



Eilar Associates, Inc.
Acoustical and Environmental Consulting Services

Acoustical Analysis Report for Montiel Road TM

County of San Diego Record ID: PDS2022-TM-5648

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Job # S240705

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Glossary of Terms and Acronyms

Ambient Sound: The combination of all near and far sounds in a given environment, none of which is particularly dominant.

Attenuation: The reduction in sound pressure level as sound is transmitted from one point to another.

Average Sound Level (L_{EQ}): Also known as equivalent sound level and expressed in dBA. The A-weighted sound level of a steady state sound which has the same sound energy as that contained in the actual time-varying sound being measured over a specific time period.

A-weighted Sound Level (dBA): Designed to approximate the response of the human ear to sound. A sound pressure level which has been filtered or weighted to quantitatively reduce the effect of low frequency noise.

Community Noise Equivalent Level (CNEL): The 24-hour weighted average noise level calculated as A-weighted sound pressure levels with different weighting factors for the noise levels occurring during the evening and nighttime periods. This weighting is applied to account for an individual's increased sensitivity to noise during these times. Sound levels during evening hours of 7 p.m. to 10 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10 p.m. to 7 a.m. have an added 10 dB weighting.

Day-Night Average Sound Level (L_{DN}): A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to the sound levels occurring during nighttime hours (10 p.m. to 7 a.m.).

Decibel (dB): The primary unit of sound measurement; used to quantify both sound pressure level and sound power level. In acoustics, equal to ten times the logarithm of the ratio of one sound and a lower-intensity reference sound.

Frequency: The number of oscillations per second; generally expressed in hertz (Hz) or cycles per second (cps).

Insertion Loss: The sound level reduction at a receiver that occurs when a sound-attenuating device, such as a silencer or barrier, is inserted in the path between source and receiver. Expressed in decibels at a specific frequency octave band.

Sound Level Meter: An instrument, usually handheld, that is used to measure sound pressure levels with averaging capabilities and standard frequency-weighting.

Sound Pressure Level (L_P or SPL): The level of sound energy, measured in dB, at a specific location. In order to be meaningful, a sound pressure level measurement must be accompanied by a reference distance at which the sound source was measured.

Executive Summary

The proposed project, Montiel Road TM, consists of the subdivision of a 1.98-acre parcel into ten lots and a single remainder parcel. The project site is located at 1434 Montiel Road in the North County Metro Community Planning Area of the County of San Diego, California.

Temporary construction noise was calculated to determine the impact this activity will have on surrounding occupied properties. Section 36.409 of the County of San Diego Noise Ordinance states it is unlawful to operate construction equipment that exceeds an average sound level of 75 dB 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. Calculations show that typical construction activities will not exceed the County of San Diego temporary construction noise limit of 75 dBA at adjacent sensitive receivers during the construction activity. General good practice measures should be followed to ensure that noise levels remain below the County of San Diego construction noise limits, including reasonable maintenance of equipment, conservative planning of simultaneous equipment operation, and the use of equipment with effective mufflers. Equipment operation must also be limited to the allowable hours of operation set by the County of San Diego.

Proposed construction phases for this project are not expected to include any significant vibration inducing equipment, such as pile driving or heavy soil compaction. As these types of equipment will not be present, excessive levels of ground-borne vibration are not expected to be received by any persons. Construction vibration is therefore anticipated to be less than significant from activity at the project site.

1.0 Introduction

This acoustical analysis report is submitted to satisfy the acoustical requirements of the County of San Diego for permit approval. Its purpose is to assess noise impacts from construction activities to identify project features or requirements necessary to remain in compliance with County of San Diego noise regulations.

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting, abbreviated “dBA,” to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol “ L_{EQ} .” Unless a different time period is specified, “ L_{EQ} ” implies a period of one hour. The Community Noise Equivalent Level (CNEL) is a calculated 24-hour weighted average, where sound levels during evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting. This is similar to the Day-Night sound level, L_{DN} , which is a 24-hour average with an added 10 dB weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on A-weighted decibels. These metrics are used to express noise levels for both measurement and municipal regulations, for land use guidelines, and for enforcement of noise ordinances.

1.1 Project Description

The proposed project, Montiel Road TM, consists of the subdivision of a 1.98-acre parcel into ten lots and a single remainder parcel. The subject property is zoned Residential – Single (RS). Surrounding properties to the north, south, west, and east (across Via Teramo) of the project site are also zoned Residential – Single (RS).

Additional information is provided in the project plans, included as Appendix A.

1.2 Environmental Settings and Existing Conditions

1.2.1 Project Location

The project site is located at 1434 Montiel Road in the North County Metro Community Planning Area of the County of San Diego, California. The Assessor's Parcel Number (APN) for the property is 228-171-16-00. The project location is shown on the Vicinity Map, Assessor's Parcel Map, and Satellite Aerial Photograph, provided as Figures 1 through 3, respectively.

1.2.2 Existing Noise Environment

The primary noise source in the vicinity of the project site is automobile and truck traffic noise from Interstate 15 (I-15) and State Route 78 (SR-78) and associated ramps, with minor impacts from local roadways. No other noise source is considered significant.

1.3 Methodology

The following formulas and calculations were used in the preparation of this analysis:

Distance Attenuation of Airborne Noise

Attenuation of airborne noise due to distance is calculated by the equation:

$$SPL_2 = SPL_1 - 20 \log\left(\frac{D_2}{D_1}\right)$$

where SPL_1 = Known sound pressure level at known distance,

SPL_2 = Calculated sound pressure level at distance,

D_1 = Distance from source to location of known sound pressure level, and

D_2 = Distance from source to location of calculated sound pressure level.

This is identical to the more commonly used reference of 6 dB reduction for every doubling of distance. This equation does not take into account reduction in noise due to atmospheric absorption.

Hourly L_{EQ} Summation

To determine the hourly average noise levels (L_{EQ}) when the noise is created for less than the full hour, convert the logarithm values to the base energy value, multiply by the percentage of the hour that the noise occurs, and then convert the sum back to a logarithmic value. This is done with the following formula:

$$L_{EQ} = 10 \log(P_H \times 10^{L_P/10})$$

where P_H = the percent or fraction of the hour noise is created (duty cycle), and

L_P = the partial hour noise level (dB).

Decibel Addition

To determine the combined logarithmic level of known vibration or noise source levels, the values are converted to the base values, added together, and then converted back to the final logarithmic value, using the following formula:

$$L_C = 10 \log(10^{L_1/10} + 10^{L_2/10} + 10^{L_N/10})$$

where L_C = the combined noise or vibration level (dB), and
 L_N = the individual noise or vibration sources (dB).

2.0 Noise Sensitive Land Uses Affected By Airborne Noise

2.1 Guidelines for Determination of Significance

The subject property is zoned Residential – Single (RS). Surrounding properties to the north, south, west, and east (across Via Teramo) of the project site are also zoned Residential – Single (RS).

The County of San Diego Noise Ordinance Section 36.409 states that it is unlawful to operate construction equipment that exceeds an average sound level of 75 dBA 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. In addition, according to Section 36.408 of the ordinance, construction activities must be limited to the hours of 7 a.m. to 7 p.m., Monday through Saturday (except legal holidays). No construction activity is permitted on Sunday.

Section 36.410 provides noise limits for impulsive noise, which is defined as a high peak noise level of short duration (one second or less). Impulsive activity includes blasting and the use of equipment such as a rock crusher, hoe ram, pile driver, or drill rig. None of this activity is anticipated to take place on the project site, and therefore, impulsive activity was not evaluated in any further depth.

Pertinent sections of the County of San Diego Noise Ordinance are provided as Appendix B.

2.2 Potential Construction Noise Impacts

2.2.1 Potential Temporary Construction Noise Impacts without Mitigation

According to the County of San Diego Noise Ordinance, temporary construction noise must be adequately controlled at occupied properties. The occupied properties surrounding the site include residential receivers to the north, west, south, and east (across Via Teramo). According to the project proponent, the project will consist of a Grading/Foundation phase to occur over the entire site, and then the on-site buildings will be constructed on a lot-by-lot basis after individual lots are sold. An anticipated construction schedule was formulated using professional experience and information provided by the project proponent. The anticipated construction activities are shown in Table 1.

Table 1. Anticipated Construction Activity	
Phase	Anticipated Large Equipment
Grading/Foundation	Backhoe, Concrete Mixer, Concrete Pump, Front End Loader,
Building Construction	Air Compressor, Backhoe, Front End Loader, Telescopic Handler

Please refer to Table 2 for typical noise levels of construction equipment expected to be used on site, as described above. All noise levels were provided by the UK Department for Environment, Food and Rural Affairs (DEFRA), and duty cycle information was taken from the Federal Highway Administration.

Table 2. Typical Construction Equipment Noise Levels		
Noise Source	Duty Cycle (%)	Calculated Noise Level (L_{MAX}) at 50 feet (dBA)¹
Air Compressor	40	61
Backhoe	40	64
Concrete Mixer	40	72
Concrete Pump	20	74
Front End Loader	40	72
Telescopic Handler	40	67

¹The noise level at 50 feet was calculated using simple distance attenuation based on the reference levels obtained from DEFRA that are given at a distance of 10 meters (approximately 32.8 feet).

Construction activity is expected to occur throughout the entire project site, with the exception of the small remaining parcel of land located along Via Teramo south of the proposed Lot 10. During the Grading/Foundation phase of construction, construction activity is expected to occur throughout the entire project site; during the Building Construction phase, construction activity is expected to occur on each individual lot. For the Grading/Foundation phase, construction noise levels were calculated from the approximate center of the site, to estimate equipment moving around the site during Grading/Foundation; for the Building Construction phase, construction noise levels were calculated from the approximate center of the worst-case (smallest) lot, to estimate equipment moving around the worst-case lot during Building Construction. Construction noise impacts were evaluated at the nearest occupied receiver, relative to the construction noise source locations. All other occupied receivers are located at greater distances from potential construction activity and are expected to have lower noise levels. Calculated construction noise levels for each phase of construction are shown in Table 3. Detailed calculations are shown in Appendix C. Noise source and receiver locations are shown in Figure 4.

Table 3. Worst-Case Temporary Construction Noise Levels at Nearest Occupied Receiver			
Phase	Equipment Used	Average Distance to Nearest Receiver (feet)	Calculated 8-Hour Average Noise Level (dBA L_{EQ})
Grading/Foundation	Backhoe, Front End Loader, Concrete Mixer, Concrete Pump	141	63.7
Building Construction	Air Compressor, Backhoe, Front End Loader, Telescopic Handler	49	70.1

2.2.2 Design Considerations and Temporary Mitigation Measures

As shown above, worst-case noise levels from temporary construction activity are expected to be in compliance with the County of San Diego eight-hour average equivalent noise limit of 75 dBA at the nearest occupied receiver, and therefore, are expected to remain in compliance at all other surrounding noise-sensitive receivers, which will be exposed to lesser noise levels due to added distance attenuation.

For any project in which construction activity will take place near occupied residential properties, the following “good practice” recommendations should be adhered to whenever possible:

1. Turn off equipment when not in use.
2. Equipment used in construction should be maintained in proper operating condition, and all loads should be properly secured to prevent rattling and banging.
3. Use equipment with effective mufflers.
4. Minimize the use of backup alarms.
5. Equipment staging areas should be placed at locations away from noise-sensitive (occupied) receivers.

These general recommendations, in addition to limiting construction equipment operation to the allowable hours detailed in the County of San Diego Noise Ordinance, will assist in maintaining the comfort of neighboring sensitive receivers during the construction of this site.

2.3 Potential Impulsive Noise Impacts

Proposed construction phases for this project are not expected to include any significant vibration inducing equipment, such as pile driving or heavy soil compaction. As these types of equipment will not be present, excessive levels of ground-borne vibration are not expected to be received by any persons. Construction vibration is therefore anticipated to be less than significant from activity at the project site.

3.0 Conclusion

Temporary construction noise was calculated to determine the impact this activity will have on surrounding occupied properties. Section 36.409 of the County of San Diego Noise Ordinance states it is unlawful to operate construction equipment that exceeds an average sound level of 75 dB 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. Calculations show that typical construction activities will not exceed the County of San Diego temporary construction noise limit of 75 dBA at adjacent sensitive receivers during the construction activity. General good practice measures should be followed to ensure that noise levels remain below the County of San Diego construction noise limits, including reasonable maintenance of equipment, conservative planning of simultaneous equipment operation, and the use of equipment with effective mufflers. Equipment operation must also be limited to the allowable hours of operation set by the County of San Diego.

Proposed construction phases for this project are not expected to include any significant vibration inducing equipment, such as pile driving or heavy soil compaction. As these types of equipment will not be present, excessive levels of ground-borne vibration are not expected to be received by any persons. Construction vibration is therefore anticipated to be less than significant from activity at the project site.

4.0 Certification

The findings and recommendations of this acoustical analysis report are based on the information available and are a true and factual analysis of the potential acoustical issues associated with the proposed Montiel Road TM project, located at 1434 Montiel Road in the North County Metro Community Planning Area of the County of San Diego, California. This report was prepared by Mo Ouwenga and Amy Hool.



Mo Ouwenga, INCE
Senior Acoustical Consultant



Amy Hool, INCE
President/CEO

5.0 References

County of San Diego, North County Metro Community Planning Area, General Plan Land Use Designation Map, 6 January 2017.

GIS Portal, County of San Diego, PDS – Zoning & Property Information, <https://gis-portal.sandiegocounty.gov/arcgis/home/webmap/viewer.html?webmap=f1b69ba9d3dd4940b8d1efcc9dac2ac4>.

San Diego Association of Governments (SANDAG) Traffic Forecast Information Center, Activity Based Regional Transportation Model, 2021 Regional Plan Forecasts (ABM2+/2021), <http://tfic.sandag.org>.

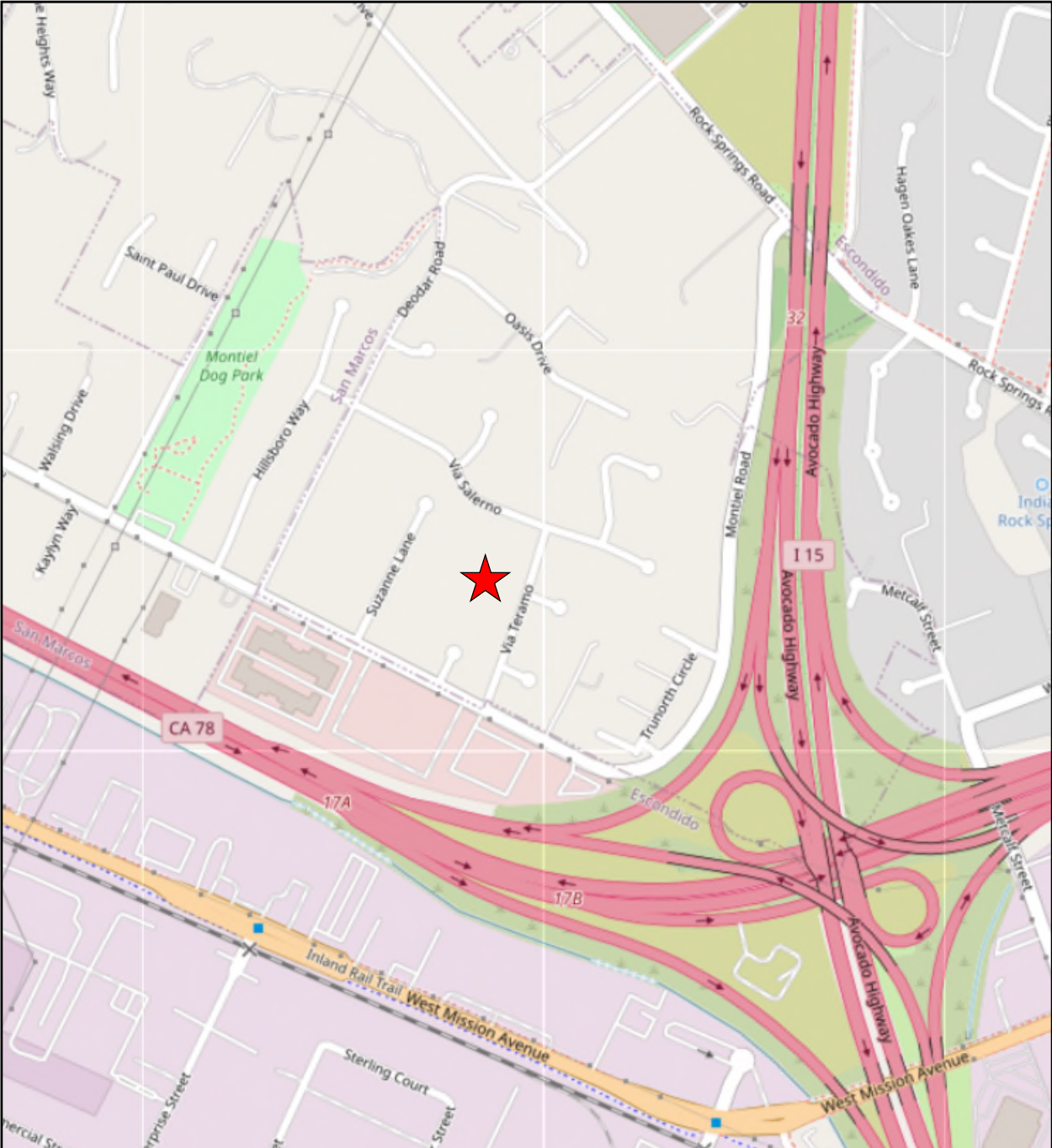
County of San Diego Noise Ordinance, Section 36.400, effective 9 January 2009.

Department for Environment Food and Rural Affairs (DEFRA), Update of Noise Database for Prediction of Noise on Construction and Open Sites, 2005.

U.S. Department of Transportation Federal Highway Administration, Construction Noise Handbook, Construction Equipment Noise Levels and Ranges.



Figures



Source: Open Street Map, 2024



Project Location

Figure 1.
Vicinity Map



Source: SanGIS, 2024



Project Location

Figure 2.
Assessor's Parcel Map

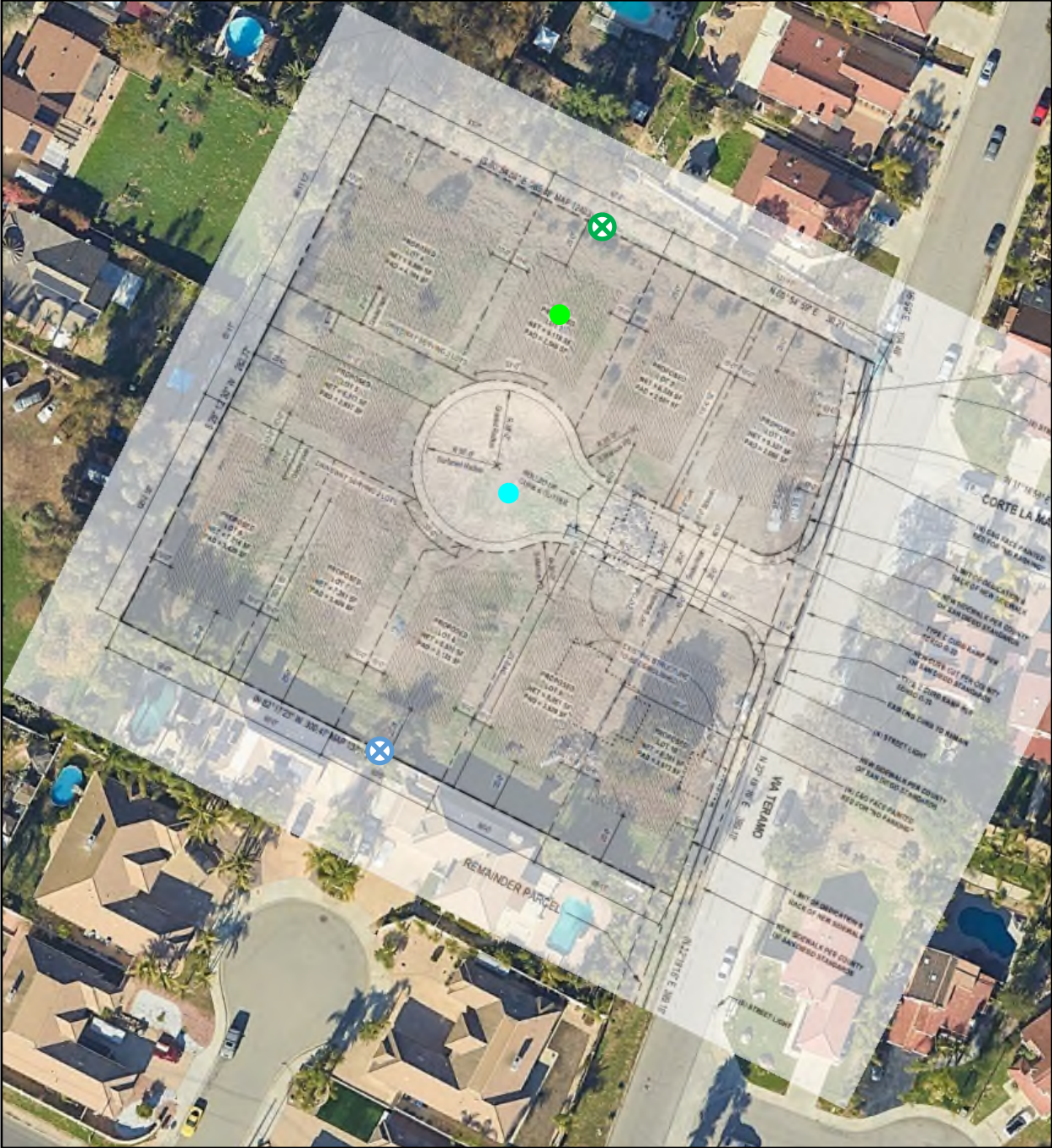


Source: Google Earth Pro, 2024



Project Location

Figure 3.
Satellite Aerial Photograph



Source: NOAA Group, Google Earth Pro, 2024

- ⊗ Grading/Foundation Receiver Location
- Grading/Foundation Noise Source Location
- ⊗ Building Construction Receiver Location
- Building Construction Noise Source Location

Figure 4.

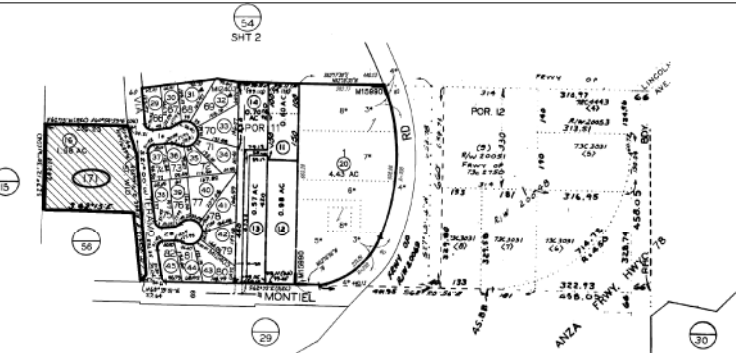
Construction Noise Source and Receiver Locations



Eilar Associates, Inc.
Acoustical and Environmental Consulting Services

Appendix A

Project Plans



PARCEL MAP

N.T.S.

PRIVATE ROAD STANDARDS

SAN DIEGO COUNTY STANDARDS FOR PRIVATE ROADS

SECTION 3.3 CUL-DE-SACS/TURNAROUNDS

CUL-DE-SACS OR APPROVED TURNAROUNDS SHALL BE REQUIRED AT THE END OF ALL PRIVATE ROADS EXCEPT WHERE THE ROAD WILL ULTIMATELY SERVE NO MORE THAN 2 RESIDENCES AND THE LENGTH OF THE PRIVATE ROAD IS 150 FEET OR LESS.

- WHERE DEDICATIONS, OFFERS OF DEDICATIONS, OR IRREVOCABLE OFFERS OF DEDICATIONS ARE REQUIRED, THE CUL DE SACS SHALL BE DESIGNED AND IMPROVED TO "COUNTY STANDARDS" FOR THE ROAD CLASSIFICATION INVOLVED.
- WHERE DEDICATIONS, OFFERS OF DEDICATION OR IRREVOCABLE OFFERS OF DEDICATION ARE NOT REQUIRED, THE CUL DE SACS SHALL BE DESIGNED AND IMPROVED AS FOLLOWS:
 - MINIMUM GRADED RADIUS - 38 FEET.
 - MINIMUM SURFACED RADIUS - 36 FEET.
 - MINIMUM RETURN RADIUS - 30 FEET.
 - MINIMUM CENTERLINE GRADE - 1 PERCENT.
 - MAXIMUM CENTERLINE GRADE - 10 PERCENT.
 - MAXIMUM CROSS SLOPE - 5 PERCENT
- HAMMERHEAD AND/OR OTHER TYPES OF TURNAROUNDS SHALL BE DESIGNED AND IMPROVED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS. PRIOR TO APPROVING A TURNAROUND DESIGN, THE DIRECTOR SHALL OBTAIN INPUT FROM THE LOCAL FIRE PROTECTION DISTRICT.

RIGHT-OF-WAY RETURNS

- THE RADIUS FOR RIGHT-OF-WAY RETURNS AT THE INTERSECTION OF A PRIVATE ROAD WITH A PUBLIC ROAD OR FUTURE PUBLIC ROADS SHALL BE A MINIMUM 20 FEET.
- WHERE THE ANGLE OF INTERSECTION OF EASEMENT RIGHT-OF-WAY LINES IS OTHER THAN 90 DEGREES, OR WHERE A SIGHT DISTANCE PROBLEM MAY BE ANTICIPATED, AN INCREASED RIGHT-OF-WAY LINE RADIUS MAY BE REQUIRED.

IMPROVEMENT WIDTH

MEANS THE SPECIFIED WIDTH OF PAVEMENT OR DISINTEGRATED GRANITE MEASURED FROM THE EDGES OF THE PAVEMENT OR EDGES OF THE DISINTEGRATED GRANITE. WHERE ASPHALT CONCRETE DIKES OR PORTLAND CEMENT CONCRETE CURBS ARE USED, THE MEASUREMENT SHALL BE FROM CURB OR DIKE FACE TO CURB OR DIKE FACE. WHEN TRANSITIONAL CURBING IS USED, SUCH AS MOUNTABLE OR ROLLED CURBS, ON ROADS 24 FEET OR WIDER, THE MEASUREMENT SHALL BE FROM THE OUTER EDGE.

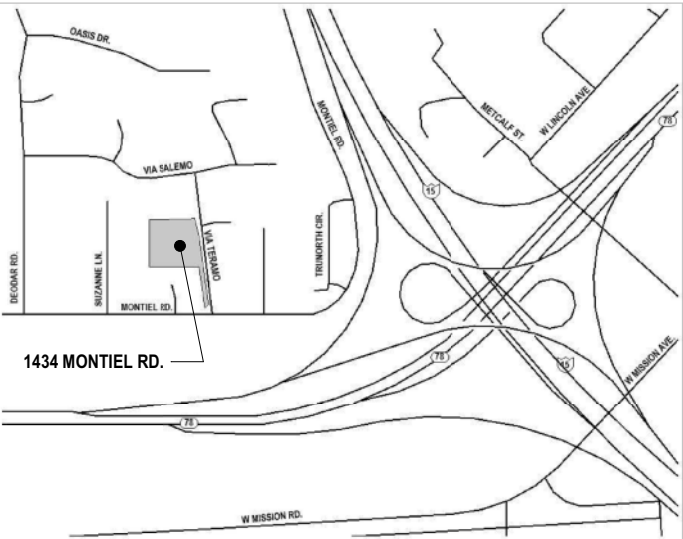
PRIVATE RESIDENTIAL DRIVEWAY

IS AN INDIVIDUAL OR SHARED ACCESS WAY FROM A PUBLIC OR PRIVATE ROAD WHICH WILL SERVE, NOW OR ANY TIME IN THE FUTURE, NO MORE THAN TWO RESIDENTIAL LOTS. CONSTRUCTION OF THE ACCESS WAY SHALL CONFORM TO THE COUNTY OF SAN DIEGO DRIVEWAY STANDARDS. EASEMENTS FOR ANY OFF-SITE PORTION OF THE ACCESS WAY SHALL BE PROVIDED ACCORDING TO SECTIONS 81.402 AND 81.703 OF THE COUNTY OF SAN DIEGO SUBDIVISION ORDINANCE (TITLE 8, DIVISION 1 OF THE SAN DIEGO COUNTY CODE OF REGULATORY ORDINANCES). NOTE: PER THE SAN DIEGO COUNTY FIRE CODE THE MINIMUM IMPROVED WIDTH FOR A RESIDENTIAL DRIVEWAY SERVING NO MORE THAN TWO LOTS IS SIXTEEN FEET (16') WITH A MINIMUM GRADED WIDTH OF TWENTY FEET (20')

NUMBER OF VEHICLE TRIPS PER DAY (ADT) 100 OR LESS:

GRADED WIDTH	28 FT. 1.5
IMPROVEMENT WIDTH	24 FT. 1.2
HORIZONTAL RADIUS	100 FT. 1
VERTICAL DESIGN SPEED	20 MPH 1
MAXIMUM GRADE	20%
MINIMUM LENGTH-VERTICAL CURVE	40'
MAXIMUM ANGLE OF DEPARTURE	7% 1
MINIMUM VERTICAL CLEARANCE	14.5'

- MAY BE REDUCED UPON APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. IN SUCH CASES, THE VERTICAL DESIGN SPEED AND THE HORIZONTAL RADIUS OF CURVATURE SHALL BE A MINIMUM OF 15 MPH AND A 60-FOOT HORIZONTAL RADIUS, RESPECTIVELY.
- BASED UPON INPUT FROM THE LOCAL FIRE PROTECTION DISTRICT, COMMUNITY PLANNING AND/OR SPONSOR GROUPS AND THE GENERAL PUBLIC, THE DIRECTOR OF PUBLIC WORKS MAY REQUIRE THAT ON-STREET PARKING BE PROVIDED ON ROADS SERVING AREAS WITH A MINIMUM LOT SIZE OF LESS THAN ONE (1) ACRE. WHENEVER ON-STREET VEHICLE PARKING IS REQUIRED, ON-STREET PARKING SHALL BE PROVIDED BY INCREASING THE GRADED AND IMPROVED WIDTH BY SIX FEET (6') FOR EACH SIDE OF THE ROAD IN WHICH ON-STREET PARKING IS TO BE PROVIDED IN ACCORDANCE WITH SECTIONS 81.402 OF CHAPTER 4, AND 81.703 OF CHAPTER 7, OF THE COUNTY SUBDIVISION ORDINANCE. IN ORDER TO ACCOMMODATE ON-STREET PARKING, THE DIRECTOR OF PUBLIC WORKS MAY ALSO, ON A CASE BY CASE BASIS, AUTHORIZE THE USE OF PARKING BAYS OR MOUNTABLE CURBS (BERMS) IN LIEU OF ADDITIONAL ROAD WIDENING. WHERE PARKING BAYS ARE PROVIDED, THEY SHALL BE LOCATED TO BEST ACCOMMODATE THE PARKING DEMAND. LANDSCAPING AND/OR CURBING MAY BE PROVIDED BETWEEN PARKING BAYS PROVIDED THAT THEY WILL NOT OBSTRUCT REQUIRED SIGHT DISTANCE AND/OR RESTRICT INGRESS AND/OR EGRESS TO AND FROM THE PARKING BAYS. IN ORDER TO DESIGNATE NO-PARKING AREAS, STRIPING AND/OR APPROPRIATE SIGNAGE MAY BE REQUIRED.
- THE GRADED WIDTH FOR ON-SITE AND OFF-SITE ROADS MAY BE REDUCED, AT THE DISCRETION OF THE DIRECTOR OF PUBLIC WORKS. HOWEVER, THE GRADED WIDTH SHALL NOT BE LESS THAN THE REQUIRED IMPROVEMENT WIDTH AS REQUIRED BY THESE STANDARDS.



VICINITY MAP

N.T.S.



1 PROPOSED SITE PLAN

Scale: 1" = 30'-0"

OWNERSHIP INFORMATION

NAME: SHUB ESTATES LLC
ADDRESS: 10225 BARNES CANYON ROAD
SAN DIEGO, CA 92121
PHONE: (732) 552-7712
EMAIL: shubhestatesllc@yahoo.com

CONTACT INFORMATION

NAME: NOAA GROUP ARCHITECTS
JOSEPH HOLASEK
ADDRESS: 4990 N. HARBOR DR. STE: 201
SAN DIEGO, CA 92106
PHONE: (619) 297-8066
EMAIL: jch@noaainc.com
dcamargo@noaainc.com

BUILDING INFORMATION

SITE ADDRESS:

1434 MONTIEL RD.
ESCONDIDO, CA 92026

APN:

228-171-16-00

LOT AREA:

86,248 SQ.FT.
1.980 ACRES

ZONING:

EXISTING/ PROPOSED: RS (RESIDENTIAL SINGLE FAMILY)

LEGAL DESCRIPTION:

BLK 2 LOT 10 (EX ST) DOC 78-036423 IN

SCHOOL DISTRICT:

GEN ELEM ESCONDIDO

SCHOOL UNION:

ESCONDIDO UNION HIGH SCHOOL

FIRE PROTECTION:

SAN MARCOS FIRE PROTECTION DISTRICT

WATER & SEWER DISTRICT:

VALLECITOS WATER DISTRICT

SUMMARY TABLE

EXISTING:

SINGLE FAMILY HOUSE
1,084 SQ.FT.
2 BEDROOM
1 BATHROOM

PROPOSED:

EXISTING 1.980 ACRE PARCEL LOT TO BE SUBDIVIDED INTO 10 PARCELS, ON A RESIDENTIAL SINGLE FAMILY, RS ZONING.

DEVELOPMENT REGULATIONS

PER ZONING ORDINANCE SECTION 42.21

MIN. LOT AREA: 6,000 SF

MIN. LOT DIMENSIONS:

LOT WIDTH:	60 FT
STREET FRONTAGE:	60 FT
STREET FRONTAGE (CUL-DE-SAC):	33 FT
LOT DEPTH:	90 FT

SETBACK REQUIREMENTS:

MIN. FRONT:	40 FT
MIN. SIDE:	10 FT
MIN. SIDE (STREET):	10 FT
MIN. REAR:	25 FT



tel: 619-297-8066
web: www.noaainc.com



DO NOT SCALE DRAWINGS.
ANY DISCREPANCIES TO BE REVIEWED WITH
THE ARCHITECT.

MONTIEL ROAD
1434 MONTIEL ROAD
ESCONDIDO, CA 92026

PROPOSED SITE PLAN

Scale: As indicated

Sheet No:

A-101

7/17/2024 9:02:57 AM



Appendix B

Applicable Noise Regulations

No person shall operate or allow to be operated, a refuse compacting, processing, or collection vehicle or a parking lot sweeper between the hours of 10 p.m. to 6 a.m., in or within 100 feet of a residential zone.

(Amended by Ord. No. 7428 (N.S.), effective 2-4-88; amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 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, the fourth Thursday in November and December 25th. 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.

(Amended by Ord. No. 9962 (N.S.), effective 1-9-09; amended by Ord. No. 10364 (N.S.), effective 1-2-15)

SEC. 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.

(Amended by Ord. No. 9700 (N.S.), effective 2-4-05; amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.410. SOUND LEVEL LIMITATIONS ON IMPULSIVE NOISE.

In addition to the general limitations on sound levels in section 36.404 and the limitations on construction equipment in section 36.409, the following additional sound level limitations shall apply:

- (a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410A, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410A are as described in the County Zoning Ordinance.

TABLE 36.410A.

MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA)

OCCUPIED PROPERTY USE	DECIBELS (dBA)
Residential, village zoning or civic use	82

(b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410B, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410B are as described in the County Zoning Ordinance.

TABLE 36.410B.

MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA) FOR PUBLIC ROAD PROJECTS

OCCUPIED PROPERTY USE	dB(A)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

(c) The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

(Added by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.411. CONTAINERS AND CONSTRUCTION MATERIAL.

It shall be unlawful for any person to handle, transport, or cause to be handled or transported in any public place, any container or any construction material in such a way as to create a disturbing, excessive, or offensive noise as defined in section 36.402 of this chapter.

(Amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.412. SIGNAL DEVICE FOR FOOD TRUCKS.

No person shall operate or cause to have operated or used any sound signal device other than sound-amplification equipment attached to a motor vehicle wagon or manually propelled cart from which food or any other items are sold which emits a sound signal more frequently than once every ten minutes in any one street block and with a duration of more than ten seconds for any single emission. The sound level of this sound signal shall not exceed 90 decibels at 50 feet from the point of the noise source.

(Amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.413. MULTIPLE FAMILY DWELLING UNITS.

Notwithstanding any other provision of this chapter it shall be unlawful for any person to create, maintain or cause to be maintained any sound within the interior of any multiple family dwelling unit which causes the noises level to exceed those limits set forth below in another dwelling unit:



Eilar Associates, Inc.
Acoustical and Environmental Consulting Services

Appendix C

Construction Noise Analysis Data and Results

Noise Attenuation by Distance Calculation

Job: Montiel Road TM
Job #: S240705
Date: 8/12/2024
Source: Backhoe
Phase: Grading/Foundation

Noise Source

Noise Level (dBA) 64 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 141 feet

Path Calculation

Source to Receiver Direct Path Distance: 141 feet

Sound Pressure Level

55.0 at 141 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 51.0

Summation of All Sources*

Number of Sources: 4
Level during 8 hour day: 63.7

*See following pages if more than one source is present

Noise Attenuation by Distance Calculation

Job: Montiel Road TM
Job #: S240705
Date: 8/12/2024
Source: **Front End Loader**
Phase: Grading/Foundation

Noise Source

Noise Level (dBA) 72 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 141 feet

Path Calculation

Source to Receiver Direct Path Distance: 141 feet

Sound Pressure Level

63.0 at 141 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 59.0

Noise Attenuation by Distance Calculation

Job: Montiel Road TM
Job #: S240705
Date: 8/12/2024
Source: Concrete Mixer
Phase: Grading/Foundation

Noise Source

Noise Level (dBA) 72 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 141 feet

Path Calculation

Source to Receiver Direct Path Distance: 141 feet

Sound Pressure Level

63.0 at 141 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 59.0

Noise Attenuation by Distance Calculation

Job: Montiel Road TM
Job #: S240705
Date: 8/12/2024
Source: Concrete Pump
Phase: Grading/Foundation

Noise Source

Noise Level (dBA) 74 at 50 feet

Distances

Source Elevation 0 feet at 3 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 141 feet

Path Calculation

Source to Receiver Direct Path Distance: 141 feet

Sound Pressure Level

65.0 at 141 feet
Hours of Use: 8
Duty Cycle (%): 20
Level During 8 Hour day: 58.0

Noise Attenuation by Distance Calculation

Job: Montiel Road TM
Job #: S240705
Date: 8/12/2024
Source: Air Compressor
Phase: Building Construction

Noise Source

Noise Level (dBA) 61 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 49 feet

Path Calculation

Source to Receiver Direct Path Distance: 49 feet

Sound Pressure Level

61.2 at 49 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 57.2

Summation of All Sources*

Number of Sources: 4
Level during 8 hour day: 70.1

*See following pages if more than one source is present

Noise Attenuation by Distance Calculation

Job: Elements 3A
Job #: S240104
Date: 5/16/2024
Source: **Backhoe**
Phase: Building Construction

Noise Source

Noise Level (dBA) 64 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 49 feet

Path Calculation

Source to Receiver Direct Path Distance: 49 feet

Sound Pressure Level

64.2 at 49 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 60.2

Noise Attenuation by Distance Calculation

Job: Elements 3A
Job #: S240104
Date: 5/16/2024
Source: **Front End Loader**
Phase: Building Construction

Noise Source

Noise Level (dBA) 72 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 49 feet

Path Calculation

Source to Receiver Direct Path Distance: 49 feet

Sound Pressure Level

72.2 at 49 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 68.2

Noise Attenuation by Distance Calculation

Job: Elements 3A
Job #: S240104
Date: 5/16/2024
Source: Telescopic Handler
Phase: Building Construction

Noise Source

Noise Level (dBA) 67 at 50 feet

Distances

Source Elevation 0 feet at 3 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 49 feet

Path Calculation

Source to Receiver Direct Path Distance: 49 feet

Sound Pressure Level

67.2 at 49 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 63.2