Appendix G

Noise Measurement Data and Noise Modeling Worksheets

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Environmental Scientists Planners Engineers
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Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____

Date: 2/26/21 **Operator Name:** Lelie Trejo

Measurement #1

Location: NM 1 - Woolsey **Begin time:** 10:14AM **Finish time:** 10:29AM

Measurement No.: 6 **Wind (mph):** 1.9 mph **Direction:** E

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: 94.1 End: 94.3

Primary Noise Sources: Traffic on Woolsey **Distance:** ~20ft from centerline

Secondary Noise Sources: _____

Notes: Some activity from residences south of meter, conversations & some generator noise from FEMA event north of meter

Traffic Count: Passenger Cars: 8

Medium Trucks (2 axles, 6 tires): — Heavy Trucks (3+ axles): —

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): —

L_{eq}: 53.3	SEL: 82.8	L_{max}: 69.1	L_{min}: 45.0	PK: 91.1
L(05): 58.4	L(10): 55.5	L(50): 48.3	L(90): 46.5	L(95): 46.1

Response: (Slow) Fast Peak Impulse

Measurement #2

Location: NM 2 - Tremont **Begin time:** 10:36AM **Finish time:** 10:57AM

Measurement No.: 7 **Wind (mph):** 1.0 **Direction:** N

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: 94.1 End: 94.4

Primary Noise Sources: Traffic on Tremont **Distance:** ~15 ft from centerline

Secondary Noise Sources: _____

Notes: 10:42 - dog howl/bark about 5 ft from meter

Traffic Count: Passenger Cars: 4

Medium Trucks (2 axles, 6 tires): — Heavy Trucks (3+ axles): —

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}: 61.8	SEL: 91.4	L_{max}: 87.1	L_{min}: 43.0	PK: 103.4
L(05): 57.4	L(10): 54.0	L(50): 47.7	L(90): 45.0	L(95): 44.5

Response: (Slow) Fast Peak Impulse

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Project Name: Berkeley BART **Job Number:** _____

Date: 2/26/24 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 3 - MLK Way **Begin time:** 11:05 AM **Finish time:** 11:20 AM

Measurement No.: 8 **Wind (mph):** _____ **Direction:** _____

Cloud Cover Class: Overcast (>80%) Light (20-80%) (Sunny (<20%))

Calibration (dB): Start: 94.0 End: _____

Primary Noise Sources: Traffic on MLK Way **Distance:** ~50 ft from centerline

Secondary Noise Sources: _____

Notes: 11:08 - car alarm, 11:10 - 11:11 AM - motorcycle idling(?), 11:16 - motorcycle start up

Traffic Count: Passenger Cars: 243

Medium Trucks (2 axles, 6 tires): 1111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}:	65.4	SEL:	94.9	L_{max}:	80.6	L_{min}:	42.1	PK:	95.1
L(05):	70.5	L(10):	69.3	L(50):	62.3	L(90):	48.3	L(95):	46.9

Response: (Slow) Fast Peak Impulse

Measurement #2

Location: NM 4 - Delaware **Begin time:** 11:40 AM **Finish time:** 11:55 AM

Measurement No.: 9 **Wind (mph):** 1.4 **Direction:** E

Cloud Cover Class: Overcast (>80%) Light (20-80%) (Sunny (<20%))

Calibration (dB): Start: 94.1 End: 94.0

Primary Noise Sources: Traffic on Delaware **Distance:** ~50 ft from centerline

Secondary Noise Sources: _____

Notes: 11:44 - motorcycle engine rev 11:50 - loud music w/ bass on RV camper, 11:51 Fire truck

Traffic Count: Passenger Cars: 57

Medium Trucks (2 axles, 6 tires): 111 Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}:	65.0	SEL:	94.6	L_{max}:	87.2	L_{min}:	41.0	PK:	101.0
L(05):	68.0	L(10):	65.6	L(50):	55.3	L(90):	46.2	L(95):	44.4

Response: (Slow) Fast Peak Impulse

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Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A", and response time should typically be set to "slow." For additional information, please review the *Noise Measurement Protocols* in the case or on Jive.

Project Name: Berkeley BART **Job Number:** _____

Date: 2/26/21 **Operator Name:** Leslie Trejo

Measurement #1

Location: NM 5 - Virginia St **Begin time:** 12:06PM **Finish time:** 12:21PM

Measurement No.: 10 **Wind (mph):** 1.0 **Direction:** E

Cloud Cover Class: Overcast (>80%) Light (20-80%) (Sunny (<20%))

Calibration (dB): Start: 94.0 End: _____

Primary Noise Sources: Traffic on Virginia St **Distance:** ~25ft from centerline

Secondary Noise Sources: _____

Notes: Neighbor noted it is much quieter than it used to be
12:14 - garbage collection north of meter + honk; 12:21 - garbage collection

Traffic Count: Passenger Cars: 8

Medium Trucks (2 axles, 6 tires): 1 Heavy Trucks (3+ axles): —

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}:	57.5	SEL:	87.0	L_{max}:	80.5	L_{min}:	38.4	PK:	96.5
L(05):	59.6	L(10):	55.9	L(50):	44.4	L(90):	40.2	L(95):	39.8

Response: (Slow) Fast Peak Impulse

Measurement #2

Location: _____ **Begin time:** _____ **Finish time:** _____

Measurement No.: _____ **Wind (mph):** _____ **Direction:** _____

Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)

Calibration (dB): Start: _____ End: _____

Primary Noise Sources: _____ **Distance:** _____

Secondary Noise Sources: _____

Notes: _____

_____

Traffic Count: Passenger Cars: _____

Medium Trucks (2 axles, 6 tires): _____ Heavy Trucks (3+ axles): _____

Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____

L_{eq}:		SEL:		L_{max}:		L_{min}:		PK:	
L(05):		L(10):		L(50):		L(90):		L(95):	

Response: Slow Fast Peak Impulse

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 69.1 - 2021/02/26 10:27:45
- Level Range : 40-100
- SEL : 82.8
- Leq : 53.3
-

No.s	Date Time	(dB)
1	2021/02/26 10:13:48	54.4
2	2021/02/26 10:13:51	66.6
3	2021/02/26 10:13:54	61.0
4	2021/02/26 10:13:57	53.1
5	2021/02/26 10:14:00	50.6
6	2021/02/26 10:14:03	52.5
7	2021/02/26 10:14:06	51.1
8	2021/02/26 10:14:09	48.3
9	2021/02/26 10:14:12	50.0
10	2021/02/26 10:14:15	47.4
11	2021/02/26 10:14:18	46.4
12	2021/02/26 10:14:21	48.8
13	2021/02/26 10:14:24	49.1
14	2021/02/26 10:14:27	53.6
15	2021/02/26 10:14:30	55.1
16	2021/02/26 10:14:33	53.1
17	2021/02/26 10:14:36	49.0
18	2021/02/26 10:14:39	51.6
19	2021/02/26 10:14:42	51.4
20	2021/02/26 10:14:45	49.6
21	2021/02/26 10:14:48	48.4
22	2021/02/26 10:14:51	48.3
23	2021/02/26 10:14:54	49.0
24	2021/02/26 10:14:57	47.3
25	2021/02/26 10:15:00	46.6
26	2021/02/26 10:15:03	46.4
27	2021/02/26 10:15:06	46.7
28	2021/02/26 10:15:09	45.7
29	2021/02/26 10:15:12	48.0
30	2021/02/26 10:15:15	47.2
31	2021/02/26 10:15:18	48.4
32	2021/02/26 10:15:21	48.7
33	2021/02/26 10:15:24	47.0
34	2021/02/26 10:15:27	47.5
35	2021/02/26 10:15:30	47.5
36	2021/02/26 10:15:33	48.0
37	2021/02/26 10:15:36	50.1
38	2021/02/26 10:15:39	49.0
39	2021/02/26 10:15:42	49.8
40	2021/02/26 10:15:45	51.2
41	2021/02/26 10:15:48	51.2
42	2021/02/26 10:15:51	47.5
43	2021/02/26 10:15:54	49.1
44	2021/02/26 10:15:57	52.5
45	2021/02/26 10:16:00	51.0
46	2021/02/26 10:16:03	50.8
47	2021/02/26 10:16:06	54.4
48	2021/02/26 10:16:09	61.0
49	2021/02/26 10:16:12	60.9
50	2021/02/26 10:16:15	55.6
51	2021/02/26 10:16:18	59.1
52	2021/02/26 10:16:21	53.1
53	2021/02/26 10:16:24	51.4
54	2021/02/26 10:16:27	51.3
55	2021/02/26 10:16:30	49.0
56	2021/02/26 10:16:33	50.1
57	2021/02/26 10:16:36	50.3
58	2021/02/26 10:16:39	48.4
59	2021/02/26 10:16:42	49.7
60	2021/02/26 10:16:45	50.1
61	2021/02/26 10:16:48	49.6
62	2021/02/26 10:16:51	51.3
63	2021/02/26 10:16:54	48.3
64	2021/02/26 10:16:57	48.9
65	2021/02/26 10:17:00	48.6
66	2021/02/26 10:17:03	47.7
67	2021/02/26 10:17:06	47.5
68	2021/02/26 10:17:09	47.1
69	2021/02/26 10:17:12	48.3
70	2021/02/26 10:17:15	47.0
71	2021/02/26 10:17:18	49.1
72	2021/02/26 10:17:21	47.2
73	2021/02/26 10:17:24	47.6
74	2021/02/26 10:17:27	48.2
75	2021/02/26 10:17:30	46.7
76	2021/02/26 10:17:33	46.5
77	2021/02/26 10:17:36	47.0
78	2021/02/26 10:17:39	47.7
79	2021/02/26 10:17:42	47.0
80	2021/02/26 10:17:45	49.5
81	2021/02/26 10:17:48	50.7
82	2021/02/26 10:17:51	47.6
83	2021/02/26 10:17:54	46.0
84	2021/02/26 10:17:57	48.5

85	2021/02/26	10:18:00	47.2
86	2021/02/26	10:18:03	47.8
87	2021/02/26	10:18:06	47.9
88	2021/02/26	10:18:09	47.6
89	2021/02/26	10:18:12	47.1
90	2021/02/26	10:18:15	50.5
91	2021/02/26	10:18:18	51.1
92	2021/02/26	10:18:21	49.4
93	2021/02/26	10:18:24	47.9
94	2021/02/26	10:18:27	50.1
95	2021/02/26	10:18:30	54.2
96	2021/02/26	10:18:33	53.7
97	2021/02/26	10:18:36	53.2
98	2021/02/26	10:18:39	49.6
99	2021/02/26	10:18:42	49.6
100	2021/02/26	10:18:45	51.1
101	2021/02/26	10:18:48	50.4
102	2021/02/26	10:18:51	51.8
103	2021/02/26	10:18:54	52.5
104	2021/02/26	10:18:57	56.0
105	2021/02/26	10:19:00	60.9
106	2021/02/26	10:19:03	56.8
107	2021/02/26	10:19:06	53.1
108	2021/02/26	10:19:09	51.5
109	2021/02/26	10:19:12	57.6
110	2021/02/26	10:19:15	63.8
111	2021/02/26	10:19:18	55.0
112	2021/02/26	10:19:21	55.2
113	2021/02/26	10:19:24	55.2
114	2021/02/26	10:19:27	53.9
115	2021/02/26	10:19:30	49.4
116	2021/02/26	10:19:33	47.6
117	2021/02/26	10:19:36	47.7
118	2021/02/26	10:19:39	47.8
119	2021/02/26	10:19:42	47.8
120	2021/02/26	10:19:45	47.3
121	2021/02/26	10:19:48	49.8
122	2021/02/26	10:19:51	50.6
123	2021/02/26	10:19:54	48.2
124	2021/02/26	10:19:57	48.5
125	2021/02/26	10:20:00	46.9
126	2021/02/26	10:20:03	47.2
127	2021/02/26	10:20:06	47.8
128	2021/02/26	10:20:09	47.7
129	2021/02/26	10:20:12	48.3
130	2021/02/26	10:20:15	58.8
131	2021/02/26	10:20:18	58.5
132	2021/02/26	10:20:21	51.3
133	2021/02/26	10:20:24	48.8
134	2021/02/26	10:20:27	53.4
135	2021/02/26	10:20:30	59.5
136	2021/02/26	10:20:33	51.8
137	2021/02/26	10:20:36	48.7
138	2021/02/26	10:20:39	48.2
139	2021/02/26	10:20:42	48.2
140	2021/02/26	10:20:45	47.8
141	2021/02/26	10:20:48	48.0
142	2021/02/26	10:20:51	48.4
143	2021/02/26	10:20:54	47.2
144	2021/02/26	10:20:57	50.6
145	2021/02/26	10:21:00	47.4
146	2021/02/26	10:21:03	50.2
147	2021/02/26	10:21:06	47.1
148	2021/02/26	10:21:09	46.5
149	2021/02/26	10:21:12	47.0
150	2021/02/26	10:21:15	46.9
151	2021/02/26	10:21:18	47.3
152	2021/02/26	10:21:21	47.8
153	2021/02/26	10:21:24	48.9
154	2021/02/26	10:21:27	50.3
155	2021/02/26	10:21:30	51.8
156	2021/02/26	10:21:33	51.1
157	2021/02/26	10:21:36	53.8
158	2021/02/26	10:21:39	54.1
159	2021/02/26	10:21:42	58.1
160	2021/02/26	10:21:45	59.3
161	2021/02/26	10:21:48	61.1
162	2021/02/26	10:21:51	57.6
163	2021/02/26	10:21:54	60.4
164	2021/02/26	10:21:57	58.7
165	2021/02/26	10:22:00	60.2
166	2021/02/26	10:22:03	56.8
167	2021/02/26	10:22:06	57.7
168	2021/02/26	10:22:09	53.9
169	2021/02/26	10:22:12	53.2
170	2021/02/26	10:22:15	53.4
171	2021/02/26	10:22:18	51.2
172	2021/02/26	10:22:21	49.8
173	2021/02/26	10:22:24	48.6
174	2021/02/26	10:22:27	48.1
175	2021/02/26	10:22:30	46.4
176	2021/02/26	10:22:33	47.4
177	2021/02/26	10:22:36	46.8
178	2021/02/26	10:22:39	46.8
179	2021/02/26	10:22:42	47.6
180	2021/02/26	10:22:45	50.1
181	2021/02/26	10:22:48	47.2
182	2021/02/26	10:22:51	46.0

183	2021/02/26	10:22:54	45.0
184	2021/02/26	10:22:57	46.1
185	2021/02/26	10:23:00	46.6
186	2021/02/26	10:23:03	47.8
187	2021/02/26	10:23:06	47.1
188	2021/02/26	10:23:09	45.7
189	2021/02/26	10:23:12	46.5
190	2021/02/26	10:23:15	47.8
191	2021/02/26	10:23:18	48.1
192	2021/02/26	10:23:21	47.0
193	2021/02/26	10:23:24	47.0
194	2021/02/26	10:23:27	46.5
195	2021/02/26	10:23:30	45.9
196	2021/02/26	10:23:33	47.5
197	2021/02/26	10:23:36	48.3
198	2021/02/26	10:23:39	47.8
199	2021/02/26	10:23:42	48.3
200	2021/02/26	10:23:45	48.6
201	2021/02/26	10:23:48	51.9
202	2021/02/26	10:23:51	65.4
203	2021/02/26	10:23:54	57.0
204	2021/02/26	10:23:57	50.5
205	2021/02/26	10:24:00	49.2
206	2021/02/26	10:24:03	47.7
207	2021/02/26	10:24:06	47.5
208	2021/02/26	10:24:09	48.7
209	2021/02/26	10:24:12	46.0
210	2021/02/26	10:24:15	45.5
211	2021/02/26	10:24:18	48.6
212	2021/02/26	10:24:21	50.1
213	2021/02/26	10:24:24	63.3
214	2021/02/26	10:24:27	59.8
215	2021/02/26	10:24:30	49.7
216	2021/02/26	10:24:33	46.6
217	2021/02/26	10:24:36	48.4
218	2021/02/26	10:24:39	51.4
219	2021/02/26	10:24:42	51.0
220	2021/02/26	10:24:45	47.8
221	2021/02/26	10:24:48	46.3
222	2021/02/26	10:24:51	47.8
223	2021/02/26	10:24:54	46.5
224	2021/02/26	10:24:57	46.9
225	2021/02/26	10:25:00	49.2
226	2021/02/26	10:25:03	48.2
227	2021/02/26	10:25:06	47.3
228	2021/02/26	10:25:09	49.3
229	2021/02/26	10:25:12	47.9
230	2021/02/26	10:25:15	47.3
231	2021/02/26	10:25:18	47.1
232	2021/02/26	10:25:21	46.0
233	2021/02/26	10:25:24	47.2
234	2021/02/26	10:25:27	46.3
235	2021/02/26	10:25:30	46.3
236	2021/02/26	10:25:33	47.5
237	2021/02/26	10:25:36	47.3
238	2021/02/26	10:25:39	48.1
239	2021/02/26	10:25:42	48.8
240	2021/02/26	10:25:45	48.6
241	2021/02/26	10:25:48	47.9
242	2021/02/26	10:25:51	46.4
243	2021/02/26	10:25:54	45.7
244	2021/02/26	10:25:57	45.1
245	2021/02/26	10:26:00	46.1
246	2021/02/26	10:26:03	46.8
247	2021/02/26	10:26:06	46.5
248	2021/02/26	10:26:09	47.7
249	2021/02/26	10:26:12	47.2
250	2021/02/26	10:26:15	49.1
251	2021/02/26	10:26:18	55.7
252	2021/02/26	10:26:21	59.2
253	2021/02/26	10:26:24	51.7
254	2021/02/26	10:26:27	48.3
255	2021/02/26	10:26:30	47.3
256	2021/02/26	10:26:33	46.4
257	2021/02/26	10:26:36	46.9
258	2021/02/26	10:26:39	49.7
259	2021/02/26	10:26:42	48.5
260	2021/02/26	10:26:45	54.3
261	2021/02/26	10:26:48	63.1
262	2021/02/26	10:26:51	53.7
263	2021/02/26	10:26:54	47.8
264	2021/02/26	10:26:57	48.0
265	2021/02/26	10:27:00	47.9
266	2021/02/26	10:27:03	48.2
267	2021/02/26	10:27:06	48.1
268	2021/02/26	10:27:09	47.5
269	2021/02/26	10:27:12	48.2
270	2021/02/26	10:27:15	48.9
271	2021/02/26	10:27:18	49.9
272	2021/02/26	10:27:21	49.7
273	2021/02/26	10:27:24	48.1
274	2021/02/26	10:27:27	47.5
275	2021/02/26	10:27:30	48.1
276	2021/02/26	10:27:33	48.7
277	2021/02/26	10:27:36	48.2
278	2021/02/26	10:27:39	54.1
279	2021/02/26	10:27:42	68.6
280	2021/02/26	10:27:45	59.6

281	2021/02/26	10:27:48	50.3
282	2021/02/26	10:27:51	48.1
283	2021/02/26	10:27:54	48.1
284	2021/02/26	10:27:57	49.4
285	2021/02/26	10:28:00	49.7
286	2021/02/26	10:28:03	48.4
287	2021/02/26	10:28:06	48.5
288	2021/02/26	10:28:09	47.4
289	2021/02/26	10:28:12	48.0
290	2021/02/26	10:28:15	47.6
291	2021/02/26	10:28:18	47.1
292	2021/02/26	10:28:21	47.1
293	2021/02/26	10:28:24	45.6
294	2021/02/26	10:28:27	46.6
295	2021/02/26	10:28:30	45.9
296	2021/02/26	10:28:33	48.7
297	2021/02/26	10:28:36	47.2
298	2021/02/26	10:28:39	47.0
299	2021/02/26	10:28:42	47.6
300	2021/02/26	10:28:45	46.7

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 87.1 - 2021/02/26 10:41:32
- Level Range : 40-100
- SEL : 91.4
- Leq : 61.8
-

No.s	Date Time	(dB)
1	2021/02/26 10:35:43	46.7
2	2021/02/26 10:35:46	45.2
3	2021/02/26 10:35:49	44.4
4	2021/02/26 10:35:52	46.8
5	2021/02/26 10:35:55	44.9
6	2021/02/26 10:35:58	45.7
7	2021/02/26 10:36:01	44.7
8	2021/02/26 10:36:04	44.7
9	2021/02/26 10:36:07	44.1
10	2021/02/26 10:36:10	46.1
11	2021/02/26 10:36:13	45.4
12	2021/02/26 10:36:16	48.1
13	2021/02/26 10:36:19	48.6
14	2021/02/26 10:36:22	45.8
15	2021/02/26 10:36:25	44.7
16	2021/02/26 10:36:28	47.2
17	2021/02/26 10:36:31	45.6
18	2021/02/26 10:36:34	48.3
19	2021/02/26 10:36:37	53.0
20	2021/02/26 10:36:40	49.4
21	2021/02/26 10:36:43	45.6
22	2021/02/26 10:36:46	46.0
23	2021/02/26 10:36:49	47.2
24	2021/02/26 10:36:52	47.5
25	2021/02/26 10:36:55	48.8
26	2021/02/26 10:36:58	50.6
27	2021/02/26 10:37:01	51.3
28	2021/02/26 10:37:04	50.2
29	2021/02/26 10:37:07	49.5
30	2021/02/26 10:37:10	49.5
31	2021/02/26 10:37:13	52.1
32	2021/02/26 10:37:16	69.0
33	2021/02/26 10:37:19	67.4
34	2021/02/26 10:37:22	58.3
35	2021/02/26 10:37:25	53.5
36	2021/02/26 10:37:28	51.3
37	2021/02/26 10:37:31	49.7
38	2021/02/26 10:37:34	50.4
39	2021/02/26 10:37:37	49.9
40	2021/02/26 10:37:40	49.5
41	2021/02/26 10:37:43	48.4
42	2021/02/26 10:37:46	46.0
43	2021/02/26 10:37:49	45.8
44	2021/02/26 10:37:52	53.1
45	2021/02/26 10:37:55	47.0
46	2021/02/26 10:37:58	46.7
47	2021/02/26 10:38:01	45.4
48	2021/02/26 10:38:04	45.1
49	2021/02/26 10:38:07	44.6
50	2021/02/26 10:38:10	45.3
51	2021/02/26 10:38:13	44.5
52	2021/02/26 10:38:16	43.7
53	2021/02/26 10:38:19	43.1
54	2021/02/26 10:38:22	44.3
55	2021/02/26 10:38:25	44.7
56	2021/02/26 10:38:28	46.0
57	2021/02/26 10:38:31	44.4
58	2021/02/26 10:38:34	44.3
59	2021/02/26 10:38:37	44.6
60	2021/02/26 10:38:40	45.6
61	2021/02/26 10:38:43	45.3
62	2021/02/26 10:38:46	45.0
63	2021/02/26 10:38:49	47.4
64	2021/02/26 10:38:52	46.2
65	2021/02/26 10:38:55	47.2
66	2021/02/26 10:38:58	46.7
67	2021/02/26 10:39:01	45.5
68	2021/02/26 10:39:04	46.3
69	2021/02/26 10:39:07	45.1
70	2021/02/26 10:39:10	44.8
71	2021/02/26 10:39:13	44.5
72	2021/02/26 10:39:16	44.0
73	2021/02/26 10:39:19	43.7
74	2021/02/26 10:39:22	44.3
75	2021/02/26 10:39:25	44.8
76	2021/02/26 10:39:28	44.9
77	2021/02/26 10:39:31	45.7
78	2021/02/26 10:39:34	46.0
79	2021/02/26 10:39:37	45.6
80	2021/02/26 10:39:40	47.9
81	2021/02/26 10:39:43	46.7
82	2021/02/26 10:39:46	44.4
83	2021/02/26 10:39:49	44.0
84	2021/02/26 10:39:52	47.9

85	2021/02/26	10:39:55	48.0
86	2021/02/26	10:39:58	45.9
87	2021/02/26	10:40:01	45.0
88	2021/02/26	10:40:04	45.1
89	2021/02/26	10:40:07	46.3
90	2021/02/26	10:40:10	46.4
91	2021/02/26	10:40:13	47.1
92	2021/02/26	10:40:16	46.8
93	2021/02/26	10:40:19	47.4
94	2021/02/26	10:40:22	47.5
95	2021/02/26	10:40:25	46.3
96	2021/02/26	10:40:28	46.3
97	2021/02/26	10:40:31	47.5
98	2021/02/26	10:40:34	47.7
99	2021/02/26	10:40:37	46.8
100	2021/02/26	10:40:40	52.2
101	2021/02/26	10:40:43	47.4
102	2021/02/26	10:40:46	45.8
103	2021/02/26	10:40:49	46.8
104	2021/02/26	10:40:52	46.8
105	2021/02/26	10:40:55	45.2
106	2021/02/26	10:40:58	44.1
107	2021/02/26	10:41:01	44.6
108	2021/02/26	10:41:04	45.7
109	2021/02/26	10:41:07	47.5
110	2021/02/26	10:41:10	47.2
111	2021/02/26	10:41:13	46.8
112	2021/02/26	10:41:16	46.1
113	2021/02/26	10:41:19	45.9
114	2021/02/26	10:41:22	52.3
115	2021/02/26	10:41:25	76.8
116	2021/02/26	10:41:28	75.4
117	2021/02/26	10:41:31	83.8
118	2021/02/26	10:41:34	81.0
119	2021/02/26	10:41:37	71.7
120	2021/02/26	10:41:40	59.7
121	2021/02/26	10:41:43	51.7
122	2021/02/26	10:41:46	51.2
123	2021/02/26	10:41:49	47.7
124	2021/02/26	10:41:52	53.8
125	2021/02/26	10:41:55	49.5
126	2021/02/26	10:41:58	47.6
127	2021/02/26	10:42:01	47.8
128	2021/02/26	10:42:04	48.3
129	2021/02/26	10:42:07	47.4
130	2021/02/26	10:42:10	53.7
131	2021/02/26	10:42:13	47.8
132	2021/02/26	10:42:16	47.8
133	2021/02/26	10:42:19	46.4
134	2021/02/26	10:42:22	54.8
135	2021/02/26	10:42:25	51.9
136	2021/02/26	10:42:28	50.3
137	2021/02/26	10:42:31	49.8
138	2021/02/26	10:42:34	47.8
139	2021/02/26	10:42:37	53.1
140	2021/02/26	10:42:40	52.0
141	2021/02/26	10:42:43	52.7
142	2021/02/26	10:42:46	51.6
143	2021/02/26	10:42:49	54.8
144	2021/02/26	10:42:52	54.8
145	2021/02/26	10:42:55	51.9
146	2021/02/26	10:42:58	53.8
147	2021/02/26	10:43:01	56.7
148	2021/02/26	10:43:04	56.6
149	2021/02/26	10:43:07	57.4
150	2021/02/26	10:43:10	59.7
151	2021/02/26	10:43:13	60.5
152	2021/02/26	10:43:16	61.2
153	2021/02/26	10:43:19	60.2
154	2021/02/26	10:43:22	57.2
155	2021/02/26	10:43:25	55.6
156	2021/02/26	10:43:28	55.0
157	2021/02/26	10:43:31	55.5
158	2021/02/26	10:43:34	53.2
159	2021/02/26	10:43:37	54.9
160	2021/02/26	10:43:40	52.8
161	2021/02/26	10:43:43	50.4
162	2021/02/26	10:43:46	50.8
163	2021/02/26	10:43:49	51.4
164	2021/02/26	10:43:52	50.1
165	2021/02/26	10:43:55	48.7
166	2021/02/26	10:43:58	49.7
167	2021/02/26	10:44:01	48.6
168	2021/02/26	10:44:04	46.5
169	2021/02/26	10:44:07	45.4
170	2021/02/26	10:44:10	49.9
171	2021/02/26	10:44:13	49.2
172	2021/02/26	10:44:16	47.3
173	2021/02/26	10:44:19	46.4
174	2021/02/26	10:44:22	45.9
175	2021/02/26	10:44:25	47.2
176	2021/02/26	10:44:28	46.7
177	2021/02/26	10:44:31	44.7
178	2021/02/26	10:44:34	46.5
179	2021/02/26	10:44:37	47.7
180	2021/02/26	10:44:40	48.1
181	2021/02/26	10:44:43	49.3
182	2021/02/26	10:44:46	47.1

183	2021/02/26	10:44:49	48.7
184	2021/02/26	10:44:52	47.9
185	2021/02/26	10:44:55	46.3
186	2021/02/26	10:44:58	45.8
187	2021/02/26	10:45:01	47.2
188	2021/02/26	10:45:04	46.4
189	2021/02/26	10:45:07	49.6
190	2021/02/26	10:45:10	48.6
191	2021/02/26	10:45:13	47.3
192	2021/02/26	10:45:16	48.9
193	2021/02/26	10:45:19	52.5
194	2021/02/26	10:45:22	50.0
195	2021/02/26	10:45:25	48.1
196	2021/02/26	10:45:28	47.4
197	2021/02/26	10:45:31	47.5
198	2021/02/26	10:45:34	48.8
199	2021/02/26	10:45:37	58.1
200	2021/02/26	10:45:40	49.2
201	2021/02/26	10:45:43	48.6
202	2021/02/26	10:45:46	47.6
203	2021/02/26	10:45:49	46.5
204	2021/02/26	10:45:52	48.5
205	2021/02/26	10:45:55	49.8
206	2021/02/26	10:45:58	51.1
207	2021/02/26	10:46:01	50.9
208	2021/02/26	10:46:04	55.2
209	2021/02/26	10:46:07	53.5
210	2021/02/26	10:46:10	54.0
211	2021/02/26	10:46:13	53.4
212	2021/02/26	10:46:16	51.1
213	2021/02/26	10:46:19	52.5
214	2021/02/26	10:46:22	50.3
215	2021/02/26	10:46:25	48.8
216	2021/02/26	10:46:28	57.4
217	2021/02/26	10:46:31	52.9
218	2021/02/26	10:46:34	47.8
219	2021/02/26	10:46:37	47.5
220	2021/02/26	10:46:40	47.3
221	2021/02/26	10:46:43	47.9
222	2021/02/26	10:46:46	47.6
223	2021/02/26	10:46:49	46.8
224	2021/02/26	10:46:52	46.7
225	2021/02/26	10:46:55	52.2
226	2021/02/26	10:46:58	48.8
227	2021/02/26	10:47:01	54.6
228	2021/02/26	10:47:04	48.0
229	2021/02/26	10:47:07	46.9
230	2021/02/26	10:47:10	46.1
231	2021/02/26	10:47:13	46.9
232	2021/02/26	10:47:16	46.8
233	2021/02/26	10:47:19	47.7
234	2021/02/26	10:47:22	49.5
235	2021/02/26	10:47:25	46.3
236	2021/02/26	10:47:28	49.5
237	2021/02/26	10:47:31	45.2
238	2021/02/26	10:47:34	45.2
239	2021/02/26	10:47:37	44.8
240	2021/02/26	10:47:40	45.7
241	2021/02/26	10:47:43	44.7
242	2021/02/26	10:47:46	44.9
243	2021/02/26	10:47:49	46.4
244	2021/02/26	10:47:52	45.8
245	2021/02/26	10:47:55	45.3
246	2021/02/26	10:47:58	48.1
247	2021/02/26	10:48:01	45.1
248	2021/02/26	10:48:04	45.0
249	2021/02/26	10:48:07	45.8
250	2021/02/26	10:48:10	46.7
251	2021/02/26	10:48:13	46.4
252	2021/02/26	10:48:16	46.8
253	2021/02/26	10:48:19	46.9
254	2021/02/26	10:48:22	46.1
255	2021/02/26	10:48:25	47.4
256	2021/02/26	10:48:28	49.7
257	2021/02/26	10:48:31	48.5
258	2021/02/26	10:48:34	48.4
259	2021/02/26	10:48:37	58.6
260	2021/02/26	10:48:40	48.9
261	2021/02/26	10:48:43	47.4
262	2021/02/26	10:48:46	47.9
263	2021/02/26	10:48:49	47.7
264	2021/02/26	10:48:52	54.6
265	2021/02/26	10:48:55	54.7
266	2021/02/26	10:48:58	57.9
267	2021/02/26	10:49:01	50.8
268	2021/02/26	10:49:04	48.7
269	2021/02/26	10:49:07	48.0
270	2021/02/26	10:49:10	46.6
271	2021/02/26	10:49:13	45.3
272	2021/02/26	10:49:16	46.5
273	2021/02/26	10:49:19	46.7
274	2021/02/26	10:49:22	46.2
275	2021/02/26	10:49:25	46.3
276	2021/02/26	10:49:28	47.7
277	2021/02/26	10:49:31	47.2
278	2021/02/26	10:49:34	47.3
279	2021/02/26	10:49:37	46.5
280	2021/02/26	10:49:40	46.0

281	2021/02/26	10:49:43	48.0
282	2021/02/26	10:49:46	47.2
283	2021/02/26	10:49:49	48.7
284	2021/02/26	10:49:52	50.2
285	2021/02/26	10:49:55	48.9
286	2021/02/26	10:49:58	50.4
287	2021/02/26	10:50:01	49.6
288	2021/02/26	10:50:04	50.5
289	2021/02/26	10:50:07	48.6
290	2021/02/26	10:50:10	51.7
291	2021/02/26	10:50:13	48.3
292	2021/02/26	10:50:16	49.5
293	2021/02/26	10:50:19	50.6
294	2021/02/26	10:50:22	48.4
295	2021/02/26	10:50:25	48.0
296	2021/02/26	10:50:28	48.4
297	2021/02/26	10:50:31	50.8
298	2021/02/26	10:50:34	50.6
299	2021/02/26	10:50:37	50.4
300	2021/02/26	10:50:40	50.3

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 80.6 - 2021/02/26 11:15:15
- Level Range : 40-100
- SEL : 94.9
- Leq : 65.4
-

No.s	Date Time	(dB)
1	2021/02/26 11:04:48	61.5
2	2021/02/26 11:04:51	64.3
3	2021/02/26 11:04:54	65.4
4	2021/02/26 11:04:57	64.1
5	2021/02/26 11:05:00	65.0
6	2021/02/26 11:05:03	62.4
7	2021/02/26 11:05:06	60.1
8	2021/02/26 11:05:09	64.8
9	2021/02/26 11:05:12	64.0
10	2021/02/26 11:05:15	69.5
11	2021/02/26 11:05:18	63.3
12	2021/02/26 11:05:21	70.0
13	2021/02/26 11:05:24	64.9
14	2021/02/26 11:05:27	70.3
15	2021/02/26 11:05:30	66.6
16	2021/02/26 11:05:33	66.1
17	2021/02/26 11:05:36	65.7
18	2021/02/26 11:05:39	66.6
19	2021/02/26 11:05:42	60.1
20	2021/02/26 11:05:45	64.2
21	2021/02/26 11:05:48	54.0
22	2021/02/26 11:05:51	49.4
23	2021/02/26 11:05:54	50.1
24	2021/02/26 11:05:57	49.1
25	2021/02/26 11:06:00	48.9
26	2021/02/26 11:06:03	48.6
27	2021/02/26 11:06:06	48.8
28	2021/02/26 11:06:09	50.9
29	2021/02/26 11:06:12	48.7
30	2021/02/26 11:06:15	49.3
31	2021/02/26 11:06:18	48.9
32	2021/02/26 11:06:21	50.1
33	2021/02/26 11:06:24	51.1
34	2021/02/26 11:06:27	51.0
35	2021/02/26 11:06:30	56.5
36	2021/02/26 11:06:33	63.6
37	2021/02/26 11:06:36	65.3
38	2021/02/26 11:06:39	65.0
39	2021/02/26 11:06:42	66.0
40	2021/02/26 11:06:45	69.6
41	2021/02/26 11:06:48	65.9
42	2021/02/26 11:06:51	63.1
43	2021/02/26 11:06:54	59.6
44	2021/02/26 11:06:57	66.3
45	2021/02/26 11:07:00	70.0
46	2021/02/26 11:07:03	64.3
47	2021/02/26 11:07:06	64.2
48	2021/02/26 11:07:09	64.7
49	2021/02/26 11:07:12	62.7
50	2021/02/26 11:07:15	67.8
51	2021/02/26 11:07:18	68.1
52	2021/02/26 11:07:21	67.0
53	2021/02/26 11:07:24	67.8
54	2021/02/26 11:07:27	60.2
55	2021/02/26 11:07:30	50.9
56	2021/02/26 11:07:33	48.9
57	2021/02/26 11:07:36	49.0
58	2021/02/26 11:07:39	50.6
59	2021/02/26 11:07:42	51.1
60	2021/02/26 11:07:45	49.3
61	2021/02/26 11:07:48	47.7
62	2021/02/26 11:07:51	47.6
63	2021/02/26 11:07:54	66.4
64	2021/02/26 11:07:57	66.9
65	2021/02/26 11:08:00	65.9
66	2021/02/26 11:08:03	67.4
67	2021/02/26 11:08:06	68.3
68	2021/02/26 11:08:09	68.6
69	2021/02/26 11:08:12	60.6
70	2021/02/26 11:08:15	57.9
71	2021/02/26 11:08:18	62.4
72	2021/02/26 11:08:21	64.8
73	2021/02/26 11:08:24	65.4
74	2021/02/26 11:08:27	62.5
75	2021/02/26 11:08:30	62.4
76	2021/02/26 11:08:33	64.3
77	2021/02/26 11:08:36	72.1
78	2021/02/26 11:08:39	62.5
79	2021/02/26 11:08:42	69.1
80	2021/02/26 11:08:45	68.6
81	2021/02/26 11:08:48	66.0
82	2021/02/26 11:08:51	67.1
83	2021/02/26 11:08:54	68.5
84	2021/02/26 11:08:57	65.3

85	2021/02/26	11:09:00	66.1
86	2021/02/26	11:09:03	63.3
87	2021/02/26	11:09:06	63.3
88	2021/02/26	11:09:09	53.9
89	2021/02/26	11:09:12	48.0
90	2021/02/26	11:09:15	47.4
91	2021/02/26	11:09:18	48.2
92	2021/02/26	11:09:21	47.0
93	2021/02/26	11:09:24	49.4
94	2021/02/26	11:09:27	46.6
95	2021/02/26	11:09:30	46.4
96	2021/02/26	11:09:33	46.9
97	2021/02/26	11:09:36	47.3
98	2021/02/26	11:09:39	47.4
99	2021/02/26	11:09:42	48.2
100	2021/02/26	11:09:45	49.5
101	2021/02/26	11:09:48	51.5
102	2021/02/26	11:09:51	51.9
103	2021/02/26	11:09:54	60.2
104	2021/02/26	11:09:57	64.6
105	2021/02/26	11:10:00	65.3
106	2021/02/26	11:10:03	58.3
107	2021/02/26	11:10:06	63.6
108	2021/02/26	11:10:09	71.5
109	2021/02/26	11:10:12	67.4
110	2021/02/26	11:10:15	72.2
111	2021/02/26	11:10:18	74.0
112	2021/02/26	11:10:21	72.0
113	2021/02/26	11:10:24	64.7
114	2021/02/26	11:10:27	67.7
115	2021/02/26	11:10:30	67.9
116	2021/02/26	11:10:33	70.8
117	2021/02/26	11:10:36	68.0
118	2021/02/26	11:10:39	65.7
119	2021/02/26	11:10:42	64.7
120	2021/02/26	11:10:45	61.2
121	2021/02/26	11:10:48	60.3
122	2021/02/26	11:10:51	60.4
123	2021/02/26	11:10:54	60.6
124	2021/02/26	11:10:57	59.9
125	2021/02/26	11:11:00	58.3
126	2021/02/26	11:11:03	58.4
127	2021/02/26	11:11:06	63.9
128	2021/02/26	11:11:09	55.2
129	2021/02/26	11:11:12	58.7
130	2021/02/26	11:11:15	54.0
131	2021/02/26	11:11:18	49.0
132	2021/02/26	11:11:21	46.9
133	2021/02/26	11:11:24	47.1
134	2021/02/26	11:11:27	50.1
135	2021/02/26	11:11:30	53.4
136	2021/02/26	11:11:33	60.9
137	2021/02/26	11:11:36	62.6
138	2021/02/26	11:11:39	61.2
139	2021/02/26	11:11:42	62.3
140	2021/02/26	11:11:45	64.4
141	2021/02/26	11:11:48	62.7
142	2021/02/26	11:11:51	67.7
143	2021/02/26	11:11:54	72.9
144	2021/02/26	11:11:57	66.7
145	2021/02/26	11:12:00	65.5
146	2021/02/26	11:12:03	68.1
147	2021/02/26	11:12:06	67.4
148	2021/02/26	11:12:09	67.7
149	2021/02/26	11:12:12	71.3
150	2021/02/26	11:12:15	68.4
151	2021/02/26	11:12:18	69.3
152	2021/02/26	11:12:21	67.5
153	2021/02/26	11:12:24	65.6
154	2021/02/26	11:12:27	55.4
155	2021/02/26	11:12:30	48.8
156	2021/02/26	11:12:33	49.8
157	2021/02/26	11:12:36	48.8
158	2021/02/26	11:12:39	50.0
159	2021/02/26	11:12:42	52.1
160	2021/02/26	11:12:45	54.7
161	2021/02/26	11:12:48	58.0
162	2021/02/26	11:12:51	53.9
163	2021/02/26	11:12:54	53.0
164	2021/02/26	11:12:57	53.3
165	2021/02/26	11:13:00	50.4
166	2021/02/26	11:13:03	51.2
167	2021/02/26	11:13:06	54.4
168	2021/02/26	11:13:09	65.1
169	2021/02/26	11:13:12	64.6
170	2021/02/26	11:13:15	63.1
171	2021/02/26	11:13:18	61.5
172	2021/02/26	11:13:21	64.1
173	2021/02/26	11:13:24	67.4
174	2021/02/26	11:13:27	65.3
175	2021/02/26	11:13:30	68.8
176	2021/02/26	11:13:33	69.1
177	2021/02/26	11:13:36	69.1
178	2021/02/26	11:13:39	67.8
179	2021/02/26	11:13:42	69.3
180	2021/02/26	11:13:45	63.5
181	2021/02/26	11:13:48	68.2
182	2021/02/26	11:13:51	70.6

183	2021/02/26	11:13:54	65.9
184	2021/02/26	11:13:57	56.7
185	2021/02/26	11:14:00	54.4
186	2021/02/26	11:14:03	73.2
187	2021/02/26	11:14:06	67.8
188	2021/02/26	11:14:09	60.7
189	2021/02/26	11:14:12	52.7
190	2021/02/26	11:14:15	50.9
191	2021/02/26	11:14:18	62.7
192	2021/02/26	11:14:21	63.4
193	2021/02/26	11:14:24	55.2
194	2021/02/26	11:14:27	56.7
195	2021/02/26	11:14:30	53.2
196	2021/02/26	11:14:33	46.7
197	2021/02/26	11:14:36	46.1
198	2021/02/26	11:14:39	47.6
199	2021/02/26	11:14:42	51.5
200	2021/02/26	11:14:45	55.5
201	2021/02/26	11:14:48	65.2
202	2021/02/26	11:14:51	67.7
203	2021/02/26	11:14:54	64.6
204	2021/02/26	11:14:57	61.3
205	2021/02/26	11:15:00	61.8
206	2021/02/26	11:15:03	63.8
207	2021/02/26	11:15:06	68.4
208	2021/02/26	11:15:09	69.6
209	2021/02/26	11:15:12	78.8
210	2021/02/26	11:15:15	73.5
211	2021/02/26	11:15:18	68.8
212	2021/02/26	11:15:21	70.9
213	2021/02/26	11:15:24	67.2
214	2021/02/26	11:15:27	67.8
215	2021/02/26	11:15:30	60.0
216	2021/02/26	11:15:33	59.0
217	2021/02/26	11:15:36	68.6
218	2021/02/26	11:15:39	64.3
219	2021/02/26	11:15:42	56.3
220	2021/02/26	11:15:45	51.2
221	2021/02/26	11:15:48	48.3
222	2021/02/26	11:15:51	52.9
223	2021/02/26	11:15:54	54.4
224	2021/02/26	11:15:57	52.9
225	2021/02/26	11:16:00	60.5
226	2021/02/26	11:16:03	62.2
227	2021/02/26	11:16:06	65.0
228	2021/02/26	11:16:09	58.2
229	2021/02/26	11:16:12	50.8
230	2021/02/26	11:16:15	56.4
231	2021/02/26	11:16:18	65.5
232	2021/02/26	11:16:21	61.4
233	2021/02/26	11:16:24	59.3
234	2021/02/26	11:16:27	53.9
235	2021/02/26	11:16:30	59.2
236	2021/02/26	11:16:33	65.3
237	2021/02/26	11:16:36	63.9
238	2021/02/26	11:16:39	63.3
239	2021/02/26	11:16:42	65.5
240	2021/02/26	11:16:45	71.2
241	2021/02/26	11:16:48	63.1
242	2021/02/26	11:16:51	60.2
243	2021/02/26	11:16:54	57.3
244	2021/02/26	11:16:57	69.6
245	2021/02/26	11:17:00	73.2
246	2021/02/26	11:17:03	72.0
247	2021/02/26	11:17:06	70.3
248	2021/02/26	11:17:09	63.8
249	2021/02/26	11:17:12	70.4
250	2021/02/26	11:17:15	62.4
251	2021/02/26	11:17:18	72.2
252	2021/02/26	11:17:21	64.2
253	2021/02/26	11:17:24	58.7
254	2021/02/26	11:17:27	66.0
255	2021/02/26	11:17:30	62.2
256	2021/02/26	11:17:33	52.5
257	2021/02/26	11:17:36	52.4
258	2021/02/26	11:17:39	55.0
259	2021/02/26	11:17:42	53.0
260	2021/02/26	11:17:45	46.9
261	2021/02/26	11:17:48	45.4
262	2021/02/26	11:17:51	44.1
263	2021/02/26	11:17:54	43.0
264	2021/02/26	11:17:57	43.2
265	2021/02/26	11:18:00	45.0
266	2021/02/26	11:18:03	43.6
267	2021/02/26	11:18:06	45.2
268	2021/02/26	11:18:09	49.0
269	2021/02/26	11:18:12	57.0
270	2021/02/26	11:18:15	64.1
271	2021/02/26	11:18:18	60.8
272	2021/02/26	11:18:21	54.7
273	2021/02/26	11:18:24	55.0
274	2021/02/26	11:18:27	62.3
275	2021/02/26	11:18:30	67.8
276	2021/02/26	11:18:33	71.6
277	2021/02/26	11:18:36	71.2
278	2021/02/26	11:18:39	70.7
279	2021/02/26	11:18:42	70.9
280	2021/02/26	11:18:45	64.5

281	2021/02/26	11:18:48	59.4
282	2021/02/26	11:18:51	69.0
283	2021/02/26	11:18:54	66.8
284	2021/02/26	11:18:57	62.9
285	2021/02/26	11:19:00	54.1
286	2021/02/26	11:19:03	53.8
287	2021/02/26	11:19:06	67.2
288	2021/02/26	11:19:09	67.7
289	2021/02/26	11:19:12	64.9
290	2021/02/26	11:19:15	56.0
291	2021/02/26	11:19:18	52.1
292	2021/02/26	11:19:21	62.8
293	2021/02/26	11:19:24	65.5
294	2021/02/26	11:19:27	55.0
295	2021/02/26	11:19:30	47.9
296	2021/02/26	11:19:33	46.6
297	2021/02/26	11:19:36	50.2
298	2021/02/26	11:19:39	47.5
299	2021/02/26	11:19:42	52.4
300	2021/02/26	11:19:45	53.3

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 87.2 - 2021/02/26 11:51:00
- Level Range : 40-100
- SEL : 94.6
- Leq : 65.0
-

No.s	Date Time	(dB)
1	2021/02/26 11:39:48	54.2
2	2021/02/26 11:39:51	54.7
3	2021/02/26 11:39:54	49.3
4	2021/02/26 11:39:57	46.0
5	2021/02/26 11:40:00	45.4
6	2021/02/26 11:40:03	45.4
7	2021/02/26 11:40:06	44.8
8	2021/02/26 11:40:09	43.6
9	2021/02/26 11:40:12	42.4
10	2021/02/26 11:40:15	50.1
11	2021/02/26 11:40:18	58.1
12	2021/02/26 11:40:21	57.1
13	2021/02/26 11:40:24	49.4
14	2021/02/26 11:40:27	51.7
15	2021/02/26 11:40:30	50.0
16	2021/02/26 11:40:33	48.8
17	2021/02/26 11:40:36	45.5
18	2021/02/26 11:40:39	45.9
19	2021/02/26 11:40:42	45.7
20	2021/02/26 11:40:45	47.4
21	2021/02/26 11:40:48	51.5
22	2021/02/26 11:40:51	47.6
23	2021/02/26 11:40:54	58.1
24	2021/02/26 11:40:57	66.8
25	2021/02/26 11:41:00	56.6
26	2021/02/26 11:41:03	50.1
27	2021/02/26 11:41:06	49.4
28	2021/02/26 11:41:09	48.8
29	2021/02/26 11:41:12	48.6
30	2021/02/26 11:41:15	48.8
31	2021/02/26 11:41:18	46.3
32	2021/02/26 11:41:21	47.1
33	2021/02/26 11:41:24	48.2
34	2021/02/26 11:41:27	51.1
35	2021/02/26 11:41:30	50.1
36	2021/02/26 11:41:33	50.4
37	2021/02/26 11:41:36	64.2
38	2021/02/26 11:41:39	65.6
39	2021/02/26 11:41:42	54.9
40	2021/02/26 11:41:45	48.8
41	2021/02/26 11:41:48	47.9
42	2021/02/26 11:41:51	47.9
43	2021/02/26 11:41:54	55.1
44	2021/02/26 11:41:57	63.6
45	2021/02/26 11:42:00	57.4
46	2021/02/26 11:42:03	55.3
47	2021/02/26 11:42:06	54.6
48	2021/02/26 11:42:09	54.6
49	2021/02/26 11:42:12	61.0
50	2021/02/26 11:42:15	60.4
51	2021/02/26 11:42:18	60.7
52	2021/02/26 11:42:21	59.0
53	2021/02/26 11:42:24	59.2
54	2021/02/26 11:42:27	64.7
55	2021/02/26 11:42:30	59.8
56	2021/02/26 11:42:33	55.3
57	2021/02/26 11:42:36	59.7
58	2021/02/26 11:42:39	60.1
59	2021/02/26 11:42:42	67.7
60	2021/02/26 11:42:45	64.3
61	2021/02/26 11:42:48	57.5
62	2021/02/26 11:42:51	66.0
63	2021/02/26 11:42:54	56.9
64	2021/02/26 11:42:57	51.6
65	2021/02/26 11:43:00	48.4
66	2021/02/26 11:43:03	49.7
67	2021/02/26 11:43:06	56.7
68	2021/02/26 11:43:09	65.6
69	2021/02/26 11:43:12	63.0
70	2021/02/26 11:43:15	61.2
71	2021/02/26 11:43:18	63.1
72	2021/02/26 11:43:21	55.0
73	2021/02/26 11:43:24	51.1
74	2021/02/26 11:43:27	51.1
75	2021/02/26 11:43:30	49.5
76	2021/02/26 11:43:33	48.2
77	2021/02/26 11:43:36	46.5
78	2021/02/26 11:43:39	46.5
79	2021/02/26 11:43:42	47.9
80	2021/02/26 11:43:45	44.3
81	2021/02/26 11:43:48	55.5
82	2021/02/26 11:43:51	63.7
83	2021/02/26 11:43:54	54.6
84	2021/02/26 11:43:57	51.2

85	2021/02/26	11:44:00	58.3
86	2021/02/26	11:44:03	62.8
87	2021/02/26	11:44:06	74.9
88	2021/02/26	11:44:09	74.4
89	2021/02/26	11:44:12	62.9
90	2021/02/26	11:44:15	54.4
91	2021/02/26	11:44:18	51.1
92	2021/02/26	11:44:21	58.1
93	2021/02/26	11:44:24	63.4
94	2021/02/26	11:44:27	58.9
95	2021/02/26	11:44:30	58.7
96	2021/02/26	11:44:33	50.2
97	2021/02/26	11:44:36	56.4
98	2021/02/26	11:44:39	58.4
99	2021/02/26	11:44:42	50.8
100	2021/02/26	11:44:45	54.2
101	2021/02/26	11:44:48	46.9
102	2021/02/26	11:44:51	58.1
103	2021/02/26	11:44:54	60.3
104	2021/02/26	11:44:57	60.6
105	2021/02/26	11:45:00	54.1
106	2021/02/26	11:45:03	52.3
107	2021/02/26	11:45:06	50.0
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113	2021/02/26	11:45:24	49.1
114	2021/02/26	11:45:27	54.3
115	2021/02/26	11:45:30	49.3
116	2021/02/26	11:45:33	53.3
117	2021/02/26	11:45:36	66.7
118	2021/02/26	11:45:39	56.8
119	2021/02/26	11:45:42	50.9
120	2021/02/26	11:45:45	52.4
121	2021/02/26	11:45:48	51.7
122	2021/02/26	11:45:51	52.2
123	2021/02/26	11:45:54	60.1
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125	2021/02/26	11:46:00	57.6
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127	2021/02/26	11:46:06	60.9
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139	2021/02/26	11:46:42	53.9
140	2021/02/26	11:46:45	50.0
141	2021/02/26	11:46:48	49.5
142	2021/02/26	11:46:51	49.3
143	2021/02/26	11:46:54	55.3
144	2021/02/26	11:46:57	60.9
145	2021/02/26	11:47:00	52.6
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157	2021/02/26	11:47:36	52.8
158	2021/02/26	11:47:39	61.2
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163	2021/02/26	11:47:54	68.6
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165	2021/02/26	11:48:00	55.4
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169	2021/02/26	11:48:12	45.8
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171	2021/02/26	11:48:18	56.5
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195	2021/02/26	11:49:30	63.6
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197	2021/02/26	11:49:36	67.5
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209	2021/02/26	11:50:12	61.1
210	2021/02/26	11:50:15	54.8
211	2021/02/26	11:50:18	61.4
212	2021/02/26	11:50:21	57.7
213	2021/02/26	11:50:24	56.3
214	2021/02/26	11:50:27	57.2
215	2021/02/26	11:50:30	57.3
216	2021/02/26	11:50:33	64.4
217	2021/02/26	11:50:36	60.4
218	2021/02/26	11:50:39	58.8
219	2021/02/26	11:50:42	58.0
220	2021/02/26	11:50:45	62.2
221	2021/02/26	11:50:48	64.6
222	2021/02/26	11:50:51	64.0
223	2021/02/26	11:50:54	73.7
224	2021/02/26	11:50:57	85.5
225	2021/02/26	11:51:00	79.5
226	2021/02/26	11:51:03	67.5
227	2021/02/26	11:51:06	67.3
228	2021/02/26	11:51:09	75.0
229	2021/02/26	11:51:12	73.2
230	2021/02/26	11:51:15	62.4
231	2021/02/26	11:51:18	54.4
232	2021/02/26	11:51:21	56.2
233	2021/02/26	11:51:24	67.0
234	2021/02/26	11:51:27	60.7
235	2021/02/26	11:51:30	66.3
236	2021/02/26	11:51:33	56.5
237	2021/02/26	11:51:36	55.3
238	2021/02/26	11:51:39	53.5
239	2021/02/26	11:51:42	51.6
240	2021/02/26	11:51:45	51.7
241	2021/02/26	11:51:48	58.3
242	2021/02/26	11:51:51	48.6
243	2021/02/26	11:51:54	44.5
244	2021/02/26	11:51:57	45.1
245	2021/02/26	11:52:00	42.5
246	2021/02/26	11:52:03	41.9
247	2021/02/26	11:52:06	41.0
248	2021/02/26	11:52:09	43.3
249	2021/02/26	11:52:12	44.6
250	2021/02/26	11:52:15	54.4
251	2021/02/26	11:52:18	64.4
252	2021/02/26	11:52:21	57.3
253	2021/02/26	11:52:24	57.0
254	2021/02/26	11:52:27	50.9
255	2021/02/26	11:52:30	50.6
256	2021/02/26	11:52:33	56.5
257	2021/02/26	11:52:36	63.8
258	2021/02/26	11:52:39	71.9
259	2021/02/26	11:52:42	69.2
260	2021/02/26	11:52:45	58.7
261	2021/02/26	11:52:48	55.8
262	2021/02/26	11:52:51	68.6
263	2021/02/26	11:52:54	60.1
264	2021/02/26	11:52:57	50.4
265	2021/02/26	11:53:00	44.1
266	2021/02/26	11:53:03	42.8
267	2021/02/26	11:53:06	43.6
268	2021/02/26	11:53:09	46.9
269	2021/02/26	11:53:12	45.2
270	2021/02/26	11:53:15	51.0
271	2021/02/26	11:53:18	64.6
272	2021/02/26	11:53:21	61.1
273	2021/02/26	11:53:24	61.2
274	2021/02/26	11:53:27	66.7
275	2021/02/26	11:53:30	55.9
276	2021/02/26	11:53:33	48.6
277	2021/02/26	11:53:36	54.3
278	2021/02/26	11:53:39	65.0
279	2021/02/26	11:53:42	68.3
280	2021/02/26	11:53:45	61.4

281	2021/02/26	11:53:48	54.9
282	2021/02/26	11:53:51	51.4
283	2021/02/26	11:53:54	51.6
284	2021/02/26	11:53:57	49.3
285	2021/02/26	11:54:00	46.6
286	2021/02/26	11:54:03	45.8
287	2021/02/26	11:54:06	46.5
288	2021/02/26	11:54:09	42.3
289	2021/02/26	11:54:12	43.1
290	2021/02/26	11:54:15	43.5
291	2021/02/26	11:54:18	44.8
292	2021/02/26	11:54:21	53.6
293	2021/02/26	11:54:24	64.0
294	2021/02/26	11:54:27	55.3
295	2021/02/26	11:54:30	57.7
296	2021/02/26	11:54:33	63.0
297	2021/02/26	11:54:36	55.3
298	2021/02/26	11:54:39	59.1
299	2021/02/26	11:54:42	60.4
300	2021/02/26	11:54:45	54.4

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 80.5 - 2021/02/26 12:21:33
- Level Range : 40-100
- SEL : 87.0
- Leq : 57.5
-

No.s	Date Time	(dB)
1	2021/02/26 12:06:44	42.2
2	2021/02/26 12:06:47	42.8
3	2021/02/26 12:06:50	45.3
4	2021/02/26 12:06:53	57.8
5	2021/02/26 12:06:56	55.9
6	2021/02/26 12:06:59	54.0
7	2021/02/26 12:07:02	47.8
8	2021/02/26 12:07:05	48.5
9	2021/02/26 12:07:08	52.8
10	2021/02/26 12:07:11	42.8
11	2021/02/26 12:07:14	46.5
12	2021/02/26 12:07:17	40.5
13	2021/02/26 12:07:20	39.2
14	2021/02/26 12:07:23	39.5
15	2021/02/26 12:07:26	40.8
16	2021/02/26 12:07:29	41.0
17	2021/02/26 12:07:32	40.9
18	2021/02/26 12:07:35	48.3
19	2021/02/26 12:07:38	50.3
20	2021/02/26 12:07:41	45.7
21	2021/02/26 12:07:44	45.5
22	2021/02/26 12:07:47	61.8
23	2021/02/26 12:07:50	55.5
24	2021/02/26 12:07:53	52.5
25	2021/02/26 12:07:56	48.7
26	2021/02/26 12:07:59	45.2
27	2021/02/26 12:08:02	43.7
28	2021/02/26 12:08:05	44.9
29	2021/02/26 12:08:08	44.4
30	2021/02/26 12:08:11	43.0
31	2021/02/26 12:08:14	41.8
32	2021/02/26 12:08:17	42.6
33	2021/02/26 12:08:20	43.9
34	2021/02/26 12:08:23	43.9
35	2021/02/26 12:08:26	44.0
36	2021/02/26 12:08:29	46.2
37	2021/02/26 12:08:32	46.9
38	2021/02/26 12:08:35	49.8
39	2021/02/26 12:08:38	46.5
40	2021/02/26 12:08:41	43.7
41	2021/02/26 12:08:44	44.0
42	2021/02/26 12:08:47	42.8
43	2021/02/26 12:08:50	42.2
44	2021/02/26 12:08:53	43.6
45	2021/02/26 12:08:56	44.2
46	2021/02/26 12:08:59	43.4
47	2021/02/26 12:09:02	45.9
48	2021/02/26 12:09:05	50.3
49	2021/02/26 12:09:08	47.8
50	2021/02/26 12:09:11	49.7
51	2021/02/26 12:09:14	56.3
52	2021/02/26 12:09:17	58.4
53	2021/02/26 12:09:20	60.6
54	2021/02/26 12:09:23	62.0
55	2021/02/26 12:09:26	60.4
56	2021/02/26 12:09:29	62.3
57	2021/02/26 12:09:32	58.1
58	2021/02/26 12:09:35	56.4
59	2021/02/26 12:09:38	55.7
60	2021/02/26 12:09:41	50.3
61	2021/02/26 12:09:44	49.0
62	2021/02/26 12:09:47	48.1
63	2021/02/26 12:09:50	48.3
64	2021/02/26 12:09:53	47.1
65	2021/02/26 12:09:56	45.2
66	2021/02/26 12:09:59	46.2
67	2021/02/26 12:10:02	44.2
68	2021/02/26 12:10:05	44.1
69	2021/02/26 12:10:08	46.6
70	2021/02/26 12:10:11	43.0
71	2021/02/26 12:10:14	43.9
72	2021/02/26 12:10:17	41.6
73	2021/02/26 12:10:20	41.1
74	2021/02/26 12:10:23	40.2
75	2021/02/26 12:10:26	40.5
76	2021/02/26 12:10:29	39.5
77	2021/02/26 12:10:32	40.4
78	2021/02/26 12:10:35	40.0
79	2021/02/26 12:10:38	48.5
80	2021/02/26 12:10:41	42.9
81	2021/02/26 12:10:44	43.6
82	2021/02/26 12:10:47	41.4
83	2021/02/26 12:10:50	41.0
84	2021/02/26 12:10:53	46.2

85	2021/02/26	12:10:56	53.1
86	2021/02/26	12:10:59	59.2
87	2021/02/26	12:11:02	51.1
88	2021/02/26	12:11:05	44.0
89	2021/02/26	12:11:08	45.9
90	2021/02/26	12:11:11	43.3
91	2021/02/26	12:11:14	43.6
92	2021/02/26	12:11:17	43.3
93	2021/02/26	12:11:20	41.1
94	2021/02/26	12:11:23	40.6
95	2021/02/26	12:11:26	40.3
96	2021/02/26	12:11:29	42.3
97	2021/02/26	12:11:32	39.8
98	2021/02/26	12:11:35	40.8
99	2021/02/26	12:11:38	42.0
100	2021/02/26	12:11:41	40.6
101	2021/02/26	12:11:44	41.2
102	2021/02/26	12:11:47	39.6
103	2021/02/26	12:11:50	40.4
104	2021/02/26	12:11:53	40.6
105	2021/02/26	12:11:56	39.9
106	2021/02/26	12:11:59	40.3
107	2021/02/26	12:12:02	40.9
108	2021/02/26	12:12:05	42.4
109	2021/02/26	12:12:08	42.3
110	2021/02/26	12:12:11	43.1
111	2021/02/26	12:12:14	41.8
112	2021/02/26	12:12:17	43.1
113	2021/02/26	12:12:20	41.8
114	2021/02/26	12:12:23	41.5
115	2021/02/26	12:12:26	42.4
116	2021/02/26	12:12:29	43.1
117	2021/02/26	12:12:32	41.4
118	2021/02/26	12:12:35	42.0
119	2021/02/26	12:12:38	41.5
120	2021/02/26	12:12:41	44.5
121	2021/02/26	12:12:44	44.2
122	2021/02/26	12:12:47	45.9
123	2021/02/26	12:12:50	44.0
124	2021/02/26	12:12:53	43.6
125	2021/02/26	12:12:56	43.5
126	2021/02/26	12:12:59	48.4
127	2021/02/26	12:13:02	47.2
128	2021/02/26	12:13:05	45.5
129	2021/02/26	12:13:08	45.7
130	2021/02/26	12:13:11	47.8
131	2021/02/26	12:13:14	52.6
132	2021/02/26	12:13:17	51.6
133	2021/02/26	12:13:20	53.7
134	2021/02/26	12:13:23	55.9
135	2021/02/26	12:13:26	52.5
136	2021/02/26	12:13:29	52.8
137	2021/02/26	12:13:32	59.0
138	2021/02/26	12:13:35	55.0
139	2021/02/26	12:13:38	54.7
140	2021/02/26	12:13:41	49.2
141	2021/02/26	12:13:44	47.2
142	2021/02/26	12:13:47	51.1
143	2021/02/26	12:13:50	47.4
144	2021/02/26	12:13:53	47.0
145	2021/02/26	12:13:56	47.4
146	2021/02/26	12:13:59	47.6
147	2021/02/26	12:14:02	47.5
148	2021/02/26	12:14:05	54.1
149	2021/02/26	12:14:08	68.2
150	2021/02/26	12:14:11	62.4
151	2021/02/26	12:14:14	70.2
152	2021/02/26	12:14:17	67.7
153	2021/02/26	12:14:20	58.2
154	2021/02/26	12:14:23	58.0
155	2021/02/26	12:14:26	64.6
156	2021/02/26	12:14:29	58.3
157	2021/02/26	12:14:32	50.0
158	2021/02/26	12:14:35	49.2
159	2021/02/26	12:14:38	44.3
160	2021/02/26	12:14:41	43.2
161	2021/02/26	12:14:44	41.0
162	2021/02/26	12:14:47	39.9
163	2021/02/26	12:14:50	40.0
164	2021/02/26	12:14:53	39.1
165	2021/02/26	12:14:56	39.3
166	2021/02/26	12:14:59	40.6
167	2021/02/26	12:15:02	39.7
168	2021/02/26	12:15:05	40.5
169	2021/02/26	12:15:08	40.8
170	2021/02/26	12:15:11	40.6
171	2021/02/26	12:15:14	40.8
172	2021/02/26	12:15:17	40.4
173	2021/02/26	12:15:20	44.5
174	2021/02/26	12:15:23	52.8
175	2021/02/26	12:15:26	62.8
176	2021/02/26	12:15:29	52.2
177	2021/02/26	12:15:32	43.3
178	2021/02/26	12:15:35	43.3
179	2021/02/26	12:15:38	42.4
180	2021/02/26	12:15:41	40.3
181	2021/02/26	12:15:44	42.0
182	2021/02/26	12:15:47	42.3

183	2021/02/26	12:15:50	42.4
184	2021/02/26	12:15:53	44.5
185	2021/02/26	12:15:56	42.3
186	2021/02/26	12:15:59	40.5
187	2021/02/26	12:16:02	43.6
188	2021/02/26	12:16:05	41.4
189	2021/02/26	12:16:08	39.5
190	2021/02/26	12:16:11	41.3
191	2021/02/26	12:16:14	40.1
192	2021/02/26	12:16:17	39.4
193	2021/02/26	12:16:20	40.5
194	2021/02/26	12:16:23	40.7
195	2021/02/26	12:16:26	41.7
196	2021/02/26	12:16:29	40.9
197	2021/02/26	12:16:32	41.5
198	2021/02/26	12:16:35	41.2
199	2021/02/26	12:16:38	40.0
200	2021/02/26	12:16:41	40.3
201	2021/02/26	12:16:44	39.9
202	2021/02/26	12:16:47	40.0
203	2021/02/26	12:16:50	39.6
204	2021/02/26	12:16:53	39.8
205	2021/02/26	12:16:56	40.2
206	2021/02/26	12:16:59	40.3
207	2021/02/26	12:17:02	40.2
208	2021/02/26	12:17:05	40.2
209	2021/02/26	12:17:08	40.3
210	2021/02/26	12:17:11	40.0
211	2021/02/26	12:17:14	39.8
212	2021/02/26	12:17:17	39.9
213	2021/02/26	12:17:20	39.9
214	2021/02/26	12:17:23	46.5
215	2021/02/26	12:17:26	50.6
216	2021/02/26	12:17:29	45.3
217	2021/02/26	12:17:32	48.8
218	2021/02/26	12:17:35	47.6
219	2021/02/26	12:17:38	50.4
220	2021/02/26	12:17:41	44.1
221	2021/02/26	12:17:44	48.5
222	2021/02/26	12:17:47	52.0
223	2021/02/26	12:17:50	60.8
224	2021/02/26	12:17:53	50.6
225	2021/02/26	12:17:56	49.0
226	2021/02/26	12:17:59	45.7
227	2021/02/26	12:18:02	46.9
228	2021/02/26	12:18:05	49.3
229	2021/02/26	12:18:08	49.6
230	2021/02/26	12:18:11	43.2
231	2021/02/26	12:18:14	41.9
232	2021/02/26	12:18:17	42.3
233	2021/02/26	12:18:20	44.5
234	2021/02/26	12:18:23	43.7
235	2021/02/26	12:18:26	42.7
236	2021/02/26	12:18:29	42.2
237	2021/02/26	12:18:32	43.4
238	2021/02/26	12:18:35	42.7
239	2021/02/26	12:18:38	41.8
240	2021/02/26	12:18:41	49.5
241	2021/02/26	12:18:44	46.1
242	2021/02/26	12:18:47	43.1
243	2021/02/26	12:18:50	41.5
244	2021/02/26	12:18:53	41.7
245	2021/02/26	12:18:56	43.8
246	2021/02/26	12:18:59	45.2
247	2021/02/26	12:19:02	42.7
248	2021/02/26	12:19:05	47.6
249	2021/02/26	12:19:08	48.2
250	2021/02/26	12:19:11	44.8
251	2021/02/26	12:19:14	49.3
252	2021/02/26	12:19:17	45.6
253	2021/02/26	12:19:20	48.3
254	2021/02/26	12:19:23	45.6
255	2021/02/26	12:19:26	42.5
256	2021/02/26	12:19:29	42.1
257	2021/02/26	12:19:32	42.6
258	2021/02/26	12:19:35	45.5
259	2021/02/26	12:19:38	42.4
260	2021/02/26	12:19:41	43.3
261	2021/02/26	12:19:44	43.6
262	2021/02/26	12:19:47	45.1
263	2021/02/26	12:19:50	47.4
264	2021/02/26	12:19:53	46.7
265	2021/02/26	12:19:56	42.8
266	2021/02/26	12:19:59	42.1
267	2021/02/26	12:20:02	46.2
268	2021/02/26	12:20:05	50.1
269	2021/02/26	12:20:08	50.5
270	2021/02/26	12:20:11	48.6
271	2021/02/26	12:20:14	48.0
272	2021/02/26	12:20:17	49.9
273	2021/02/26	12:20:20	48.4
274	2021/02/26	12:20:23	47.3
275	2021/02/26	12:20:26	55.4
276	2021/02/26	12:20:29	59.2
277	2021/02/26	12:20:32	62.7
278	2021/02/26	12:20:35	54.7
279	2021/02/26	12:20:38	53.0
280	2021/02/26	12:20:41	48.0

281	2021/02/26	12:20:44	46.8
282	2021/02/26	12:20:47	49.5
283	2021/02/26	12:20:50	46.9
284	2021/02/26	12:20:53	47.5
285	2021/02/26	12:20:56	53.2
286	2021/02/26	12:20:59	48.3
287	2021/02/26	12:21:02	46.7
288	2021/02/26	12:21:05	45.6
289	2021/02/26	12:21:08	44.3
290	2021/02/26	12:21:11	45.6
291	2021/02/26	12:21:14	45.5
292	2021/02/26	12:21:17	47.9
293	2021/02/26	12:21:20	53.7
294	2021/02/26	12:21:23	59.4
295	2021/02/26	12:21:26	63.6
296	2021/02/26	12:21:29	71.1
297	2021/02/26	12:21:32	77.7
298	2021/02/26	12:21:35	68.3
299	2021/02/26	12:21:38	65.6
300	2021/02/26	12:21:41	64.4

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - architectural coating

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	71.6	67.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**** Receptor #2 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	150.0	0.0

Results

Noise Limits (dBA) Noise Limit Exceedance (dBA)

	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	68.1	64.1	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	68.1	64.1	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 #3 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	400.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	59.6	55.6	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	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/18/2021
Case Description: BART Stations project - building construction with augur drilling

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Auger Drill Rig	No	20		84.4	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Tractor	No	40	84.0		100.0	0.0
Crane	No	16		80.6	100.0	0.0
All Other Equipment > 5 HP	No	50	85.0		100.0	0.0
All Other Equipment > 5 HP	No	50	85.0		100.0	0.0
All Other Equipment > 5 HP	No	50	85.0		100.0	0.0
Generator	No	50		80.6	100.0	0.0
Welder / Torch	No	40		74.0	100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig	78.3	71.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	74.5	66.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

All Other Equipment > 5 HP 79.0 76.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Generator 74.6 71.6 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Welder / Torch 68.0 64.0 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 79.0 82.8 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 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Auger Drill Rig	No	20		84.4	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Backhoe	No	40		77.6	150.0	0.0
Tractor	No	40	84.0		150.0	0.0
Crane	No	16		80.6	150.0	0.0
All Other Equipment > 5 HP	No	50	85.0		150.0	0.0
All Other Equipment > 5 HP	No	50	85.0		150.0	0.0
All Other Equipment > 5 HP	No	50	85.0		150.0	0.0
Generator	No	50		80.6	150.0	0.0
Welder / Torch	No	40		74.0	150.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig	74.8	67.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	74.5	70.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	71.0	63.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	75.5	72.4	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 N/A N/A
All Other Equipment > 5 HP 75.5 72.4 N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A
All Other Equipment > 5 HP 75.5 72.4 N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A N/A N/A
Generator 71.1 68.1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A
Welder / Torch 64.5 60.5 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 75.5 79.3 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 #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Auger Drill Rig	No	20		84.4	400.0	0.0
Front End Loader	No	40		79.1	400.0	0.0
Backhoe	No	40		77.6	400.0	0.0
Tractor	No	40	84.0		400.0	0.0
Crane	No	16		80.6	400.0	0.0
All Other Equipment > 5 HP	No	50	85.0		400.0	0.0
All Other Equipment > 5 HP	No	50	85.0		400.0	0.0
All Other Equipment > 5 HP	No	50	85.0		400.0	0.0
Generator	No	50		80.6	400.0	0.0
Welder / Torch	No	40		74.0	400.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Auger Drill Rig	66.3	59.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.0	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.9	62.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Crane	62.5	54.5	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
All Other Equipment > 5 HP	66.9	63.9	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
All Other Equipment > 5 HP	66.9	63.9	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
All Other Equipment > 5 HP	66.9	63.9	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
Generator	62.6	59.6	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
Welder / Torch	55.9	52.0	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	66.9	70.8	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

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - demolition

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	83.6	76.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.6	80.4	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 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night

Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20	89.6	150.0		0.0
Excavator	No	40	80.7	150.0		0.0
Excavator	No	40	80.7	150.0		0.0
Excavator	No	40	80.7	150.0		0.0
Dozer	No	40	81.7	150.0		0.0
Dozer	No	40	81.7	150.0		0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)			
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.1	68.1	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	80.0	76.9	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 #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20	89.6	400.0		0.0

Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Excavator	No	40	80.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0
Dozer	No	40	81.7	400.0	0.0

Results

			Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	71.5	64.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	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	71.5	68.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	100.0	0.0
Excavator	No	40		80.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Grader	No	40	85.0		100.0	0.0
Scraper	No	40		83.6	100.0	0.0
Scraper	No	40		83.6	100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	79.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	77.6	73.6	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	79.0	81.1	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 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	150.0	0.0
Excavator	No	40		80.7	150.0	0.0
Dozer	No	40		81.7	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Backhoe	No	40		77.6	150.0	0.0
Grader	No	40	85.0		150.0	0.0
Scraper	No	40		83.6	150.0	0.0
Scraper	No	40		83.6	150.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.2	67.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	75.5	71.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	74.0	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	74.0	70.1	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	75.5	77.6	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 #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	400.0	0.0
Excavator	No	40		80.7	400.0	0.0
Dozer	No	40		81.7	400.0	0.0
Front End Loader	No	40		79.1	400.0	0.0
Backhoe	No	40		77.6	400.0	0.0
Grader	No	40	85.0		400.0	0.0
Scraper	No	40		83.6	400.0	0.0
Scraper	No	40		83.6	400.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Excavator	62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.6	58.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.0	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	66.9	63.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	65.5	61.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	65.5	61.5	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	66.9	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - paving

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	100.0	0.0	
Paver	No	50	77.2	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
Roller	No	20	80.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	100.0	0.0	

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	71.2	68.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	74.0	67.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	79.0	76.0	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	79.0	80.1	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 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	150.0	0.0
Paver	No	50		77.2	150.0	0.0
Roller	No	20		80.0	150.0	0.0
Roller	No	20		80.0	150.0	0.0
All Other Equipment > 5 HP	No	50		85.0	150.0	0.0
All Other Equipment > 5 HP	No	50		85.0	150.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	67.7	64.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	70.5	63.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	75.5	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	75.5	72.4	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	75.5	76.6	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 #3 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)

Paver	No	50	77.2	400.0	0.0	
Paver	No	50	77.2	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
Roller	No	20	80.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	
All Other Equipment > 5 HP	No	50	85.0	400.0	0.0	

Results

			Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	59.2	56.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	61.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	66.9	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	66.9	63.9	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	66.9	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 03/02/2021
Case Description: BART Stations project - site preparation

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Ed Roberts Campus	Commercial	67.0	62.0	57.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Dozer	No	40		81.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0
Backhoe	No	40		77.6	100.0	0.0
Tractor	No	40	84.0		100.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	71.5	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	78.0	74.0	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	78.0	79.6	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 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences on Tremont St.	Residential	62.0	57.0	52.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	150.0	0.0
Dozer	No	40		81.7	150.0	0.0
Dozer	No	40		81.7	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Front End Loader	No	40		79.1	150.0	0.0
Backhoe	No	40		77.6	150.0	0.0
Tractor	No	40	84.0		150.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.6	65.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	68.0	64.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	74.5	70.5	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	74.5	76.1	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 #3 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residences next to N Bkly BART	Residential	65.0	60.0	55.0

Equipment

Spec Actual Receptor Estimated

Description	Impact Device	Usage (%)	Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Dozer	No	40		81.7	400.0	0.0
Dozer	No	40		81.7	400.0	0.0
Dozer	No	40		81.7	400.0	0.0
Front End Loader	No	40		79.1	400.0	0.0
Front End Loader	No	40		79.1	400.0	0.0
Backhoe	No	40		77.6	400.0	0.0
Tractor	No	40	84.0		400.0	0.0

Results

	Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.6	59.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.0	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	61.0	57.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	65.9	62.0	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	65.9	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Validation of TNM for Proposed Project

To validate the traffic noise model in TNM Version 2.5, modeled existing noise levels during weekday afternoon peak hours at several receiver locations were compared with measured noise levels at those locations. Modeled noise levels on Delaware Street and Martin Luther King Jr. Way were based on observed traffic counts during 15-minute noise measurements (multiplied by four to produce hourly traffic volumes). Traffic volumes published by Caltrans and the City for other modeled roadways, including Adeline Street, Ashby Avenue, and Sacramento Street, were cut by 30 percent to account for temporarily reduced traffic levels during the COVID-19 pandemic. This reduction factor is consistent with data by the traffic analytics firm INRIX. Since June 2020, INRIX documented that vehicle miles traveled in the Bay Area has ranged from approximately 60 to 80 percent of normal levels (Savidge 2021).

A close correspondence between measured ambient noise levels and modeled traffic noise levels at a given location is expected when motor vehicles are the primary noise source during the on-site measurement. Table 1 compares measured and modeled noise levels.

Table 1 Comparison Between Measured Ambient Noise and Modeled Traffic Noise Levels

No.	Location[1]	Existing Noise Level (dBA L_{eq})		Difference in Noise Level (2 minus 1)
		Measured Ambient Noise (1)	Modeled Traffic Noise (2)	
1	Woolsey Street south of Ed Roberts Campus parking lot	53.3	55.9	+2.6
2	Tremont Street northeast of Ed Roberts Campus parking lot	61.8	59.8	-2.0
3	Martin Luther King Jr. Way west of Ashby BART Station parking lot	65.4	67.6	+2.2
4	Delaware Street south of North Berkeley BART Station	65.0	66.1	+1.1

[1] Noise measurement locations are shown in Figures 4.8-1 and 4.8-2 in the EIR.

Source: Field measurements using ANSI Type II Integrating sound level meter. TNM 2004. See Appendix E for model outputs.

As shown in Table 1, the difference between measured and modeled noise levels ranges from 1.1 to 2.6 dBA L_{eq} at noise measurement locations 1, 2, 3, and 4. This is a relatively close correspondence between measured and modeled noise. Although modeled noise levels are generally higher, this results in a more conservative traffic noise analysis because the FTA's criteria for increases in traffic noise are more stringent when existing traffic noise is louder. Therefore, this analysis relies on the noise model to estimate noise experienced by noise-sensitive receptors in the project vicinity.

Rincon Consultants
Jonathan Berlin

20 April 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BART Stations Rezone
RUN: Existing traffic noise (normal traffic vols)
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 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
Ashby Ave. residences west of MLK	6	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	5	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Rincon Consultants
Jonathan Berlin

10 March 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BART Stations Rezone
RUN: Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 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
NM 1	1	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0
NM 3	2	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
NM 4	3	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	3	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

Rincon Consultants
Jonathan Berlin

29 March 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BART Stations Rezone
RUN: Existing calibration
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 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
NM 1	1	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
NM 3	2	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
NM 4	3	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
NM 2	5	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	4	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

Rincon Consultants
Jonathan Berlin

20 April 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: BART Stations Rezone
RUN: With-project traffic noise
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 20 deg C, 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
Ashby Ave. residences west of MLK	6	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	8	-8.0
MLK Jr. Way residences	7	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
Ed Roberts Campus	8	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
Delaware St. residences	9	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
Sacramento St. residences	10	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	5	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HVAC noise from North Berkeley BART station site at nearest residences (40

Combined Noise Level (CNEL) from 86 HVAC units

	dB Valu	Conversion Value			
HVAC unit	34.9	3.09E+03	Sum =	54.2	without shielding effects
HVAC unit	34.9	3.09E+03		-5	shielding by rooflines
HVAC unit	34.9	3.09E+03		**49.2**	
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03		-9	shielding by mechanical screening
HVAC unit	34.9	3.09E+03		**40.2**	
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03			
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Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split syste
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,200 units at North Berkeley BART station
Approx. 84 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of roo
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft)

Combined Noise Level (CNEL) from 47 HVAC units

	dB Value	Conversion Value			
HVAC unit	40.9	1.23E+04	Sum =	57.6	without shielding effects
HVAC unit	40.9	1.23E+04		-5	shielding by rooflines
HVAC unit	40.9	1.23E+04		**52.6**	
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04		-9	shielding by mechanical screening
HVAC unit	40.9	1.23E+04		**43.6**	
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04			
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HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft)

Combined Noise Level (CNEL) from 47 HVAC units

	dB Value	Conversion Value			
HVAC unit	43.4	2.19E+04	Sum =	60.1	without shielding effects
HVAC unit	43.4	2.19E+04		-5	shielding by rooflines
HVAC unit	43.4	2.19E+04		**55.1**	
HVAC unit	43.4	2.19E+04			
HVAC unit	43.4	2.19E+04		-9	shielding by mechanical screening
HVAC unit	43.4	2.19E+04		**46.1**	
HVAC unit	43.4	2.19E+04			
HVAC unit	43.4	2.19E+04			
HVAC unit	43.4	2.19E+04			
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Source: Carrier 38AUZ/D 50 Hz Commercial
Split Systems Air Conditioning Condensing

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
600 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and heigh
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 79 HVAC units

	dB Value	Conversion Value			
HVAC unit	34.9	3.09E+03	Sum =	53.9	without shielding effects
HVAC unit	34.9	3.09E+03		-5	shielding by rooflines
HVAC unit	34.9	3.09E+03		**48.9**	
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03		-9	shielding by mechanical screening
HVAC unit	34.9	3.09E+03		**39.9**	
HVAC unit	34.9	3.09E+03			
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Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split sys
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,125 units at North Berkeley BART station
Approx. 79 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of r
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shieldi
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

	dB Value	Conversion Value			
HVAC unit	40.9	1.23E+04	Sum =	57.3	without shielding effects
HVAC unit	40.9	1.23E+04		-5	shielding by rooflines
HVAC unit	40.9	1.23E+04		**52.3**	
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04		-9	shielding by mechanical screening
HVAC unit	40.9	1.23E+04		**43.3**	
HVAC unit	40.9	1.23E+04			
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HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04			
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HVAC unit	40.9	1.23E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 563 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 47 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under BART Patron Parking Alternative

Combined Noise Level (CNEL) from 44 HVAC units

	dB Value	Conversion Value			
HVAC unit	43.4	2.19E+04	Sum =	59.8	without shielding effects
HVAC unit	43.4	2.19E+04		-5	shielding by rooflines
HVAC unit	43.4	2.19E+04		**54.8**	
HVAC unit	43.4	2.19E+04			
HVAC unit	43.4	2.19E+04		-9	shielding by mechanical screening
HVAC unit	43.4	2.19E+04		**45.8**	
HVAC unit	43.4	2.19E+04			
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HVAC unit	43.4	2.19E+04
HVAC unit	43.4	2.19E+04

Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air Conditioning

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 563 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 44 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from North Berkeley BART station site at nearest residences (400 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 126 HVAC units

	dB Value	Conversion Value			
HVAC unit	34.9	3.09E+03	Sum =	55.9	without shielding effects
HVAC unit	34.9	3.09E+03		-5	shielding by rooflines
HVAC unit	34.9	3.09E+03		**50.9**	
HVAC unit	34.9	3.09E+03			
HVAC unit	34.9	3.09E+03		-9	shielding by mechanical screening
HVAC unit	34.9	3.09E+03		**41.9**	
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Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split syster
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
1,800 units at North Berkeley BART station
Approx. 126 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site at least 400 feet from residences, accounting for horizontal distance and height of roofl
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at nearest residences (200 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

	dB Value	Conversion Value			
HVAC unit	40.9	1.23E+04	Sum =	58.9	without shielding effects
HVAC unit	40.9	1.23E+04		-5	shielding by rooflines
HVAC unit	40.9	1.23E+04		**53.9**	
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04		-9	shielding by mechanical screening
HVAC unit	40.9	1.23E+04		**44.9**	
HVAC unit	40.9	1.23E+04			
HVAC unit	40.9	1.23E+04			
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Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 900 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 63 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 200 feet from residences, accounting for horizontal distance and height of rooftop
Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night

HVAC noise from Ashby BART station site at Ed Roberts Campus (150 ft) under Increased Housing Alternative

Combined Noise Level (CNEL) from 63 HVAC units

	dB Value	Conversion Value			
HVAC unit	43.4	2.19E+04	Sum =	61.4	without shielding effects
HVAC unit	43.4	2.19E+04		-5	shielding by rooflines
HVAC unit	43.4	2.19E+04		**56.4**	
HVAC unit	43.4	2.19E+04			
HVAC unit	43.4	2.19E+04		-9	shielding by mechanical screening
HVAC unit	43.4	2.19E+04		**47.4**	
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Source: Carrier 38AUZ/D 50 Hz
Commercial Split Systems Air

Assumptions:
Typical HVAC unit for large multi-family or commercial project: 16.7-ton Carrier 38AUD25 split system condenser
1 ton of HVAC equipment needed per 600 SF of floor area
700 SF per residential unit
Approx. 900 units per parcel at Ashby BART station
50,000 sf of non-residential space per parcel
Approx. 63 16.7-ton HVAC units needed for project
Combined noise is equivalent to all units being at center of site
Center of site is 150 feet away from Ed Roberts Campus, accounting for horizontal distance and height of rooftop

Sound power level = 85 dB, equivalent to sound pressure level of 70 dBA at 7 feet, without shielding
Rooflines reduce noise by 5 dBA and equipment enclosures by at least 9 dBA
All HVAC units operate continuously, day and night