

## **Appendix D**

---

### Noise and Vibration

# **Noise and Vibration Calculations**

## Noise Formulas

### Noise Distance Attenuation

#### Hard Site

$$N_i = N_o - 20 * \text{LOG}(D_i/D_o)$$

$D_i$  = distance to receptor ( $D_i > D_o$ )

$N_i$  = attenuated noise level of interest

$D_o$  = reference distance

$N_o$  = reference noise level

**Source:** (Bolt, Beranek, and Newman, 1971)

### Summation of Noise Levels

$$\text{Equation: } N_s = 10 \times \text{LOG}_{10}((10^{(N_1/10)}) + (10^{(N_2/10)}) + (10^{(N_3/10)}) + (10^{(N_4/10)}))$$

$N_s$  = Noise Level Sum

$N_1$  = Noise Level 1

$N_2$  = Noise Level 2

$N_3$  = Noise Level 3

$N_4$  = Noise Level 4

**Source:** California Department of Transportation, Technical Noise Supplement, 2013

### Construction Noise Analysis

Phased Construction Noise Levels	
Construction Equipment	Noise Level at 50 feet (dBA)
<b>Demolition</b>	
Backhoe	73.6
Concrete Saw	82.6
Dozer	77.7
Excavator	76.7
<b>Demolition Combined</b>	<b>83.8</b>
<b>Site Preparation</b>	
Backhoe	73.6
Dozer	77.7
<b>Site Preparation Combined</b>	<b>79.1</b>
<b>Grading</b>	
Backhoe	73.6
Dozer	77.7
Excavator	76.7
Grader	81
<b>Building Construction Combined</b>	<b>80.2</b>
<b>Building Construction</b>	
Backhoe	73.6
Crane	72.6
Forklift	63.2
<b>Paving Combined</b>	<b>76.1</b>
<b>Paving+Architectural Coating+Landscaping</b>	
Air Compressor	73.7
Backhoe	73.6
Compactor	76.2
Concrete Mixer Truck	74.8
Paver	74.3
<b>Paving+Architectural Coating+Landscaping Combined</b>	<b>78.6</b>

**Source:** Federal Highway Administration, Roadway Construction Noise Model, 2008

Noise Monitoring Location	Sound Level (dBA, Leq)
[1] 3900 Gilman Rd.	60.5
[2] 12301 Deana Ave.	58.2
[3] 4024 Durfee Ave.	62.1
[4] 4003 Maxson Dr.	63.8
[5] 12210 Kerrwood St.	51.7

Unmitigated On-Site Construction: Resulting Noise Level					
Sensitive Receptor	Distance (feet) /a/	Intervening Building /b/	Reference Noise Level (dBA) /c/	Equipment Noise Level at Receptor (dBA, Leq)	Existing Ambient (dBA, Leq)
Residences to the North	80	0	83.8	79.7	51.7
Residences to the South	80	0	83.8	79.7	63.8
Residences to the East	85	0	83.8	79.2	63.8
Residences to the West and Truth Alliance Church	130	0	83.8	75.5	62.1
Twin Lakes Elementary School	170	0	83.8	73.2	60.5

/a/ Distance to nearest main area of constructions (e.g. buildings)

/b/ -4.5 dB for on intervening row of buildings and -1.5 dB for each subsequent row

/c/ Construction reference noise level based on nearest construction area and activity that would occur.

Unmitigated Off-Site Construction: Resulting Noise Level					
Sensitive Receptor	Distance (feet)	Intervening Building /a/	Reference Noise Level (dBA) /b/	Equipment Noise Level at Receptor (dBA, Leq)	Existing Ambient (dBA, Leq)
<b>OFF-SITE WATER IMPROVEMENTS ON DURFEE AVE.</b>					
Residences and Truth Chinese Church along Durfee Ave.	60	0	64.3	62.7	62.1
<b>UNDERGROUNDING OF UTILITY LINES ON DURFEE AVE. AND GILMAN RD.</b>					
Residences along Gilman Rd.	55	0	64.3	63.5	60.5
Residences and Truth Chinese Church to along Durfee Ave.	95	0	64.3	58.7	62.1
Twin Lakes Elementary School	150	0	64.3	54.8	60.5
<b>SEWER IMPROVEMENTS ON FERRIS RD.</b>					
Residences along Ferris Rd.	50	0	64.3	64.3	58.2
<b>TRAIL/PATH INSTALLATION SOUTH OF TWIN LAKES ELEMENTARY SCHOOL</b>					
Residences to the south	20	0	64.3	72.3	58.2
Twin Lakes Elementary School Classroom	50	0	64.3	64.3	58.2

/a/ -4.5 dB for on intervening row of buildings and -1.5 dB for each subsequent row

/b/ Construction reference noise level based on reference noise level for a skid steer loader.

### Vibration Formulas

#### Vibration PPV Attenuation

**Equation:**  $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

**PPV (equip)** is the peak particle velocity in in/sec of the equipment adjusted for distance

**PPV (ref)** is the reference vibration level in in/sec at 25 feet from Table 12-2

**D** is the distance from the equipment to the receiver.

**Source:** Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

Vibration Velocities for Construction Equipment		
Equipment	feet (Inches/Second)	(VdB) at 25 feet
Small Bulldozer	0.003	58
Excavator	0.04	80

SOURCE: FTA, Transit Noise and Vibration Impact Assessment, September 2018.

Vibration Assessment On-Site			
Sensitive Receptor	Distance (feet)	Reference Vibration Level	Damage Assessment
Single-Family Residence to the South	10	0.04	0.158
Residences to the East	70	0.04	0.009
Residences to the North	70	0.04	0.009
Residences to the West and Truth Chinese Alliance Church	125	0.04	0.004
Twin Lakes Elementary School	160	0.04	0.002

Vibration Assessment Off-Site			
Sensitive Receptor	Distance (feet)	Reference Vibration Level	Damage Assessment
<b>OFF-SITE WATER IMPROVEMENTS ON DURFEE AVE.</b>			
Residences and Truth Chinese Church along Durfee Ave.	60	0.003	0.001
<b>OUNDING OF UTILITY LINES ON DURFEE AVE. AND GILMAN RD.</b>			
Residences along Gilman Rd.	55	0.003	0.001
Residences and Truth Chinese Church to along Durfee Ave.	95	0.003	0.000
Twin Lakes Elementary School	150	0.003	0.000
<b>SEWER IMPROVEMENTS ON FERRIS RD.</b>			
Residences along Ferris Rd.	50	0.003	0.001
<b>I INSTALLATION SOUTH OF TWIN LAKES ELEMENTARY SCHOOL</b>			
Residences to the south	20	0.003	0.004
Twin Lakes Elementary School Classroom	50	0.003	0.001

# Noise Monitoring Data

**Site 1: 3900 Gilman Rd.**



# Session Report

7/12/2022

## Information Panel

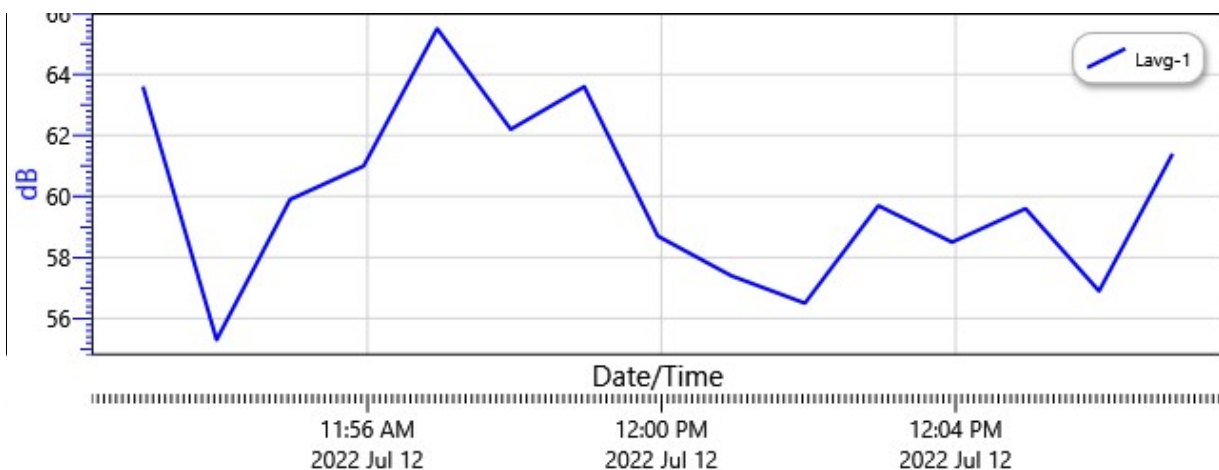
Name Maclaren Hall\_Site1  
Start Time 7/12/2022 11:51:57 AM  
Stop Time 7/12/2022 12:06:57 PM  
Device Name BJM120001  
Model Type SoundPro DL  
Device Firmware Rev R.13H  
Comments  
Run Time 00:15:00

## Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	83.3 dB	Lmin	1	48.4 dB
Lavg	1	60.5 dB			
Exchange Rate	1	5 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW			

## Logged Data Chart

Maclaren Hall\_Site1: Logged Data Chart



## Logged Data Table

Date/Time	Lavg-1
7/12/2022 11:52:57 AM	63.6
11:53:57 AM	55.3
11:54:57 AM	59.9
11:55:57 AM	61
11:56:57 AM	65.5
11:57:57 AM	62.2
11:58:57 AM	63.6
11:59:57 AM	58.7
12:00:57 PM	57.4
12:01:57 PM	56.5
12:02:57 PM	59.7
12:03:57 PM	58.5
12:04:57 PM	59.6
12:05:57 PM	56.9
12:06:57 PM	61.4



## Noise Measurement Report Form

Project: Ma(Lar)n Contract No (s): N/A  
 Date: 7/12/22 Day of Week: Thursday Time: 11:52 AM  
 Monitoring Site Number: 13 Monitoring Site Address: 3900 (11)th St Rd  
 Measurement Taken By: Tina  
 Approximate Wind Speed: \_\_\_\_\_ mph [km/hr] Approximate Wind Direction: From the \_\_\_\_\_  
 Approximate distance of Sound Level Meter from Receptor Location: 30 ft  
 Approximate distance of Sound Level Meter from Project Site: \_\_\_\_\_

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational  
 Sound Level Meter: Make and Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_  
 Meter Setting ☐ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts  
 Duration of Measurement: 15 minutes  
 Check the measurement purpose:  
☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

### Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114	n/a	n/a
Leq	60.5		
Lmax			
Ldn			
CNEL			

### Field Notes:

1. elementary school and residential light traffic
2. children playing on playground
3. \_\_\_\_\_
4. \_\_\_\_\_

**Site 2: 12301 Deana Ave.**



# Session Report

7/12/2022

## Information Panel

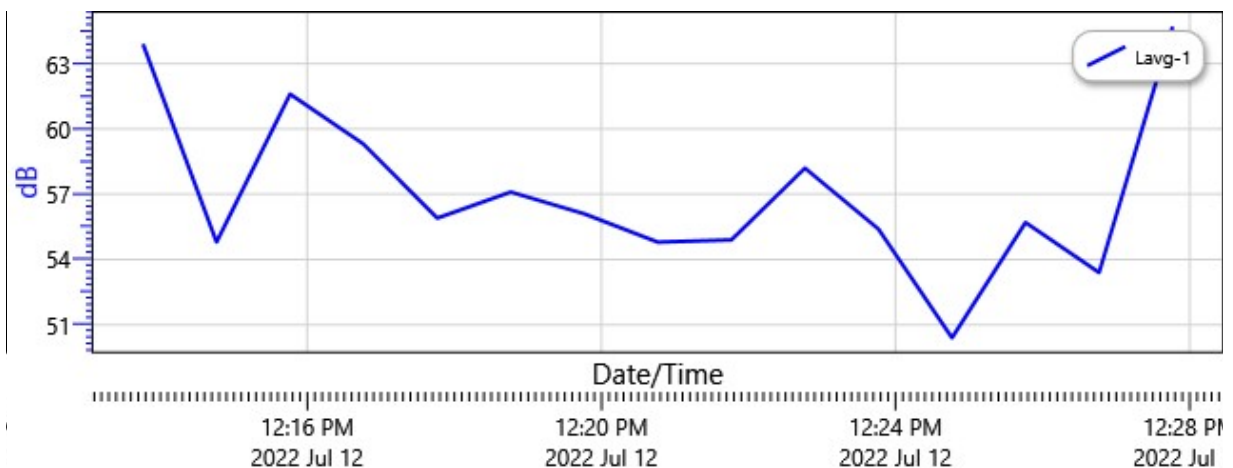
Name Maclaren Hall\_Site2  
Start Time 7/12/2022 12:12:46 PM  
Stop Time 7/12/2022 12:27:46 PM  
Device Name BJM120001  
Model Type SoundPro DL  
Device Firmware Rev R.13H  
Comments  
Run Time 00:15:00

## Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	85.7 dB	Lmin	1	46.8 dB
Lavg	1	58.1 dB			
Exchange Rate	1	5 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW			

## Logged Data Chart

Maclaren Hall\_Site2: Logged Data Chart



## Logged Data Table

Date/Time	Lavg-1
7/12/2022 12:13:46 PM	63.9
12:14:46 PM	54.8
12:15:46 PM	61.6
12:16:46 PM	59.3
12:17:46 PM	55.9
12:18:46 PM	57.1
12:19:46 PM	56.1
12:20:46 PM	54.8
12:21:46 PM	54.9
12:22:46 PM	58.2
12:23:46 PM	55.4
12:24:46 PM	50.4
12:25:46 PM	55.7
12:26:46 PM	53.4
12:27:46 PM	64.7

## Noise Measurement Report Form

Project: Malibu Contract No (s): N/A  
Date: 9/12/22 Day of Week: Thursday Time: 12:12 PM  
Monitoring Site Number: 2 Monitoring Site Address: 12301 Olympic Ave  
Measurement Taken By: JIN A  
Approximate Wind Speed: \_\_\_\_\_ mph [km/hr] Approximate Wind Direction: From the \_\_\_\_\_  
Approximate distance of Sound Level Meter from Receptor Location: 20 ft  
Approximate distance of Sound Level Meter from Project Site: \_\_\_\_\_

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational  
Sound Level Meter: Make and Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_  
Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts  
Duration of Measurement: 15 minutes  
Check the measurement purpose:  
☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

### Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114	n/a	n/a
Leq	58.2		
L <sub>max</sub>			
L <sub>dn</sub>			
CNEL			

### Field Notes:

- light residential traffic
- 
- 
-



**Site 3:** 4024 Durfee Ave.



# Session Report

7/12/2022

## Information Panel

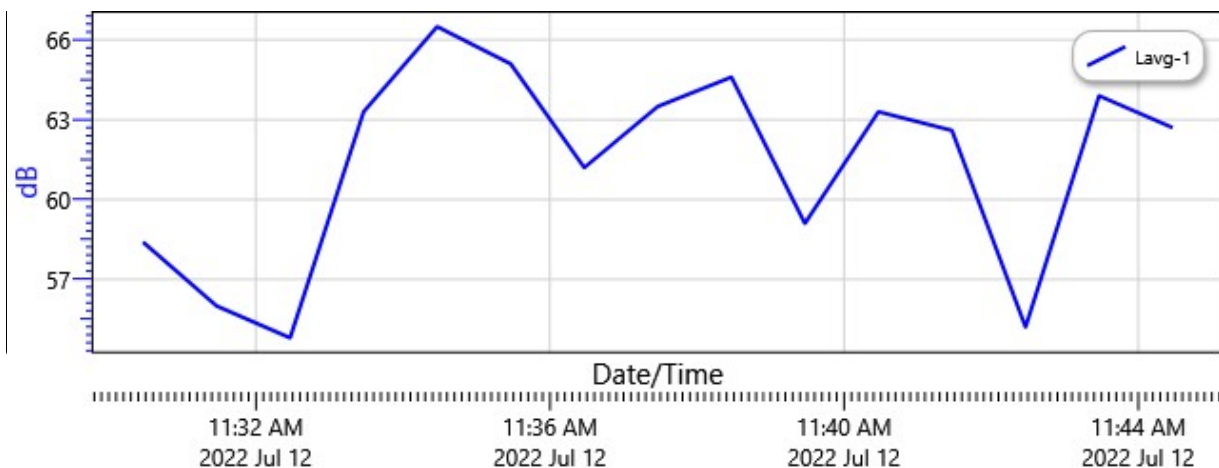
Name Maclaren Hall\_Site3  
Start Time 7/12/2022 11:29:28 AM  
Stop Time 7/12/2022 11:44:28 AM  
Device Name BJM120001  
Model Type SoundPro DL  
Device Firmware Rev R.13H  
Comments  
Run Time 00:15:00

## Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	77.5 dB	Lmin	1	46.9 dB
Lavg	1	62.1 dB			
Exchange Rate	1	5 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW			

## Logged Data Chart

Maclaren Hall\_Site3: Logged Data Chart



## Logged Data Table

Date/Time	Lavg-1
7/12/2022 11:30:28 AM	58.4
11:31:28 AM	56
11:32:28 AM	54.8
11:33:28 AM	63.3
11:34:28 AM	66.5
11:35:28 AM	65.1
11:36:28 AM	61.2
11:37:28 AM	63.5
11:38:28 AM	64.6
11:39:28 AM	59.1
11:40:28 AM	63.3
11:41:28 AM	62.6
11:42:28 AM	55.2
11:43:28 AM	63.9
11:44:28 AM	62.7



## Noise Measurement Report Form

Project: MILLARIN Contract No (s): N/A  
 Date: 7/12/22 Day of Week: Thursday Time: 11:30 am  
 Monitoring Site Number: 3 Monitoring Site Address: 7024 DUNN AVENUE  
 Measurement Taken By: Tina  
 Approximate Wind Speed: \_\_\_\_\_ mph [km/hr] Approximate Wind Direction: From the \_\_\_\_\_  
 Approximate distance of Sound Level Meter from Receptor Location: 30 ft  
 Approximate distance of Sound Level Meter from Project Site: \_\_\_\_\_

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational  
 Sound Level Meter: Make and Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_  
 Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts  
 Duration of Measurement: 15 min  
 Check the measurement purpose:  
☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

### Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	119	n/a	n/a
L <sub>eq</sub>	62.4		
L <sub>max</sub>			
L <sub>dn</sub>			
CNEL			

### Field Notes:

1. light traffic due to the family 11 hr /  
residents
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Site 4:** 4003 Maxson Dr.



# Session Report

7/12/2022

## Information Panel

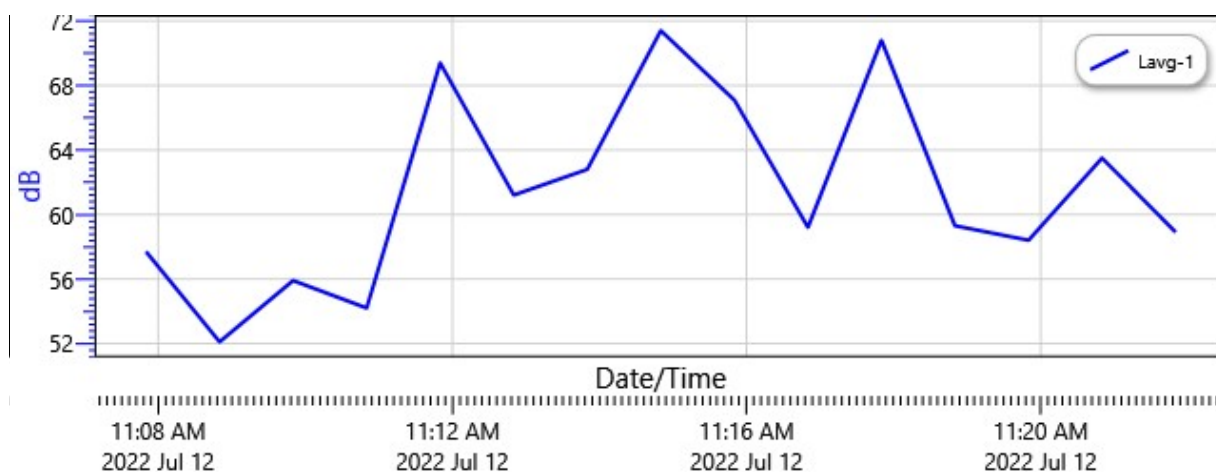
Name Maclaren Hall\_Site4  
Start Time 7/12/2022 11:06:50 AM  
Stop Time 7/12/2022 11:21:50 AM  
Device Name BJM120001  
Model Type SoundPro DL  
Device Firmware Rev R.13H  
Comments  
Run Time 00:15:00

## Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	82.2 dB	Lmin	1	42.6 dB
Lavg	1	63.8 dB			
Exchange Rate	1	5 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW			

## Logged Data Chart

Maclaren Hall\_Site4: Logged Data Chart



## Logged Data Table

Date/Time	Lavg-1
7/12/2022 11:07:50 AM	57.7
11:08:50 AM	52.1
11:09:50 AM	55.9
11:10:50 AM	54.2
11:11:50 AM	69.4
11:12:50 AM	61.2
11:13:50 AM	62.8
11:14:50 AM	71.4
11:15:50 AM	67.1
11:16:50 AM	59.2
11:17:50 AM	70.8
11:18:50 AM	59.3
11:19:50 AM	58.4
11:20:50 AM	63.5
11:21:50 AM	58.9

## Noise Measurement Report Form

Project: MALLAM Contract No (s): N/A  
Date: 7/12/22 Day of Week: Thursday Time: 11:07 am  
Monitoring Site Number: 4 Monitoring Site Address: 4003 MAXXON DR  
Measurement Taken By: Tina  
Approximate Wind Speed: \_\_\_\_\_ mph [km/hr] Approximate Wind Direction: From the \_\_\_\_\_  
Approximate distance of Sound Level Meter from Receptor Location: 10 ft  
Approximate distance of Sound Level Meter from Project Site: \_\_\_\_\_

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: \_\_\_\_\_

15 min

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

### Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114	n/a	n/a
$L_{eq}$	113.8		
$L_{max}$			
$L_{dn}$			
CNEL			

Field Notes:

1. light residential traffic

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_



**Site 5:** 12210 Kerrwood St.



# Session Report

8/11/2022

## Information Panel

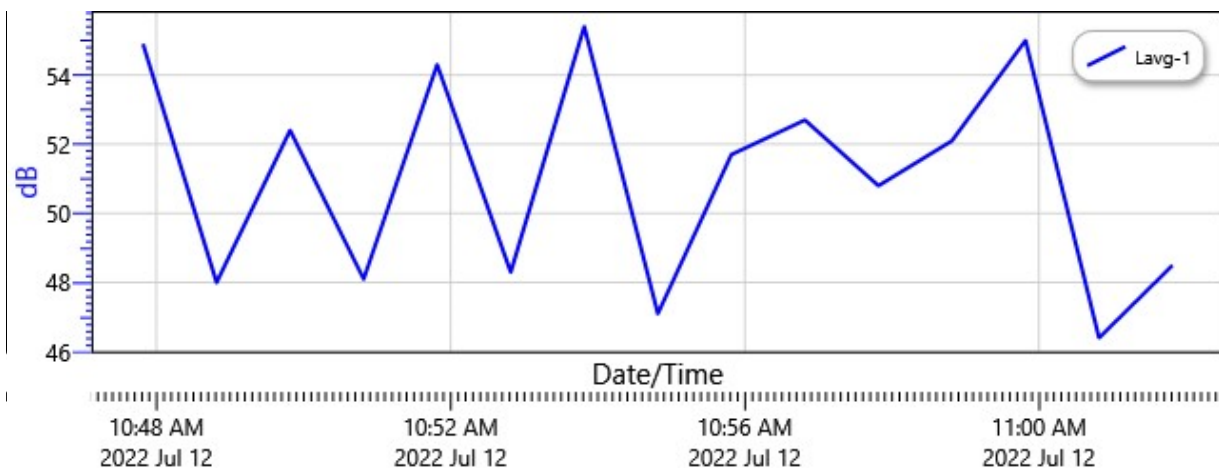
Name Maclaren Hall\_Site5  
Start Time 7/12/2022 10:46:49 AM  
Stop Time 7/12/2022 11:01:49 AM  
Device Name BJM120001  
Model Type SoundPro DL  
Device Firmware Rev R.13H  
Comments  
Run Time 00:15:00

## Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Lmax	1	67.3 dB	Lmin	1	43.4 dB
Exchange Rate	1	5 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Lavg	2	51.6 dB			
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW			

## Logged Data Chart

Maclaren Hall\_Site5: Logged Data Chart



## Logged Data Table

Date/Time	Lavg-2
7/12/2022 10:47:49 AM	54.9
10:48:49 AM	48
10:49:49 AM	52.4
10:50:49 AM	48
10:51:49 AM	54.3
10:52:49 AM	48.3
10:53:49 AM	55.3
10:54:49 AM	47.1
10:55:49 AM	51.6
10:56:49 AM	52.7
10:57:49 AM	50.8
10:58:49 AM	52
10:59:49 AM	55
11:00:49 AM	46.3
11:01:49 AM	48.5



## Noise Measurement Report Form

Project: Mallarin Hill Contract No (s): N/A  
Date: 7/12/22 Day of Week: Tuesday Time: 10:50 am  
Monitoring Site Number: 5 Monitoring Site Address: 12210 Kyrwood  
Measurement Taken By: Tina  
Approximate Wind Speed: \_\_\_\_\_ mph [km/hr] Approximate Wind Direction: From the \_\_\_\_\_  
Approximate distance of Sound Level Meter from Receptor Location: 30 ft  
Approximate distance of Sound Level Meter from Project Site: \_\_\_\_\_

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational  
Sound Level Meter: Make and Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_  
Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts  
During of Measurement: 15 minutes

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

### Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114	n/a	n/a
L <sub>eq</sub>	51.7		
L <sub>max</sub>			
L <sub>dn</sub>			
CNEL			

Field Notes:

- residential area; cars going 25 mph
- landscaping
- 
-

# **Traffic Noise Model Runs**

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.1.7970.37608

REPORT DATE:

26 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/26/2022 3:03:04 PM

CASE:

Maclaren Hall\_Existing

ORGANIZATION:

UNITS:

English

ANALYSIS BY:

Kieran

DEFAULT GROUND TYPE:

Pavement

PROJECT/CONTRACT

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  LAeq  dBA						
				LAeq		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Ramona Blvd. Between Gilman Rd. and Durfee Ave.	1	1	---	66.3	0.0	---	---	Sound Level	
Durfee Ave. Between Kerrwood St. and Ramona Blvd.	2	1	---	56.4	0.0	---	---	Sound Level	
Durfee Ave. Between Kerwood St. and Deana St.	3	1	---	57.8	0.0	---	---	Sound Level	
Deana St. Between Durfee Ave. and Gilman Rd.	4	1	---	54.9	0.0	---	---	Sound Level	
Kerwood St. Between Durfee Ave. and Gilman Rd.	6	1	---	57.2	0.0	---	---	Sound Level	
Gilman Rd. Between Kerrwood St. and Ramona Blvd.	7	1	---	56.1	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.1.7970.37608

REPORT DATE:

26 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/26/2022 3:02:14 PM

CASE:

Maclaren  
Hall\_FutureNoProject

ORGANIZATION:

UNITS:

English

ANALYSIS BY:

Kieran

DEFAULT GROUND TYPE:

Pavement

PROJECT/CONTRACT

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  LAeq  dBA						
				LAeq		Increase over Existing		Type  of  Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Ramona Blvd. Between Gilman Rd. and Durfee Ave.	1	1	---	66.6	0.0	---	---	Sound Level	
Durfee Ave. Between Kerrwood St. and Ramona Blvd.	2	1	---	56.6	0.0	---	---	Sound Level	
Durfee Ave. Between Kerwood St. and Deana St.	3	1	---	57.9	0.0	---	---	Sound Level	
Deana St. Between Durfee Ave. and Gilman Rd.	4	1	---	55.2	0.0	---	---	Sound Level	
Kerwood St. Between Durfee Ave. and Gilman Rd.	6	1	---	57.4	0.0	---	---	Sound Level	
Gilman Rd. Between Kerrwood St. and Ramona Blvd.	7	1	---	56.2	0.0	---	---	Sound Level	

## REPORT:

**Results: Sound Levels - No Barrier Objects**

TNM VERSION

3.1.7970.37608

REPORT DATE:

26 July 2022

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

7/26/2022 3:01:15 PM

CASE:

Maclaren  
Hall\_FutureWithProject

ORGANIZATION:

UNITS:

English

ANALYSIS BY:

Kieran

DEFAULT GROUND TYPE:

Pavement

PROJECT/CONTRACT

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

Receiver				Modeled Traffic Noise Levels					
Name	No.	Nb. R.R.	Existing  LAeq  dBA						
				LAeq		Increase over Existing		Type of Impact	
				Calc.	Absolute Criterion	Calc.	Relative Criterion		
				dBA	dBA	dBA	dBA		
Ramona Blvd. Between Gilman Rd. and Durfee Ave.	1	1	---	66.8	0.0	---	---	Sound Level	
Durfee Ave. Between Kerrwood St. and Ramona Blvd.	2	1	---	57.6	0.0	---	---	Sound Level	
Durfee Ave. Between Kerrwood St. and Deana St.	3	1	---	58.8	0.0	---	---	Sound Level	
Deana St. Between Durfee Ave. and Gilman Rd.	4	1	---	55.3	0.0	---	---	Sound Level	
Kerwood St. Between Durfee Ave. and Gilman Rd.	6	1	---	57.9	0.0	---	---	Sound Level	
Gilman Rd. Between Kerrwood St. and Ramona Blvd.	7	1	---	57.2	0.0	---	---	Sound Level	