



**DRAFT ENVIRONMENTAL IMPACT REPORT
WATSON RANCH SPECIFIC PLAN PROJECT**
City of American Canyon, Napa County, California
State Clearinghouse Number 2015022030 July 2018

Appendix H

Noise Supporting Information

- H1 Rail Noise Model Input and Results
- H2 Traffic Noise Model Input and Results
- H3 Noise Readings



H1 Rail Noise Model Input and Results

**Noise Model Based on Federal Transit Administration General Transit Noise Assessment
Developed for Chicago Create Project
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Case: Watson Ranch EIR: Rail Noise

RESULTS			
Noise Source	Ldn (dB)	Leq - daytime (dB)	Leq - nighttime (dB)
All Sources	57	59	34
Source 1	55	57	34
Source 2	54	56	17
Source 3	0	0	0
Source 4	0	0	0
Source 5	0	0	0
Source 6	0	0	0
Source 7	0	0	0
Source 8	0	0	0

Enter noise receiver land use category below.

LAND USE CATEGORY	
Noise receiver land use category (1, 2 or 3)	2

Enter data for up to 8 noise sources below - see reference list for source numbers

NOISE SOURCE PARAMETERS				
Parameter	Source 1	Source 2	Source 3	
Source Num.	Freight Locomotive	9	Freight Cars	10
Distance (source to receiver)	distance (ft)	100	distance (ft)	100
Daytime Hours (7 AM - 10 PM)	speed (mph)	10	speed (mph)	10
	trains/hour	1	trains/hour	1
	locos/train	2	length of cars (ft) / train	3000
Nighttime Hours (10 PM - 7 AM)	speed (mph)		speed (mph)	
	trains/hour		trains/hour	
	locos/train		length of cars (ft) / train	
Wheel Flats?			% of cars w/ wheel flats	0.00%
Jointed Track?	Y/N	n	Y/N	n
Embedded Track?	Y/N	n	Y/N	n
Aerial Structure?	Y/N	n	Y/N	n
Barrier Present?	Y/N	n	Y/N	n
Intervening Rows of Buildings	number of rows	0	number of rows	0

SOURCE REFERENCE LIST	
Source	Number
Commuter Electric Locomotive	1
Commuter Diesel Locomotive	2
Commuter Rail Cars	3
RRT/LRT	4
AGT, Steel Wheel	5
AGT, Rubber Tire	6
Monorail	7
Maglev	8
Freight Locomotive	9
Freight Cars	10
Hopper Cars (empty)	11
Hopper Cars (full)	12
Crossover	13
Automobiles	14
City Buses	15
Commuter Buses	16
Rail Yard or Shop	17
Layover Tracks	18
Bus Storage Yard	19
Bus Op. Facility	20
Bus Transit Center	21
Parking Garage	22
Park & Ride Lot	23

Rail Calculation Summary

CREATE Model Parameters	Vehicle Type	
	Freight locomotive	Freight Cars
Distance to receiver (ft):	100	100
Speed (mph):	10	10
Trains/hr:	1	1
Locos/Train:	1	n/a
Length of cars (total ft):	n/a	3000
From CREATE Model:		
Sound Level (1hr Leq, dBA):	57	56
Combined 1hr Sound level (dBA):	59.5	
Ramboll Calculation Summary:		
Number of Trains Per Days	4	
Assumes no more than 1 train per hour		
Formula to Calculated 24-hr Ldn based on daytime only train operations, 4 hours at 1 train per hour	$10 * \text{LOG}[10^{(59.3/10)} * 4/24]$	
24-hour Ldn (dBA):	51.5	

H2 Traffic Noise Model Input and Results

Box 1

Traffic Volume from Fehrs and Peers, 2018	Existing		Existing + Project		Cumulative		Cumulative + Project	
	AM Pk	PM Pk	AM Pk	PM Pk	AM Pk	PM Pk	AM Pk	PM Pk
	Rollings Hills Dr, between Rio Del Mar and Donaldson Way E	#N/A	#N/A	100	120	#N/A	#N/A	100
Newell Dr, between Rio Del Mar and Donaldson Wy	#N/A	#N/A	465	672	#N/A	#N/A	465	672
Rio Del Mar: SR29 to Newell Dr	#N/A	#N/A	477	663	#N/A	#N/A	477	663
Newell Dr, between Donaldson Wy and Silver Oak Trail	725	383	1214	1121	1201	707	1690	1453
Newell Dr, between Silver Oak Tr and American Canyon Rd	1082	636	1575	1380	1552	1087	2045	1831
Donaldson Wy, between Shenandoah Dr and Newell Dr	648	349	702	430	894	700	948	781
Donaldson Wy, between SR 29 and Shenandoah Dr	781	571	799	599	1306	1130	1324	1158
Silver Oak Tr, between American Canyon Rd and Newell Dr	642	261	647	261	859	646	864	646
American Canyon Rd: Silver Creek Trail to Newell Dr	1730	1891	1806	2006	3192	3589	3267	3704
American Canyon Rd: Newell Dr to Via Firenze	871	938	1216	1458	1552	1515	1897	2035
American Canyon Rd: East of Via Firenze	679	855	1024	1376	1304	1217	1649	1738
SR 29, between Donaldson Wy and American Canyon Rd	2631	3520	2856	3861	6539	6742	6764	7083
SR 29, between S. Napa Junction Rd and Donaldson Wy	3056	3624	3263	3937	6509	6780	6716	7093
SR 29, between Rio Del Mar and S. Napa Junction Rd	2936	3561	3143	3874	6615	7067	6822	7380
SR 29, between Eucalyptus Dr and Rio Del Mar	3160	3639	3380	3972	6550	6892	6770	7225
SR 29, between Napa Junction Rd and Eucalyptus Dr	2823	3020	3043	3353	6302	6065	6522	6398

Box 2

To calculate AADT:	AM + PM volumes x multiplier, based on road type as follows:
8.5	SR 29, between Napa Junction Rd and Lewis Brown Dr
7	SR 29, North of Napa Junction Rd
5	All remaining Roadways

Box 3

Average Hourly Traffic Volume, Based on AADT calculated per box 2	Existing		Existing + Project		Cumulative		Cumulative + Project	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
	Rollings Hills Dr, between Rio Del Mar and Donaldson Way E	#N/A	#N/A	66	12	#N/A	#N/A	66
Newell Dr, between Rio Del Mar and Donaldson Wy	#N/A	#N/A	343	61	#N/A	#N/A	343	61
Rio Del Mar: SR29 to Newell Dr	#N/A	#N/A	344	61	#N/A	#N/A	344	61
Newell Dr, between Donaldson Wy and Silver Oak Trail	334	59	704	125	575	102	947	168
Newell Dr, between Silver Oak Tr and American Canyon Rd	518	92	890	158	795	141	1168	207
Donaldson Wy, between Shenandoah Dr and Newell Dr	300	53	341	60	480	85	521	92
Donaldson Wy, between SR 29 and Shenandoah Dr	407	72	421	75	734	130	748	132
Silver Oak Tr, between American Canyon Rd and Newell Dr	272	48	274	48	454	80	455	81
American Canyon Rd: Silver Creek Trail to Newell Dr	1091	193	1149	203	2043	362	2101	372
American Canyon Rd: Newell Dr to Via Firenze	545	96	806	143	924	164	1185	210
American Canyon Rd: East of Via Firenze	462	82	723	128	760	134	1021	181
SR 29, between Donaldson Wy and American Canyon Rd	3151	558	3441	609	6803	1204	7093	1255
SR 29, between S. Napa Junction Rd and Donaldson Wy	3422	606	3688	653	6808	1205	7074	1252
SR 29, between Rio Del Mar and S. Napa Junction Rd	3328	589	3595	636	7009	1241	7275	1288
SR 29, between Eucalyptus Dr and Rio Del Mar	3483	616	3766	667	6886	1219	7169	1269
SR 29, between Napa Junction Rd and Eucalyptus Dr	2993	530	3276	580	6335	1121	6618	1171

Box 4

Average Hourly Day and Night Sound Level Based on Average Hourly Traffic Volumes in Box 3 (Leq, 1hr)								
	Existing		Existing + Project		Cumulative		Cumulative + Project	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
Rollings Hills Dr, between Rio Del Mar and Donaldson Way E	#N/A	#N/A	50.6	43.1	#N/A	#N/A	50.6	43.1
Newell Dr, between Rio Del Mar and Donaldson Wy	#N/A	#N/A	57.3	49.8	#N/A	#N/A	57.3	49.8
Rio Del Mar: SR29 to Newell Dr	#N/A	#N/A	57.3	49.7	#N/A	#N/A	57.3	49.7
Newell Dr, between Donaldson Wy and Silver Oak Trail	56.3	48.8	59.6	52.0	58.7	51.2	60.9	53.3
Newell Dr, between Silver Oak Tr and American Canyon Rd	56.5	49.0	58.8	51.3	58.3	50.8	60.0	52.5
Donaldson Wy, between Shenandoah Dr and Newell Dr	57.6	50.1	58.2	50.7	59.7	52.1	60.0	52.5
Donaldson Wy, between SR 29 and Shenandoah Dr	58.9	51.4	59.1	51.6	61.5	54.0	61.6	54.1
Silver Oak Tr, between American Canyon Rd and Newell Dr	56.7	49.2	56.7	49.2	58.9	51.4	58.9	51.4
American Canyon Rd: Silver Creek Trail to Newell Dr	66.5	59.0	66.7	59.2	69.2	61.7	69.3	61.8
American Canyon Rd: Newell Dr to Via Firenze	62.1	54.6	63.8	56.3	64.4	56.9	65.5	58.0
American Canyon Rd: East of Via Firenze	60.1	52.6	62.1	54.6	62.3	54.8	63.6	56.1
SR 29, between Donaldson Wy and American Canyon Rd	73.8	66.3	74.2	66.7	77.2	69.7	77.4	69.8
SR 29, between S. Napa Junction Rd and Donaldson Wy	73.7	66.2	74.1	66.5	76.7	69.2	76.9	69.4
SR 29, between Rio Del Mar and S. Napa Junction Rd	68.5	61.0	68.8	61.3	71.7	64.2	71.9	64.4
SR 29, between Eucalyptus Dr and Rio Del Mar	74.7	67.2	75.0	67.5	77.7	70.1	77.8	70.3
SR 29, between Napa Junction Rd and Eucalyptus Dr	71.3	63.8	71.7	64.2	74.6	67.1	74.8	67.3

Box 5

To Calculate Ldn:	Apply average Day and Night sound levels during all day and night hours
	Assume 15 daytime hours; 9 nighttime hours
	Formula: $10 * \text{LOG}((15 * 10^{(\text{average day Leq}/10)} + 9 * 10^{(\text{average night Leq}+10)/10})/24)$

Box 6

Average Ldn Sound Level Based on Average Hourly Traffic Volumes in Box 4						
	Distance to Road	Rec Type	Existing	Existing + Project	Cumulative	Cumulative + Project
Rollings Hills Dr, between Rio Del Mar and Donaldson Way E	45	Res	#N/A	51.7	#N/A	51.7
Newell Dr, between Rio Del Mar and Donaldson Wy	50	Res	#N/A	58.4	#N/A	58.4
Rio Del Mar: SR29 to Newell Dr	50	Res	#N/A	58.4	#N/A	58.4
Newell Dr, between Donaldson Wy and Silver Oak Trail	60	Res	57.4	60.7	59.8	62.0
Newell Dr, between Silver Oak Tr and American Canyon Rd	90	Res	57.6	59.9	59.4	61.1
Donaldson Wy, between Shenandoah Dr and Newell Dr	40	Res	58.7	59.3	60.8	61.1
Donaldson Wy, between SR 29 and Shenandoah Dr	40	Res	60.0	60.2	62.6	62.7
Silver Oak Tr, between American Canyon Rd and Newell Dr	45	Res	57.8	57.8	60.0	60.0
American Canyon Rd: Silver Creek Trail to Newell Dr	55	Res	67.6	67.8	70.3	70.4
American Canyon Rd: Newell Dr to Via Firenze	75	Res	63.2	64.9	65.5	66.6
American Canyon Rd: East of Via Firenze	100	Res	61.2	63.2	63.4	64.7
SR 29, between Donaldson Wy and American Canyon Rd	90	Res	74.9	75.3	78.3	78.5
SR 29, between S. Napa Junction Rd and Donaldson Wy	100	Res	74.8	75.2	77.8	78.0
SR 29, between Rio Del Mar and S. Napa Junction Rd	320	Res	69.6	69.9	72.8	73.0
SR 29, between Eucalyptus Dr and Rio Del Mar	80	Res	75.8	76.1	78.8	78.9
SR 29, between Napa Junction Rd and Eucalyptus Dr	150	Com	72.4	72.8	75.7	75.9

H3 Noise Readings

APPENDIX H.3

Noise Readings

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1. All ST Noise Readings:

METROSONICS db-308 SN 2667 V2.3 3/87

CURRENT DATE: 1/28/15

CURRENT TIME: 15:08:25

CALIBRATED: 1/28/15 @ 8:16:59

DISPLAY RANGE: 43.1dB TO 139.1dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE:11/22/15

START TIME: 8:30:00

LENGTH: 1:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/28/15

TEST STARTING TIME: 8:17:49

TEST LENGTH: 0DAYS 2:28:53

Lav = 65.9dB

Lav 80= 52.9dB

Lav 90= 48.5dB

SEL =105.3dB

Lmax = 91.3dB ON 1/28/15 @ 12:26:15

Lpk < 118dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.00%

8 HR PROJ. DOSE (80dB CUTOFF)= 0.00%
 8 HR DOSE (90dB CUTOFF)= 0.00%
 8 HR PROJ. DOSE (90dB CUTOFF)= 0.00%

** TIME HISTORY REPORT **

MODE: CONTINUOUS
 PERIOD LENGTH: 0:05:00
 TIME HISTORY CUTOFF: NONE
 Ln(1): 10.0% Ln(2): 90.0%

INT#	START	Lav	Lmax	Lpk		
TAG#	TIME	ET	L1	L2		
1	1/28/15	48.5	56.0	<118	*	+
0	8:17:49	0:05:00	49	46		
2	1/28/15	48.0	58.8	<118	*	+
0	8:22:49	0:05:00	48	46		
3	1/28/15	48.2	50.7	<118	*	+
0	8:27:49	0:05:00	49	46		
4	1/28/15	49.2	57.3	<118	*	+
0	8:32:49	PARTIAL	50	48		
5	1/28/15	57.1	68.7	<118	*	+
0	8:42:48	0:05:00	57	55		
6	1/28/15	58.1	71.9	<118	*	+
0	8:47:48	0:05:00	57	55		
7	1/28/15	56.4	58.2	<118	*	+
0	8:52:48	0:05:00	57	55		
8	1/28/15	56.7	58.8	<118	*	+
0	8:57:48	PARTIAL	57	55		
9	1/28/15	61.6	74.4	<118	*	+
0	9:05:02	0:05:00	63	52		
10	1/28/15	63.7	79.1	<118	*	+
0	9:10:02	0:05:00	65	53		
11	1/28/15	64.0	79.3	<118	*	+
0	9:15:02	0:05:00	67	53		
12	1/28/15	60.2	70.6	<118	*	+
0	9:20:02	PARTIAL	62	54		
13	1/28/15	55.1	61.4	<118	*	+
0	9:26:41	0:05:00	58	49		

14 1/28/15 54.9 61.1 <118 * +
0 9:31:41 0:05:00 56 50

15 1/28/15 55.2 59.3 <118 * +
0 9:36:41 0:05:00 57 49

INT# START Lav Lmax Lpk
TAG# TIME ET L1 L2

16 1/28/15 53.9 62.4 <118 * +
0 9:41:41 PARTIAL 56 49

17 1/28/15 61.3 71.9 <118 * +
0 10:03:03 0:05:00 67 45

18 1/28/15 55.5 75.6 <118 * +
0 10:08:03 0:05:00 56 44

19 1/28/15 46.0 50.6 <118 * +
0 10:13:03 0:05:00 47 43

20 1/28/15 49.7 65.3 <118 * +
0 10:18:03 PARTIAL 49 43

21 1/28/15 46.1 56.3 <118 * +
0 10:34:59 0:05:00 47 43

22 1/28/15 47.1 54.4 <118 * +
0 10:39:59 0:05:00 49 43

23 1/28/15 46.8 51.1 <118 * +
0 10:44:59 0:05:00 48 44

24 1/28/15 47.5 50.7 <118 * +
0 10:49:59 PARTIAL 48 46

25 1/28/15 68.8 78.0 <118 * +
0 11:43:52 0:05:00 70 67

26 1/28/15 68.3 73.6 <118 * +
0 11:48:52 0:05:00 69 66

27 1/28/15 69.0 76.0 <118 * +
0 11:53:52 0:05:00 71 66

28 1/28/15 71.2 80.4 <118 * +
0 11:58:52 PARTIAL 72 68

29 1/28/15 72.0 80.3 <118 * +
0 12:06:04 0:05:00 73 69

30	1/28/15	73.8	80.9	<118	*	+
0	12:11:04	0:05:00	75	71		
31	1/28/15	73.0	78.1	<118	*	+
0	12:16:04	0:05:00	74	70		
32	1/28/15	72.8	77.4	<118	*	+
0	12:21:04	PARTIAL	74	70		
33	1/28/15	70.0	91.3	<118	*	+
0	12:25:21	0:05:00	68	58		

INT#	START	Lav	Lmax	Lpk
TAG#	TIME	ET	L1	L2

34	1/28/15	63.3	72.9	<118	*	+
0	12:30:21	0:05:00	67	55		
35	1/28/15	62.0	71.8	<118	*	+
0	12:35:21	0:05:00	65	55		
36	1/28/15	62.6	70.9	<118	*	+
0	12:40:21	PARTIAL	65	57		

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 71467

dB	SAMPLES	% OF TOTAL
43	1545 **	2.16
44	2164 ***	3.02
45	3038 ****	4.25
46	3788 *****	5.30
47	5018 *****	7.02
48	4131 *****	5.78
49	2043 ***	2.85
50	1392 **	1.94
51	1311 **	1.83
52	1294 **	1.81

53	1583 **	2.21
54	2250 ***	3.14
55	5175 *****	7.24
56	6900 *****	9.65
57	2967 ****	4.15
58	1763 **	2.46
59	1390 **	1.94
60	1178 **	1.64
61	985 *	1.37
62	915 *	1.28
63	632 *	.88
64	621 *	.86
65	456 *	.63
66	1460 **	2.04
67	3457 *****	4.83
68	2779 ****	3.88
69	1804 ***	2.52
70	1818 ***	2.54
71	2251 ***	3.14
72	2095 ***	2.93
73	1386 **	1.93
74	896 *	1.25
75	491 *	.68
76	246 +	.34
77	112 +	.15
78	61 .	.08
79	35 .	.04
80	17 .	.02
81	2	.00
82	1	.00
83	2	.00
84	2	.00
85	2	.00
86	2	.00
87	1	.00
88	2	.00
89	2	.00
90	2	.00
91	2	.00

Ln(0.0) = 91dB

Ln(10.0) = 71dB

Ln(50.0) = 56dB

Ln(99.9) = 43dB

	NO	80.0dB	90.0dB
	CUTOFF	CUTOFF	CUTOFF

Ldod	63.9dB	46.1dB	44.1dB
Losha	62.7dB	44.1dB	43.3dB
Leq(6)	61.8dB	43.5dB	43.1dB

2. LT-1 Noise Readings:

METROSONICS db-308 SN 2677 V2.3 3/87

CURRENT DATE: 1/29/15

CURRENT TIME: 10:01:16

CALIBRATED: 31/15/31 @ 13:35:59

DISPLAY RANGE: 43.1dB TO 139.1dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/28/15

START TIME: 8:00:00

LENGTH: 24:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/28/15

TEST STARTING TIME: 8:00:19

TEST LENGTH: 1DAYS 0:00:00

Lav = 69.4dB

Lav 80= 58.4dB

Lav 90= 56.5dB

SEL =118.6dB

Lmax = 97.6dB ON 1/28/15 @ 21:36:20

Lpk < 118dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.20%

8 HR DOSE (90dB CUTOFF)= 0.13%

** TIME HISTORY REPORT **

MODE: CONTINUOUS

PERIOD LENGTH: 1:00:00

TIME HISTORY CUTOFF: NONE

Ln(1): 50.0% Ln(2): 90.0%

INT# START Lav Lmax Lpk
TAG# TIME ET L1 L2

1	1/28/15	71.3	79.5	<118	*	+		
0	8:00:19	1:00:00	70	62				
2	1/28/15	70.8	83.9	<118	*	+		
0	9:00:19	1:00:00	69	60				
3	1/28/15	70.2	80.7	<118	*	+		
0	10:00:19	1:00:00	69	60				
4	1/28/15	70.1	79.6	<118	*	+		
0	11:00:19	1:00:00	69	61				
5	1/28/15	70.1	84.9	<118	*	+		
0	12:00:19	1:00:00	69	60				
6	1/28/15	70.2	86.7	<118	*	+		
0	13:00:19	1:00:00	69	61				
7	1/28/15	72.5	95.8	<118	*		+	
0	14:00:19	1:00:00	69	61				
8	1/28/15	69.7	77.5	<118	*	+		
0	15:00:19	1:00:00	69	60				
9	1/28/15	69.2	78.8	<118	*	+		
0	16:00:19	1:00:00	68	59				
10	1/28/15	69.1	81.4	<118	*	+		
0	17:00:19	1:00:00	68	60				
11	1/28/15	69.7	76.8	<118	*	+		
0	18:00:19	1:00:00	68	61				
12	1/28/15	68.9	78.8	<118	*	+		

0	19:00:19	1:00:00	67	61		
13	1/28/15	68.6	82.8	<118	*	+
0	20:00:19	1:00:00	66	60		
14	1/28/15	71.2	97.6	<118	*	+
0	21:00:19	1:00:00	66	59		
15	1/28/15	67.8	76.5	<118	*	+
0	22:00:19	1:00:00	65	58		

INT#	START	Lav	Lmax	Lpk		
TAG#	TIME	ET	L1	L2		

16	1/28/15	65.9	76.4	<118	*	+
0	23:00:19	1:00:00	63	56		
17	1/29/15	63.3	74.2	<118	*	+
0	0:00:19	1:00:00	59	52		
18	1/29/15	62.1	75.8	<118	*	+
0	1:00:19	1:00:00	56	49		
19	1/29/15	63.4	78.2	<118	*	+
0	2:00:19	1:00:00	56	50		
20	1/29/15	65.4	79.8	<118	*	+
0	3:00:19	1:00:00	60	51		
21	1/29/15	68.6	77.3	<118	*	+
0	4:00:19	1:00:00	65	57		
22	1/29/15	70.8	79.8	<118	*	+
0	5:00:19	1:00:00	69	62		
23	1/29/15	71.1	88.2	<118	*	+
0	6:00:19	1:00:00	69	63		
24	1/29/15	69.8	80.4	<118	*	+
0	7:00:19	PARTIAL	68	63		

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 691200

dB	SAMPLES	% OF TOTAL
44	215 .	.03
45	419 .	.06
46	735 +	.10
47	1531 +	.22

48	2150 +	.31
49	3076 +	.44
50	4261 *	.61
51	5718 *	.82
52	7059 *	1.02
53	8336 *	1.20
54	8689 *	1.25
55	9965 *	1.44
56	12433 **	1.79
57	14725 **	2.13
58	16391 **	2.37
59	21282 ***	3.07
60	25284 ****	3.65
61	25412 ****	3.67
62	29995 ****	4.33
63	27968 ****	4.04
64	31278 *****	4.52
65	33652 *****	4.86
66	38172 *****	5.52
67	38478 *****	5.56
68	49804 *****	7.20
69	58108 *****	8.40
70	50371 *****	7.28
71	53237 *****	7.70
72	44264 *****	6.40
73	35055 *****	5.07
74	19758 ***	2.85
75	8731 *	1.26
76	2824 +	.40
77	717 +	.10
78	291 .	.04
79	136 .	.01
80	100 .	.01
81	97 .	.01
82	56	.00
83	47	.00
84	39	.00
85	59	.00
86	41	.00
87	35	.00
88	33	.00
89	28	.00
90	27	.00
91	27	.00
92	34	.00
93	23	.00
94	13	.00
95	10	.00

dB	SAMPLES	% OF TOTAL
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96	6	.00
97	5	.00

Ln(0.0) = 97dB
Ln(10.0) = 72dB
Ln(50.0) = 67dB
Ln(99.9) = 46dB

	NO	80.0dB	90.0dB
	CUTOFF	CUTOFF	CUTOFF

Ldod	68.2dB	47.3dB	43.8dB
Losha	67.8dB	45.6dB	44.3dB
Leq(6)	67.5dB	44.2dB	43.5dB

3. LT-2 Noise Readings:

METROSONICS db-308 SN 1885 V2.3 3/87

CURRENT DATE: 1/29/15

CURRENT TIME: 10:08:16

CALIBRATED: 1/28/15 @ 7:16:53

DISPLAY RANGE: 43.0dB TO 139.0dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/28/15

START TIME: 8:10:00

LENGTH: 24:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/28/15
TEST STARTING TIME: 8:10:00
TEST LENGTH: 1DAYS 0:00:00

Lav = 51.4dB
Lav 80= 43.1dB
Lav 90= 43.0dB
SEL =100.6dB

Lmax = 81.2dB ON 1/28/15 @ 15:45:33
Lpk < 118dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.00%
8 HR DOSE (90dB CUTOFF)= 0.00%

** TIME HISTORY REPORT **

MODE: CONTINUOUS
PERIOD LENGTH: 1:00:00
TIME HISTORY CUTOFF: NONE
Ln(1): 50.0% Ln(2): 90.0%

INT#	START	Lav	Lmax	Lpk		
TAG#	TIME	ET	L1	L2		

1	1/28/15	52.8	57.2	<118	*	+
0	8:10:00	1:00:00	52	51		
2	1/28/15	53.0	65.3	<118	*	+
0	9:10:00	1:00:00	52	51		
3	1/28/15	53.5	77.7	<118	*	+
0	10:10:00	1:00:00	52	51		
4	1/28/15	53.0	66.7	<118	*	+
0	11:10:00	1:00:00	52	50		
5	1/28/15	52.5	67.5	<118	*	+
0	12:10:00	1:00:00	51	49		
6	1/28/15	53.9	67.1	<118	*	+
0	13:10:00	1:00:00	53	51		
7	1/28/15	52.0	65.9	<118	*	+
0	14:10:00	1:00:00	51	43		

8	1/28/15	51.8	81.2	<118	*		+
0	15:10:00	1:00:00	43	43			
9	1/28/15	46.8	66.4	<118	*		+
0	16:10:00	1:00:00	43	43			
10	1/28/15	46.8	56.0	<118	*	+	
0	17:10:00	1:00:00	46	43			
11	1/28/15	47.2	58.6	<118	*		+
0	18:10:00	1:00:00	46	44			
12	1/28/15	50.6	61.1	<118	*		+
0	19:10:00	1:00:00	49	45			
13	1/28/15	51.3	63.4	<118	*		+
0	20:10:00	1:00:00	50	47			
14	1/28/15	51.8	72.8	<118	*		+
0	21:10:00	1:00:00	50	47			
15	1/28/15	50.5	66.8	<118	*		+
0	22:10:00	1:00:00	48	44			

INT#	START	Lav	Lmax	Lpk			
TAG#	TIME	ET	L1	L2			

16	1/28/15	47.5	55.0	<118	*		+
0	23:10:00	1:00:00	46	44			
17	1/29/15	46.5	54.6	<118	*		+
0	0:10:00	1:00:00	45	43			
18	1/29/15	44.0	51.7	<118	*		+
0	1:10:00	1:00:00	43	43			
19	1/29/15	44.2	53.5	<118	*		+
0	2:10:00	1:00:00	43	43			
20	1/29/15	45.0	54.3	<118	*		+
0	3:10:00	1:00:00	43	43			
21	1/29/15	49.6	59.8	<118	*		+
0	4:10:00	1:00:00	48	44			
22	1/29/15	51.2	58.9	<118	*		+
0	5:10:00	1:00:00	50	47			
23	1/29/15	54.9	61.1	<118		*	+
0	6:10:00	1:00:00	54	53			
24	1/29/15	55.6	65.1	<118		*	+

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 691200

dB	SAMPLES	% OF TOTAL
43	115660 *****	16.73
44	39010 *****	5.64
45	36254 *****	5.24
46	37800 *****	5.46
47	43267 *****	6.25
48	41301 *****	5.97
49	40732 *****	5.89
50	48317 *****	6.99
51	62866 *****	9.09
52	80216 *****	11.60
53	66290 *****	9.59
54	41085 *****	5.94
55	17593 ***	2.54
56	9290 *	1.34
57	5951 *	.86
58	2057 +	.29
59	915 +	.13
60	619 .	.08
61	452 .	.06
62	359 .	.05
63	259 .	.03
64	250 .	.03
65	198 .	.02
66	185 .	.02
67	51	.00
68	45	.00
69	46	.00
70	40	.00
71	26	.00
72	17	.00
73	10	.00
74	10	.00
75	9	.00
76	4	.00
77	3	.00
78	3	.00
79	6	.00
80	3	.00
81	1	.00

Ln(0.0) = 81dB
 Ln(10.0) = 54dB
 Ln(50.0) = 49dB
 Ln(99.9) = 43dB

	NO	80.0dB	90.0dB
	CUTOFF	CUTOFF	CUTOFF

Ldod	50.3dB	43.0dB	43.0dB
Losha	50.0dB	43.0dB	43.0dB
Leq(6)	49.8dB	43.0dB	43.0dB