

# Appendix B

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Supporting Noise Data

# **Attachment 1**

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Construction Noise and Vibration Calculations

## Construction Noise

<b>Phase 1</b>	Noise Level @ 50 ft	Single Family Res to the NW	Single Family Res to the NE
Distance	25		25
Demolition	<b>88</b>	<b>94.021</b>	<b>94.021</b>
Site Preparation	<b>91</b>	<b>97.021</b>	<b>97.021</b>
Grading	<b>91</b>	<b>97.021</b>	<b>97.021</b>
Building Construction	<b>91</b>	<b>97.021</b>	<b>97.021</b>
Paving	<b>86</b>	<b>92.021</b>	<b>92.021</b>
Architectural Coating	<b>84</b>	<b>90.021</b>	<b>90.021</b>

## Construction Vibration

<b>MTSJ-02</b>	Vibration @ 25 ft	Single Family Res to the NW	Single Family Res to the NE
Phase 1	20		20
Large Bulldozer	<b>0.089</b>	<b>0.124</b>	<b>0.124</b>
Loaded Trucks	<b>0.076</b>	<b>0.106</b>	<b>0.106</b>
Static Roller	<b>0.05</b>	<b>0.070</b>	<b>0.070</b>
Small Bulldozer	<b>0.003</b>	<b>0.004</b>	<b>0.004</b>
<b>MTSJ-02</b>	Vibration @ 25 ft	Single Family Res to the NW	Single Family Res to the NE
Phase 2	26		26
Vibratory Roller	<b>0.21</b>	<b>0.198</b>	<b>0.198</b>

# **Attachment 2**

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Operational HVAC Ldn Calculations

# Operational HVAC Ldn Calculations

Residences Northwest of HVAC											
Day	Date	Time	Duration	Leq	Energy	Leq (hr)	Energy+Penalty	CNEL	Energy+Penalty	Ldn	
										All 53	
								24-Hr CNEL 53		X #REF!	
										XX #REF!	
										XXX 53	
										XXXX 53	
										XXXXX 46	
										XXXXXX #DIV/0!	
										XXXXXXX #DIV/0!	
								Min => 46			
								Max => 46			
Monday	2022-09-18	10:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	11:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171	*5 dBA reduction from wall added in	
Monday	2022-09-18	12:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	13:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	14:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	15:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	16:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	17:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	18:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Monday	2022-09-18	19:00:00	01:00:00.0	46.0	39810.72	46	125892.5412		39810.7171		
Monday	2022-09-18	20:00:00	01:00:00.0	46.0	39810.72	46	125892.5412		39810.7171		
Monday	2022-09-18	21:00:00	01:00:00.0	46.0	39810.72	46	125892.5412		39810.7171		
Monday	2022-09-18	22:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Monday	2022-09-18	23:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	00:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	01:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	02:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	03:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	04:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	05:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	06:00:00	01:00:00.0	46.0	39810.72	46	398107.1706		398107.171		
Tuesday	2022-09-19	07:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Tuesday	2022-09-19	08:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		
Tuesday	2022-09-19	09:00:00	01:00:00.0	46.0	39810.72	46	39810.71706		39810.7171		

# **Attachment 3**

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Noise Monitoring Data

# Long Term Noise Monitoring Data

Project: 23-14767 739 Sutter Ave, Palo Alto																		
Day	Date	Time	Duration	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)	L(99)	Energy	Leq (hr)	Energy+Penalty	CNEL	Energy+Penalty	Ldn	
															All	52	All	52
															Monday		X	#REF!
															Tuesday		XX	#REF!
															Wednesday		XXX	44
															XXXX		XXXX	43
															XXXXX		XXXXX	53
															XXXXXX		XXXXXX	#DIV/0!
															XXXXXXX		XXXXXXX	#DIV/0!
															Min =>	0		
															Max =>	53		
Monday	9/18/2023	15:00:00	01:00:00.0	50.3	66.8	38	60.4	54.7	47.6	43		107151.9	50.3	107151.9305			107151.931	
Monday	9/18/2023	16:00:00	01:00:00.0	47.8	70.7	36	57.3	49.7	42.3	39.6		60255.96	47.8	60255.95861			60255.9586	
Monday	9/18/2023	17:00:00	01:00:00.0	47.9	64.5	35.7	56.9	52.7	46.8	41.9		61659.5	47.9	61659.50019			61659.5002	
Monday	9/18/2023	18:00:00	01:00:00.0	45.1	65	35.5	54.1	49	41.7	39.3		32359.37	45.1	32359.36569			32359.3657	
Monday	9/18/2023	19:00:00	01:00:00.0	48.2	65	37.8	58.9	51.6	44.3	41.8		66069.34	48.2	208929.6131			66069.3448	
Monday	9/18/2023	20:00:00	01:00:00.0	51.4	76	37.1	59.3	53.1	45	42.4		138038.4	51.4	436515.8322			138038.426	
Monday	9/18/2023	21:00:00	01:00:00.0	48.8	72.3	38.4	58.3	53.6	45.6	42		75857.76	48.8	239883.2919			75857.7575	
Monday	9/18/2023	22:00:00	01:00:00.0	45.3	63.1	38.1	55.8	47.4	41.6	40.3		33884.42	45.3	338844.1561			338844.156	
Monday	9/18/2023	23:00:00	01:00:00.0	44.1	60.1	34.2	54.1	48.1	39.3	37.6		25703.96	44.1	257039.5783			257039.578	
Tuesday	9/19/2023	00:00:00	01:00:00.0	42.5	63.8	34	49.1	42.7	37.1	36.2		17782.79	42.5	177827.941			177827.941	
Tuesday	9/19/2023	01:00:00	01:00:00.0	36.4	57.2	34	39.4	37.3	36.5	35.8		4365.158	36.4	43651.58322			43651.5832	
Tuesday	9/19/2023	02:00:00	01:00:00.0	34.9	42.7	33.4	37.6	36	35	34.4		3090.295	34.9	30902.95433			30902.9543	
Tuesday	9/19/2023	03:00:00	01:00:00.0	36.3	58.8	33.7	41	37.1	35.9	35.1		4265.795	36.3	42657.95188			42657.9519	
Tuesday	9/19/2023	04:00:00	01:00:00.0	37.5	55.2	33.7	43.6	37.5	36.2	35.7		5623.413	37.5	56234.13252			56234.1325	
Tuesday	9/19/2023	05:00:00	01:00:00.0	45.6	67.8	35.2	56.9	45.6	40.6	39.5		36307.81	45.6	363078.0548			363078.055	
Tuesday	9/19/2023	06:00:00	01:00:00.0	49.7	67	38.5	59.5	53.6	47.5	43.9		93325.43	49.7	933254.3008			933254.301	
Tuesday	9/19/2023	07:00:00	01:00:00.0	49.7	65.6	40.6	59.2	53.1	47.8	44.9		93325.43	49.7	93325.43008			93325.4301	
Tuesday	9/19/2023	08:00:00	01:00:00.0	48.6	63.8	33.1	58.2	53.5	47.8	41.7		72443.6	48.6	72443.59601			72443.596	
Tuesday	9/19/2023	09:00:00	01:00:00.0	46.3	63.4	32.4	55.8	51	43.5	37.3		42657.95	46.3	42657.95188			42657.9519	
Tuesday	9/19/2023	10:00:00	01:00:00.0	44	62.8	33	53.4	46.8	41.1	37.6		25118.86	44	25118.86432			25118.8643	
Tuesday	9/19/2023	11:00:00	01:00:00.0	49.8	67.7	34.4	59.4	54.2	47.9	42.3		95499.26	49.8	95499.2586			95499.2586	
Tuesday	9/19/2023	12:00:00	01:00:00.0	48.5	70.2	34.6	58.4	51.9	43.5	38.6		70794.58	48.5	70794.57844			70794.5784	
Tuesday	9/19/2023	13:00:00	01:00:00.0	49.8	70.5	34.4	60.8	49.2	41.8	38.2		95499.26	49.8	95499.2586			95499.2586	
Tuesday	9/19/2023	14:00:00	01:00:00.0	52.7	79.1	37	60.7	51.9	46.2	42.2		186208.7	52.7	186208.7137			186208.714	

# **Attachment 4**

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Roadway Construction Noise Model (RCNM)













Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 09/27/2023  
 Case Description: Architectural Coating

\*\*\*\* Receptor #1 \*\*\*\*

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Architectural Coating	Residential	65.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	25.0	0.0

Results

		Noise Limit Exceedance (dBA)				Noise Limits (dBA)			
		Calculated (dBA)		Day Night		Evening			
Night	Day	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	
Compressor (air)		83.7	79.7	N/A	N/A	N/A	N/A	N/A	
N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Total	83.7	79.7	N/A	N/A	N/A	N/A	N/A	
N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	

\*\*\*\* Receptor #2 \*\*\*\*

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
		0.0	0.0	0.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	0.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Night	Calculated (dBA)				Day		Evening		Lmax
	Day	Evening	Evening	Day	Night	Lmax	Leq		
Equipment	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	N/A	N/A	N/A	-4.0	N/A	N/A	N/A	N/A	N/A
Total	N/A	N/A	N/A	0.0	-4.0	N/A	N/A	N/A	N/A

## **Attachment 5**

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Carrier 2.5-Ton 24ABA4030 HVAC unit





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