CARLSBAD
CLOVIS
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SAN LUIS OBISPO

MEMORANDUM

DATE: December 18, 2023

TO: Jeremy Louden, Ldn Consulting, Inc.

FROM: J.T. Stephens, Principal, Senior Noise Specialist
Moe Abushanab, Noise Engineer

SUBJECT: Existing Noise Measurements for the Power the South Bay Project in Newark, California

INTRODUCTION

At the request of Ldn Consulting, Inc., LSA gathered ambient noise measurements at the Power the South Bay Project (project) in the City of Newark. The purpose of the noise assessment is to evaluate the existing noise levels generated by surrounding roadways, commercial and industrial use operations, and aircraft activities in the vicinity of the project.

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The dominant sources of noise in the vicinity of the project are traffic noise on Boyce Road, Automall Parkway, Grand Boulevard, Lafayette Street, Highway 237, and other local roadways. Noise from aircraft and railroad operations also contribute to the existing noise environment.

Existing Noise Measurements

To assess noise levels at the project, three long-term 24-hour measurement and three short-term measurements (15 minutes) were gathered from December 12, 2023, to December 13, 2023. Tables A and B present the results of the existing noise measurements and Figure 1 presents the noise monitoring locations.

The results in Table A below indicate that noise levels range from 66.6 dBA L_{dn} to 73.1 dBA L_{dn}, the results in Table B indicate that average noise levels range from 55.8 dBA L_{eq} to 65.3 dBA L_{eq}.

Table A: Existing Noise Level Measurements – Long Term

Location Number	Location Description	Noise Levels (dBA L_{eq})		Average Daily Noise Levels (dBA L_{dn})	Primary Noise Sources
		Daytime[1]	Nighttime[2]		
LT-1	On a tree in the vacant land located at southwest corner of Boyce Road and Automall Parkway, approximately 75 feet from the Boyce Road centerline and approximately 150 feet from the Automall Parkway centerline.	63.2 – 68.9	57.2 – 66.1	68.9	Traffic on Boyce Road and Automall Parkway.
LT-2	On a tree, 1st tree opposite of residence at Grand Boulevard, approximately 25 feet away from Grand Boulevard centerline.	51.8 – 68.7	42.3 – 67.4	66.6	Traffic on Grand Boulevard and Spreckles Avenue. Aircraft noise.
LT-3	On a light pole with sign, east of Lafayette street, approximately 55 feet away from Lafayette Street centerline.	66.9 – 77.0	55.2 – 71.0	73.1	Traffic on Lafayette Street. Aircraft noise Train Passby.

Source: Compiled by LSA (December 2023).
[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 10:00 p.m.
[2] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
dBA = A-weighted decibels
ft = foot/feet
L_{dn} = day-night noise level
L_{eq} = equivalent continuous sound level
LT = long-term

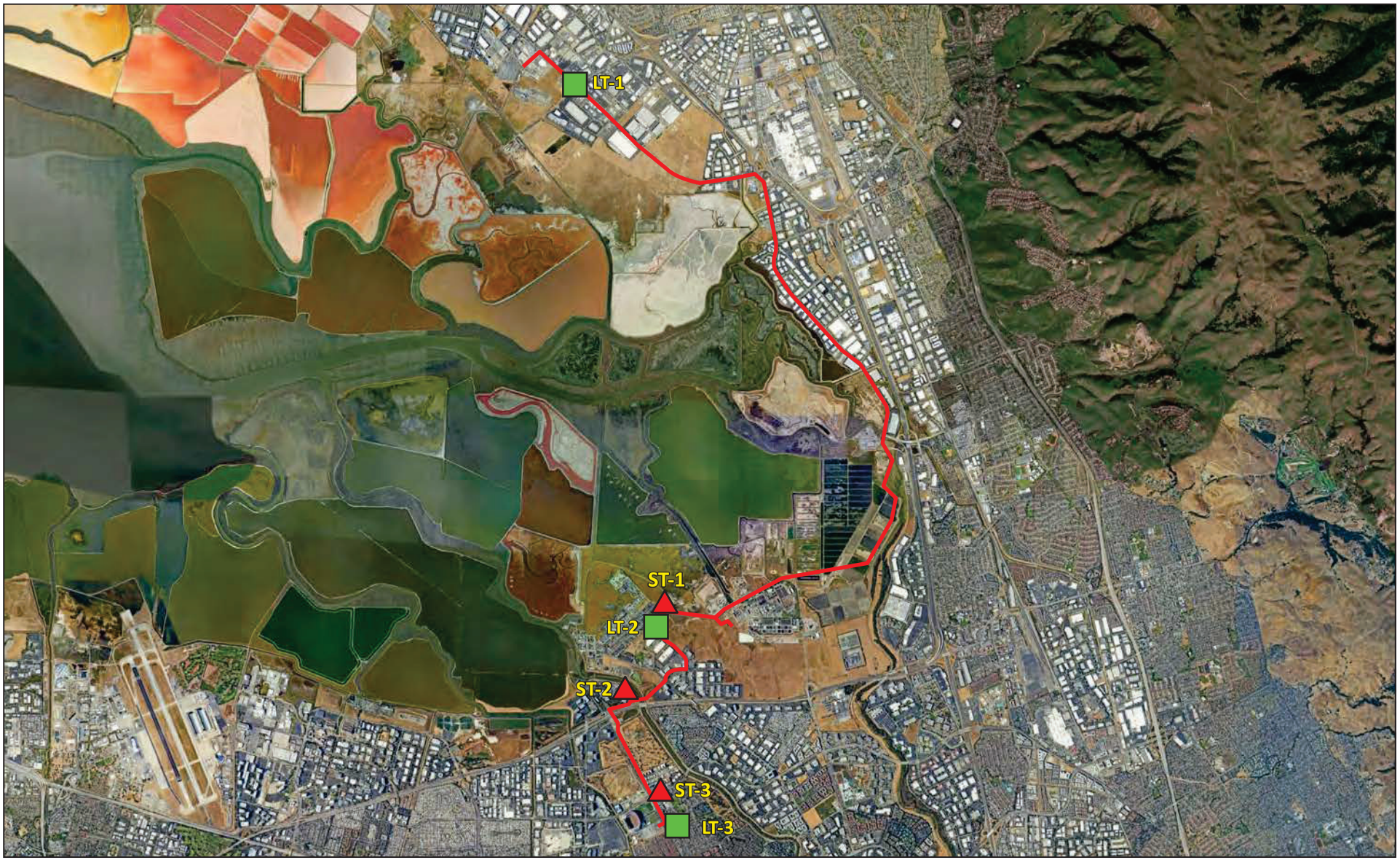
Table B: Existing Noise Level Measurements – Short Term

Location Number	Location Description	Date/Time	Average Noise Level (L_{eq})	Primary Noise Sources
ST-1	Northeast corner of Spreckles Avenue and Grand Boulevard, approximately 35 feet from Grand Boulevard centerline and 50 feet from Spreckles Avenue centerline.	12/12/2023 10:52 a.m. – 11:07 a.m.	65.3	Traffic on Grand Avenue, mainly trucks. Aircraft noise
ST-2	Parking lot of Xperi, 3rd parking spot from west (near park), south of residence on Channel Drive, approximately 550 feet from the freeway 237 centerline.	12/12/2023 11:30 a.m. – 11:45 a.m.	55.8	Traffic on Freeway 237.
ST-3	East of Lafayette Street, opposite residence at 2355 Avenida De Guadalupe, approximately 75 feet away from the Lafayette Street centerline.	12/12/2023 1:10 p.m. – 1:25 p.m.	62.2	Traffic on Lafayette and Tasman Drive. Aircraft noise and train Passby.

Source: Compiled by LSA (December 2023).
dBA = A-weighted decibel(s)
ft = foot/feet
L_{eq} = equivalent continuous sound level
ST = short-term

ATTACHMENT A

FIGURE



LSA

LEGEND

Project Location

ST-1 Short-term Noise Monitoring Location

LT-1 Long-term Noise Monitoring Location

N

0 5.2 1.4

MILES

SOURCE: Google Earth 2023

FIGURE 1

Power the South Bay Project

Noise Monitoring Locations

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ATTACHMENT B

NOISE MEASUREMENT DATA SHEETS

Noise Measurement Survey – 24 HR

Project Number: 20231211
Project Name: Power the South Bay

Test Personnel: Moe Abushanab
Equipment: Spark 906RC (SN:17637)

Site Number: LT-1 Date: 12/12/2023

Time: From 10:00 a.m. To 10:00 a.m.

Site Location: On a tree in the vacant land located at southwest corner of Boyce Road and Automall Parkway, approximately 75 feet from the Boyce Road centerline and approximately 150 feet from the Automall Parkway centerline.

Primary Noise Sources: Traffic on Boyce Road and Automall Parkway

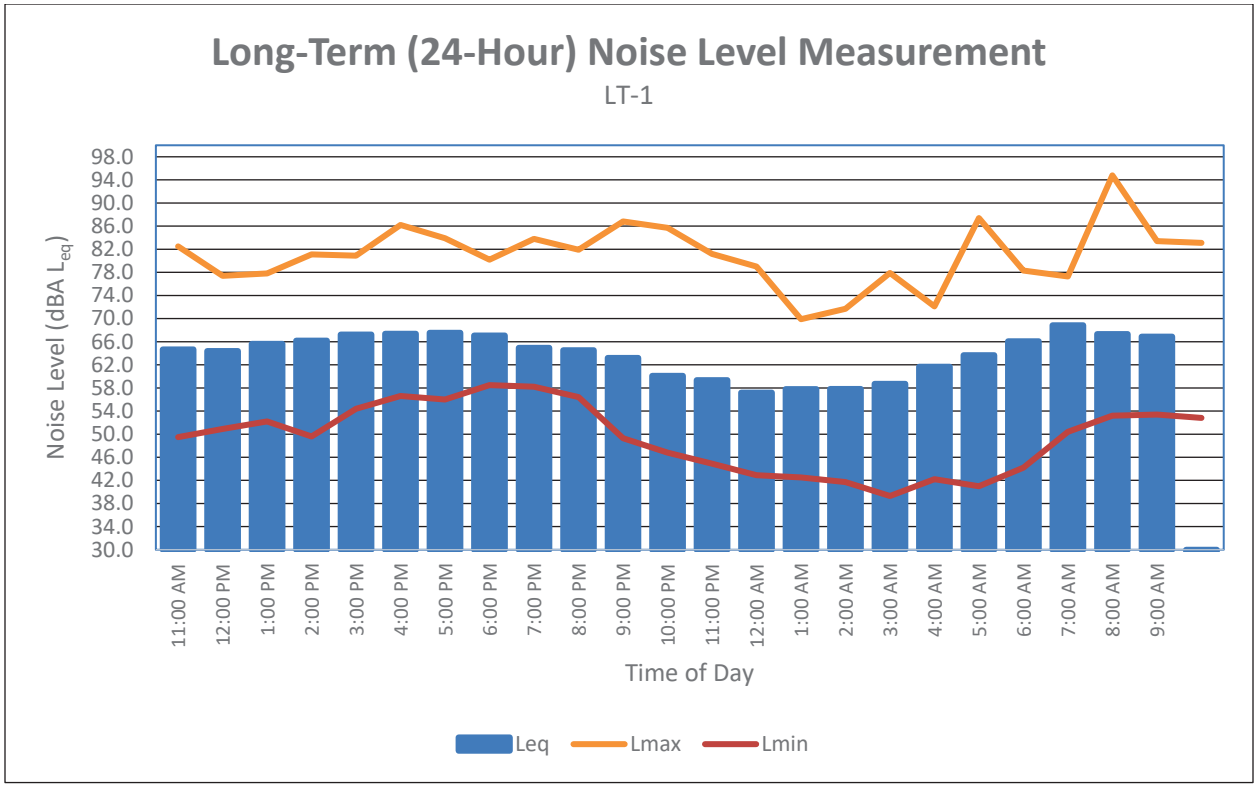
Comments:

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
10:00 AM	12/12/23	66.1	82.5	49.5
11:00 AM	12/12/23	64.7	77.4	50.9
12:00 PM	12/12/23	64.4	77.8	52.2
1:00 PM	12/12/23	65.6	81.1	49.6
2:00 PM	12/12/23	66.2	80.9	54.4
3:00 PM	12/12/23	67.2	86.2	56.6
4:00 PM	12/12/23	67.4	83.9	56.0
5:00 PM	12/12/23	67.6	80.2	58.5
6:00 PM	12/12/23	67.1	83.8	58.2
7:00 PM	12/12/23	64.9	81.9	56.4
8:00 PM	12/12/23	64.5	86.8	49.3
9:00 PM	12/12/23	63.2	85.7	46.8
10:00 PM	12/12/23	60.1	81.2	44.9
11:00 PM	12/12/23	59.4	79.0	42.9
12:00 AM	12/13/23	57.2	69.9	42.5
1:00 AM	12/13/23	57.8	71.7	41.7
2:00 AM	12/13/23	57.8	77.9	39.3
3:00 AM	12/13/23	58.7	72.1	42.2
4:00 AM	12/13/23	61.7	87.4	41.0
5:00 AM	12/13/23	63.7	78.3	44.2
6:00 AM	12/13/23	66.1	77.3	50.4
7:00 AM	12/13/23	68.9	94.8	53.2
8:00 AM	12/13/23	67.3	83.4	53.4
9:00 AM	12/13/23	66.9	83.1	52.8

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level


Long-Term (24-Hour) Noise Level Measurement
LT-1
Noise Level (dBA Leq)
98.0
94.0
90.0
86.0
82.0
78.0
74.0
70.0
66.0
62.0
58.0
54.0
50.0
46.0
42.0
38.0
34.0
30.0
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
Time of Day
Leq
Lmax
Lmin

Noise Measurement Survey – 24 HR

Project Number: 20231211
Project Name: Power the South Bay

Test Personnel: Moe Abushanab
Equipment: Spark 906RC (SN:18571)

Site Number: LT-2 Date: 12/12/2023

Time: From 11:00 a.m. To 11:00 a.m.

Site Location: On a tree, 1st tree opposite of residence at Grand Boulevard, approximately 25 feet away from Grand Boulevard centerline.

Primary Noise Sources: Traffic on Grand Boulevard and Spreckles Avenue , Occasional aircraft noise

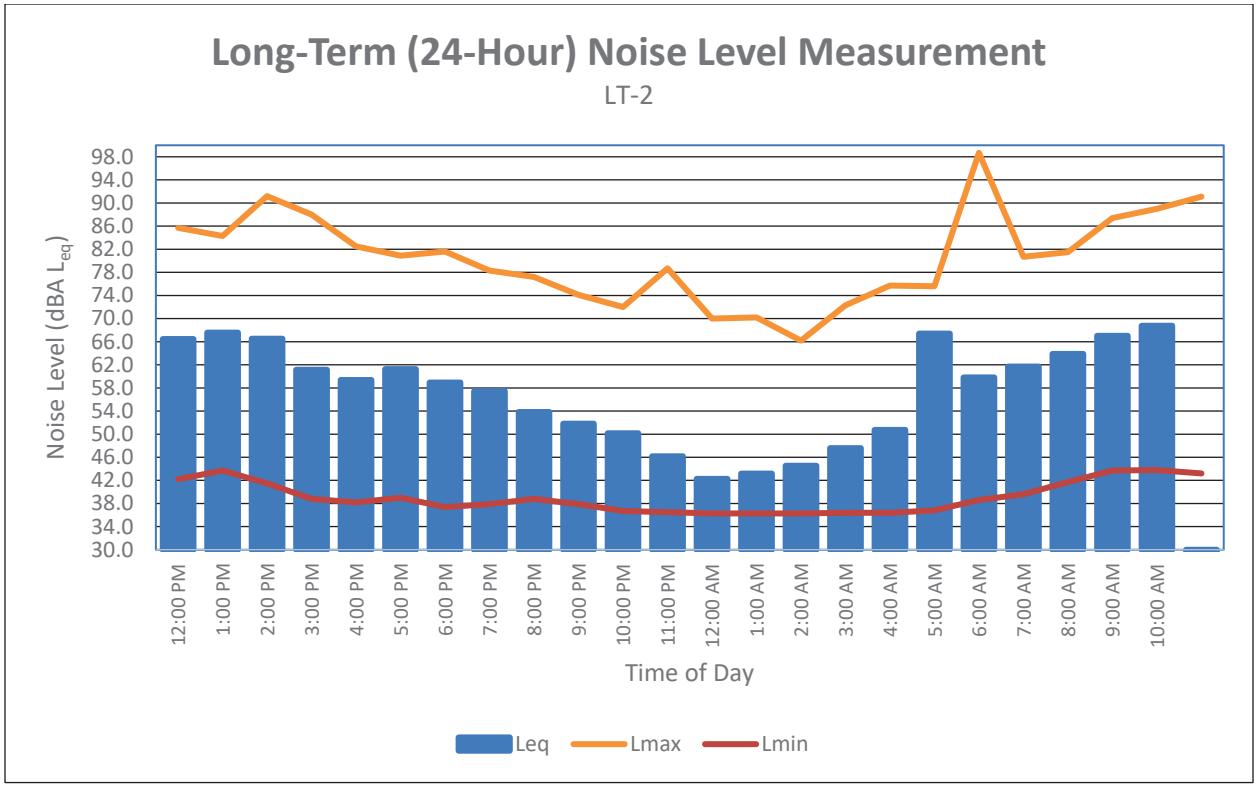
Comments: Heavy trucks route

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
11:00 AM	12/12/23	66.5	85.7	42.2
12:00 PM	12/12/23	66.5	84.3	43.7
1:00 PM	12/12/23	67.6	91.2	41.5
2:00 PM	12/12/23	66.5	88.0	38.8
3:00 PM	12/12/23	61.1	82.5	38.2
4:00 PM	12/12/23	59.4	80.9	39.0
5:00 PM	12/12/23	61.2	81.6	37.4
6:00 PM	12/12/23	58.9	78.3	37.9
7:00 PM	12/12/23	57.4	77.2	38.8
8:00 PM	12/12/23	53.8	74.1	37.9
9:00 PM	12/12/23	51.8	72.0	36.7
10:00 PM	12/12/23	50.2	78.7	36.5
11:00 PM	12/12/23	46.2	70.0	36.3
12:00 AM	12/13/23	42.3	70.2	36.3
1:00 AM	12/13/23	43.2	66.2	36.3
2:00 AM	12/13/23	44.5	72.3	36.4
3:00 AM	12/13/23	47.6	75.7	36.4
4:00 AM	12/13/23	50.7	75.6	36.8
5:00 AM	12/13/23	67.4	98.7	38.6
6:00 AM	12/13/23	59.8	80.7	39.6
7:00 AM	12/13/23	61.7	81.5	41.7
8:00 AM	12/13/23	63.9	87.4	43.7
9:00 AM	12/13/23	67.0	89.0	43.8
10:00 AM	12/13/23	68.7	91.1	43.2

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level


Long-Term (24-Hour) Noise Level Measurement
LT-2
Noise Level (dBA Leq)
98.0
94.0
90.0
86.0
82.0
78.0
74.0
70.0
66.0
62.0
58.0
54.0
50.0
46.0
42.0
38.0
34.0
30.0
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
Time of Day
Leq
Lmax
Lmin

Noise Measurement Survey – 24 HR

Project Number: 20231211
Project Name: Power the South Bay

Test Personnel: Moe Abushanab
Equipment: Spark 906RC (SN:17815)

Site Number: LT-3 Date: 12/12/2023

Time: From 1:00 p.m. To 1:00 p.m.

Site Location: On a light pole with sign, east of Lafayette street, approximately 55 feet away from Lafayette Street centerline

Primary Noise Sources: Traffic on Lafayette Street , Occasional aircraft noise, occasional train Passby

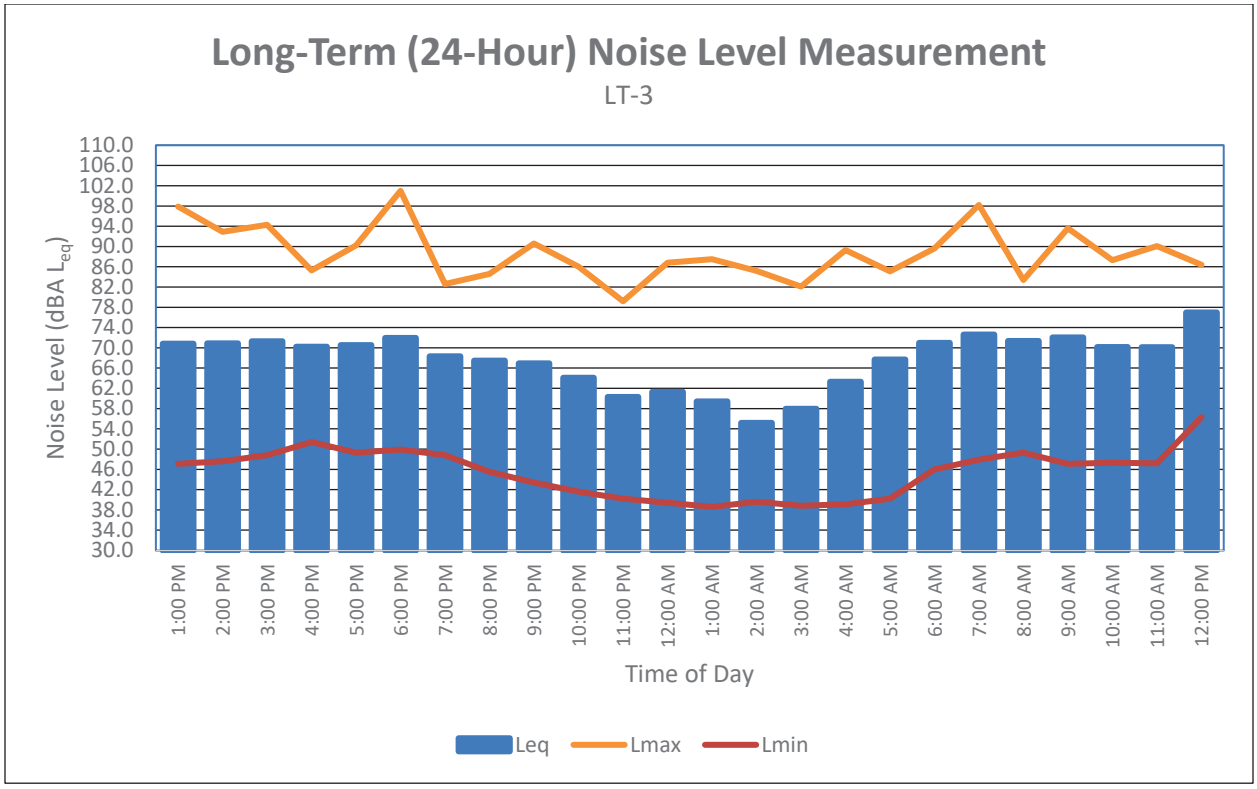
Comments: construction noise at a distance from the water pipeline improvement project

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-3

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
1:00 PM	12/12/23	70.8	97.9	47.1
2:00 PM	12/12/23	70.9	92.9	47.6
3:00 PM	12/12/23	71.3	94.3	48.8
4:00 PM	12/12/23	70.2	85.3	51.4
5:00 PM	12/12/23	70.5	90.2	49.3
6:00 PM	12/12/23	72.0	101.0	49.9
7:00 PM	12/12/23	68.3	82.6	48.8
8:00 PM	12/12/23	67.5	84.6	45.5
9:00 PM	12/12/23	66.9	90.6	43.4
10:00 PM	12/12/23	64.1	86.0	41.6
11:00 PM	12/12/23	60.3	79.2	40.2
12:00 AM	12/13/23	61.3	86.8	39.4
1:00 AM	12/13/23	59.4	87.5	38.6
2:00 AM	12/13/23	55.2	85.2	39.6
3:00 AM	12/13/23	58.0	82.1	38.8
4:00 AM	12/13/23	63.3	89.3	39.1
5:00 AM	12/13/23	67.7	85.1	40.2
6:00 AM	12/13/23	71.0	89.6	46.0
7:00 AM	12/13/23	72.6	98.2	47.9
8:00 AM	12/13/23	71.4	83.4	49.3
9:00 AM	12/13/23	72.1	93.6	47.1
10:00 AM	12/13/23	70.2	87.3	47.3
11:00 AM	12/13/23	70.1	90.1	47.2
12:00 PM	12/13/23	77.0	86.4	56.3

Source: Compiled by LSA Associates, Inc. (2023).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level


Long-Term (24-Hour) Noise Level Measurement
LT-3
Noise Level (dBA Leq)
110.0
106.0
102.0
98.0
94.0
90.0
86.0
82.0
78.0
74.0
70.0
66.0
62.0
58.0
54.0
50.0
46.0
42.0
38.0
34.0
30.0
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
Time of Day
Leq
Lmax
Lmin

Noise Measurement Survey

Project Number: 20231211
Project Name: Power the South Bay
Test Personnel: Moe Abushanab
Equipment: Larson Davis LxT

Site Number: ST-1 Date: 12/12/2023 Time: From 10:52 a.m. To 11:07 a.m.

Site Location: Northeast corner of Spreckles Avenue and Grand Boulevard, approximately 35 feet from Grand Boulevard centerline and 50 feet from Spreckles Avenue centerline.

Primary Noise Sources: Traffic on Grand Avenue, mainly trucks
Occasional aircraft

Measurement Results

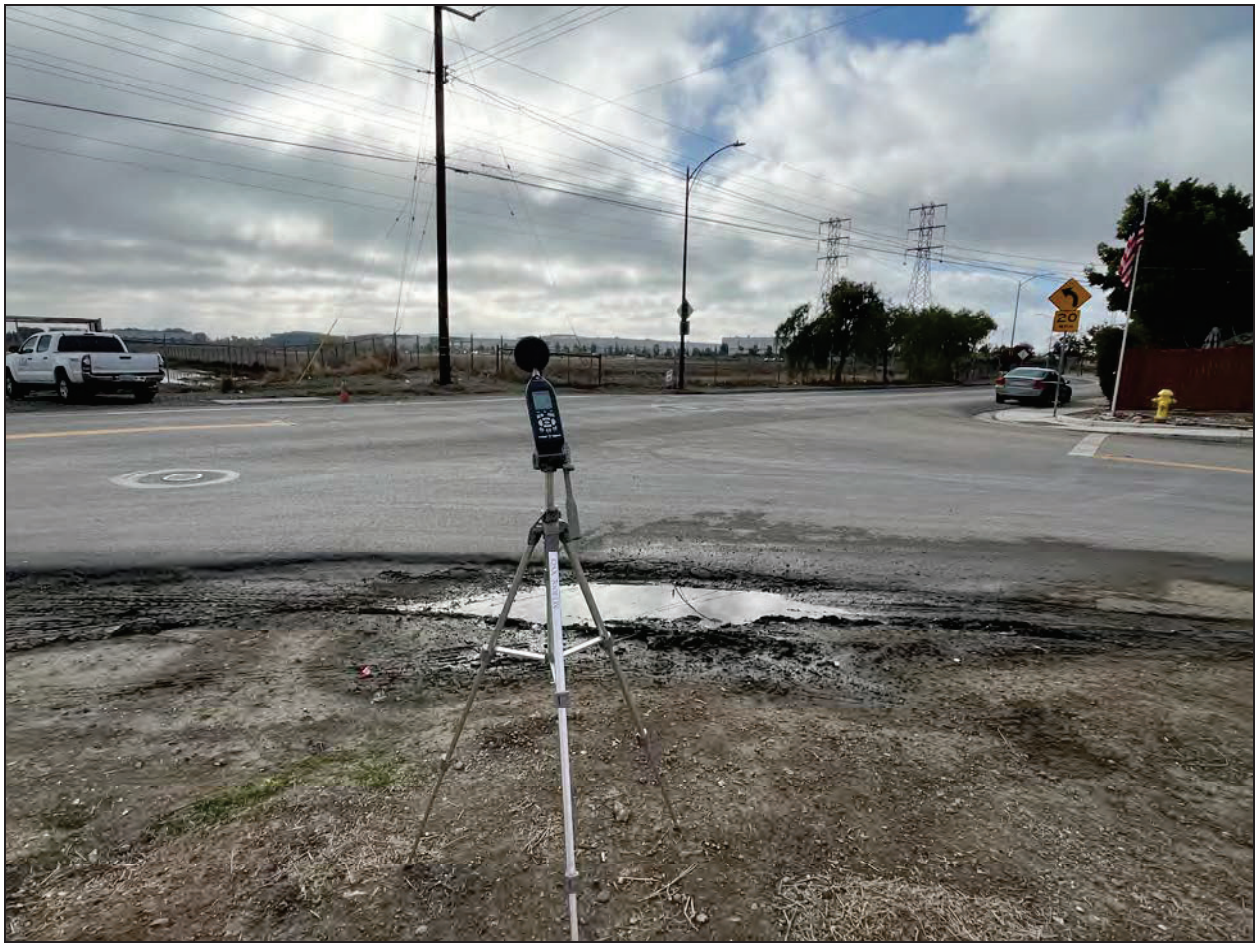
	dBA
L_{eq}	65.3
L_{max}	81.1
L_{min}	42.4
L_{peak}	101.2
L_2	75.3
L_8	70.5
L_{25}	63.5
L_{50}	54.0
L_{90}	43.4
L_{99}	42.8
SEL	

Atmospheric Conditions:

Maximum Wind Velocity (mph)	2.9
Average Wind Velocity (mph)	1.6
Temperature (F)	56.5
Relative Humidity (%)	64.0
Comments:	

Comments:

Location Photo:



Noise Measurement Survey

Project Number: 20231211
Project Name: Power the South Bay
Test Personnel: Moe Abushanab
Equipment: Larson Davis LxT

Site Number: ST-2 Date: 12/12/2023 Time: From 11:30 a.m. To 11:45 a.m.

Site Location: Parking lot of Xperi, 3rd parking spot from west (near park), south of residence on Channel Drive, approximately 550 feet from the Highway 237 centerline

Primary Noise Sources: Traffic on Highway 237

Measurement Results

	dBA
L_{eq}	55.8
L_{max}	60.9
L_{min}	51.5
L_{peak}	88.4
L_2	58.5
L_8	57.5
L_{25}	56.4
L_{50}	55.7
L_{90}	53.8
L_{99}	52.4
SEL	

Atmospheric Conditions:

Maximum Wind Velocity (mph)	1.4
Average Wind Velocity (mph)	0.8
Temperature (F)	61.0
Relative Humidity (%)	64.0
Comments:	

Comments:

Location Photo:

Noise Measurement Survey

Project Number: 20231211
Project Name: Power the South Bay
Test Personnel: Moe Abushanab
Equipment: Larson Davis LxT

Site Number: ST-3 Date: 12/12/2023 Time: From 1:10 p.m. To 1:25 p.m.

Site Location: East of Lafayette Street, opposite residence at 2355 Avenida De Guadalupe, approximately 75 feet away from the Lafayette Street centerline.

Primary Noise Sources: Traffic on Lafayette and Tasman Drive
Occasional aircraft and train passby

Measurement Results

	dBA
L_{eq}	62.2
L_{max}	71.3
L_{min}	49.0
L_{peak}	93.7
L_2	68.5
L_8	67.0
L_{25}	63.8
L_{50}	59.4
L_{90}	52.4
L_{99}	50.0
SEL	

Atmospheric Conditions:

Maximum Wind Velocity (mph)	2.3
Average Wind Velocity (mph)	1.5
Temperature (F)	63.7
Relative Humidity (%)	60.0
Comments:	

Comments:

Location Photo: