

Appendix C

Noise Measurement Results and HUD DNL Calculations

Freq Weight : A
Time Weight : FAST
Level Range : 40-100
Max dB : 88.6 - 2016/08/18 16:23:45
Level Range : 40-100
SEL : 102.5
Leq : 73.0

No. s	Date Time	(dB)
1	2016/08/18 16:22:20	67.2
2	2016/08/18 16:22:23	73.9
3	2016/08/18 16:22:26	74.3
4	2016/08/18 16:22:29	71.4
5	2016/08/18 16:22:32	73.3
6	2016/08/18 16:22:35	70.2
7	2016/08/18 16:22:38	76.8
8	2016/08/18 16:22:41	80.2
9	2016/08/18 16:22:44	77.1
10	2016/08/18 16:22:47	76.2
11	2016/08/18 16:22:50	81.1
12	2016/08/18 16:22:53	77.0
13	2016/08/18 16:22:56	73.1
14	2016/08/18 16:22:59	72.3
15	2016/08/18 16:23:02	71.8
16	2016/08/18 16:23:05	69.7
17	2016/08/18 16:23:08	69.3
18	2016/08/18 16:23:11	68.4
19	2016/08/18 16:23:14	74.8
20	2016/08/18 16:23:17	71.2
21	2016/08/18 16:23:20	75.8
22	2016/08/18 16:23:23	68.7
23	2016/08/18 16:23:26	70.0
24	2016/08/18 16:23:29	67.6
25	2016/08/18 16:23:32	69.0
26	2016/08/18 16:23:35	79.3
27	2016/08/18 16:23:38	81.3
28	2016/08/18 16:23:41	85.1
29	2016/08/18 16:23:44	78.1
30	2016/08/18 16:23:47	74.8
31	2016/08/18 16:23:50	73.2
32	2016/08/18 16:23:53	72.7
33	2016/08/18 16:23:56	74.2
34	2016/08/18 16:23:59	71.0
35	2016/08/18 16:24:02	75.0
36	2016/08/18 16:24:05	72.6
37	2016/08/18 16:24:08	71.9
38	2016/08/18 16:24:11	73.5
39	2016/08/18 16:24:14	69.1
40	2016/08/18 16:24:17	70.8
41	2016/08/18 16:24:20	65.1
42	2016/08/18 16:24:23	64.8
43	2016/08/18 16:24:26	69.4
44	2016/08/18 16:24:29	64.7
45	2016/08/18 16:24:32	69.1
46	2016/08/18 16:24:35	76.1
47	2016/08/18 16:24:38	77.4
48	2016/08/18 16:24:41	73.9
49	2016/08/18 16:24:44	77.5
50	2016/08/18 16:24:47	74.4
51	2016/08/18 16:24:50	70.2
52	2016/08/18 16:24:53	66.4
53	2016/08/18 16:24:56	74.0
54	2016/08/18 16:24:59	73.9
55	2016/08/18 16:25:02	74.9
56	2016/08/18 16:25:05	74.4
57	2016/08/18 16:25:08	73.7
58	2016/08/18 16:25:11	77.0
59	2016/08/18 16:25:14	73.2
60	2016/08/18 16:25:17	70.3
61	2016/08/18 16:25:20	67.8
62	2016/08/18 16:25:23	71.7
63	2016/08/18 16:25:26	78.7
64	2016/08/18 16:25:29	68.1
65	2016/08/18 16:25:32	71.3
66	2016/08/18 16:25:35	70.7
67	2016/08/18 16:25:38	74.6
68	2016/08/18 16:25:41	69.8
69	2016/08/18 16:25:44	70.7
70	2016/08/18 16:25:47	63.9
71	2016/08/18 16:25:50	67.7
72	2016/08/18 16:25:53	67.2
73	2016/08/18 16:25:56	74.2
74	2016/08/18 16:25:59	73.0
75	2016/08/18 16:26:02	66.0
76	2016/08/18 16:26:05	74.0
77	2016/08/18 16:26:08	65.3
78	2016/08/18 16:26:11	64.2
79	2016/08/18 16:26:14	71.9
80	2016/08/18 16:26:17	78.2
81	2016/08/18 16:26:20	76.3
82	2016/08/18 16:26:23	65.9
83	2016/08/18 16:26:26	64.9
84	2016/08/18 16:26:29	70.2
85	2016/08/18 16:26:32	69.6

86	2016/08/18	16:26:35	72.3
87	2016/08/18	16:26:38	78.0
88	2016/08/18	16:26:41	79.7
89	2016/08/18	16:26:44	76.8
90	2016/08/18	16:26:47	72.8
91	2016/08/18	16:26:50	74.5
92	2016/08/18	16:26:53	74.3
93	2016/08/18	16:26:56	77.6
94	2016/08/18	16:26:59	77.7
95	2016/08/18	16:27:02	75.6
96	2016/08/18	16:27:05	66.0
97	2016/08/18	16:27:08	75.2
98	2016/08/18	16:27:11	73.9
99	2016/08/18	16:27:14	76.7
100	2016/08/18	16:27:17	76.8
101	2016/08/18	16:27:20	78.5
102	2016/08/18	16:27:23	75.4
103	2016/08/18	16:27:26	77.6
104	2016/08/18	16:27:29	76.0
105	2016/08/18	16:27:32	72.8
106	2016/08/18	16:27:35	70.9
107	2016/08/18	16:27:38	64.9
108	2016/08/18	16:27:41	65.6
109	2016/08/18	16:27:44	63.8
110	2016/08/18	16:27:47	67.7
111	2016/08/18	16:27:50	65.7
112	2016/08/18	16:27:53	64.3
113	2016/08/18	16:27:56	64.4
114	2016/08/18	16:27:59	63.2
115	2016/08/18	16:28:02	64.8
116	2016/08/18	16:28:05	66.2
117	2016/08/18	16:28:08	70.2
118	2016/08/18	16:28:11	74.7
119	2016/08/18	16:28:14	75.0
120	2016/08/18	16:28:17	72.7
121	2016/08/18	16:28:20	69.3
122	2016/08/18	16:28:23	67.2
123	2016/08/18	16:28:26	72.7
124	2016/08/18	16:28:29	69.7
125	2016/08/18	16:28:32	76.4
126	2016/08/18	16:28:35	75.4
127	2016/08/18	16:28:38	74.9
128	2016/08/18	16:28:41	76.8
129	2016/08/18	16:28:44	76.3
130	2016/08/18	16:28:47	76.3
131	2016/08/18	16:28:50	74.5
132	2016/08/18	16:28:53	75.3
133	2016/08/18	16:28:56	76.3
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137	2016/08/18	16:29:08	72.9
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140	2016/08/18	16:29:17	73.1
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143	2016/08/18	16:29:26	77.7
144	2016/08/18	16:29:29	74.8
145	2016/08/18	16:29:32	74.0
146	2016/08/18	16:29:35	75.9
147	2016/08/18	16:29:38	73.9
148	2016/08/18	16:29:41	70.1
149	2016/08/18	16:29:44	77.2
150	2016/08/18	16:29:47	67.0
151	2016/08/18	16:29:50	70.4
152	2016/08/18	16:29:53	69.3
153	2016/08/18	16:29:56	75.1
154	2016/08/18	16:29:59	70.3
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157	2016/08/18	16:30:08	66.2
158	2016/08/18	16:30:11	66.7
159	2016/08/18	16:30:14	73.6
160	2016/08/18	16:30:17	69.5
161	2016/08/18	16:30:20	70.4
162	2016/08/18	16:30:23	66.9
163	2016/08/18	16:30:26	66.1
164	2016/08/18	16:30:29	64.5
165	2016/08/18	16:30:32	65.9
166	2016/08/18	16:30:35	79.5
167	2016/08/18	16:30:38	72.0
168	2016/08/18	16:30:41	79.3
169	2016/08/18	16:30:44	75.4
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171	2016/08/18	16:30:50	67.1
172	2016/08/18	16:30:53	74.3
173	2016/08/18	16:30:56	75.2
174	2016/08/18	16:30:59	78.2
175	2016/08/18	16:31:02	80.9
176	2016/08/18	16:31:05	69.1
177	2016/08/18	16:31:08	70.9
178	2016/08/18	16:31:11	65.9
179	2016/08/18	16:31:14	64.5
180	2016/08/18	16:31:17	69.7
181	2016/08/18	16:31:20	67.8
182	2016/08/18	16:31:23	72.4
183	2016/08/18	16:31:26	69.0
184	2016/08/18	16:31:29	64.5

185	2016/08/18	16:31:32	61.6
186	2016/08/18	16:31:35	63.3
187	2016/08/18	16:31:38	74.1
188	2016/08/18	16:31:41	63.2
189	2016/08/18	16:31:44	62.5
190	2016/08/18	16:31:47	71.8
191	2016/08/18	16:31:50	74.6
192	2016/08/18	16:31:53	73.8
193	2016/08/18	16:31:56	71.6
194	2016/08/18	16:31:59	70.3
195	2016/08/18	16:32:02	73.5
196	2016/08/18	16:32:05	66.4
197	2016/08/18	16:32:08	64.7
198	2016/08/18	16:32:11	62.4
199	2016/08/18	16:32:14	63.4
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202	2016/08/18	16:32:23	72.1
203	2016/08/18	16:32:26	72.7
204	2016/08/18	16:32:29	72.3
205	2016/08/18	16:32:32	79.4
206	2016/08/18	16:32:35	77.6
207	2016/08/18	16:32:38	78.2
208	2016/08/18	16:32:41	77.3
209	2016/08/18	16:32:44	73.5
210	2016/08/18	16:32:47	79.8
211	2016/08/18	16:32:50	80.0
212	2016/08/18	16:32:53	75.3
213	2016/08/18	16:32:56	80.8
214	2016/08/18	16:32:59	72.2
215	2016/08/18	16:33:02	69.9
216	2016/08/18	16:33:05	81.1
217	2016/08/18	16:33:08	68.4
218	2016/08/18	16:33:11	64.7
219	2016/08/18	16:33:14	71.8
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221	2016/08/18	16:33:20	72.3
222	2016/08/18	16:33:23	70.3
223	2016/08/18	16:33:26	73.3
224	2016/08/18	16:33:29	73.5
225	2016/08/18	16:33:32	72.6
226	2016/08/18	16:33:35	76.9
227	2016/08/18	16:33:38	72.3
228	2016/08/18	16:33:41	72.3
229	2016/08/18	16:33:44	74.3
230	2016/08/18	16:33:47	67.2
231	2016/08/18	16:33:50	72.6
232	2016/08/18	16:33:53	73.9
233	2016/08/18	16:33:56	73.1
234	2016/08/18	16:33:59	66.8
235	2016/08/18	16:34:02	71.6
236	2016/08/18	16:34:05	64.8
237	2016/08/18	16:34:08	61.7
238	2016/08/18	16:34:11	63.5
239	2016/08/18	16:34:14	73.6
240	2016/08/18	16:34:17	66.7
241	2016/08/18	16:34:20	61.8
242	2016/08/18	16:34:23	61.6
243	2016/08/18	16:34:26	61.1
244	2016/08/18	16:34:29	74.2
245	2016/08/18	16:34:32	66.4
246	2016/08/18	16:34:35	62.9
247	2016/08/18	16:34:38	63.6
248	2016/08/18	16:34:41	62.4
249	2016/08/18	16:34:44	62.7
250	2016/08/18	16:34:47	67.5
251	2016/08/18	16:34:50	70.8
252	2016/08/18	16:34:53	64.5
253	2016/08/18	16:34:56	69.4
254	2016/08/18	16:34:59	78.6
255	2016/08/18	16:35:02	76.9
256	2016/08/18	16:35:05	79.3
257	2016/08/18	16:35:08	76.1
258	2016/08/18	16:35:11	76.5
259	2016/08/18	16:35:14	77.2
260	2016/08/18	16:35:17	73.8
261	2016/08/18	16:35:20	72.4
262	2016/08/18	16:35:23	73.5
263	2016/08/18	16:35:26	71.7
264	2016/08/18	16:35:29	76.0
265	2016/08/18	16:35:32	78.8
266	2016/08/18	16:35:35	73.6
267	2016/08/18	16:35:38	66.0
268	2016/08/18	16:35:41	75.4
269	2016/08/18	16:35:44	73.6
270	2016/08/18	16:35:47	72.7
271	2016/08/18	16:35:50	70.6
272	2016/08/18	16:35:53	78.2
273	2016/08/18	16:35:56	69.8
274	2016/08/18	16:35:59	67.3
275	2016/08/18	16:36:02	72.9
276	2016/08/18	16:36:05	68.4
277	2016/08/18	16:36:08	69.6
278	2016/08/18	16:36:11	71.6
279	2016/08/18	16:36:14	73.9
280	2016/08/18	16:36:17	75.8
281	2016/08/18	16:36:20	75.1
282	2016/08/18	16:36:23	74.9
283	2016/08/18	16:36:26	74.4

284	2016/08/18	16:36:29	72.6
285	2016/08/18	16:36:32	73.1
286	2016/08/18	16:36:35	74.6
287	2016/08/18	16:36:38	67.4
288	2016/08/18	16:36:41	72.7
289	2016/08/18	16:36:44	70.2
290	2016/08/18	16:36:47	71.6
291	2016/08/18	16:36:50	67.2
292	2016/08/18	16:36:53	65.0
293	2016/08/18	16:36:56	72.9
294	2016/08/18	16:36:59	66.1
295	2016/08/18	16:37:02	65.3
296	2016/08/18	16:37:05	74.4
297	2016/08/18	16:37:08	66.2
298	2016/08/18	16:37:11	70.2
299	2016/08/18	16:37:14	66.4
300	2016/08/18	16:37:17	66.3

Freq Weight : A
Time Weight : FAST
Level Range : 40-100
Max dB : 91.2 - 2016/08/18 17: 29: 26
Level Range : 40-100
SEL : 99.5
Leq : 70.0

No. s	Date Time	(dB)
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3	2016/08/18 17: 14: 34	66.7
4	2016/08/18 17: 14: 37	61.9
5	2016/08/18 17: 14: 40	61.0
6	2016/08/18 17: 14: 43	65.5
7	2016/08/18 17: 14: 46	63.1
8	2016/08/18 17: 14: 49	62.8
9	2016/08/18 17: 14: 52	63.2
10	2016/08/18 17: 14: 55	64.0
11	2016/08/18 17: 14: 58	64.1
12	2016/08/18 17: 15: 01	66.7
13	2016/08/18 17: 15: 04	68.8
14	2016/08/18 17: 15: 07	69.4
15	2016/08/18 17: 15: 10	66.5
16	2016/08/18 17: 15: 13	64.4
17	2016/08/18 17: 15: 16	60.9
18	2016/08/18 17: 15: 19	62.7
19	2016/08/18 17: 15: 22	62.3
20	2016/08/18 17: 15: 25	64.5
21	2016/08/18 17: 15: 28	65.6
22	2016/08/18 17: 15: 31	73.8
23	2016/08/18 17: 15: 34	70.9
24	2016/08/18 17: 15: 37	70.1
25	2016/08/18 17: 15: 40	70.7
26	2016/08/18 17: 15: 43	74.9
27	2016/08/18 17: 15: 46	68.3
28	2016/08/18 17: 15: 49	71.7
29	2016/08/18 17: 15: 52	77.4
30	2016/08/18 17: 15: 55	78.1
31	2016/08/18 17: 15: 58	74.4
32	2016/08/18 17: 16: 01	71.0
33	2016/08/18 17: 16: 04	71.1
34	2016/08/18 17: 16: 07	74.2
35	2016/08/18 17: 16: 10	69.3
36	2016/08/18 17: 16: 13	66.2
37	2016/08/18 17: 16: 16	67.8
38	2016/08/18 17: 16: 19	68.0
39	2016/08/18 17: 16: 22	68.2
40	2016/08/18 17: 16: 25	67.4
41	2016/08/18 17: 16: 28	66.0
42	2016/08/18 17: 16: 31	66.8
43	2016/08/18 17: 16: 34	66.4
44	2016/08/18 17: 16: 37	64.0
45	2016/08/18 17: 16: 40	62.7
46	2016/08/18 17: 16: 43	60.2
47	2016/08/18 17: 16: 46	64.3
48	2016/08/18 17: 16: 49	62.2
49	2016/08/18 17: 16: 52	62.6
50	2016/08/18 17: 16: 55	60.5
51	2016/08/18 17: 16: 58	59.5
52	2016/08/18 17: 17: 01	58.2
53	2016/08/18 17: 17: 04	66.9
54	2016/08/18 17: 17: 07	65.1
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56	2016/08/18 17: 17: 13	60.5
57	2016/08/18 17: 17: 16	61.3
58	2016/08/18 17: 17: 19	61.8
59	2016/08/18 17: 17: 22	64.4
60	2016/08/18 17: 17: 25	65.5
61	2016/08/18 17: 17: 28	68.2
62	2016/08/18 17: 17: 31	68.4
63	2016/08/18 17: 17: 34	70.8
64	2016/08/18 17: 17: 37	68.8
65	2016/08/18 17: 17: 40	73.2
66	2016/08/18 17: 17: 43	75.6
67	2016/08/18 17: 17: 46	75.3
68	2016/08/18 17: 17: 49	72.2
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70	2016/08/18 17: 17: 55	75.1
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73	2016/08/18 17: 18: 04	71.8
74	2016/08/18 17: 18: 07	75.3
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76	2016/08/18 17: 18: 13	70.3
77	2016/08/18 17: 18: 16	72.4
78	2016/08/18 17: 18: 19	68.0
79	2016/08/18 17: 18: 22	70.1
80	2016/08/18 17: 18: 25	71.3
81	2016/08/18 17: 18: 28	69.3
82	2016/08/18 17: 18: 31	69.5
83	2016/08/18 17: 18: 34	62.1
84	2016/08/18 17: 18: 37	62.1
85	2016/08/18 17: 18: 40	61.7

86	2016/08/18	17:18:43	62.1
87	2016/08/18	17:18:46	71.3
88	2016/08/18	17:18:49	60.9
89	2016/08/18	17:18:52	69.7
90	2016/08/18	17:18:55	68.3
91	2016/08/18	17:18:58	66.5
92	2016/08/18	17:19:01	64.1
93	2016/08/18	17:19:04	66.2
94	2016/08/18	17:19:07	60.3
95	2016/08/18	17:19:10	63.6
96	2016/08/18	17:19:13	66.6
97	2016/08/18	17:19:16	60.1
98	2016/08/18	17:19:19	62.0
99	2016/08/18	17:19:22	58.7
100	2016/08/18	17:19:25	63.6
101	2016/08/18	17:19:28	65.9
102	2016/08/18	17:19:31	68.3
103	2016/08/18	17:19:34	68.7
104	2016/08/18	17:19:37	71.9
105	2016/08/18	17:19:40	74.7
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110	2016/08/18	17:19:55	73.4
111	2016/08/18	17:19:58	72.9
112	2016/08/18	17:20:01	77.0
113	2016/08/18	17:20:04	74.4
114	2016/08/18	17:20:07	75.2
115	2016/08/18	17:20:10	74.9
116	2016/08/18	17:20:13	71.8
117	2016/08/18	17:20:16	67.5
118	2016/08/18	17:20:19	65.2
119	2016/08/18	17:20:22	67.2
120	2016/08/18	17:20:25	65.0
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122	2016/08/18	17:20:31	61.6
123	2016/08/18	17:20:34	60.7
124	2016/08/18	17:20:37	69.6
125	2016/08/18	17:20:40	65.0
126	2016/08/18	17:20:43	66.8
127	2016/08/18	17:20:46	60.5
128	2016/08/18	17:20:49	63.4
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258	2016/08/18	17:06:34	66.6
259	2016/08/18	17:06:37	66.4
260	2016/08/18	17:06:40	66.3
261	2016/08/18	17:06:43	66.4
262	2016/08/18	17:06:46	66.3
263	2016/08/18	17:06:49	65.1
264	2016/08/18	17:06:52	66.0
265	2016/08/18	17:06:55	66.0
266	2016/08/18	17:06:58	64.4
267	2016/08/18	17:07:01	66.0
268	2016/08/18	17:07:04	65.0
269	2016/08/18	17:07:07	64.7
270	2016/08/18	17:07:10	65.5
271	2016/08/18	17:07:13	64.5
272	2016/08/18	17:07:16	62.9
273	2016/08/18	17:07:19	64.8
274	2016/08/18	17:07:22	63.8
275	2016/08/18	17:07:25	67.9
276	2016/08/18	17:07:28	65.9
277	2016/08/18	17:07:31	65.8
278	2016/08/18	17:07:34	64.0
279	2016/08/18	17:07:37	62.3
280	2016/08/18	17:07:40	62.4
281	2016/08/18	17:07:43	63.0
282	2016/08/18	17:07:46	63.3
283	2016/08/18	17:07:49	63.0

284	2016/08/18	17: 07: 52	62. 5
285	2016/08/18	17: 07: 55	63. 0
286	2016/08/18	17: 07: 58	63. 1
287	2016/08/18	17: 08: 01	62. 0
288	2016/08/18	17: 08: 04	71. 1
289	2016/08/18	17: 08: 07	72. 8
290	2016/08/18	17: 08: 10	71. 2
291	2016/08/18	17: 08: 13	68. 2
292	2016/08/18	17: 08: 16	64. 3
293	2016/08/18	17: 08: 19	62. 3
294	2016/08/18	17: 08: 22	63. 6
295	2016/08/18	17: 08: 25	65. 7
296	2016/08/18	17: 08: 28	63. 5
297	2016/08/18	17: 08: 31	63. 9
298	2016/08/18	17: 08: 34	65. 0
299	2016/08/18	17: 08: 37	66. 3
300	2016/08/18	17: 08: 40	64. 8

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DNL Calculator

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Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
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DNL Calculator

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="70"/>	<input type="text" value="70"/>	<input type="text" value="70"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="36775"/>	<input type="text" value="1161"/>	<input type="text" value="774"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="5"/>	<input type="text" value="5"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	67.8	50.7	69.3
<input type="button" value="Calculate Road #1 DNL"/>	<input type="text" value="71.6"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (<https://www.onecpd.info/resource/313/hud-noise-guidebook/>)
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Tools and Guidance

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DNL Calculator

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="80"/>	<input type="text" value="80"/>	<input type="text" value="80"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="40"/>	<input type="text" value="40"/>	<input type="text" value="40"/>
Average Daily Trips (ADT)	<input type="text" value="37877"/>	<input type="text" value="1196"/>	<input type="text" value="797"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="68.2"/>	<input type="text" value="53.2"/>	<input type="text" value="70.7"/>
<input type="button" value="Calculate Road #1 DNL"/>	<input type="text" value="72.7"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
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 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
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DNL Calculator

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="70"/>	<input type="text" value="70"/>	<input type="text" value="70"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="36898"/>	<input type="text" value="1165"/>	<input type="text" value="777"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="5"/>	<input type="text" value="5"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="2"/>
Vehicle DNL	<input type="text" value="67.8"/>	<input type="text" value="50.7"/>	<input type="text" value="69.4"/>
<input type="button" value="Calculate Road #1 DNL"/>	<input type="text" value="71.7"/>	<input type="button" value="Reset"/>	

Airport Noise Level

Loud Impulse Sounds? Yes No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
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- **Mitigation**
 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (<https://www.onecpd.info/resource/313/hud-noise-guidebook/>)
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Tools and Guidance

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID Staybridge Projec

Record Date 10/12/2016

User's Name Rincon Consultants

Road # 1 Name: Lakewood Boulevard - Existing + Project

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	70	70	70
Distance to Stop Sign			
Average Speed	40	40	40
Average Daily Trips (ADT)	37991	1200	800
Night Fraction of ADT	15	5	5
Road Gradient (%)			2
Vehicle DNL	69.1	52	69.5
Calculate Road #1 DNL	72.3	Reset	

Add Road Source

Add Rail Source

Airport Noise Level

Loud Impulse Sounds?

Yes No

Combined DNL for all Road and Rail sources

72.3

Combined DNL including Airport

N/A

Site DNL with Loud Impulse Sound

Calculate

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (<https://www.onecpd.info/programs/environmental-review/hud-environmental-staff-contacts/>)
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