DKA Planning

NOISE RECEPTOR MAP
Weingart Affordable Housing Project
Imagery via Google

Wall Street
Noise Report
8/8/2017

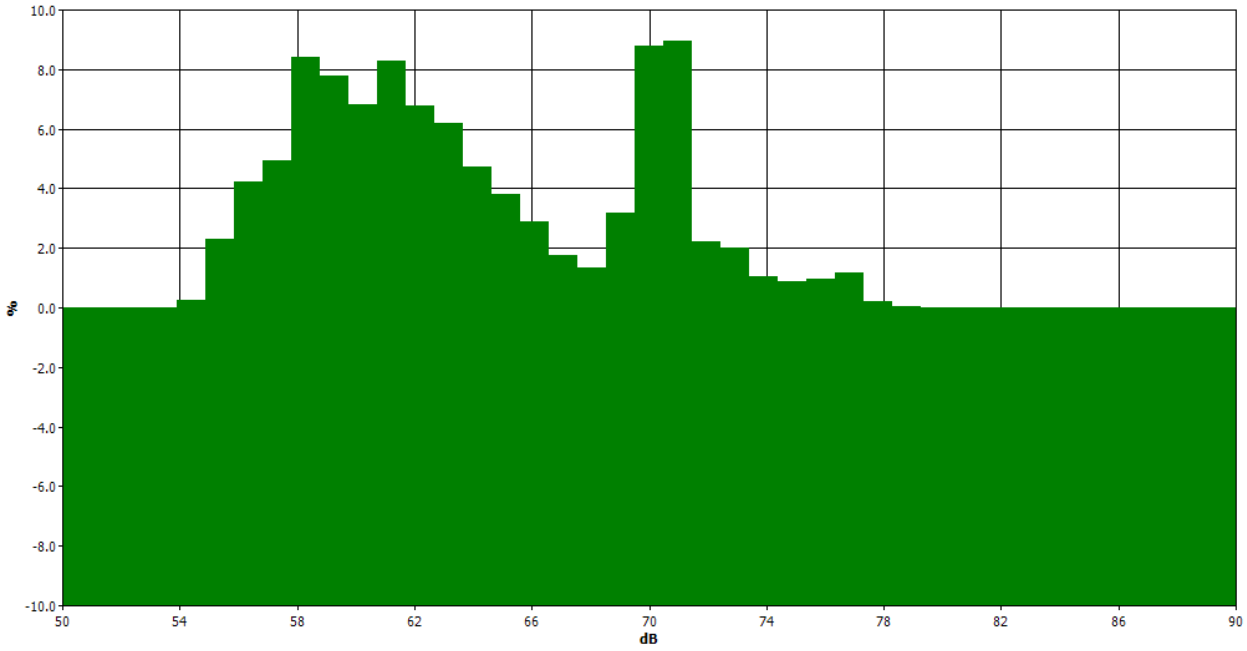
Information Panel

Name	S468_BIJ050019_08082017_085015
Start Time	Monday, August 8, 2017, 11:36am
Stop Time	Monday, August 8, 2017, 11:51am
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.0dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

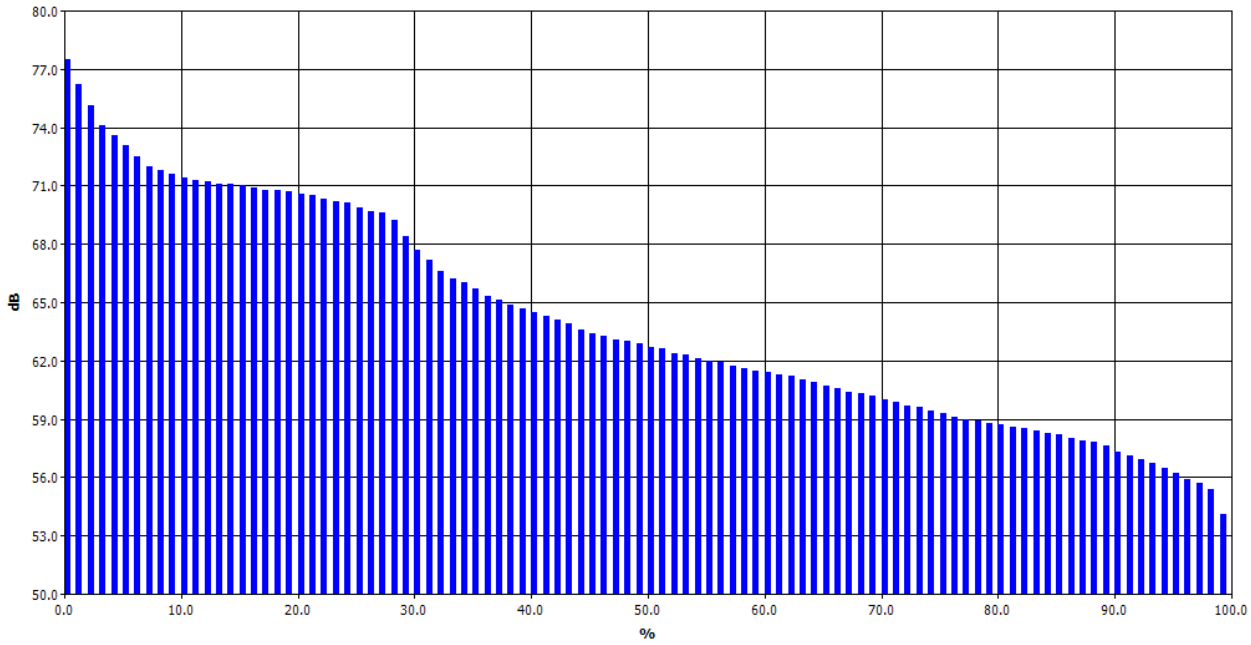
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.01	0.03	0.02	0.01	0.01	0.02	0.05	0.11	0.24
55	0.21	0.11	0.13	0.15	0.11	0.16	0.28	0.42	0.42	0.32	2.31
56	0.48	0.46	0.24	0.37	0.34	0.38	0.44	0.44	0.53	0.54	4.22
57	0.57	0.56	0.44	0.39	0.33	0.30	0.43	0.48	0.65	0.78	4.93
58	0.73	0.62	0.85	0.85	0.96	0.89	0.95	0.89	0.88	0.77	8.40
59	0.97	1.21	0.84	0.76	0.74	0.63	0.67	0.67	0.64	0.66	7.80
60	0.62	0.64	0.68	0.64	0.89	0.75	0.76	0.69	0.58	0.57	6.82
61	0.67	0.75	0.69	0.88	0.97	0.98	0.87	0.80	0.76	0.90	8.28
62	0.97	0.88	0.69	0.43	0.64	0.58	0.64	0.57	0.74	0.66	6.78
63	0.74	0.85	0.83	0.68	0.62	0.59	0.56	0.54	0.39	0.39	6.20
64	0.43	0.49	0.53	0.46	0.47	0.43	0.44	0.48	0.51	0.50	4.75
65	0.59	0.57	0.55	0.25	0.33	0.32	0.31	0.26	0.33	0.30	3.80
66	0.40	0.34	0.41	0.34	0.25	0.22	0.25	0.28	0.21	0.18	2.88
67	0.17	0.17	0.18	0.17	0.18	0.20	0.18	0.19	0.17	0.13	1.74
68	0.18	0.17	0.16	0.10	0.14	0.12	0.13	0.12	0.11	0.12	1.35
69	0.14	0.13	0.11	0.14	0.17	0.21	0.43	0.56	0.94	0.35	3.18
70	0.62	0.47	0.81	0.94	0.70	0.64	0.87	1.02	1.24	1.48	8.80
71	0.95	1.40	1.55	0.85	0.98	0.82	0.67	0.63	0.59	0.50	8.94
72	0.45	0.32	0.22	0.21	0.16	0.12	0.20	0.22	0.17	0.17	2.24
73	0.13	0.19	0.21	0.19	0.20	0.18	0.21	0.35	0.20	0.14	1.99
74	0.13	0.14	0.14	0.10	0.11	0.10	0.08	0.08	0.09	0.09	1.05
75	0.13	0.09	0.09	0.08	0.11	0.07	0.05	0.09	0.10	0.08	0.88
76	0.11	0.14	0.11	0.09	0.07	0.08	0.09	0.10	0.09	0.09	0.96
77	0.06	0.06	0.06	0.03	0.06	0.12	0.16	0.16	0.22	0.24	1.18
78	0.15	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.20
79	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.06
80	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

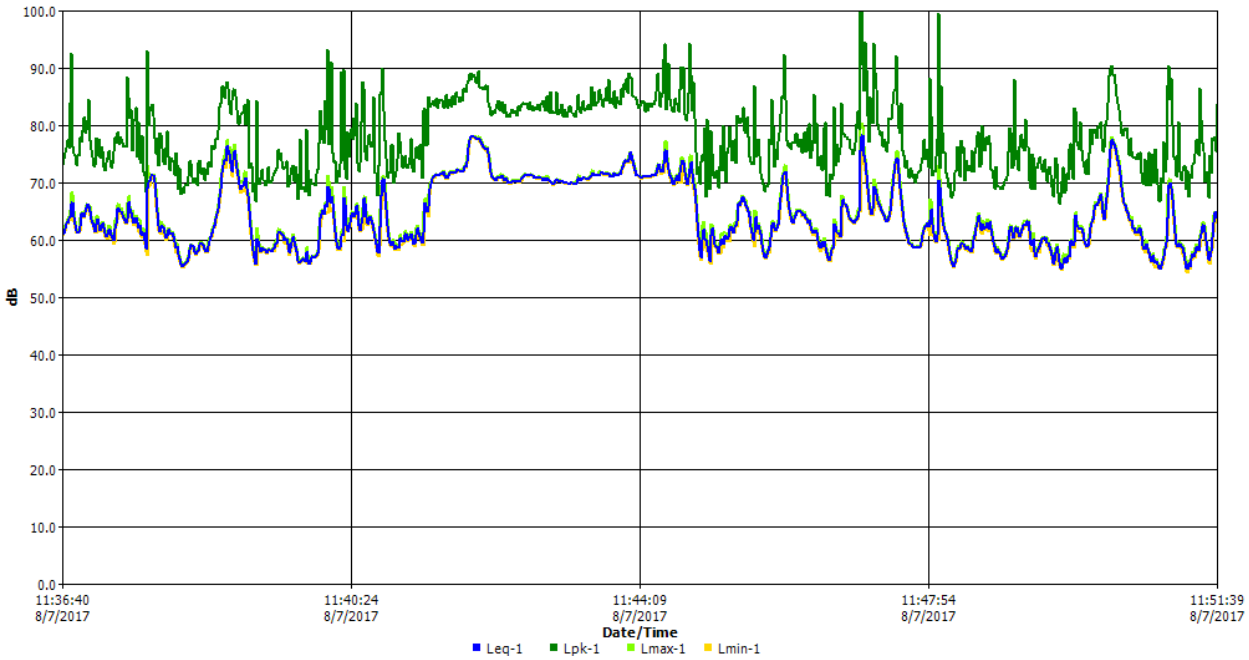
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		77.5	76.2	75.1	74.1	73.6	73.1	72.5	72	71.8
10%	71.6	71.4	71.3	71.2	71.1	71.1	71	70.9	70.8	70.8
20%	70.7	70.6	70.5	70.3	70.2	70.1	69.9	69.7	69.6	69.2
30%	68.4	67.7	67.2	66.6	66.2	66	65.7	65.3	65.1	64.9
40%	64.7	64.5	64.3	64.1	63.9	63.6	63.4	63.3	63.1	63
50%	62.9	62.7	62.6	62.4	62.3	62.1	62	61.9	61.7	61.6
60%	61.5	61.4	61.3	61.2	61	60.9	60.7	60.6	60.4	60.3
70%	60.2	60	59.9	59.7	59.6	59.4	59.3	59.1	59	58.9
80%	58.8	58.7	58.6	58.5	58.4	58.3	58.2	58	57.9	57.8
90%	57.6	57.3	57.1	56.9	56.7	56.5	56.2	55.9	55.7	55.4
100%	54.1									

Logged Data Chart



Note: This noise level was determined to be reasonably representative of baseline daytime ambient noise levels in the Project Area. Traffic, pedestrian activity, and other typical urban noise sources are roughly similar throughout the Project Area. Live monitoring of noise levels throughout the Project Area confirmed that noise levels at Project receptors generally fluctuate between 65 and 70 dBA.

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

Line of Sight	10
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	10

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	10
G	0
Distance	400
Unmitigated Site 1 Construction Noise	50.9

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	85
Unmitigated Site 2 Construction Noise	74.4

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	50.9
Existing Ambient Noise	68.0
Unmitigated New Noise Level	68.1
Unmitigated Increase	0.1

SITE 2

Unmitigated Construction Noise	74.4
Existing Ambient Noise	68.0
Unmitigated New Noise Level	75.3
Unmitigated Increase	7.3

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	74.4
Existing Ambient Noise	68.0
Unmitigated New Noise Level	75.3
Unmitigated Increase	7.3

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	10
Sound Barrier Shielding	10
G	0
Distance	400
Mitigated Site 1 Construction Noise	37.9

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	85
Mitigated Site 2 Construction Noise	61.4

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	37.9
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.0
Mitigated Increase	0.0

SITE 2

Mitigated Construction Noise	61.4
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.9
Mitigated Increase	0.9

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	61.4
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.9
Mitigated Increase	0.9

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	85
Unmitigated Site 1 Construction Noise	74.4

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	130
Unmitigated Site 2 Construction Noise	70.7

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	74.4
Existing Ambient Noise	68.0
Unmitigated New Noise Level	75.3
Unmitigated Increase	7.3

SITE 2

Unmitigated Construction Noise	70.7
Existing Ambient Noise	68.0
Unmitigated New Noise Level	72.6
Unmitigated Increase	4.6

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	75.9
Existing Ambient Noise	68.0
Unmitigated New Noise Level	76.6
Unmitigated Increase	8.6

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	85
Mitigated Site 1 Construction Noise	61.4

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	130
Mitigated Site 2 Construction Noise	57.7

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	61.4
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.9
Mitigated Increase	0.9

SITE 2

Mitigated Construction Noise	57.7
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.4
Mitigated Increase	0.4

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	62.9
Existing Ambient Noise	68.0
Mitigated New Noise Level	69.2
Mitigated Increase	1.2

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	260
Unmitigated Site 1 Construction Noise	64.7

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	560
Unmitigated Site 2 Construction Noise	58.0

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	64.7
Existing Ambient Noise	68.0
Unmitigated New Noise Level	69.7
Unmitigated Increase	1.7

SITE 2

Unmitigated Construction Noise	58.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	68.4
Unmitigated Increase	0.4

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	65.5
Existing Ambient Noise	68.0
Unmitigated New Noise Level	69.9
Unmitigated Increase	1.9

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	260
Mitigated Site 1 Construction Noise	51.7

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	560
Mitigated Site 2 Construction Noise	45.0

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	51.7
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.1
Mitigated Increase	0.1

SITE 2

Mitigated Construction Noise	45.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.0
Mitigated Increase	0.0

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	52.5
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.1
Mitigated Increase	0.1

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

Line of Sight	5
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	5

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	5
G	0
Distance	190
Unmitigated Site 1 Construction Noise	62.4

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	30
Unmitigated Site 2 Construction Noise	79.0

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	62.4
Existing Ambient Noise	68.0
Unmitigated New Noise Level	69.1
Unmitigated Increase	1.1

SITE 2

Unmitigated Construction Noise	79.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	79.3
Unmitigated Increase	11.3

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	79.1
Existing Ambient Noise	68.0
Unmitigated New Noise Level	79.4
Unmitigated Increase	11.4

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	5
Sound Barrier Shielding	10
G	0
Distance	190
Mitigated Site 1 Construction Noise	49.4

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	30
Mitigated Site 2 Construction Noise	66.0

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	49.4
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.1
Mitigated Increase	0.1

SITE 2

Mitigated Construction Noise	66.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.1
Mitigated Increase	2.1

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	66.1
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.2
Mitigated Increase	2.2

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

Line of Sight	5
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	5

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	5
G	0
Distance	215
Unmitigated Site 1 Construction Noise	61.3

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	100
Unmitigated Site 2 Construction Noise	73.0

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	61.3
Existing Ambient Noise	68.0
Unmitigated New Noise Level	68.8
Unmitigated Increase	0.8

SITE 2

Unmitigated Construction Noise	73.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	74.2
Unmitigated Increase	6.2

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	73.3
Existing Ambient Noise	68.0
Unmitigated New Noise Level	74.4
Unmitigated Increase	6.4

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	5
Sound Barrier Shielding	10
G	0
Distance	215
Mitigated Site 1 Construction Noise	48.3

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	100
Mitigated Site 2 Construction Noise	60.0

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	48.3
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.0
Mitigated Increase	0.0

SITE 2

Mitigated Construction Noise	60.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.6
Mitigated Increase	0.6

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	60.3
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.7
Mitigated Increase	0.7

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	105
Unmitigated Site 1 Construction Noise	72.6

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	320
Unmitigated Site 2 Construction Noise	62.9

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	72.6
Existing Ambient Noise	68.0
Unmitigated New Noise Level	73.9
Unmitigated Increase	5.9

SITE 2

Unmitigated Construction Noise	62.9
Existing Ambient Noise	68.0
Unmitigated New Noise Level	69.2
Unmitigated Increase	1.2

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	73.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	74.2
Unmitigated Increase	6.2

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	105
Mitigated Site 1 Construction Noise	59.6

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	320
Mitigated Site 2 Construction Noise	49.9

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	59.6
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.6
Mitigated Increase	0.6

SITE 2

Mitigated Construction Noise	49.9
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.1
Mitigated Increase	0.1

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	60.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.6
Mitigated Increase	0.6

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

SITE 2

Line of Sight	10
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	10

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	30
Unmitigated Site 1 Construction Noise	79.0

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	10
G	0
Distance	310
Unmitigated Site 2 Construction Noise	53.2

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	79.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	79.3
Unmitigated Increase	11.3

SITE 2

Unmitigated Construction Noise	53.2
Existing Ambient Noise	68.0
Unmitigated New Noise Level	68.1
Unmitigated Increase	0.1

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	79.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	79.3
Unmitigated Increase	11.3

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	30
Mitigated Site 1 Construction Noise	66.0

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	10
Sound Barrier Shielding	10
G	0
Distance	310
Mitigated Site 2 Construction Noise	40.2

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	66.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.1
Mitigated Increase	2.1

SITE 2

Mitigated Construction Noise	40.2
Existing Ambient Noise	68.0
Mitigated New Noise Level	68.0
Mitigated Increase	0.0

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	66.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.1
Mitigated Increase	2.1

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Total Equipment Noise Levels

SITE 1

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	80.7	0.4	76.7
Loader	79.1	0.4	75.1
		Total dBA	79.0

Existing Attenuating Features

SITE 1

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

SITE 2

N/A	0
N/A	0
N/A	0
Row1	0
Row2	0
Tree1	0
Total	0

Unmitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	30
Unmitigated Site 1 Construction Noise	79.0

SITE 2

Total Equipment Noise Level	79.0
Total Shielding from Existing Features	0
G	0
Distance	80
Unmitigated Site 2 Construction Noise	74.9

Unmitigated Receptor Noise Level - Each Site

SITE 1

Unmitigated Construction Noise	79.0
Existing Ambient Noise	68.0
Unmitigated New Noise Level	79.3
Unmitigated Increase	11.3

SITE 2

Unmitigated Construction Noise	74.9
Existing Ambient Noise	68.0
Unmitigated New Noise Level	75.7
Unmitigated Increase	7.7

Unmitigated Receptor Noise Level - Both Sites Combined

Unmitigated Construction Noise	80.4
Existing Ambient Noise	68.0
Unmitigated New Noise Level	80.7
Unmitigated Increase	12.7

Construction Equipment Mitigation

SITE 1

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

SITE 2

Source	Emission Level (dBA)	Usage Factor	Mitigation
Excavator	80.7	0.4	3
Loader	79.1	0.4	3

Source	Adjusted dBA
Excavator	73.7
Loader	72.1
Combined dBA, Mitigated	76.0

Mitigated Construction Noise Level

SITE 1

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	30
Mitigated Site 1 Construction Noise	66.0

SITE 2

Total Equipment Noise Level	76.0
Total Shielding from Existing Features	0
Sound Barrier Shielding	10
G	0
Distance	80
Mitigated Site 2 Construction Noise	61.9

Mitigated Receptor Noise Level - Each Site

SITE 1

Mitigated Construction Noise	66.0
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.1
Mitigated Increase	2.1

SITE 2

Mitigated Construction Noise	61.9
Existing Ambient Noise	68.0
Mitigated New Noise Level	69.0
Mitigated Increase	1.0

Mitigated Receptor Noise Level - Both Sites Combined

Mitigated Construction Noise	67.4
Existing Ambient Noise	68.0
Mitigated New Noise Level	70.7
Mitigated Increase	2.7

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013

Weingart Projects - Unmitigated

Construction Vibration - PPV

Receptor: Volunteers of America - 543 Crocker St.
Equipment: Large Dozer, Caisson Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.1
Distance (ft)	30
Unmitigated Vibration Level (in/sec)	**0.073**

Receptor: Weingart Center Association - 566 S. San Pedro St.
Equipment: Large Dozer, Caisson Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.1
Distance (ft)	10
Unmitigated Vibration Level (in/sec)	**0.244**

Receptor: Hotel Norbo - 526 E. 6th St.
Equipment: Large Dozer, Caisson Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.1
Distance (ft)	30
Unmitigated Vibration Level (in/sec)	**0.073**

Receptor: Weingart Association Center Corporate Offices, 522 E. 6th St.
Equipment: Large Dozer, Caisson Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.1
Distance (ft)	10
Unmitigated Vibration Level (in/sec)	**0.244**

Sources

California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual*, September 2013.
Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment* , May 2006.

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: AM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
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13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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TNM 2.5
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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro
RUN: X1: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Los Angeles N of 6th	1	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
SB Los Angeles N of 6th	2	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min dB	Noise Reduction Avg dB	Noise Reduction Max dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: AM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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13 April 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
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Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro
RUN: X2: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
EB 6th St E of San Pedro	1	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
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Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: AM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS

PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
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Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 665 S. San Pedro St.
RUN: X3: PM Future
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Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB San Pedro N of 6th	1	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
SB San Pedro N of 6th	2	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0