

APPENDIX F

Technical Analysis – Noise

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Calculated Ldn from long-term noise monitoring data

UCSF Parnassus Campus Location PS-LT-1

		TIME	dBa	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values	
1/8/2014	Midnight	0 / 24	54.1	257040	2570396	812831	Leq Morning Peak Hour 7:00-10:00 a.m.
	am	1:00	100	54.4	275423	2754229	56 dBA
		2:00	200	54.1	257040	2570396	
		3:00	300	53.4	218776	2187762	Leq Evening Peak Hour 4:00-8:00 p.m.
		4:00	400	54.1	257040	2570396	59 dBA
		5:00	500	56.2	416869	4168694	
		6:00	600	55.9	389045	3890451	Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
		7:00	700	55.5	354813	3548134	56 dBA
		8:00	800	55.7	371535	3715352	
		9:00	900	55.5	354813	3548134	Leq Daytime 7:00 am-10:00 p.m.
		10:00	1000	55.8	380189	3801894	58 dBA
		11:00	1100	56.4	436516	4365158	
		12:00	1200	57.8	602560	6025596	Leq 24-Hour
	pm	1:00	1300	58.0	630957	6309573	57 dBA
		2:00	1400	58.2	660693	6606934	
		3:00	1500	58.2	660693	6606934	Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
		4:00	1600	58.6	724436	7244360	62 dBA
		5:00	1700	58.8	758578	7585776	
		6:00	1800	59.2	831764	8317638	CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
		7:00	1900	59.0	794328	7943282	63 dBA and 10 dBA penalty for noise between
		8:00	2000	58.3	676083	6760830	10:00 p.m. and 7:00 a.m.
		9:00	2100	58.2	660693	6606934	
		10:00	2200	57.8	602560	6025596	
	pm	11:00	2300	57.9	616595	6165950	CNEL - Ldn 0.45414343

Calculated Ldn from long-term noise monitoring data

UCSF Parnassus Campus Location PS-LT-1

					10 dBA Penalized Values	5 dBA Penalized Values
1/9/2014	Midnight	0 / 24	57.8	602560	6025596	1905461
	am	1:00	100	57.6	575440	5754399
		2:00	200	57.7	588844	5888437
		3:00	300	57.7	588844	5888437
		4:00	400	57.9	616595	6165950
		5:00	500	57.8	602560	6025596
		6:00	600	56.8	478630	4786301
		7:00	700	56.0	398107	3981072
		8:00	800	56.0	398107	3981072
		9:00	900	56.4	436516	4365158
		10:00	1000	56.9	489779	4897788
		11:00	1100	57.5	562341	5623413
		12:00	1200	58.3	676083	6760830
	pm	1:00	1300	59.2	831764	8317638
		2:00	1400	59.4	870964	8709636
		3:00	1500	59.6	912011	9120108
		4:00	1600	59.3	851138	8511380
		5:00	1700	59.0	794328	7943282
		6:00	1800	58.8	758578	7585776
		7:00	1900	58.7	741310	7413102
		8:00	2000	58.6	724436	7244360
		9:00	2100	58.4	691831	6918310
		10:00	2200	58.5	707946	7079458
	pm	11:00	2300	58.3	676083	6760830

Leq Morning Peak Hour 7:00-10:00 a.m.

56 dBA

Leq Evening Peak Hour 4:00-8:00 p.m.

59 dBA

Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)

58 dBA

Leq Daytime 7:00 am-10:00 p.m.

58 dBA

Leq 24-Hour

58 dBA

Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.

64 dBA

**CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
and 10 dBA penalty for noise between
10:00 p.m. and 7:00 a.m.**

65 dBA

CNEL - Ldn 0.30322848

Calculated Ldn from long-term noise monitoring data

UCSF Parnassus Campus Location PS-LT-3

		TIME	dBa	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values	
1/8/2014	Midnight	0 / 24	52.6	181970	1819701	575440	Leq Morning Peak Hour 7:00-10:00 a.m.
	am	1:00	100	51.5	141254	1412538	60 dBA
		2:00	200	48.7	74131	741310	
		3:00	300	48.2	66069	660693	Leq Evening Peak Hour 4:00-8:00 p.m.
		4:00	400	51.5	141254	1412538	58 dBA
		5:00	500	54.5	281838	2818383	
		6:00	600	56.5	446684	4466836	Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
		7:00	700	59.9	977237	9772372	53 dBA
		8:00	800	58.7	741310	7413102	
		9:00	900	61.4	1380384	13803843	Leq Daytime 7:00 am-10:00 p.m.
		10:00	1000	57.6	575440	5754399	58 dBA
		11:00	1100	57.7	588844	5888437	
		12:00	1200	59.7	933254	9332543	Leq 24-Hour
	pm	1:00	1300	57.1	512861	5128614	57 dBA
		2:00	1400	58.3	676083	6760830	
		3:00	1500	58.2	660693	6606934	Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
		4:00	1600	58.6	724436	7244360	61 dBA
		5:00	1700	58.3	676083	6760830	
		6:00	1800	58.5	707946	7079458	CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
		7:00	1900	57.8	602560	6025596	61 dBA and 10 dBA penalty for noise between
		8:00	2000	55.9	389045	3890451	10:00 p.m. and 7:00 a.m.
		9:00	2100	54.7	295121	2951209	
		10:00	2200	53.8	239883	2398833	
	pm	11:00	2300	53.0	199526	1995262	CNEL - Ldn 0.40909107

Calculated Ldn from long-term noise monitoring data

UCSF Parnassus Campus Location PS-LT-3

		TIME	dBa	Remove LOG	10 dBA Penalized Values	5 dBA Penalized Values	
1/9/2014	Midnight	0 / 24	52.6	181970	1819701	575440	Leq Morning Peak Hour 7:00-10:00 a.m.
	am 1:00	100	50.1	102329	1023293	323594	60 dBA
	2:00	200	49.0	79433	794328	251189	
	3:00	300	49.6	91201	912011	288403	Leq Evening Peak Hour 4:00-8:00 p.m.
	4:00	400	53.4	218776	2187762	691831	62 dBA
	5:00	500	57.8	602560	6025596	1905461	
	6:00	600	59.7	933254	9332543	2951209	Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)
	7:00	700	59.5	891251	8912509	2818383	55 dBA
	8:00	800	59.1	812831	8128305	2570396	
	9:00	900	60.6	1148154	11481536	3630781	Leq Daytime 7:00 am-10:00 p.m.
	10:00	1000	58.6	724436	7244360	2290868	61 dBA
	11:00	1100	57.7	588844	5888437	1862087	
	12:00	1200	58.3	676083	6760830	2137962	Leq 24-Hour
	pm 1:00	1300	66.8	4786301	47863009	15135612	60 dBA
	2:00	1400	59.5	891251	8912509	2818383	
	3:00	1500	60.6	1148154	11481536	3630781	Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.
	4:00	1600	66.2	4168694	41686938	13182567	63 dBA
	5:00	1700	58.6	724436	7244360	2290868	
	6:00	1800	58.3	676083	6760830	2137962	CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
	7:00	1900	57.5	562341	5623413	1778279	63 dBA and 10 dBA penalty for noise between
	8:00	2000	56.2	416869	4168694	1318257	10:00 p.m. and 7:00 a.m.
	9:00	2100	59.3	851138	8511380	2691535	
	10:00	2200	55.3	338844	3388442	1071519	
	pm 11:00	2300	54.6	288403	2884032	912011	CNEL - Ldn 0.3480302

Parnassus Koret
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/04/2014
Case Description: UCSF Parnassus Koret

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Child Care	Residential	58.0	58.0	58.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	280.0	0.0
Excavator	No	40		80.7	280.0	0.0
Front End Loader	No	40		79.1	280.0	0.0
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	280.0	0.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Calculated (dBA)						Noise Limits (dBA)						
Day		Evening		Night		Day		Evening		Night		
Equipment												
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Dozer	N/A	N/A	N/A	N/A	66.7	62.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	N/A	65.7	61.8	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	N/A	N/A	64.1	60.2	N/A	N/A	N/A	N/A	N/A	N/A
Mounted Impact Hammer (hoe ram)	N/A	N/A	N/A	N/A	75.3	68.3	N/A	N/A	N/A	N/A	N/A	N/A
Total					75.3	70.5	N/A	N/A	N/A	N/A	N/A	N/A

Parnassus LPPI
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/04/2014
Case Description: UCSF Parnassus LPPI

**** Receptor #1 ****

Description	Land Use	Daytime	Baselines (dBA)	
			Evening	Night
Edgewood	Residential	58.0	58.0	58.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	250.0	0.0
Excavator	No	40		80.7	250.0	0.0
Front End Loader	No	40		79.1	250.0	0.0
Mounted Impact Hammer (hoe ram)	Yes	20		90.3	250.0	0.0

Results

Exceedance (dBA)			Noise Limits (dBA)								Noise Limit	
			Calculated (dBA)		Day		Evening		Night		Day	
Night			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Equipment	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Dozer	N/A	N/A	N/A	67.7	63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	66.7	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	N/A	65.1	61.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mounted Impact Hammer (hoe ram)	N/A	N/A	N/A	76.3	69.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total				76.3	71.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A										

Parnassus MR4
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/04/2014
Case Description: UCSF Parnassus MR4

**** Receptor #1 ****

Description	Land Use	Daytime	Baselines (dBA)	
			Evening	Night
5th Avenue	Residential	58.0	58.0	53.0

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
Excavator	No	40		80.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0

Results

Exceedance (dBA)			Noise Limits (dBA)								Noise Limit		
			Calculated (dBA)		Day		Evening		Night		Day		Evening
Night													
Equipment	Leq	Lmax	Leq	Lmax	Leq	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Dozer	N/A	N/A	N/A	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	N/A	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	Total	75.6	75.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

UCSF LRDP Parnassus Roadway Noise Analysis

Existing

Existing													CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)				
ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %			VEHICLE SPEED				NOISE LEVEL (dBA)												
		Auto	MT	HT	Auto	k/h	MT	k/h	HT	k/h	Auto	MT						HT			
Calveno Peak																					
from: to:		%	Auto	%	MT	%	HT														
Parnassus Stanyan Hillpoint	756	95	718.2	4	30.24	1	7.56	25	40	25	40	25	40	58.7	56.6	58.2	62.7	40	58.4	8.8	28.7
Parnassus 5th 3rd	904	95	858.8	4	36.16	1	9.04	25	40	25	40	25	40	59.4	57.3	59.0	63.4	40	59.2	10.5	34.4
5th Parnassus Kirkham	250	97	242.5	2	5	1	2.5	25	40	25	40	25	40	53.9	48.7	53.4	57.3	40	53.1	2.6	8.4
Kirkham 6th 5th	312	97	302.64	2	6.24	1	3.12	25	40	25	40	25	40	54.9	49.7	54.3	58.3	40	54.0	3.2	10.5
Hillway Parnassus Irving	114	97	110.58	2	2.28	1	1.14	25	40	25	40	25	40	50.5	45.3	50.0	53.9	40	49.7	1.2	3.8
3rd Parnassus Irving	104	97	100.88	2	2.08	1	1.04	25	40	25	40	25	40	50.1	44.9	49.6	53.5	40	49.3	1.1	3.5
4th Parnassus Irving	189	97	183.33	2	3.78	1	1.89	25	40	25	40	25	40	52.7	47.5	52.2	56.1	40	51.9	1.9	6.4
5th Parnassus Irving	96	97	93.12	2	1.92	1	0.96	25	40	25	40	25	40	49.8	44.6	49.2	53.2	40	48.9	1.0	3.2
Assumptions: AM peak hour traffic data from Fehr & Peers																					

Assumptions: AM peak hour traffic data from Fehr & Peers

Existing + Project

Existing + Project														CALCULATED NOISE LEVEL (15 meters from roadway center)			Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)			
ROAD SEGMENT		TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)								
			Auto		MT		HT		Auto k/h		MT k/h		HT k/h		Auto MT HT								
Calveno																							
Peak																							
	from:	to:		%	Auto	%	MT	%	HT														
Parnassus	Stanyan	Hillpoint	766	95	727.7	4	30.64	1	7.66	25	40	25	40	25	40	58.7	56.6	58.2	62.7	40	58.5	8.9	29.1
Parnassus	5th	3rd	919	95	873.05	4	36.76	1	9.19	25	40	25	40	25	40	59.5	57.4	59.0	63.5	40	59.3	10.6	34.9
5th	Parnassus	Kirkham	252	97	244.44	2	5.04	1	2.52	25	40	25	40	25	40	54.0	48.8	53.4	57.4	40	53.1	2.6	8.5
Kirkham	6th	5th	320	97	310.4	2	6.4	1	3.2	25	40	25	40	25	40	55.0	49.8	54.5	58.4	40	54.1	3.3	10.8
Hillway	Parnassus	Irving	114	97	110.58	2	2.28	1	1.14	25	40	25	40	25	40	50.5	45.3	50.0	53.9	40	49.7	1.2	3.8
3rd	Parnassus	Irving	104	97	100.88	2	2.08	1	1.04	25	40	25	40	25	40	50.1	44.9	49.6	53.5	40	49.3	1.1	3.5
4th	Parnassus	Irving	192	97	186.24	2	3.84	1	1.92	25	40	25	40	25	40	52.8	47.6	52.2	56.2	40	51.9	2.0	6.5
5th	Parnassus	Irving	97	97	94.09	2	1.94	1	0.97	25	40	25	40	25	40	49.8	44.6	49.3	53.2	40	49.0	1.0	3.3
Assumptions: AM peak hour traffic data from Fehr & Peers																							

Assumptions: AM peak hour traffic data from Fehr & Peers

Cumulative

Cumulative													CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)		
ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED				NOISE LEVEL (dBA)							
		Auto	MT		HT		Auto k/h	MT k/h	HT k/h	Auto	MT	HT							
Calveno Peak																			
from: to:		%	Auto	%	MT	%	HT												
Parnassus Stanyan Hillpoint	0	95	0	4	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
Parnassus 5th 3rd	0	95	0	4	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
5th Parnassus Kirkham	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
Kirkham 6th 5th	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
Hillway Parnassus Irving	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
3rd Parnassus Irving	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
4th Parnassus Irving	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
5th Parnassus Irving	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	

Assumptions: AM peak hour traffic data from Fehr & Peers

UCSF LRDP Parnassus Roadway Noise Analysis

Cumulative + Project

Cumulative + Project															CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)				
ROAD SEGMENT		TOTAL # VEHICLES	VEHICLE TYPE %			VEHICLE SPEED				NOISE LEVEL (dBA)													
			Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT												
			%	Auto	%	MT	%	HT															
Calveno Peak																							
from:	to:																						
Parnassus	Stanyan	Hillpoint	848	95	805.6	4	33.92	1	8.48	25	40	25	40	25	40	59.2	57.1	58.7	63.2	40	58.9	9.8	32.2
Parnassus	5th	3rd	1019	95	968.05	4	40.76	1	10.19	25	40	25	40	25	40	60.0	57.9	59.5	64.0	40	59.7	11.8	38.7
5th	Parnassus	Kirkham	337	97	326.89	2	6.74	1	3.37	25	40	25	40	25	40	55.2	50.0	54.7	58.6	40	54.4	3.5	11.3
Kirkham	6th	5th	437	97	423.89	2	8.74	1	4.37	25	40	25	40	25	40	56.4	51.2	55.8	59.8	40	55.5	4.5	14.7
Hillway	Parnassus	Irving	155	97	150.35	2	3.1	1	1.55	25	40	25	40	25	40	51.9	46.7	51.3	55.3	40	51.0	1.6	5.2
3rd	Parnassus	Irving	145	97	140.65	2	2.9	1	1.45	25	40	25	40	25	40	51.6	46.4	51.0	55.0	40	50.7	1.5	4.9
4th	Parnassus	Irving	240	97	232.8	2	4.8	1	2.4	25	40	25	40	25	40	53.8	48.6	53.2	57.2	40	52.9	2.5	8.1
5th	Parnassus	Irving	101	97	97.97	2	2.02	1	1.01	25	40	25	40	25	40	50.0	44.8	49.4	53.4	40	49.1	1.0	3.4
Assumptions: AM peak hour traffic data from Fehr & Peers																							

Assumptions: AM peak hour traffic data from Fehr & Peers

Parnassus Surge
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/04/2014
Case Description: UCSF Parnassus Surge

**** Receptor #1 ****

Description	Land Use	Daytime	Baselines (dBA)	
			Evening	Night
Edgewood	Residential	58.0	58.0	58.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	180.0	0.0
Excavator	No	40		80.7	180.0	0.0
Front End Loader	No	40		79.1	180.0	0.0

Results

(dBA)		Noise Limits (dBA)								Noise Limit Exceedance			
		Calculated (dBA)		Day		Evening		Night		Day		Evening	
Night													
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax Leq													
Dozer		70.5	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												
Excavator		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		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		70.5	70.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A												

Parnassus Woods
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/04/2014
Case Description: UCSF Parnassus - Woods

**** Receptor #1 ****

Description	Land Use	Daytime	Baselines (dBA)	
			Evening	Night
Edgewood	Residential	58.0	58.0	58.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	200.0	0.0
Excavator	No	40		80.7	200.0	0.0
Front End Loader	No	40		79.1	200.0	0.0

Results

(dBA)		Noise Limits (dBA)								Noise Limit Exceedance			
		Calculated (dBA)		Day		Evening		Night		Day		Evening	
Night													
Equipment		Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Lmax	Leq												
Dozer		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												
Excavator		68.7	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												
Front End Loader		67.1	63.1	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		69.6	69.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A												

Ridge Noise 2

METROSONICS db-308 SN 2490 V2.3 3/87

CURRENT DATE: 1/10/14
CURRENT TIME: 13:14:28

Long-term monitoring

UCSF Parnassus Campus

Location PS-LT1: Border with Edgewood Avenue Residences

Approximately 300 feet north of Surge Parking Lot

CALIBRATED: 1/07/14 @ 10:38:59

DISPLAY RANGE: 42.0dB TO 138.0dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/08/14
START TIME: 0:00:00
LENGTH: 48:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/08/14
TEST STARTING TIME: 0:00:19
TEST LENGTH: 2DAYS 0:00:00

Lav = 57.6dB
Lav 80= 42.3dB
Lav 90= 42.0dB
SEL =109.8dB

Lmax = 82.8dB ON 1/08/14 @ 19:17:48
Lpk < 117dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.00%

Ridge Noise 2

8 HR DOSE (90dB CUTOFF)= 0.00%

** TIME HISTORY REPORT **

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

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2		
1 0	1/08/14 0:00:19	54.1 1:00:00	70.2 54	<117 53	*	+
2 0	1/08/14 1:00:19	54.4 1:00:00	80.8 54	<117 53	*	+
3 0	1/08/14 2:00:19	54.1 1:00:00	68.5 54	<117 53	*	+
4 0	1/08/14 3:00:19	53.4 1:00:00	67.6 53	<117 52	*	+
5 0	1/08/14 4:00:19	54.1 1:00:00	68.3 54	<117 53	*	+
6 0	1/08/14 5:00:19	56.2 1:00:00	79.8 56	<117 54	*	+
7 0	1/08/14 6:00:19	55.9 1:00:00	79.3 56	<117 54	*	+
8 0	1/08/14 7:00:19	55.5 1:00:00	67.6 56	<117 54	*	+
9 0	1/08/14 8:00:19	55.7 1:00:00	63.6 57	<117 54	*	+
10 0	1/08/14 9:00:19	55.5 1:00:00	64.4 56	<117 54	*	+
11 0	1/08/14 10:00:19	55.8 1:00:00	66.5 56	<117 54	*	+
12 0	1/08/14 11:00:19	56.4 1:00:00	68.0 57	<117 55	*	+
13 0	1/08/14 12:00:19	57.8 1:00:00	70.2 58	<117 57	*	+

Ridge Noise 2

14 1/08/14 58.0 61.5 <117
0 13:00:19 1:00:00 58 57

* +

15 1/08/14 58.2 62.6 <117
0 14:00:19 1:00:00 58 57

* +

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

16 1/08/14 58.2 66.9 <117
0 15:00:19 1:00:00 58 57

* +

17 1/08/14 58.6 68.1 <117
0 16:00:19 1:00:00 59 58

* +

18 1/08/14 58.8 70.4 <117
0 17:00:19 1:00:00 59 58

* +

19 1/08/14 59.2 76.2 <117
0 18:00:19 1:00:00 59 58

* +

20 1/08/14 59.0 82.8 <117
0 19:00:19 1:00:00 59 58

* +

21 1/08/14 58.3 63.3 <117
0 20:00:19 1:00:00 58 58

* +

22 1/08/14 58.2 63.5 <117
0 21:00:19 1:00:00 58 57

* +

23 1/08/14 57.8 61.5 <117
0 22:00:19 1:00:00 58 57

* +

24 1/08/14 57.9 69.6 <117
0 23:00:19 1:00:00 58 57

* +

25 1/09/14 57.8 59.6 <117
0 0:00:19 1:00:00 58 57

* +

26 1/09/14 57.6 59.0 <117
0 1:00:19 1:00:00 57 57

* +

27 1/09/14 57.7 60.6 <117
0 2:00:19 1:00:00 57 57

* +

28 1/09/14 57.7 61.4 <117
0 3:00:19 1:00:00 58 57

* +

29 1/09/14 57.9 61.4 <117

* +

Ridge Noise 2

0	4:00:19	1:00:00	58	57
30	1/09/14	57.8	70.7	<117
0	5:00:19	1:00:00	58	57
31	1/09/14	56.8	63.6	<117
0	6:00:19	1:00:00	57	55
32	1/09/14	56.0	70.1	<117
0	7:00:19	1:00:00	56	54
33	1/09/14	56.0	62.8	<117
0	8:00:19	1:00:00	56	55

*		+
*	+	
*		+
*	+	

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

34	1/09/14	56.4	72.1	<117
0	9:00:19	1:00:00	57	55
35	1/09/14	56.9	68.3	<117
0	10:00:19	1:00:00	57	56
36	1/09/14	57.5	65.9	<117
0	11:00:19	1:00:00	58	56
37	1/09/14	58.3	67.6	<117
0	12:00:19	1:00:00	58	57
38	1/09/14	59.2	74.2	<117
0	13:00:19	1:00:00	59	58
39	1/09/14	59.4	74.2	<117
0	14:00:19	1:00:00	59	58
40	1/09/14	59.6	64.5	<117
0	15:00:19	1:00:00	60	58
41	1/09/14	59.3	70.1	<117
0	16:00:19	1:00:00	59	58
42	1/09/14	59.0	69.5	<117
0	17:00:19	1:00:00	59	58
43	1/09/14	58.8	65.7	<117
0	18:00:19	1:00:00	59	58
44	1/09/14	58.7	64.9	<117
0	19:00:19	1:00:00	59	58

*		+
*		+
*	+	
*		+
*		+
*	+	
*		+
*	+	
*		+
*	+	

Ridge Noise 2

TOTAL SAMPLES = 1382400

$$L_n(0.0) = 82\text{dB}$$

Ridge Noise 2

Ln(10.0) = 58dB
 Ln(50.0) = 57dB
 Ln(99.9) = 52dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	57.1dB	42.0dB	42.0dB
Losha	57.0dB	42.0dB	42.0dB
Leq(6)	56.9dB	42.0dB	42.0dB

Ridge Noise

METROSONICS db-308 SN 2593 V2.3 3/87

CURRENT DATE: 1/10/14

CURRENT TIME: 12:13:55

Long-term monitoring

UCSF Parnassus Campus

Location PS-LT1: Border with Edgewood Avenue Residences

Approximately 300 feet north of Surgr Parking Lot

CALIBRATED: 1/07/14 @ 10:14:10

DISPLAY RANGE: 42.3dB TO 138.3dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/08/14

START TIME: 0:00:00

LENGTH: 48:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/08/14

TEST STARTING TIME: 0:00:19

TEST LENGTH: 2DAYS 0:00:00

Lav = 58.5dB

Lav 80= 52.3dB

Lav 90= 48.7dB

SEL =110.7dB

Lmax = 92.7dB ON 1/09/14 @ 13:53:51

Lpk = 117dB ON 1/09/14 @ 5:21:33

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

Ridge Noise

8 HR DOSE (80dB CUTOFF)= 0.09%
8 HR DOSE (90dB CUTOFF)= 0.04%

** TIME HISTORY REPORT **

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

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2				
1 0	1/08/14 0:00:19	52.6 1:00:00	74.4 53	<117 47	*		+	
2 0	1/08/14 1:00:19	51.5 1:00:00	80.1 52	<117 47	*			+
3 0	1/08/14 2:00:19	48.7 1:00:00	62.0 50	<117 46	*	+		
4 0	1/08/14 3:00:19	48.2 1:00:00	61.8 49	<117 46	*	+		
5 0	1/08/14 4:00:19	51.5 1:00:00	73.9 52	<117 46	*		+	
6 0	1/08/14 5:00:19	54.5 1:00:00	70.9 57	<117 48	*		+	
7 0	1/08/14 6:00:19	56.5 1:00:00	72.2 59	<117 50	*		+	
8 0	1/08/14 7:00:19	59.9 1:00:00	77.1 62	<117 53		*		+
9 0	1/08/14 8:00:19	58.7 1:00:00	73.0 61	<117 53		*	+	
10 0	1/08/14 9:00:19	61.4 1:00:00	89.7 61	<117 52		*		+
11 0	1/08/14 10:00:19	57.6 1:00:00	68.7 60	<117 52	*	+		
12	1/08/14	57.7	71.7	<117	*		+	

Ridge Noise

0	11:00:19	1:00:00	60	52
13	1/08/14	59.7	80.2	<117
0	12:00:19	1:00:00	62	52
14	1/08/14	57.1	70.4	<117
0	13:00:19	1:00:00	59	52
15	1/08/14	58.3	82.1	<117
0	14:00:19	1:00:00	60	52

*		+
*	+	
*		+

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

16	1/08/14	58.2	71.8	<117
0	15:00:19	1:00:00	61	53
17	1/08/14	58.6	78.9	<117
0	16:00:19	1:00:00	60	53
18	1/08/14	58.3	70.3	<117
0	17:00:19	1:00:00	60	54
19	1/08/14	58.5	78.3	<117
0	18:00:19	1:00:00	60	54
20	1/08/14	57.8	75.5	<117
0	19:00:19	1:00:00	60	52
21	1/08/14	55.9	70.4	<117
0	20:00:19	1:00:00	58	51
22	1/08/14	54.7	67.8	<117
0	21:00:19	1:00:00	56	50
23	1/08/14	53.8	70.7	<117
0	22:00:19	1:00:00	56	49
24	1/08/14	53.0	70.5	<117
0	23:00:19	1:00:00	54	48
25	1/09/14	52.6	74.5	<117
0	0:00:19	1:00:00	53	47
26	1/09/14	50.1	64.5	<117
0	1:00:19	1:00:00	51	47

*	+
---	---

Ridge Noise

27	1/09/14	49.0	60.2	<117
0	2:00:19	1:00:00	50	47
28	1/09/14	49.6	68.1	<117
0	3:00:19	1:00:00	49	46
29	1/09/14	53.4	80.6	<117
0	4:00:19	1:00:00	53	46
30	1/09/14	57.8	82.5	117
0	5:00:19	1:00:00	58	48
31	1/09/14	59.7	81.1	<117
0	6:00:19	1:00:00	62	51
32	1/09/14	59.5	72.8	<117
0	7:00:19	1:00:00	62	54
33	1/09/14	59.1	73.7	<117
0	8:00:19	1:00:00	62	54

*

+

*

+

*

+

*

+

*

+

*

+

*

+

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

34	1/09/14	60.6	81.9	<117
0	9:00:19	1:00:00	63	53

*

+

35	1/09/14	58.6	75.4	<117
0	10:00:19	1:00:00	61	52

*

+

36	1/09/14	57.7	73.3	<117
0	11:00:19	1:00:00	60	53

*

+

37	1/09/14	58.3	72.3	<117
0	12:00:19	1:00:00	61	53

*

+

38	1/09/14	66.8	92.7	<117
0	13:00:19	1:00:00	63	54

*

+

39	1/09/14	59.5	74.0	117
0	14:00:19	1:00:00	62	54

*

+

40	1/09/14	60.6	77.2	<117
0	15:00:19	1:00:00	63	55

*

+

41	1/09/14	66.2	91.4	<117
0	16:00:19	1:00:00	62	54

*

+

Ridge Noise

42	1/09/14	58.6	74.0	<117	*		+
0	17:00:19	1:00:00	60	54			
43	1/09/14	58.3	68.6	<117	*	+	
0	18:00:19	1:00:00	60	54			
44	1/09/14	57.5	69.6	<117	*	+	
0	19:00:19	1:00:00	60	53			
45	1/09/14	56.2	70.3	<117	*	+	
0	20:00:19	1:00:00	58	52			
46	1/09/14	59.3	87.4	<117	*		+
0	21:00:19	1:00:00	57	50			
47	1/09/14	55.3	70.9	<117	*	+	
0	22:00:19	1:00:00	56	50			
48	1/09/14	54.6	75.8	<117	*		+
0	23:00:19	PARTIAL	55	49			

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1382400

dB	SAMPLES	% OF TOTAL
45	3	.00
46	34983 ***	2.53
47	106198 *****	7.68
48	72206 *****	5.22
49	55935 *****	4.04
50	66612 *****	4.81
51	74298 *****	5.37
52	86972 *****	6.29
53	113648 *****	8.22
54	130354 *****	9.42
55	131256 *****	9.49
56	141115 *****	10.20
57	101126 *****	7.31
58	77475 *****	5.60
59	47830 ***	3.45
60	35309 ***	2.55
61	26872 **	1.94
62	20736 **	1.50
63	15958 *	1.15
64	14227 *	1.02

Ridge Noise

65	10865 *	.78
66	6750 +	.48
67	3963 +	.28
68	2665 +	.19
69	1322 .	.09
70	950 .	.06
71	624 .	.04
72	463 .	.03
73	444 .	.03
74	237 .	.01
75	176 .	.01
76	128	.00
77	109	.00
78	70	.00
79	61	.00
80	67	.00
81	47	.00
82	52	.00
83	36	.00
84	39	.00
85	22	.00
86	21	.00
87	34	.00
88	31	.00
89	33	.00
90	41	.00
91	27	.00
92	10	.00

Ln(0.0) = 92dB
Ln(10.0) = 60dB
Ln(50.0) = 54dB
Ln(99.9) = 46dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	56.4dB	45.1dB	43.3dB
Losha	55.7dB	43.0dB	42.3dB
Leq(6)	55.4dB	42.4dB	42.1dB

Ridge Noise

METROSONICS db-308 SN 2490 V2.3 3/87

CURRENT DATE: 1/10/14

CURRENT TIME: 13:14:28

CALIBRATED: 1/07/14 @ 10:38:59

DISPLAY RANGE: 42.0dB TO 138.0dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/08/14

START TIME: 0:00:00

LENGTH: 48:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/08/14

TEST STARTING TIME: 0:00:19

TEST LENGTH: 2DAYS 0:00:00

Lav = 57.6dB

Lav 80= 42.3dB

Lav 90= 42.0dB

SEL =109.8dB

Lmax = 82.8dB ON 1/08/14 @ 19:17:48

Lpk < 117dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

Ridge Noise

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): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2			
1 0	1/08/14 0:00:19	54.1 1:00:00	70.2 54	<117 53	*	+	
2 0	1/08/14 1:00:19	54.4 1:00:00	80.8 54	<117 53	*		+
3 0	1/08/14 2:00:19	54.1 1:00:00	68.5 54	<117 53	*	+	
4 0	1/08/14 3:00:19	53.4 1:00:00	67.6 53	<117 52	*	+	
5 0	1/08/14 4:00:19	54.1 1:00:00	68.3 54	<117 53	*	+	
6 0	1/08/14 5:00:19	56.2 1:00:00	79.8 56	<117 54	*		+
7 0	1/08/14 6:00:19	55.9 1:00:00	79.3 56	<117 54	*		+
8 0	1/08/14 7:00:19	55.5 1:00:00	67.6 56	<117 54	*	+	
9 0	1/08/14 8:00:19	55.7 1:00:00	63.6 57	<117 54	*	+	
10 0	1/08/14 9:00:19	55.5 1:00:00	64.4 56	<117 54	*	+	
11 0	1/08/14 10:00:19	55.8 1:00:00	66.5 56	<117 54	*	+	
12	1/08/14	56.4	68.0	<117	*	+	

Ridge Noise

0	11:00:19	1:00:00	57	55
13	1/08/14	57.8	70.2	<117
0	12:00:19	1:00:00	58	57
14	1/08/14	58.0	61.5	<117
0	13:00:19	1:00:00	58	57
15	1/08/14	58.2	62.6	<117
0	14:00:19	1:00:00	58	57

*		+
*	+	
*	+	

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

16	1/08/14	58.2	66.9	<117
0	15:00:19	1:00:00	58	57
17	1/08/14	58.6	68.1	<117
0	16:00:19	1:00:00	59	58
18	1/08/14	58.8	70.4	<117
0	17:00:19	1:00:00	59	58
19	1/08/14	59.2	76.2	<117
0	18:00:19	1:00:00	59	58
20	1/08/14	59.0	82.8	<117
0	19:00:19	1:00:00	59	58
21	1/08/14	58.3	63.3	<117
0	20:00:19	1:00:00	58	58
22	1/08/14	58.2	63.5	<117
0	21:00:19	1:00:00	58	57
23	1/08/14	57.8	61.5	<117
0	22:00:19	1:00:00	58	57
24	1/08/14	57.9	69.6	<117
0	23:00:19	1:00:00	58	57
25	1/09/14	57.8	59.6	<117
0	0:00:19	1:00:00	58	57
26	1/09/14	57.6	59.0	<117
0	1:00:19	1:00:00	57	57

*		+		
*		+		
*		+		
*			+	
*				+
*	+			
*	+			
*	+			
*			+	
*	+			
*	+			

Ridge Noise

27	1/09/14	57.7	60.6	<117
0	2:00:19	1:00:00	57	57
28	1/09/14	57.7	61.4	<117
0	3:00:19	1:00:00	58	57
29	1/09/14	57.9	61.4	<117
0	4:00:19	1:00:00	58	57
30	1/09/14	57.8	70.7	<117
0	5:00:19	1:00:00	58	57
31	1/09/14	56.8	63.6	<117
0	6:00:19	1:00:00	57	55
32	1/09/14	56.0	70.1	<117
0	7:00:19	1:00:00	56	54
33	1/09/14	56.0	62.8	<117
0	8:00:19	1:00:00	56	55

*	+
*	+
*	+
*	
*	+
*	
*	+

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

34	1/09/14	56.4	72.1	<117
0	9:00:19	1:00:00	57	55
35	1/09/14	56.9	68.3	<117
0	10:00:19	1:00:00	57	56
36	1/09/14	57.5	65.9	<117
0	11:00:19	1:00:00	58	56
37	1/09/14	58.3	67.6	<117
0	12:00:19	1:00:00	58	57
38	1/09/14	59.2	74.2	<117
0	13:00:19	1:00:00	59	58
39	1/09/14	59.4	74.2	<117
0	14:00:19	1:00:00	59	58
40	1/09/14	59.6	64.5	<117
0	15:00:19	1:00:00	60	58
41	1/09/14	59.3	70.1	<117
0	16:00:19	1:00:00	59	58

*		+
*		+
*	+	
*		+
*		+
*		+
*	+	
*		+

Ridge Noise

42	1/09/14	59.0	69.5	<117	*	+
0	17:00:19	1:00:00	59	58		
43	1/09/14	58.8	65.7	<117	*	+
0	18:00:19	1:00:00	59	58		
44	1/09/14	58.7	64.9	<117	*	+
0	19:00:19	1:00:00	59	58		
45	1/09/14	58.6	62.2	<117	*	+
0	20:00:19	1:00:00	59	58		
46	1/09/14	58.4	70.3	<117	*	+
0	21:00:19	1:00:00	58	58		
47	1/09/14	58.5	69.0	<117	*	+
0	22:00:19	1:00:00	58	58		
48	1/09/14	58.3	61.3	<117	*	+
0	23:00:19	PARTIAL	58	58		

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1382400

dB	SAMPLES	% OF TOTAL
52	8830 *	.63
53	89476 *****	6.47
54	97965 *****	7.08
55	139371 *****	10.08
56	121363 *****	8.77
57	316324 *****	22.88
58	478364 *****	34.60
59	105802 *****	7.65
60	14853 *	1.07
61	4506 +	.32
62	2188 +	.15
63	1099 .	.07
64	567 .	.04
65	384 .	.02
66	270 .	.01
67	260 .	.01
68	231 .	.01
69	185 .	.01
70	105	.00
71	58	.00

Ridge Noise

72	29	.00
73	53	.00
74	38	.00
75	29	.00
76	13	.00
77	7	.00
78	10	.00
79	8	.00
80	4	.00
81	3	.00
82	5	.00

Ln(0.0) = 82dB
 Ln(10.0) = 58dB
 Ln(50.0) = 57dB
 Ln(99.9) = 52dB

NO	80.0dB	90.0dB
CUTOFF	CUTOFF	CUTOFF

Ldod	57.1dB	42.0dB	42.0dB
Losha	57.0dB	42.0dB	42.0dB
Leq(6)	56.9dB	42.0dB	42.0dB

UC Hall Noise

METROSONICS db-308 SN 2593 V2.3 3/87

CURRENT DATE: 1/10/14
CURRENT TIME: 12:44:41

Long-term Monitoring

UCSF Parnassus Campus

Location PS-LT-3 UC Hall

Floor 1 Balcony on North side of building

CALIBRATED: 1/07/14 @ 10:14:10

DISPLAY RANGE: 42.3dB TO 138.3dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/08/14
START TIME: 0:00:00
LENGTH: 48:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/08/14
TEST STARTING TIME: 0:00:19
TEST LENGTH: 2DAYS 0:00:00

Lav = 58.5dB
Lav 80= 52.3dB
Lav 90= 48.7dB
SEL =110.7dB

Lmax = 92.7dB ON 1/09/14 @ 13:53:51
Lpk = 117dB ON 1/09/14 @ 5:21:33

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.09%
8 HR DOSE (90dB CUTOFF)= 0.04%

UC Hall Noise

** TIME HISTORY REPORT **

MODE: CONTINUOUS

PERIOD LENGTH: 1:00:00

TIME HISTORY CUTOFF: NONE

Ln(1): 10.0% Ln(2): 90.0%

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

1	1/08/14	52.6	74.4	<117
0	0:00:19	1:00:00	53	47
2	1/08/14	51.5	80.1	<117
0	1:00:19	1:00:00	52	47
3	1/08/14	48.7	62.0	<117
0	2:00:19	1:00:00	50	46
4	1/08/14	48.2	61.8	<117
0	3:00:19	1:00:00	49	46
5	1/08/14	51.5	73.9	<117
0	4:00:19	1:00:00	52	46
6	1/08/14	54.5	70.9	<117
0	5:00:19	1:00:00	57	48
7	1/08/14	56.5	72.2	<117
0	6:00:19	1:00:00	59	50
8	1/08/14	59.9	77.1	<117
0	7:00:19	1:00:00	62	53
9	1/08/14	58.7	73.0	<117
0	8:00:19	1:00:00	61	53
10	1/08/14	61.4	89.7	<117
0	9:00:19	1:00:00	61	52
11	1/08/14	57.6	68.7	<117
0	10:00:19	1:00:00	60	52
12	1/08/14	57.7	71.7	<117
0	11:00:19	1:00:00	60	52
13	1/08/14	59.7	80.2	<117
0	12:00:19	1:00:00	62	52
14	1/08/14	57.1	70.4	<117

*		+
*		+
*	+	
*	+	
*		+
*		+
*		+
*		+
*		+
*	+	
*		+
*		+
*		+
*	+	

UC Hall Noise

0 13:00:19 1:00:00 59 52
 15 1/08/14 58.3 82.1 <117
 0 14:00:19 1:00:00 60 52

* +

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

16	1/08/14	58.2	71.8	<117
0	15:00:19	1:00:00	61	53

* +

17	1/08/14	58.6	78.9	<117
0	16:00:19	1:00:00	60	53

* +

18	1/08/14	58.3	70.3	<117
0	17:00:19	1:00:00	60	54

* +

19	1/08/14	58.5	78.3	<117
0	18:00:19	1:00:00	60	54

* +

20	1/08/14	57.8	75.5	<117
0	19:00:19	1:00:00	60	52

* +

21	1/08/14	55.9	70.4	<117
0	20:00:19	1:00:00	58	51

* +

22	1/08/14	54.7	67.8	<117
0	21:00:19	1:00:00	56	50

* +

23	1/08/14	53.8	70.7	<117
0	22:00:19	1:00:00	56	49

* +

24	1/08/14	53.0	70.5	<117
0	23:00:19	1:00:00	54	48

* +

25	1/09/14	52.6	74.5	<117
0	0:00:19	1:00:00	53	47

* +

26	1/09/14	50.1	64.5	<117
0	1:00:19	1:00:00	51	47

* +

27	1/09/14	49.0	60.2	<117
0	2:00:19	1:00:00	50	47

* +

28	1/09/14	49.6	68.1	<117
0	3:00:19	1:00:00	49	46

* +

29	1/09/14	53.4	80.6	<117
0	4:00:19	1:00:00	53	46

* +

30	1/09/14	57.8	82.5	117	*	UC Hall Noise	+
0	5:00:19	1:00:00	58	48			
31	1/09/14	59.7	81.1	<117	*		+
0	6:00:19	1:00:00	62	51			
32	1/09/14	59.5	72.8	<117	*	+	
0	7:00:19	1:00:00	62	54			
33	1/09/14	59.1	73.7	<117	*	+	
0	8:00:19	1:00:00	62	54			
NT#	START	Lav	Lmax	Lpk			
AG#	TIME	ET	L1	L2			
34	1/09/14	60.6	81.9	<117	*		+
0	9:00:19	1:00:00	63	53			
35	1/09/14	58.6	75.4	<117	*	+	
0	10:00:19	1:00:00	61	52			
36	1/09/14	57.7	73.3	<117	*	+	
0	11:00:19	1:00:00	60	53			
37	1/09/14	58.3	72.3	<117	*	+	
0	12:00:19	1:00:00	61	53			
38	1/09/14	66.8	92.7	<117		*	+
0	13:00:19	1:00:00	63	54			
39	1/09/14	59.5	74.0	117	*	+	
0	14:00:19	1:00:00	62	54			
40	1/09/14	60.6	77.2	<117	*		+
0	15:00:19	1:00:00	63	55			
41	1/09/14	66.2	91.4	<117		*	+
0	16:00:19	1:00:00	62	54			
42	1/09/14	58.6	74.0	<117	*	+	
0	17:00:19	1:00:00	60	54			
43	1/09/14	58.3	68.6	<117	*	+	
0	18:00:19	1:00:00	60	54			
44	1/09/14	57.5	69.6	<117	*	+	
0	19:00:19	1:00:00	60	53			
45	1/09/14	56.2	70.3	<117	*	+	
0	20:00:19	1:00:00	58	52			

UC Hall Noise

46	1/09/14	59.3	87.4	<117	*	+
0	21:00:19	1:00:00	57	50		
47	1/09/14	55.3	70.9	<117	*	+
0	22:00:19	1:00:00	56	50		
48	1/09/14	54.6	75.8	<117	*	+
0	23:00:19	PARTIAL	55	49		

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 1382400

dB	SAMPLES	% OF TOTAL
45	3	.00
46	34983 ***	2.53
47	106198 *****	7.68
48	72206 *****	5.22
49	55935 *****	4.04
50	66612 *****	4.81
51	74298 *****	5.37
52	86972 *****	6.29
53	113648 *****	8.22
54	130354 *****	9.42
55	131256 *****	9.49
56	141115 *****	10.20
57	101126 *****	7.31
58	77475 *****	5.60
59	47830 ***	3.45
60	35309 ***	2.55
61	26872 **	1.94
62	20736 **	1.50
63	15958 *	1.15
64	14227 *	1.02
65	10865 *	.78
66	6750 +	.48
67	3963 +	.28
68	2665 +	.19
69	1322 .	.09
70	950 .	.06
71	624 .	.04
72	463 .	.03
73	444 .	.03
74	237 .	.01
75	176 .	.01
76	128	.00
77	109	.00
78	70	.00
79	61	.00

UC Hall Noise

80	67	.00
81	47	.00
82	52	.00
83	36	.00
84	39	.00
85	22	.00
86	21	.00
87	34	.00
88	31	.00
89	33	.00
90	41	.00
91	27	.00
92	10	.00

Ln(0.0) = 92dB
 Ln(10.0) = 60dB
 Ln(50.0) = 54dB
 Ln(99.9) = 46dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	56.4dB	45.1dB	43.3dB
Losha	55.7dB	43.0dB	42.3dB
Leq(6)	55.4dB	42.4dB	42.1dB

Calculated Ldn from long-term noise monitoring data

UCSF Mission Bay Campus Location MB-LT-1

					10 dBA Penalized Values	5 dBA Penalized Values
	TIME	dB	Remove	LOG		
1/9/2014	Midnight 0 / 24	56.1			407380	4073803
	am 1:00	100	53.2		208930	2089296
	2:00	200	54.3		269153	2691535
	3:00	300	56.4		436516	4365158
	4:00	400	56.4		436516	4365158
	5:00	500	58.5		707946	7079458
	6:00	600	60.3		1071519	10715193
	7:00	700	61.4		1380384	13803843
	8:00	800	62.0		1584893	15848932
	9:00	900	60.3		1071519	10715193
	10:00	1000	59.3		851138	8511380
	11:00	1100	60.5		1122018	11220185
	12:00	1200	63.5		2238721	22387211
	pm 1:00	1300	61.1		1288250	12882496
	2:00	1400	61.5		1412538	14125375
	3:00	1500	56.5		446684	4466836
	4:00	1600	56.2		416869	4168694
	5:00	1700	57.9		616595	6165950
	6:00	1800	58.2		660693	6606934
	7:00	1900	60.3		1071519	10715193
	8:00	2000	58.3		676083	6760830
	9:00	2100	58.7		741310	7413102
	10:00	2200	57.2		524807	5248075
	pm 11:00	2300	57.1		512861	5128614
						1621810

Leq Morning Peak Hour 7:00-10:00 a.m.

61 dBA

Leq Evening Peak Hour 4:00-8:00 p.m.

58 dBA

Leq Nighttime 10:00 pm-7:00 a.m. (not penalized)

57 dBA

Leq Daytime 7:00 am-10:00 p.m.

60 dBA

Leq 24-Hour

59 dBA

Ldn: 10 dBA penalty for noise between 10:00 p.m. and 7:00 a.m.

64 dBA

**CNEL: 5 dBA penalty for noise between 7:00p.m. and 10:00 p.m.,
and 10 dBA penalty for noise between
10:00 p.m. and 7:00 a.m.**

64 dBA

CNEL - Ldn 0.36526028

MB Noise

METROSONICS db-308 SN 2490 V2.3 3/87

CURRENT DATE: 1/21/14

CURRENT TIME: 11:16:06

CALIBRATED: 1/16/14 @ 15:34:33

DISPLAY RANGE: 42.0dB TO 138.0dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/17/14

START TIME: 0:00:00

LENGTH: 48:00:00

** OVERALL REPORT **

TEST STARTING DATE: 1/17/14

TEST STARTING TIME: 0:00:19

TEST LENGTH: 2DAYS 0:00:00

Lav = 58.6dB

Lav 80= 45.8dB

Lav 90= 43.3dB

SEL =110.8dB

Lmax = 93.9dB ON 1/17/14 @ 12:32:41

Lpk < 117dB

MB Noise

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

8 HR DOSE (80dB CUTOFF)= 0.02%

8 HR DOSE (90dB CUTOFF)= 0.01%

** TIME HISTORY REPORT **

MODE: CONTINUOUS

PERIOD LENGTH: 1:00:00

TIME HISTORY CUTOFF: NONE

Ln(1): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2				
1 0	1/17/14 0 0:00:19	56.1 1:00:00	77.6 56	<117 53	*			+
2 0	1/17/14 0 1:00:19	53.2 1:00:00	60.0 54	<117 52	*	+		
3 0	1/17/14 0 2:00:19	54.3 1:00:00	64.8 55	<117 52	*		+	
4 0	1/17/14 0 3:00:19	56.4 1:00:00	80.9 55	<117 52	*			+
5 0	1/17/14 0 4:00:19	56.4 1:00:00	75.2 56	<117 53	*			+
6 0	1/17/14 0 5:00:19	58.5 1:00:00	72.5 60	<117 55	*		+	
7 0	1/17/14 0 6:00:19	60.3 1:00:00	76.0 61	<117 58	*			+
8 0	1/17/14 0 7:00:19	61.4 1:00:00	71.3 63	<117 58	*		+	

MB Noise

16	1/17/14	56.5	71.3	<117
0	15:00:19	1:00:00	58	53
17	1/17/14	56.2	66.7	<117
0	16:00:19	1:00:00	57	54
18	1/17/14	57.9	75.4	<117
0	17:00:19	1:00:00	59	55
19	1/17/14	58.2	66.5	<117
0	18:00:19	1:00:00	60	55
20	1/17/14	60.3	70.1	<117
0	19:00:19	1:00:00	62	57
21	1/17/14	58.3	72.3	<117
0	20:00:19	1:00:00	59	56

22	1/17/14	58.7	72.9	<117			MB Noise
0	21:00:19	1:00:00	59	56	*		+
23	1/17/14	57.2	72.1	<117	*		+
0	22:00:19	1:00:00	58	55			
24	1/17/14	57.1	74.2	<117	*		+
0	23:00:19	1:00:00	58	54			
25	1/18/14	55.4	62.7	<117	*	+	
0	0:00:19	1:00:00	56	54			
26	1/18/14	54.3	60.8	<117	*	+	
0	1:00:19	1:00:00	55	52			
27	1/18/14	55.0	60.1	<117	*	+	
0	2:00:19	1:00:00	56	53			
28	1/18/14	54.3	58.2	<117	*	+	
0	3:00:19	1:00:00	55	53			
29	1/18/14	54.6	61.3	<117	*	+	
0	4:00:19	1:00:00	55	53			
30	1/18/14	56.1	68.0	<117	*		+
0	5:00:19	1:00:00	57	54			
31	1/18/14	57.0	64.5	<117	*	+	
0	6:00:19	1:00:00	58	55			
32	1/18/14	57.2	70.1	<117	*		+
0	7:00:19	1:00:00	58	54			
33	1/18/14	58.9	73.0	<117	*		+
0	8:00:19	1:00:00	60	56			

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

34	1/18/14	59.0	73.3	<117	*		+
0	9:00:19	1:00:00	61	55			

MB Noise

Page 5

MB Noise

TOTAL SAMPLES = 1382400

dB	SAMPLES	% OF TOTAL
51	3495 +	.25
52	31857 **	2.30
53	94545 *****	6.83
54	155636 *****	11.25
55	172082 *****	12.44
56	211742 *****	15.31
57	198038 *****	14.32
58	184960 *****	13.37
59	133418 *****	9.65
60	88676 *****	6.41
61	47851 ***	3.46
62	25798 **	1.86
63	13151 *	.95
64	7129 *	.51
65	4364 +	.31
66	2952 +	.21
67	1808 +	.13
68	1458 +	.10
69	898 .	.06
70	590 .	.04
71	470 .	.03
72	322 .	.02
73	260 .	.01
74	189 .	.01
75	170 .	.01
76	147 .	.01
77	102	.00
78	85	.00
79	70	.00
80	45	.00
81	33	.00
82	17	.00
83	11	.00
84	3	.00
85	3	.00
86	2	.00
87	3	.00
88	2	.00
89	2	.00

MB Noise

90	2	.00
91	4	.00
92	4	.00
93	6	.00

Ln(0.0) = 93dB
 Ln(10.0) = 60dB
 Ln(50.0) = 57dB
 Ln(99.9) = 51dB

	NO CUTOFF	80.0dB CUTOFF	90.0dB CUTOFF
Ldod	57.6dB	42.8dB	42.4dB
Losha	57.4dB	42.2dB	42.1dB
Leq(6)	57.3dB	42.1dB	42.0dB

MBMC Noise

METROSONICS db-308 SN 2490 V2.3 3/87

CURRENT DATE: 3/10/14
CURRENT TIME: 8:20:45

CALIBRATED: 3/04/14 @ 16:19:42

DISPLAY RANGE: 41.7dB TO 137.7dB

DOUBLING RATE: 3 dB

FILTER: A WGHT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/28/14
START TIME: 14:00:00
LENGTH: 24:00:00

** OVERALL REPORT **

TEST STARTING DATE: 3/07/14
TEST STARTING TIME: 16:15:20
TEST LENGTH: 0DAYS 0:41:15

Lav = 69.3dB
Lav 80= 58.6dB
Lav 90= 41.7dB
SEL =103.1dB

Lmax = 85.9dB ON 3/07/14 @ 17:21:43
Lpk < 116dB

TIME OVER 115dB 0D 0:00:00.00

DOSE CRITERION: 90dB

MBMC Noise

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: 0:10:00
 TIME HISTORY CUTOFF: NONE
 Ln(1): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2		
1 0	3/07/14 16:15:20	67.8 0:10:00	83.6 70	<116 61	*	+
2 0	3/07/14 16:25:20	63.1 PARTIAL	63.7 63	<116 62	+	
3 0	3/07/14 16:30:11	68.0 0:10:00	76.8 69	<116 65	*	+
4 0	3/07/14 16:40:11	67.5 PARTIAL	68.6 68	<116 66	* +	
5 0	3/07/14 16:56:36	70.9 0:10:00	79.4 73	<116 66	*	+
6 0	3/07/14 17:06:36	65.7 PARTIAL	67.7 67	<116 64	* +	
7 0	3/07/14 17:19:20	69.8 0:10:00	85.9 71	<116 62	*	+
8 0	3/07/14 17:29:20	67.9 PARTIAL	72.6 70	<116 62	* +	

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 19806

dB SAMPLES

% OF TOTAL

MBMC Noise

59	90	+	.45
60	162	*	.81
61	732	****	3.69
62	1355	*****	6.84
63	1091	*****	5.50
64	1591	*****	8.03
65	1648	*****	8.32
66	1729	*****	8.72
67	2195	*****	11.08
68	2572	*****	12.98
69	2139	*****	10.79
70	1368	*****	6.90
71	1140	*****	5.75
72	728	****	3.67
73	467	**	2.35
74	323	**	1.63
75	166	*	.83
76	122	*	.61
77	58	+	.29
78	34	+	.17
79	24	+	.12
80	14	.	.07
81	17	.	.08
82	10	.	.05
83	14	.	.07
84	10	.	.05
85	7	.	.03

Ln(0.0) = 85dB
 Ln(10.0) = 72dB
 Ln(50.0) = 67dB
 Ln(99.9) = 59dB

	NO	80.0dB	90.0dB
	CUTOFF	CUTOFF	CUTOFF
Ldod	68.3dB	50.0dB	41.0dB
Losha	68.1dB	41.8dB	41.0dB
Leq(6)	67.9dB	44.1dB	41.0dB

Mission Bay Block 15
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/07/2014
Case Description: UCSF Block 15

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Bolck 18 Child Care	Residential	60.0	60.0	60.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	250.0	0.0
Excavator	No	40		80.7	250.0	0.0
Front End Loader	No	40		79.1	250.0	0.0

Results

Limit Exceedance (dBA)					Noise Limits (dBA)						Noise	
</												

Mission Bay Block 18
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/07/2014
Case Description: UCSF Block 18

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Block 20	Residential	60.0	60.0	60.0

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
Excavator	No	40		80.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0

Results

Noise Limit Exceedance (dBA)					Noise Limits (dBA)								
					Calculated (dBA)				Day		Evening		Night
Evening		Night		Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Lmax	Leq	Lmax	Leq										
Dozer	N/A	N/A	N/A	75.6	71.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	N/A	74.7	70.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	N/A	N/A	N/A	73.1	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total				75.6	75.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A									

Mission Bay Block 18-2
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/07/2014
Case Description: UCSF Block 18

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Block 15	Residential	60.0	60.0	60.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	200.0	0.0
Excavator	No	40		80.7	200.0	0.0
Front End Loader	No	40		79.1	200.0	0.0

Results

Limit Exceedance (dBA)					Noise Limits (dBA)						Noise	

Mission Bay Block 23
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/06/2014
Case Description: UCSF Block 23

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Block 20	Residential	60.0	60.0	60.0

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
Excavator	No	40		80.7	100.0	0.0
Front End Loader	No	40		79.1	100.0	0.0

Results

Noise Limit Exceedance (dBA)					Noise Limits (dBA)							
</												

Mission Bay Block 25
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/07/2014
Case Description: UCSF Block 25

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Block 20	Residential	60.0	60.0	60.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	450.0	0.0
Excavator	No	40		80.7	450.0	0.0
Front End Loader	No	40		79.1	450.0	0.0

Results

Limit Exceedance (dBA)					Noise Limits (dBA)						Noise	

Report date: 03/07/2014
Case Description: UCSF Med Center

Mission Bay Cancer
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/06/2014
Case Description: UCSF Cancer Outpatient

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

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Block 20	Residential	60.0	60.0	60.0

Equipment						
Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	800.0	0.0
Excavator	No	40		80.7	800.0	0.0
Front End Loader	No	40		79.1	800.0	0.0

Results

Limit Exceedance (dBA)					Noise Limits (dBA)						Noise	

Existing

ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
		Auto	MT	HT	Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT	Auto	MT	HT					
Calveno																					
Peak																					
from: to:		%	Auto	%	MT	%	HT														
3rd Street MB South 16th	1352	95	1284.4	3	40.56	2	27.04	35	56	35	56	35	56	65.4	60.1	65.1	68.9	40	64.6	36.5	119.8
3rd Street Mariposa 20th	1219	95	1158.1	3	36.57	2	24.38	35	56	35	56	35	56	64.9	59.7	64.6	68.4	40	64.2	32.9	108.0
3rd Street MB South Channel	1447	95	1374.7	3	43.41	2	28.94	35	56	35	56	35	56	65.7	60.4	65.4	69.2	40	64.9	39.1	128.3
MB South 3rd 6th	50	97	48.5	2	1	1	0.5	25	40	25	40	25	40	47.0	41.8	46.4	50.3	40	46.1	0.5	1.7

Assumptions: AM peak hour traffic data from Fehr & Peers

Existing + Project

ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
		Auto	MT	HT	Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT	Auto	MT	HT					
Calveno																					
Peak																					
from: to:		%	Auto	%	MT	%	HT														
3rd Street MB South 16th	1508	95	1432.6	3	45.24	2	30.16	35	56	35	56	35	56	65.9	60.6	65.5	69.3	40	65.1	40.7	133.7
3rd Street Mariposa 20th	1348	95	1280.6	3	40.44	2	26.96	35	56	35	56	35	56	65.4	60.1	65.1	68.9	40	64.6	36.4	119.5
3rd Street MB South Channel	1612	95	1531.4	3	48.36	2	32.24	35	56	35	56	35	56	66.2	60.9	65.8	69.6	40	65.4	43.5	142.9
MB South 3rd 6th	59	97	57.23	2	1.18	1	0.59	25	40	25	40	25	40	47.7	42.5	47.1	51.1	40	46.8	0.6	2.0
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!

Assumptions: AM peak hour traffic data from Fehr & Peers

Cumulative

ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
		Auto	MT	HT	Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT	Auto	MT	HT					
Calveno																					
Peak																					
from: to:		%	Auto	%	MT	%	HT														
3rd Street MB South 16th	0	95	0	3	0	2	0	35	56	35	56	35	56	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
3rd Street Mariposa 20th	0	95	0	3	0	2	0	35	56	35	56	35	56	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
3rd Street MB South Channel	0	95	0	3	0	2	0	35	56	35	56	35	56	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
MB South 3rd 6th	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!

Assumptions: AM peak hour traffic data from Fehr & Peers

UCSF LRDP Mission Bay Roadway Noise Analysis

Cumulative + Project

ROAD SEGMENT	TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
		Auto	MT	HT				Auto k/h	MT k/h	HT k/h				Auto	MT	HT					
Calveno																					
Peak																					
from: to:		%	Auto	%	MT	%	HT														
3rd Street MB South 16th	2359	95	2241.1	3	70.77	2	47.18	35	56	35	56	35	56	67.8	62.5	67.5	71.3	40	67.0	63.7	209.1
3rd Street Mariposa 20th	2090	95	1985.5	3	62.7	2	41.8	35	56	35	56	35	56	67.3	62.0	67.0	70.8	40	66.5	56.5	185.2
3rd Street MB South Channel	2273	95	2159.4	3	68.19	2	45.46	35	56	35	56	35	56	67.7	62.4	67.3	71.1	40	66.9	61.4	201.5
MB South 3rd 6th	164	97	159.08	2	3.28	1	1.64	25	40	25	40	25	40	52.1	46.9	51.5	55.5	40	51.2	1.7	5.5
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!
		97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	#NUM!	40	#NUM!	#NUM!	#NUM!

Assumptions: AM peak hour traffic data from Fehr & Peers

Existing

Existing																	CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)								
			TOTAL	VEHICLE TYPE %						VEHICLE SPEED				NOISE LEVEL (dBA)															
ROAD SEGMENT			# VEHICLES	Auto			MT			HT			Auto k/h		MT k/h							HT k/h		Auto		MT		HT	
from:	to:		%	Auto	%	MT	%	HT																					
Divisader	Post	Sutter	1091	91	992.81	8	87.28	1	10.91	30	48	30	48	30	48	62.3	62.4	60.5	66.6	40	62.3	21.7	71.3						
Divisader	Sutter	Bush	1013	91	921.83	8	81.04	1	10.13	30	48	30	48	30	48	62.0	62.1	60.2	66.3	40	62.0	20.2	66.2						
Scott	Post	Sutter	483	97	468.51	2	9.66	1	4.83	25	40	25	40	25	40	56.8	51.6	56.2	60.2	40	55.9	5.0	16.3						
Scott	Sutter	Bush	452	97	438.44	2	9.04	1	4.52	25	40	25	40	25	40	56.5	51.3	56.0	59.9	40	55.6	4.6	15.2						
Bush	Divisdro	Scott	1903	91	1731.7	8	152.2	1	19.03	30	48	30	48	30	48	64.8	64.8	62.9	69.0	40	64.8	37.9	124.3						
Sutter	Divisdro	Scott	281	91	255.71	8	22.48	1	2.81	25	40	25	40	25	40	54.2	55.3	53.9	59.3	40	55.0	4.0	13.1						

Assumptions: AM peak hour traffic data from Fehr & Peers

Existing + Project

			TOTAL	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			NOISE LEVEL	Dist. from	Noise	from	from
ROAD SEGMENT			# VEHICLES	Auto	MT		HT		Auto	k/h	MT	k/h	HT	k/h	Auto	MT	HT	(15 meters from	Roadway	Level	Roadway to	Roadway to	
Calveno																					65 dBA	65 dBA	
Peak																							
	from:	to:		%	Auto	%	MT	%	HT									roadway center)	Center (m.)	(dBA)	(m.)	(ft)	
Divisader	Post	Sutter	1162	91	1057.4	8	92.96	1	11.62	30	48	30	48	30	48	62.6	62.7	60.8	66.9	40	62.6	23.1	75.9
Divisader	Sutter	Bush	1103	91	1003.7	8	88.24	1	11.03	30	48	30	48	30	48	62.4	62.4	60.6	66.7	40	62.4	22.0	72.0
Scott	Post	Sutter	503	97	487.91	2	10.06	1	5.03	25	40	25	40	25	40	57.0	51.8	56.4	60.4	40	56.1	5.2	16.9
Scott	Sutter	Bush	463	97	449.11	2	9.26	1	4.63	25	40	25	40	25	40	56.6	51.4	56.1	60.0	40	55.7	4.8	15.6
Bush	Divisdro	Scott	1927	91	1753.6	8	154.2	1	19.27	30	48	30	48	30	48	64.8	64.9	63.0	69.1	40	64.8	38.4	125.8
Sutter	Divisdro	Scott	299	91	272.09	8	23.92	1	2.99	25	40	25	40	25	40	54.4	55.5	54.2	59.5	40	55.3	4.3	14.0

Assumptions: AM peak hour traffic data from Fehr & Peers

Cumulative

ROAD SEGMENT			TOTAL	VEHICLE TYPE %				VEHICLE SPEED				NOISE LEVEL (dBA)			NOISE LEVEL (15 meters from roadway center)	Dist. from Roadway Center (m.)	Noise Level (dBA)	from Roadway to 65 dBA (m.)	from Roadway to 65 dBA (ft)
			# VEHICLES	Auto	MT	HT	Auto	k/h	MT	k/h	HT	k/h	Auto	MT					
Calveno Peak																			
	from:	to:		%	Auto	%	MT	%	HT										
Divisader	Post	Sutter	0	91	0	8	0	1	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	
Divisader	Sutter	Bush	0	91	0	8	0	1	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	
Scott	Post	Sutter	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	
Scott	Sutter	Bush	0	97	0	2	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	
Bush	Divisdro	Scott	0	91	0	8	0	1	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	
Sutter	Divisdro	Scott	0	91	0	8	0	1	0	25	40	25	40	25	40	#NUM!	#NUM!	#NUM!	

Assumptions: AM peak hour traffic data from Fehr & Peers

UCSF LRDP Mount Zion Roadway Noise Analysis

Cumulative + Project

ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE %						VEHICLE SPEED						NOISE LEVEL (dBA)			CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
				Auto	MT	HT				Auto k/h	MT k/h	HT k/h				Auto	MT	HT					
Calveno Peak	from:	to:		%	Auto	%	MT	%	HT														
Divisader	Post	Sutter	1249	91	1136.6	8	99.92	1	12.49	30	48	30	48	30	48	62.9	63.0	61.1	67.2	40	62.9	24.9	81.6
Divisader	Sutter	Bush	1183	91	1076.5	8	94.64	1	11.83	30	48	30	48	30	48	62.7	62.7	60.9	67.0	40	62.7	23.5	77.3
Scott	Post	Sutter	636	97	616.92	2	12.72	1	6.36	25	40	25	40	25	40	58.0	52.8	57.4	61.4	40	57.1	6.5	21.4
Scott	Sutter	Bush	623	97	604.31	2	12.46	1	6.23	25	40	25	40	25	40	57.9	52.7	57.3	61.3	40	57.0	6.4	21.0
Bush	Divisdro	Scott	2320	91	2111.2	8	185.6	1	23.2	30	48	30	48	30	48	65.6	65.7	63.8	69.9	40	65.6	46.2	151.5
Sutter	Divisdro	Scott	320	91	291.2	8	25.6	1	3.2	25	40	25	40	25	40	54.7	55.8	54.5	59.8	40	55.6	4.6	14.9

Assumptions: AM peak hour traffic data from Fehr & Peers

MZPHshort

METROSONICS db-308 SN 2490 V2.3 3/87

CURRENT DATE: 3/05/14

CURRENT TIME: 8:35:00

Short term noise monitoring

UCSF Mount Zion and Parnassus

CALIBRATED: 3/04/14 @ 16:19:42

DISPLAY RANGE: 41.7dB TO 137.7dB

DOUBLING RATE: 3 dB

FILTER: A WGT

RESPONSE: SLOW

SCHEDULED RUN: OFF

START DATE: 1/28/14

START TIME: 14:00:00

LENGTH: 24:00:00

** OVERALL REPORT **

TEST STARTING DATE: 3/04/14

TEST STARTING TIME: 16:25:23

TEST LENGTH: 0DAYS 0:40:58

Lav = 63.3dB

Lav 80= 41.7dB

Lav 90= 41.7dB

SEL = 97.1dB

Lmax = 79.1dB ON 3/04/14 @ 17:08:49

Page 1

F-60

MZPHshort

Lpk < 116dB

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: 0:10:00

TIME HISTORY CUTOFF: NONE

Ln(1): 10.0% Ln(2): 90.0%

INT# TAG#	START TIME	Lav ET	Lmax L1	Lpk L2			
1 0	3/04/14 16:25:23	66.4 0:10:00	78.1 69	<116 61	Mount Zion -Scott and Sutter	*	+
2 0	3/04/14 16:35:23	62.1 PARTIAL	62.6 62	<116 61		*+	
3 0	3/04/14 16:54:02	59.1 0:10:00	72.5 62	<116 50	Parnassus - Kirkham west of 5th	*	+
4 0	3/04/14 17:04:02	59.3 PARTIAL	67.0 63	<116 52		* +	
5 0	3/04/14 17:08:15	63.2 0:10:00	79.1 65	<116 55	Parnassus - 5th south of Judah	*	+
6 0	3/04/14 17:18:15	57.7 PARTIAL	60.1 60	<116 56		* +	
7 0	3/04/14 17:25:27	61.2 0:10:00	74.7 63	<116 57	Parnassus - Hillway north of Parnassus	*	+

8 3/04/14 64.8 71.9 <116
 0 17:35:27 PARTIAL 67 61

MZPHshort

*

+

** AMPLITUDE DISTRIBUTION REPORT **

TOTAL SAMPLES = 19665

dB	SAMPLES	% OF TOTAL
45	21 +	.10
46	64 +	.32
47	79 +	.40
48	167 *	.84
49	161 *	.81
50	241 *	1.22
51	295 **	1.50
52	441 **	2.24
53	402 **	2.04
54	494 ***	2.51
55	649 ***	3.30
56	1037 *****	5.27
57	1565 *****	7.95
58	1817 *****	9.23
59	1735 *****	8.82
60	1483 *****	7.54
61	1932 *****	9.82
62	1735 *****	8.82
63	1535 *****	7.80
64	1217 *****	6.18
65	604 ***	3.07
66	496 ***	2.52
67	408 **	2.07
68	279 *	1.41
69	184 *	.93
70	165 *	.83
71	141 *	.71
72	119 *	.60
73	41 +	.20
74	60 +	.30
75	41 +	.20
76	26 +	.13
77	18 .	.09
78	12 .	.06

79	1			MZPHshort	.00
Ln(0.0)	=	79dB			
Ln(10.0)	=	66dB			
Ln(50.0)	=	60dB			
Ln(99.9)	=	45dB			
	NO	80.0dB	90.0dB		
	CUTOFF	CUTOFF	CUTOFF		
Ldod	62.0dB	41.0dB	41.0dB		
Lsha	61.6dB	41.0dB	41.0dB		
Leq(6)	61.2dB	41.0dB	41.0dB		

Existing

Existing															CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)				
ROAD SEGMENT	TOTAL # VEHICLES		VEHICLE TYPE %			VEHICLE SPEED			NOISE LEVEL (dBA)														
			Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT												
Calveno Peak	from:	to:	%	Auto	%	MT	%	HT															
14th Folsom Harrison			341	95	323.95	3	10.23	2	6.82	30	48	30	48	30	48	57.5	53.1	58.5	61.7	40	57.4	7.0	22.8
15th Folsom H Harrison			219	95	208.05	3	6.57	2	4.38	30	48	30	48	30	48	55.6	51.2	56.5	59.7	40	55.5	4.5	14.7
Folsom 14th 15th			935	95	888.25	3	28.05	2	18.7	30	48	30	48	30	48	61.9	57.5	62.8	66.0	40	61.8	19.1	62.6
Harrison 14th 15th			728	95	691.6	3	21.84	2	14.56	30	48	30	48	30	48	60.8	56.4	61.8	65.0	40	60.7	14.9	48.7
Assumptions: AM peak hour traffic data from Fehr & Peers																							

Assumptions: AM peak hour traffic data from Fehr & Peers

Existing + Project

Existing + Project																	CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)		
ROAD SEGMENT			TOTAL # VEHICLES	VEHICLE TYPE %			VEHICLE SPEED				NOISE LEVEL (dBA)												
				Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT											
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT														
14th	Folsom	Harrison	364	95	345.8	3	10.92	2	7.28	30	48	30	48	30	48	57.8	53.4	58.7	61.9	40	57.7	7.4	24.4
15th	Folsom H	Harrison	220	95	209	3	6.6	2	4.4	30	48	30	48	30	48	55.6	51.2	56.6	59.8	40	55.5	4.5	14.7
Folsom	14th	15th	938	95	891.1	3	28.14	2	18.76	30	48	30	48	30	48	61.9	57.5	62.9	66.1	40	61.8	19.1	62.8
Harrison	14th	15th	792	95	752.4	3	23.76	2	15.84	30	48	30	48	30	48	61.1	56.7	62.1	65.3	40	61.1	16.2	53.0

Assumptions: AM peak hour traffic data from Fehr & Peers

Cumulative

Cumulative															CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)
ROAD SEGMENT		TOTAL # VEHICLES	VEHICLE TYPE %			VEHICLE SPEED			NOISE LEVEL (dBA)										
			Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT								
from:	to:	%	Auto	%	MT	%	HT												
14th Folsom Harrison	0	95	0	3	0	2	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
15th Folsom H Harrison	0	95	0	3	0	2	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
Folsom 14th 15th	0	95	0	3	0	2	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	
Harrison 14th 15th	0	95	0	3	0	2	0	30	48	30	48	30	48	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	

Assumptions: AM peak hour traffic data from Fehr & Peers

Cumulative + Project

Cumulative + Project																	CALCULATED NOISE LEVEL (15 meters from roadway center)	Receptor Dist. from Roadway Center (m.)	Adjusted Noise Level (dBA)	Distance from Roadway to 65 dBA (m.)	Distance from Roadway to 65 dBA (ft)		
TOTAL			VEHICLE TYPE %			VEHICLE SPEED				NOISE LEVEL (dBA)													
ROAD SEGMENT			# VEHICLES	Auto	MT	HT	Auto k/h	MT k/h	HT k/h	Auto	MT	HT											
Calveno Peak																							
	from:	to:		%	Auto	%	MT	%	HT														
14th	Folsom	Harrison	407	95	386.65	3	12.21	2	8.14	30	48	30	48	30	48	58.3	53.9	59.2	62.4	40	58.2	8.3	27.2
15th	Folsom	Harrison	239	95	227.05	3	7.17	2	4.78	30	48	30	48	30	48	55.9	51.5	56.9	60.1	40	55.9	4.9	16.0
Folsom	14th	15th	1018	95	967.1	3	30.54	2	20.36	30	48	30	48	30	48	62.2	57.8	63.2	66.4	40	62.2	20.8	68.1
Harrison	14th	15th	907	95	861.65	3	27.21	2	18.14	30	48	30	48	30	48	61.7	57.3	62.7	65.9	40	61.7	18.5	60.7

Assumptions: AM peak hour traffic data from Fehr & Peers

Mission Center
Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 03/07/2014
Case Description: UCSF Mission Center

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

Description	Land Use	Daytime	Baselines (dBA)	
-----	-----	-----	Evening	Night
Fosom Street	Residential	65.0	65.0	65.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
-----	-----	-----	-----	-----	-----	-----
Dozer	No	40		81.7	300.0	5.0
Excavator	No	40		80.7	300.0	5.0
Front End Loader	No	40		79.1	300.0	5.0

Results

Noise Limit Exceedance (dBA)

Noise Limits (dBA)

Calculated (dBA)						Noise Limits (dBA)					
Day		Evening		Night		Day		Evening		Night	
-----		-----		-----		-----		-----		-----	
Equipment											
Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Dozer				61.1	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						
Excavator				60.1	56.2	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A						
Front End Loader				58.5	54.6	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				61.1	60.8	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A						