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Appendix G:

## **Noise Supporting Information**

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### Mobile Construction Activity Noise Calculation

Receptor:	Receiving residential property line	Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy
No.	Equipment Description	Lmax						Lmax	Leq	
1	Grader	85	1	40	40	1	0	86.9	83.9	247052942.2
2	Excavator	85	1	40	90	1	0	79.9	73.4	21689147.19
3	Dozer	85	1	40	90	1	0	79.9	73.4	21689147.19
4	Front End Loader	80	1	40	90	1	0	74.9	68.4	6858710.562
5	Backhoe	80	1	40	90	1	0	74.9	68.4	6858710.562
6										
7										
8										
9										
10										
Notes:							Lmax[4]	87	Leq	85

[1] Percentage of time activity occurs each hour

[2] Soft ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Mechanical Equipment Noise Calculation

Receptor:	Receiving residential property line	Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA) 3 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy
No.	Equipment Description	Lmax						Lmax	Leq	
1	Commercial grade mechanical ventilation equipment	70	1	100	30	0.5	0	50.0	45.0	31622.7766
2										
3										
4										
5										
6										
7										
8										
9										
10										
Notes:							Lmax[4]	50	Leq	45

- Notes:
- [1] Percentage of time activity occurs each hour
  - [2] Soft ground terrain between project site and receptor.
  - [3] Shielding due to rooftop parapet and soundwall shielding
  - [4] Calculated Lmax is the Loudest value.

Project Number: 3552.0019

Sheet \_\_\_ of \_\_\_

Project Name: Zinfandel Subdivision

Test Personnel: Henrique Zhu

## NOISE MEASUREMENT SURVEY

Site Number: ST1 Date: 03/20/24 Time: From 14:24 To 14:39

Site Location: 10 feet off of El Centro Avenue, adjacent to Via La Paz Street and El Centro Avenue intersection.

Location on project site.

Primary Noise Sources: El Centro Avenue traffic, Via La Paz Street traffic, residential noises

### Measurement Results

	dBA
L <sub>eq</sub>	62.6
L <sub>max</sub>	81.0
L <sub>min</sub>	39.9
L <sub>peak</sub>	103.5
L <sub>5</sub>	69.6
L <sub>10</sub>	67.2
L <sub>50</sub>	52.2
L <sub>90</sub>	43.7
SEL	

### Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments:

Equipment: LxT 2

Measured Difference: 0.04 dBA

Settings: A-Weighted ☐ Other ☐

Slow ☐ Fast ☐

Windscreen ☒

### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Light breeze, 66 F			



*Photos Taken:*

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

*Traffic Description:*

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Via La Paz St	2	25		5	7
El Centro Avenue	2	30		23	39

*Diagram/Further Comments:*



Project Number: 3552.0019

Sheet \_\_\_ of \_\_\_

Project Name: Zinfandel Subdivision

Test Personnel: Henrique Zhu

## NOISE MEASUREMENT SURVEY

Site Number: ST2 Date: 03/20/24 Time: From 14:45 To 15:00

Site Location: Northwest corner of project site, adjacent to 185 El Centro Avenue, 10 feet off of El Centro Avenue roadway.

Primary Noise Sources: El Centro Avenue traffic, residential noises

### Measurement Results

	dBA
L <sub>eq</sub>	59.1
L <sub>max</sub>	74.9
L <sub>min</sub>	39.7
L <sub>peak</sub>	101.6
L <sub>5</sub>	67.1
L <sub>10</sub>	63.9
L <sub>50</sub>	46.8
L <sub>90</sub>	41.7
SEL	

### Observed Noise Sources/Events

Time	Noise Source/Event	dBA
14:53	School Bus passing by	~65

Comments:

Equipment: LxT 2

Measured Difference: 0.04 dBA

Settings: A-Weighted ☐ Other ☐

Slow ☐ Fast ☐

Windscreen ☒

### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Light breeze, 66 F			



Photos Taken:

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
El Centro Avenue	2	30		See ST 1 for similar	See ST 1 for similar

Diagram/Further Comments:





Project Number: 3552.0019

Sheet \_\_\_ of \_\_\_

Project Name: Zinfandel Subdivision

Test Personnel: Henrique Zhu

## NOISE MEASUREMENT SURVEY

Site Number: ST3 Date: 03/20/24 Time: From 15:05 To 15:21

Site Location: At southern end of Moss Lane cul-de-sac. 50 feet west of southwest corner of project site.

Primary Noise Sources: Moss Lane traffic, residential and natural creek noises, distant road traffic.

### Measurement Results

	dBA
L <sub>eq</sub>	48.2
L <sub>max</sub>	61.1
L <sub>min</sub>	42.8
L <sub>peak</sub>	101.4
L <sub>5</sub>	52.9
L <sub>10</sub>	50.4
L <sub>50</sub>	46.0
L <sub>90</sub>	44.4
SEL	

### Observed Noise Sources/Events

Time	Noise Source/Event	dBA
15:11	Loud engine from distant traffic	60

Comments:

Equipment: LxT 2

Measured Difference: 0.04 dBA

Settings: A-Weighted ☐ Other ☐

Slow ☐ Fast ☐

Windscreen ☒

### Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)	
Comments:	Light breeze, 67 F			

Photos Taken:

Photo Number	Location/Description
1	Facing North
2	Facing East
3	Facing South
4	Facing West

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
Moss Lane	2	25			

Diagram/Further Comments: