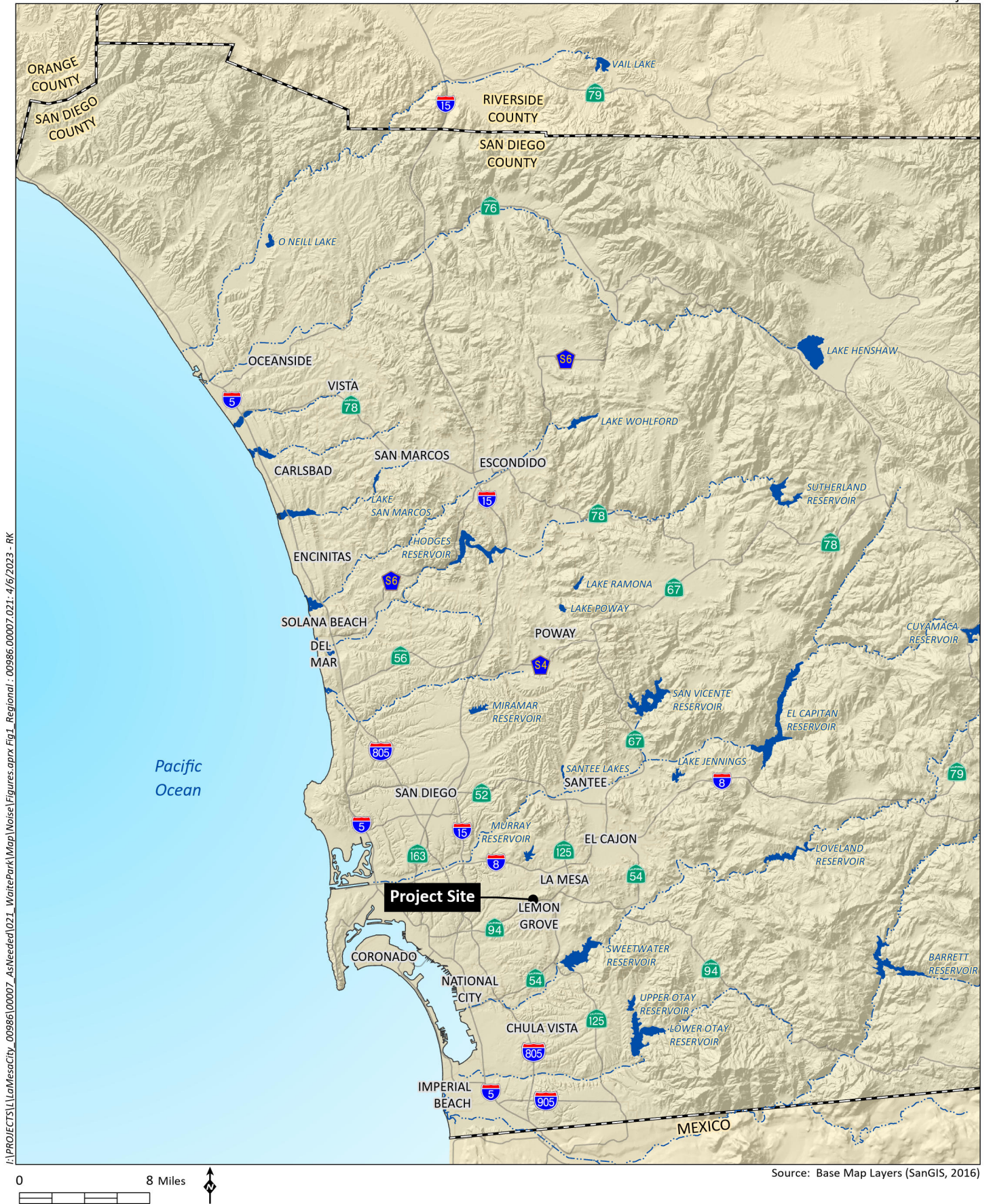
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December 8.





Draft Final Master Plan

Main site elements

- 1 - Nature-themed playground
- 2 - Tot lot playground area
- 3 - Dog run with decomposed granite surface
- 4 - Lawn
- 5 - Fitness zone
- 6 - Shade structure with picnic tables
- 7 - Half-court basketball court
- 8 - Site-wide 8' wide accessible concrete walking loop
- 9 - Family style restroom with accessible outdoor sink and water station. Garage and storage on the back side.

Accessibility & furnishings

- 10 - 13 parking spaces including 2 accessible parking spaces
- 11 - Elevated wooden ramp and concrete stairs
- 12 - Park monument signage
- 13 - Opportunities for public art, typ.
- 14 - Trash enclosure with trellis cover
- 15 - Benches with backs, typ.
- 16 - Picnic tables, typ.
- 17 - Bike racks
- 18 - Existing trees to remain
- 19 - Slope direction
- 20 - Approximate elevations

Screening & fencing

- 21 - Landscape buffer and bio-basins
- 22 - Tree grove buffer along west property edge
- 23 - 3.5' ht. lodge-pole fence at Waite Dr. and Murray Hill Rd.
- 24 - 5' ht. decorative black wrought iron fence at dog run
- 25 - 6' ht. black vinyl chainlink fence at north property line
- 26 - 6' ht. wood fence along west property line
- 27 - 8' ht. wood fence along northwest property line
- 28 - Score joints
- 29 - Lemon grove with interpretive panel
- 30 - Parking gate
- PA - Planting area: native and low water use shrubs, groundcover, and trees

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Attachment A

Roadway Construction Noise Model Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 4/6/2023
Case Description: La Mesa Waite Park Project

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Residences	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Backhoe	No	40		77.6	50	0
Compressor (air)	No	40		77.7	50	0
Concrete Mixer Truck	No	40		78.8	50	0
Concrete Pump Truck	No	20		81.4	50	0
Concrete Saw	No	20		89.6	50	0
Crane	No	16		80.6	50	0
Dozer	No	40		81.7	50	0
Front End Loader	No	40		79.1	50	0
Generator	No	50		80.6	50	0
Grader	No	40	85		50	0
Paver	No	50		77.2	50	0
Roller	No	20		80	50	0
Scraper	No	40		83.6	50	0
Tractor	No	40	84		50	0

Equipment	Calculated (dBA)	
	*Lmax	Leq
Backhoe	77.6	73.6
Compressor (air)	77.7	73.7
Concrete Mixer Truck	78.8	74.8
Concrete Pump Truck	81.4	74.4
Concrete Saw	89.6	82.6
Crane	80.6	72.6
Dozer	81.7	77.7
Front End Loader	79.1	75.1
Generator	80.6	77.6
Grader	85	81
Paver	77.2	74.2
Roller	80	73
Scraper	83.6	79.6
Tractor	84	80
Total	89.6	89.1

*Calculated Lmax is the Loudest value.