

APPENDIX III

Blast Data, Ground Vibrations, Airblast, and
Structure Vibration Response Summaries by Site

Alabama

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
TS-AL	12/19/00	1769	NE corner	ground	1430	550	61.0	174.9	0.12	0.105	26.9	15.5	0.115	32	42.6	0.12	14.6	14.8	122	
	14:32	1010	SW top	kitchen top corner						0.305	17.6	13.4	0.18	18.2	13.9	0.115	15.5	15.1		
		1010	S wall	mid-wall						0.16	10	5.6	0.2	14.6	15.2	0.12	12.1	7.8		
		1050	NE top	bathroom top corner																
		1050	N wall	mid-wall																
	12/20/00	1769	NE corner	ground	1445	280	86.4	221.3	0.055	0.055	30.1	10.8	0.045	34.1	11.63	0.05	19.6	14.3	117	
	15:29	1010	SW top	kitchen top corner						0.245	11.9	11.9	0.16	12.8	11.56	0.085	10.8	10.8		
		1010	S wall	mid-wall																
		1050	NE top	bathroom top corner						105	8.1	5.6	0.1	18.9	11.31	0.075	10	10.9		
		1050	N wall	mid-wall																
	12/22/00	1769	NE corner	ground	1480	380	76.9	204.7	0.055	0.055	11.9	9.9	0.055	13.8	15.44	0.035	15.5	16.8	121	
	11:00	1010	SW top	kitchen top corner						0.25	11.3	12.0	0.14	14.6	12	0.1	12.8	8.9		
		1010	S wall	mid-wall						0.075	8.2	5.9	0.1	16.5	15.4	0.075	11.6	8.9		
		1050	NE top	bathroom top corner																
	12/22/00	1769	NE corner	ground	1520	320	85.0	222.7	0.05	0.05	11.9	8.7	0.045	11.3	8.31	0.05	11.1	8.3	112	
14:50	1010	SW top	kitchen top corner						0.115	9.1	8.4	0.08	16.5	8.96	0.145	8.3	8.5			
	1010	S wall	mid-wall						0.075	8.3	5.6	0.12	11.9	8.63	0.16	8.2	8.4			
	1050	NE top	bathroom top corner																	
	1050	N wall	mid-wall																	
C1S-AL	12/19/00	1770	NE corner	ground	852	550	36.3	104.2	0.385	0.32	14.6	14.4	0.315	30.1	20.44	0.385	25.6	15.2	126	
	14:32	930	NE corner base	S1					0.36	15.5	14.4	0.28	34.1	20.8	0.485	46.5	8.9			
		930	N wall	mid-wall						0.8	20.4	17.4								
		1258	NE corner top	S2						0.265	12.4	8.3	0.28	32	20.8	0.305	11.6	9.1		
		1258	E wall	mid-wall																
	12/20/00	1770	NE corner	ground	860	280	51.4	131.7	0.23	0.19	22.2	17.8	0.175	39.3	42.38	0.23	34.1	17.8	120	
	15:29	930	NE corner base	S1						0.17	39.3	14.8	0.14	16.5	11.1	0.17	36.5	17.9		
		930	N wall	mid-wall						0.43	12.4	10.9								
		1258	NE corner top	S2						0.205	12.1	10.9	0.14	21.3	10.94	0.215	16	10.7		
		1258	E wall	mid-wall																
	12/22/00	1770	NE corner	ground	890	380	45.7	123.1	0.165	0.14	30.1	14.8	0.16	18.9	15.4	0.165	13.4	16.7	124	
	11:00	930	NE corner base	S1						0.145	36.5	14.9	0.16	32	15.6	0.19	26.9	9.9		
		930	N wall	mid-wall						0.49	25.6	16.8								
		1258	NE corner top	S2						0.145	16.5	8.8	0.16	13.4	15.9	0.225	11.3	10.0		
		1258	E wall	mid-wall																
12/22/00	1770	NE corner	ground	920	320	51.4	134.8	0.135	0.105	11.6	13.8	0.1	14.6	8.44	0.135	10.2	14.1	116		
14:50	930	NE corner base	S1						0.115	10.6	13.6	0.120	16.5	8.5	0.145	10	8.3			
	930	N wall	mid-wall						0.31	11.3	8.9									
	1258	NE corner top	S2						0.175	8.5	9.0	0.12	12.4	8.63	0.27	9.8	9.3			
	1258	E wall	mid-wall																	

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{0.5})	Scaled Distance (ft/lb ^{0.5})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)
	08/18/01	1770	E side	ground	1568	781	70.4	214.2	0.2475	0.2475	7.5	3.4	0.2025	18.2	3.5	6.7	3.5	120
	12:55	1050	N corner	S1(V-ceiling)					0.2475	0.2475	4	3.9	0.17	16	0.43	3.2	3.6	
		1010	N corner	mid-wall					0.2475	0.2475	4	3.9	0.17	16	0.43	3.2	3.6	
		1010	NE wall	mid-wall					0.31	0.31	4	3.9	0.36	25.6	0.275	7.1	3.8	
	08/18/01	1770	E side	ground	1365	451	63.8	177.1	0.275	0.275	17	3.6	0.14	25.6	0.275	16	3.7	123
	17:33	1050	N corner	S1(V-ceiling)					0.165	0.165	11.6	6.7	0.155	10.2	0.155	10.2	3.7	
		1010	N corner	mid-wall					0.23	0.23	8	6.7	0.42	19.6	0.205	11.1	13	
		1010	NE wall	mid-wall					1.02	1.02	25.6	21.6	0.083	15	0.1575	12	3.5	118
	08/19/01	1770	E side	ground	1837	584	76.0	220.2	0.1575	0.1575	9.1	3.1	0.083	21.3	0.18	4.1	2.9	<100
	13:27	1050	N corner	S1(V-ceiling)					0.14	0.14	6.5	3.1	0.165	10.7	0.165	10.7	3.1	
		1010	N corner	mid-wall					0.18	0.18	8.2	3.1	0.2	18.2	0.18	11.1	10.8	
		1010	NE wall	mid-wall					0.74	0.74	21.3	21.2	0.05	21.3	0.0525	12.8	4.6	114
	08/19/01	1770	E side	ground	3379	451	159.1	441.5	0.0525	0.0525	15	8.8	0.09	21.3	0.075	4.6	4.6	114
	16:23	1050	N corner	S1(V-ceiling)					0.06	0.06	15	8.8	0.09	21.3	0.075	4.6	4.6	
		1010	N corner	mid-wall					0.07	0.07	10.6	8.8	0.1	16	0.11	11.6	13.6	
		1010	NE wall	mid-wall					0.375	0.375	21.3	19.3	0.025	16.2	0.0325	4.1	4.1	110
	08/19/01	1770	E side	ground	9025	1712	218.1	756.3	0.0375	0.0375	7.3	2.5	0.025	16.2	0.0325	4.1	4.1	110
	17:27	1050	N corner	S1(V-ceiling)					0.04	0.04	7.5	4.3	0.025	14	0.035	4.5	4.3	110
		1010	N corner	mid-wall					0.045	0.045	3.2	4.2	0.04	17	0.04	4.2	4.2	
		1010	NE wall	mid-wall					0.063	0.063	19.6	20.6	0.005	4.1	0.02	3.9	2.9	<100
	08/20/01	1770	E side	ground	unknown	unknown			0.0225	0.0225	4.8	3.1	0.01	4.1	0.02	3.9	2.9	<100
	9:30	1050	N corner	S1(V-ceiling)					0.03	0.03	4.8	3.1	0.02	3.9	0.035	4.9	3.1	
	distant mine	1050	N corner	mid-wall					0.03	0.03	4.7	3.1	0.02	3.9	0.035	4.9	3.1	
		1010	NE wall	mid-wall					0.03	0.03	5.5	2.9	0.02	3.1	0.025	3.9	2.9	
	08/20/01	1770	E side	ground	3480	451	163.9	454.7	0.0725	0.0725	13.4	13.8	0.0725	18.2	0.0575	13.4	18.9	117
	12:30	1050	N corner	S1(V-ceiling)					0.095	0.095	15	10.6	0.125	15.4	0.065	11.1	10.4	
		1050	N corner	mid-wall					0.116	0.116	11.6	10.6	0.125	15.4	0.065	11.1	10.4	
		1010	NE wall	mid-wall					0.345	0.345	23.2	20.5	0.09	21.3	0.085	11.6	12.7	
	08/20/01	1770	E side	ground	unknown	unknown			0.025	0.025	5.4	4.9	0.01	4.1	0.015	5.6	4.9	<100
	12:44	1050	N corner	S1					0.035	0.035	5.6	4.8	0.01	4.1	0.015	5.6	4.9	<100
	distant mine	1050	N corner	mid-wall					0.04	0.04	5.4	4.9	0.01	4.1	0.015	5.6	4.9	<100
		1010	NE wall	mid-wall					0.195	0.195	12.1	10.5	0.245	36.5	0.185	17	17.6	119
	08/20/01	1770	E side	ground	844	150	68.9	159.1	0.265	0.265	10.2	4.7	0.71	16	0.185	10.6	10.6	119
	16:05	1050	N corner	S1					0.26	0.26	12.1	4.7	0.35	18.2	0.5	36.5	4.7	
		1050	N corner	mid-wall					0.84	0.84	23.2	10.2	0.025	4.1	0.025	4.1	10.6	
	08/21/01	1770	E side	ground	991	240	64.0	159.8	0.215	0.215	19.6	11.1	0.1325	21.3	0.15	10.6	12.3	124
	9:52	1050	N corner	S1					0.175	0.175	11.6	11.6	0.123	15	0.15	10.6	12.3	124
		1050	N corner	mid-wall					0.21	0.21	16	11.7	0.33	20.44	0.2	14.2	12.3	
		1010	NE wall	mid-wall					0.215	0.215	11.8	3.3	0.84	15.4	0.215	11.1	3.7	121
	08/21/01	1770	E side	ground	2146	1051	66.2	211.6	0.2175	0.2175	4.7	3.3	0.33	15	0.308	13.4	13	
	17:37	1050	N corner	S1					0.24	0.24	5.9	3.3	0.075	5.3	0.0225	4.8	4.63	<100
		1010	N corner	mid-wall					0.035	0.035	5.1	4.5	0.01	4.7	0.01	4.7	4.5	
		1010	NE wall	mid-wall					0.025	0.025	5.7	4.5	0.0075	5.3	0.0225	4.8	4.63	<100
	08/22/01	1770	E side	ground	unknown	unknown			0.1125	0.1125	7.6	3.1	0.08	14.2	0.1	6.9	2.9	116
	15:00	1050	N corner	S1(V-ceiling)					0.035	0.035	5.5	4.5	0.01	4.7	0.01	4.7	4.5	
	distant mine	1050	N corner	mid-wall					0.125	0.125	7.6	3.1	0.08	14.2	0.1	6.9	2.9	116
		1010	NE wall	mid-wall					0.17	0.17	11.6	10.4	0.15	13.4	0.12	12.1	10.4	
	08/22/01	1770	E side	ground	2660	1051	82.1	262.2	0.095	0.095	9.8	3.1	0.04	15	0.1	6.9	2.9	116
	17:30	1050	N corner	S1(V-ceiling)					0.0325	0.0325	4.5	4.8	0.01	4.6	0.0275	4.5	4.9	100
		1050	N corner	mid-wall					0.045	0.045	4.5	4.8	0.01	4.6	0.0275	4.5	4.9	100
	08/23/01	1770	E side	ground	unknown	unknown			0.05	0.05	4.9	4.8	0.02	4.8	0.07	5.1	4.8	
	12:58	1050	N corner	S1(V-ceiling)					0.15	0.15	11.6	10.3	0.1775	12.8	0.025	4.6	4.9	
	distant mine	1050	N corner	mid-wall					0.16	0.16	11.6	10.3	0.1775	12.8	0.025	4.6	4.9	
		1010	NE wall	mid-wall					0.301	0.301	30.1	179.7	0.2675	12.8	0.135	10.6	10.3	121
	08/23/01	1770	E side	ground	1202	301	69.3	179.7	0.2675	0.2675	16	12.3	1.01	16.2	0.525	32	43	
	13:00	1050	N corner	S1(V-ceiling)					0.195	0.195	12.1	12.3	0.33	15	0.225	10.6	10.3	
		1050	N corner	mid-wall					0.28	0.28	25.6	20.0	0.2775	21.3	0.38	16	12.1	124
	08/23/01	1770	E side	ground	920	447	43.5	120.6	0.38	0.38	13.4	5.9	0.2775	21.3	0.33	10.6	12	
	17:40	1050	N corner	S1(V-ceiling)					0.34	0.34	13.4	5.9	0.2775	21.3	0.33	10.6	12	
		1050	N corner	mid-wall					0.405	0.405	8.8	5.9	0.61	17	0.52	11.1	12.2	
	08/24/01	1010	NE wall	mid-wall	1595	330.5	87.7	231.1	0.1275	0.1275	18.2	19.4	0.1375	51.2	0.12	17	14.9	122
	12:12	1050	N corner	S1(V-ceiling)					0.11	0.11	13.4	3.5	0.85	15	0.11	14.2	10.4	
		1050	N corner	mid-wall					0.18	0.18	10.6	10.6	0.3	17	0.17	15	10.4	
	08/24/01	1010	NE wall	mid-wall	816	125.5	72.8	163.2	0.225	0.225	13.8	10.6	0.1625	36.5	0.145	11.6	10.4	114
	15:48	1050	N corner	S1(V-ceiling)					0.32	0.32	21.3	39.5	0.64	15	0.145	11.6	9.8	
		1050	N corner	mid-wall					0.135	0.135	12.8	11.0	0.26	15	0.22	13.4	9.81	
	08/24/01	1010	N corner	S2	unknown	unknown			0.0425	0.0425	4.2	4.8	0.04	5.2	0.62	25.6	27.1	
	16:50	1050	N corner	S1(V-ceiling)					0.06	0.06	4.6	4.8	0.02	4.9	0.035	5.2	4.9	nd
	distant mine	1050	N corner	mid-wall					0.07	0.07	4.6	4.8	0.02	4.6	0.04	5	5	
		1010	N corner	S2					0.065	0.065	4.8	4.8	0.02	4.8	0.04	5	5	
	08/24/01	1770	E side	ground	816	128.5	72.0	162.0	0.215	0.215	14.2	12.2	0.1625	16	0.05	5.5	4.9	114
	17:56	1050	N corner	S1(V-ceiling)					0.26	0.26	8.6	11.3	0.49	13.4	0.145	12.1	11.8	
		1050	N corner	mid-wall					0.16	0.16	8.6							

Indiana (cont.)																	
08/19/01	1769	SE corner	ground	1459	451	67.8	188.0	0.2325	0.2325	28.4	3.7	0.16	36.5	6.63	0.18	28.4	3.8
17:33	1258	SE corner	S2 lower corner			28.4		0.26			3.7	0.18	32	34.9	0.13	6.2	6.4
	1258	E wall	mid-wall												0.51	13.4	6.4
	930	SE corner	S2			6.4		0.23			6.6	0.18	36.5	34.8	0.205	6.7	6.44
	930	S wall	mid-wall			18.2		0.47			16.8						
08/19/01	1769	SE corner	ground	1906	584	78.9	228.5	0.1825	0.1825	16	10.4	0.09	32	10.2	0.1325	6.9	3.1
13:27	1258	SE corner	S2 lower corner			25.6		0.205			10.4	0.12	32	10.2	0.135	12.1	9.3
	1258	E wall	mid-wall												0.44	8	9.3
	930	SE corner	S2			6.4		0.145			3.6	0.13	32	10.2	0.285	8.8	9.9
	930	S wall	mid-wall					0.29			10.9						
08/19/01	1769	SE corner	ground	3438	451	161.9	449.2	0.0575	0.0575	25.6	4.3	0.0325	25.6	13.9	0.0575	14.2	8
16:43	1258	SE corner	S2 lower corner			19.6		0.06			7.2	0.04	15	7.4	0.04	7.3	7.1
	1258	E wall	mid-wall												0.135	15	7.2
	930	SE corner	S2			8.8		0.075			7.2	0.04	18.2	7.4	0.08	8.8	7.2
	930	S wall	mid-wall					0.21			18.2						
08/19/01	1769	SE corner	ground	9219	1712	222.8	772.6	0.0375	0.0375	3.3	2.5	0.015	8.5	2.31	0.02	15	4.1
17:27	1258	SE corner	S2 lower corner			3.6		0.055			2.5	0.03	9.8	8.4	0.025	7.5	4.1
	1258	E wall	mid-wall												0.075	10.6	8.4
	930	SE corner	S2			4.7		0.075			4.1	0.02		8.4	0.055	9.4	8.4
	930	S wall	mid-wall			12.8		0.12			15.9						
08/20/01	1769	SE corner	ground	unknown	unknown	9.4		0.0225	0.0225	4.4	3.1	0.01	5.2	5.7	0.0075	5.2	2.9
9:30	1258	SE corner	S2 lower corner			4		0.03			3.1	0.01		3	0.025	3.8	2.9
distant mine	1258	E wall	mid-wall												0.03	3.6	2.9
	930	SE corner	S2			4.6		0.03			3.1	0.01		3.1	0.025	4.9	2.9
	930	S wall	mid-wall			4.5		0.035			3.1						
08/20/01	1770	SE corner	ground	3540	451	166.7	462.6	0.0675	0.0675	25.6	19.0	0.035	15	13.8	0.05	13.4	23.5
12:33	1258	SE corner	S1(V-ceiling)			12.8		0.08			3.5	0.06	9.1	10.4	0.035	3.4	2.8
	1258	E wall	mid-wall														
	930	SE corner	S2			9.4		0.08			6.9	0.05	21.3	10.4	0.06	9.8	10.4
	930	S wall	mid-wall			17		0.22			10.4						
08/20/01	1770	SE corner	ground	unknown	unknown	5		0.025	0.025	5	4.9	0.01	6	5.2	0.0075	5.3	4.8
12:41	1258	SE corner	S1(V-ceiling)			5		0.04			5.0	0.01		4.8	0.02	4.6	4.9
distant mine	1258	E wall	mid-wall												0.025	6	4.9
	930	SE corner	S2			5.4		0.05			4.9	0.01		5	0.025	5.8	4.9
	930	S wall	mid-wall			4.9		0.05			4.9						
08/20/01	1770	SE corner	ground	1035	150	84.5	195.1	0.21	0.21	25.6	11.4	0.12	16	7.8	0.21	19.6	10.7
16:02	1258	SE corner	S1(V-ceiling)			25.6		0.225			11.4	0.13	14.2	22.3	0.125	9.4	4.6
	1258	E wall	mid-wall														
	930	SE corner	S2			7.1		0.165			5.0	0.13	25.6	22.3	0.2	9.8	10.7
	930	S wall	mid-wall			16		0.465			22.4						
08/21/01	1770	SE corner	ground	1122	240	72.4	180.9	0.19	0.19	13.4	10.9	0.125	42.6	10.1	0.175	21.3	11.3
9:48	1258	SE corner	S1(V-ceiling)			19.6		0.255			10.9	0.12	17	10.7	0.1	8.5	7.2
	1258	E wall	mid-wall												0.82	12.8	11.1
	930	SE corner	S2			7.5		0.15			3.2	0.12	23.3	10.7	0.155	8.8	7.2
	930	S wall	mid-wall			15		0.645			15.4						
08/21/01	1770	SE corner	ground	2209	1051	68.1	217.8	0.1625	0.1625	23.2	3.4	0.105	6.2	9.8	0.1425	12.1	3.8
17:33	1258	SE corner	S1(V-ceiling)			25.6		0.285			3.4	0.13	25.6	12.4	0.115	2.8	3.8
	1258	E wall	mid-wall												0.365	12.8	10.8
	930	SE corner	S2			6.7		0.305			3.4	0.14	25.6	12.4	0.2	8	3.8
	930	S wall	mid-wall			14.2		0.68			15.8						
08/22/01	1769	SW corner	ground	2081	1051	64.2	205.2	0.3	0.3	17	13.5	0.225	32	30.1	0.3	15	13.56
17:30	1258	SW corner	S1(V-crack)			8.8		0.18			5.6	0.23	36.5	21.5	0.14	11.8	13.4
	1258	S wall	at crack														
	930	SW corner	S2			9.8		0.25			5.6	0.2	32	13.4	0.24	12.1	13.4
	930	W wall	mid-wall			17		0.84			13.3						
08/23/01	1769	SW corner	ground	3730	301	215.0	557.6	0.07	0.07	14.2	12.4	0.0425	32	28	0.07	21.3	15.4
13:00	1258	SW corner	S1(V-crack)			12.1		0.045			12.4	0.06	36.5	43	0.04	16	13
	1258	S wall	at crack														
	930	SW corner	S2-second floor			13.4		0.065			7.3	0.03	28.4	12.4	0.05	11.1	14.8
	930	S wall	base wall kit			15		0.045			15.0	0.045	28.4	25.8	0.045	25.6	14.8
08/23/01	1769	SW corner	ground	4163	447	196.9	545.6	0.0725	0.0725	15	15.0	0.045	28.4	25.8	0.0725	15	15.3
17:30	1258	SW corner	S1(V-crack)			11.1		0.045			15.0	0.06	25.6	14	0.045	14.2	14
	1258	S wall	at crack														
	930	SW corner	S2-second floor			12.1		0.065			7.3	0.05	28.4	25.8	0.045	28.4	25.8
	930	S wall	base wall kit														
08/24/01	1769	SW corner	ground	3358	300.5	193.7	502.3	0.045	0.045	23.2	5.1	0.045	36.5	29.2	0.0625	18.2	12.9
12:10	1258	SW corner	S1(V-crack)			10.6		0.055			5.1	0.06	36.5	31.3	0.045	12.1	12.8
	1258	S wall	at crack														
	930	SW corner	S2-second floor			19.6		0.055			5.1	0.05	36.5	29.1	0.05	10.2	7.6
	930	S wall	base wall kit														

W1S-IN

W2S-IN

Kentucky Site 1

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (ms)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
C2S-KY1A	11/13/2000 16:04	1770	NE corner	ground	4800	684	183.5	546.0	0.030	0.020	23.2	21.3	0.015	28.4	21.4	0.030	22.2	18.9	106	
		1010	NE corner	S1						0.015	17.6	3.8	0.040		19.2	0.020	17.6	29.3		
		1050	E wall	mid-wall						0.035	16.5	19.6								
		1050	NE corner	S2						0.015	6.4	3.8	0.020		21.6	0.015	20.4	6.5		
		1050	N wall	mid-wall													0.045	21.3	19.0	
		11/14/2000 11:48	1770	NE corner	ground	2020	828	70.2	215.6	0.025	0.020	19.6	3.0	0.020	20.40	2.5	0.025	18.20	12.9	112
			1010	NE corner	S1					0.025	13.4	3.0	0.040		29.2	0.025	12.80	4.3		
			1010	E wall	mid-wall					0.075	10.2	10.9								
			1050	NE corner	S2					0.030	8.5	3.9	0.040		9.8	0.045	5.50	4.4		
			1050	N wall	mid-wall												0.055	8.3	4.4	
		11/16/2000 9:07	1770	NE corner	ground			NOT	TRIGGERED											
			1770	NE corner	ground	2240	414	110.1	301.2	0.025	0.015	24.3	14.8	0.015	25.6	2.9	0.025	22.2	2.4	110
			1010	NE corner	S1					0.025	15.0	3.6	0.040		3.6	0.015	18.2	4.4		
			1010	E wall	mid-wall					0.060	14.6	3.7								
			1050	NE corner	S2					0.025	4.5	3.7	0.020		14.8	0.025	4.9	4.5		
			1050	N wall	mid-wall												0.040	6.6	4.5	
		11/17/2000 12:15	1770	NE corner	ground			NOT	TRIGGERED											
			signature																	
			holes																	
	11/17/2000 12:34	1770	NE corner	ground	2020	1044	62.5	132.0	0.045	0.045	23.2	1.8	0.045	22.2	2.9	0.040	19.6	2.0	121	
		1010	NE corner	S1			NOT	TRIGGERED												
		1010	E wall	mid-wall			NOT	TRIGGERED												
		1050	NE corner	S2			NOT	TRIGGERED												
		1050	N wall	mid-wall			NOT	TRIGGERED												
C2S-KY1B	11/13/2000 16:20	1769	SE corner	ground	5000	936	163.4	512.3	0.025	0.025	13.4	6.8	0.015			0.020	8.3	6.5	106	
		1258	SE corner	S1					0.025	0.025	13.1	9.6	0.020			0.070	17	6.4		
		1258	E wall	mid-wall						0.060	9.1	6.0	0.020			0.075	7.3	6.8		
		930	SE corner	S2												0.070	8.1	6.8		
		930	E wall	mid-wall													0.055	20.4	6.3	112
		11/15/2000 11:50	1769	SE corner	ground	2020	828	70.2	215.6	0.055	0.030	7.0	6.4	0.025	11.9	2.5	0.050	6	6.3	
			1258	SE corner	S1					0.030	14.6	7.8	0.040			0.050	6	6.3		
			1258	E wall	mid-wall												0.170	8.8	6.3	
			930	SE corner	S2					0.090	7.0	6.3	0.040		13.3	0.140	7.1	6.3		
			930	E wall	mid-wall												0.125	7.5	6.3	
		11/16/2000 9:07	1769	SE corner	ground	5140	1026	160.5	510.8	0.020	0.010		10.5	0.005			0.020	15	6.5	106
			1258	SE corner	S1					0.015	11.6	9.6	0.020		13.0	0.015	13.8	6.5		
			1258	E wall	mid-wall												0.060	13.4	11.0	
			930	SE corner	S2					0.050	8.3	6.1	0.020		13.1	0.050	8	6.8		
			930	E wall	mid-wall												0.050	7.3	6.8	
		11/16/2000 16:00	1769	SE corner	ground	2240	414	110.1	301.2	0.025	0.020	11.9	7.4	0.015	13.1	10.1	0.025	11.9	7.1	110
			1258	SE corner	S1					0.020	5.0	7.4	0.020				0.025	7.5	7.0	
		1258	E wall	mid-wall												0.080	10.4	10.9		
		930	SE corner	S2					0.045	8.5	7.2	0.020		14.3	0.060	8	7.5			
		930	E wall	mid-wall												0.050	12.4	7.5		
	11/17/2000 12:15	1769	SE corner	ground	1830	936	59.8	187.5	0.020	0.015	11.3	9.8	0.015	16.5	11.0	0.020	14.6	5.8	110	
		1258	SE corner	S1			NOT	TRIGGERED												
		1258	E wall	mid-wall			NOT	TRIGGERED												
		930	SE corner	S2			NOT	TRIGGERED												
		930	E wall	mid-wall			NOT	TRIGGERED												
	11/17/2000 12:34	1769	SE corner	ground	2020	1044	62.5	199.6	0.065	0.035	11.6	6.2	0.025	11.3	2.4	0.065	9.1	6.3	120	
		1258	SE corner	S1					0.035	10.8	6.3	0.040			0.060	5.6	6.3			
		1258	E wall	mid-wall												0.130	7.5	6.4		
		930	SE corner	S2					0.090	6.6	6.3	0.040		6.4	0.230	6.5	6.4			
		930	E wall	mid-wall												0.205	6.3	6.4		

Kentucky Site 2

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{0.5})	Scaled Distance (ft/lb ^{0.5})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)
TS-KY2	11/20/2000 9:20a	1770	NW corner	ground	2570	183	190.2	453.9	0.025	0.020	21.3	15.4	0.010	15.4	2.13	0.015	30.1	15.38	106
		1050	N wall	mid-wall							25.6	18.1	0.020	25.6	16.5	0.025	24.3	18.4	
		1010	NE corner	S2							29.8	3	0.020	29.8	3	0.025	24.3	18.4	
	11/20/2000 16:03p	1770	NW corner	ground	1510	485	67.9	191.3	0.080	0.065	7.3	7.8	4.88	7.8	7.9	0.065	9.1	3.38	118
		1050	N wall	mid-wall							7.8	7.7	0.080	7.8	8.2	0.085	7.8	26.8	
		1010	NE corner	S2							7.2	7	0.100	7.6	7.9	0.085	8	7	
	11/21/2000 14:40	1050	NW corner	ground	1670	274	100.9	257.6	0.055	0.040	25.6	23.3	0.035	25.6	18	0.055	18.2	4.31	118
		1050	N wall	mid-wall							8.2	7.44	0.080	8.2	7.63	0.040	12.8	3.94	
		1010	NE corner	S2							7.8	7.7	0.080	7.8	8.7	0.055	12.8	18.13	
		1010	W wall	mid-wall							26.90	5.50	0.030	26.90	6.75	0.035	16.00	8.00	117
	1050	NE corner	S1							13.40	7.44	0.040	13.40	6.90	0.030	13.10	12.30		
	1010	W wall	mid-wall							12.10	7.44	0.040	12.10	8.7	0.045	13.80	7		
	1010	W wall	mid-wall							12.10	7.44	0.040	12.10	8.7	0.045	13.80	7		
	11/21/2000 16:43	1770	NW corner	ground	3710	807	130.6	399.4	0.035	0.020	15	2.6	0.020	15	2.6	0.025	20.4	2.88	110
	1050	N wall	mid-wall							18.3	2.3	0.020	18.3	2.5	0.025	19.9	2.13		
	1050	N wall	mid-wall							15	2.6	0.020	15	14.4	0.055	21.3	18.6		
	1010	NE corner	S2							2.6	2.6	0.040	2.6	17.7	0.055	18.9	17.7		
	11/21/2000 16:46	1050	NW corner	ground	2520	209	174.3	425.4	0.040	0.035	20.4	2.56	0.025	20.4	4.13	0.040	25.6	15	112
	1050	N wall	mid-wall							21.3	21.4	0.025	21.3	15.1	0.025	25.6	15		
	1010	NE corner	S2							20.4	15.1	0.040	20.4	15	0.035	17.6	15		
	1010	W wall	mid-wall							25.6	13.1	0.020	25.6	3.5	0.025	9.6	14.1	114	
	11/22/2000 10:14	1770	NW corner	ground	2300	678	88.3	262.4	0.030	0.015	22.2	15	0.020	22.2	15.63	0.015	13.1	6.75	114
	1050	N wall	mid-wall							22.2	9.13	0.040	22.2	9.25	0.030	14.2	19.3		
	1010	W wall	mid-wall							11.1	9.31	0.040	11.1	14.8	0.040	21.3	18.63	100	
	11/20/2000 9:19	1258	NE corner	ground	2410	183	178.2	425.2	0.040	0.020	4.4	4.38	0.020	4.4	14.8	0.015	17	6.25	100
	1258	N wall	mid-wall							5.3	4.4	0.020	5.3	8.4	0.010	14.2	12.4		
	930	E wall	mid-wall							18.9	4.4	0.020	18.9	17.8	0.050	18.2	17.8	100	
	11/20/2000 10:33	1258	NE corner	ground	4800	183	340.0	811.6	0.050	0.025	15.000	4.5	0.050	15.000	14.2	0.020	17.6	6.44	100
	1258	N wall	mid-wall							6.2	4.5	0.040	6.2	16.6	0.015	17.6	6.44		
	930	E wall	mid-wall							17	16	0.010	17	3.2	0.020	18.2	16.5	110	
	11/20/2000 12:25	1789	NE corner	ground	3100	234	202.7	504.0	0.020	0.015	21.3	20.9	0.020	21.3	13.1	0.015	13.1	4.13	110
	1258	N wall	mid-wall							4.600	4.25	0.020	4.600	4.25	0.030	13.8	12		
	930	E wall	mid-wall							4.6	4.25	0.020	4.6	4.13	0.015	13.1	4.13		
	11/20/2000 13:05	1258	NE corner	ground	2180	274	131.7	336.3	0.025	0.020	3.8	4.38	0.040	3.8	4.5	0.015	18.6	18.13	119
	1258	N wall	mid-wall							3.8	4.38	0.040	3.8	4.38	0.020	4.8	4.4		
	930	E wall	mid-wall							3.7	4.38	0.020	3.7	4.5	0.020	7.5	5.88		
	11/20/2000 16:10	1258	NE corner	ground	1770	495	79.6	224.2	0.080	0.060	23.2	17	0.030	23.2	7.75	0.080	19.6	18.9	122
	1258	N wall	mid-wall							5.2	4.9	0.040	5.2	7.7	0.065	8.2	6.6		
	930	E wall	mid-wall							5	4.94	0.040	5	7.75	0.050	6.3	6.63		
	11/20/2000 16:47	1258	NE corner	ground	2500	211	172.1	420.7	0.040	0.030	25.4	17.4	0.010	25.4	14.8	0.040	24.3	17.13	106
	1258	N wall	mid-wall							12.4	4.600	0.020	12.4	14.5	0.010	14.2	12.75		
	930	E wall	mid-wall							5.2	4.44	0.020	5.2	4.44	0.010	6.25	6.25		
	11/21/2000 14:39	1789	NE corner	ground	1920	274	116.0	296.2	0.080	0.080	20.4	17.8	0.030	20.4	17.8	0.050	22.2	17.8	118
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.2	0.025	7.7	4.38		
	930	E wall	mid-wall							4.7	4.31	0.020	4.7	4.3	0.030	10.2	8.36		
	11/21/2000 15:36	1258	NE corner	ground	1700	211	117.0	286.1	0.070	0.070	22.2	18.25	0.030	22.2	8.38	0.060	18.2	16.75	116
	1258	N wall	mid-wall							4.6	4.44	0.060	4.6	4.44	0.055	6.8	4.5		
	930	E wall	mid-wall							4.6	4.44	0.040	4.6	4.44	0.065	7.5	5.94		
	11/21/2000 16:42	1258	NE corner	ground	3770	808	132.6	405.7	0.050	0.050	22.2	17.7	0.010	22.2	2.5	0.050	17.6	16.9	110
	1258	N wall	mid-wall							4.9	4.3	0.040	4.9	2.56	0.030	9.4	6.7		
	930	E wall	mid-wall							4.1	4.31	0.020	4.1	6.7	0.065	6.8	6.7		
	11/21/2000 16:44	1789	NE corner	ground	2480	209	170.2	415.3	0.065	0.065	10.6	4.31	0.030	10.6	15.6	0.080	21.4	17	110
	1258	N wall	mid-wall							18.9	16	0.030	18.9	15.6	0.025	20.4	15.13		
	930	E wall	mid-wall							4.5	4.5	0.040	4.5	15.6	0.020	15.4	12.5		
	11/22/2000 10:14	1258	NE corner	ground	2170	678	83.3	247.5	0.040	0.020	16.5	14.56	0.020	16.5	4.3	0.040	23.2	18.8	114
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.3	0.115	9.4	6.75		
	930	E wall	mid-wall							4.2	4.4	0.020	4.2	4.44	0.030	10.2	6.75		
	11/22/2000 10:14	1258	NE corner	ground	2170	678	83.3	247.5	0.040	0.020	16.5	14.56	0.020	16.5	4.3	0.040	23.2	18.8	114
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.3	0.115	9.4	6.75		
	930	E wall	mid-wall							4.2	4.4	0.020	4.2	4.44	0.030	10.2	6.75		
	11/22/2000 10:14	1258	NE corner	ground	2170	678	83.3	247.5	0.040	0.020	16.5	14.56	0.020	16.5	4.3	0.040	23.2	18.8	114
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.3	0.115	9.4	6.75		
	930	E wall	mid-wall							4.2	4.4	0.020	4.2	4.44	0.030	10.2	6.75		
	11/22/2000 10:14	1258	NE corner	ground	2170	678	83.3	247.5	0.040	0.020	16.5	14.56	0.020	16.5	4.3	0.040	23.2	18.8	114
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.3	0.115	9.4	6.75		
	930	E wall	mid-wall							4.2	4.4	0.020	4.2	4.44	0.030	10.2	6.75		
	11/22/2000 10:14	1258	NE corner	ground	2170	678	83.3	247.5	0.040	0.020	16.5	14.56	0.020	16.5	4.3	0.040	23.2	18.8	114
	1258	N wall	mid-wall							4.6	4.31	0.040	4.6	4.3	0.115	9.4	6.75		
	930	E wall	mid-wall							4.2	4.4	0.020	4.2	4.44	0.030	10.2	6.75		

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
E1S-NMB	06/22/01	1769	SE corner	ground	5333	13047	46.7	227.3	0.1625	0.1125	4.7	3.9	0.0875	5.8	6.56	0.163	6.2	3.9	128	
	14:20	1050	SE corner	S1							4.8	3.9	0.09	3.94	6.5	0.13	5.5	3.9		
			1050	E wall	mid-wall							4.8	3.9	0.09	9.4	3.94	0.19	5.9	3.9	
			1906	SE corner	S2							4.8	3.9	0.09	9.4	3.94	0.19	5.9	3.9	
	6/26/2001	1769	S wall	mid-wall	5186	1708	125.5	434.9	0.0125	0.0125	12.1	3.8	0.01	18.2	7.44	0.013	8.8	3.8	112	
	3:57	1050	SE corner	S1								3.8	3.8	0.01	7.5	7.5	0.01	3.7	16.7	
			1050	E wall	mid-wall							6.5	3.8	0.01	7.44	7.44	0.015	9.8	3.8	
			1906	SE corner	S2							18.2	11.2	0.01	3.1	3.38	0.043	4	4.6	100
	6/28/2001	1769	S wall	mid-wall	4816	300	278.1	720.8	0.05	0.06	3.6	3.6	0.025	3.1	4.38	0.05	4.1	4.1		
	3:03	1050	SE corner	S1								4.4	4.2	0.05	4.5	4.38	0.08	5.3	4.1	
			1050	E wall	mid-wall							4.3	4.1	0.05	4.8	3.63	0.06	4.8	4.1	
			1906	SE corner	S2							4.4	4.1	0.05	4.8	3.63	0.06	4.8	4.1	
	7/3/2001	1769	S wall	mid-wall	4478	300	258.5	670.2	0.05	0.05	3.6	3.6	0.02	3.1	3.38	0.085	4	4.6	100	
	1:48	1050	SE corner	S1								3.8	3.5	0.02	3.13	3.13	0.045	4.3	3.8	
			1050	E wall	mid-wall							3.8	3.5	0.02	3.13	3.13	0.045	4.3	3.8	
			1906	SE corner	S2							4	3.6	0.02	3.25	3.25	0.055	4.3	4.0	
	07/05/01	1769	S wall	mid-wall	4941	9591	50.5	233.3	0.135	0.135	5.2	5.2	0.103	6	5.2	0.133	10.6	3.8	117	
	3:04	1050	SE corner	S1								5.2	3.9	0.09	6.5	8.3	0.105	5.3	3.8	
			1050	E wall	mid-wall							5	3.9	0.09	6.5	8.3	0.105	5.3	3.8	
			1906	SE corner	S2							6.2	3.9	0.11	7.1	8.3	0.165	7.1	3.8	
07/17/01	1769	S wall	mid-wall	4806	11183	43.6	206.6	0.1425	0.1425	8.2	4.0	0.11	6.4	7.25	0.123	4.4	3.8	116		
12:51	1050	SE corner	S1								5.9	4.0	0.11	10.6	7.25	0.115	3.9	3.8		
		1050	E wall	mid-wall							7.7	7.3	0.14	9.8	7.25	0.15	5	3.8		
		1906	SE corner	S2							8.2	7.3	0.14	9.8	7.25	0.15	5	3.8		
07/23/01	1769	S wall	mid-wall	4621	300	268.8	691.6	0.0725	0.0725	4.8	4.6	0.0475	4.7	4.56	0.073	4.1	4.4	110		
11:22	1050	SE corner	S1								4.1	4.8	0.06	5.3	3.13	0.07	3.8	3.6		
		1050	E wall	mid-wall							4.1	4.8	0.06	5.3	3.13	0.07	3.8	3.6		
		1906	SE corner	S2							5	4.6	0.06	5.6	4.75	0.085	4.3	3.6		
07/26/01	1769	S wall	mid-wall	5665	600	227.2	661.2	0.105	0.105	7.3	4.6	0.035	5.4	4	4.105	4	3.8	106		
2:55	1050	SE corner	S1								3.7	4.0	0.035	5.4	4	0.105	4	3.8		
		1050	E wall	mid-wall							3.69	4.0	0.03	6.5	3.7	0.105	4	3.8		
		1906	SE corner	S2							4.1	3.7	0.04	6.9	4.1	0.13	4.1	3.8		
07/26/01	1769	S wall	mid-wall	4593	7455	53.2	235.8	0.105	0.105	5.2	8.1	0.070	19.6	8	0.073	8.5	4.4	120		
2:55	1050	SE corner	S1								5.6	8.2	0.08	8.2	8	0.055	5.8	4.5		
		1050	E wall	mid-wall							6.7	8.3	0.1	9.8	8	0.19	11.1	8.2		
		1906	SE corner	S2							7.3	8.3	0.1	9.8	8	0.075	5.1	4.5		
		930	S wall	mid-wall							4.6	3.7	0.22	9.1	17.9	0.59	5	3.9		
06/22/01	1770	SE corner	ground	3978	13047	34.8	169.5	0.1875	0.2575	7.1	3.9	0.1725	8	7.4	0.258	5.5	4.1	131		
14:20	1258	SE corner	S1(V-ceiling)								4.5	4.0	0.47	11.1	9.2	0.22	5.1	4.1		
		1258	E wall	mid-wall							19.6	12.9	0.39	8	4.13	0.41	8.2	4.1		
		930	SE corner	S2							4.4	4.0	0.25	8	4.13	0.72	5.9	4.1		
07/05/01	1770	S wall	mid-wall	3458	9591	35.3	163.3	0.31	0.31	4.3	4.0	0.1375	10.2	6.94	0.31	12.1	3.9	117		
3:04	1258	SE corner	S1(V-ceiling)								4.5	3.7	0.46	15	17.6	0.26	11.1	3.9		
		1258	E wall	mid-wall							4.5	3.7	0.46	15	17.6	0.45	11.6	3.9		
		930	SE corner	S2							4.6	3.7	0.57	9.1	17.9	0.59	5	3.9		
07/17/01	1770	S wall	mid-wall	2991	11183	28.3	134.2	0.46	0.46	6.5	3.9	0.225	7.7	3.94	0.46	3.9	3.9	119		
12:51	1258	SE corner	S1(V-ceiling)								5.3	3.9	0.5	9.4	3.9	0.38	4.1	3.9		
		1258	E wall	mid-wall							4.2	3.9	0.35	5.3	3.9	0.38	4.1	3.9		
07/23/01	1770	S wall	mid-wall	2943	300	169.9	440.5	0.23	0.23	3.3	3.8	0.1725	5.2	4	0.23	4.3	4.0	110		
11:22	1258	SE corner	S1(V-ceiling)								3.5	3.8	0.21	6.2	4	0.26	3.7	4.0		
		1258	E wall	mid-wall							4.5	3.8	0.21	6.2	4	0.44	4.4	4.0		
06/26/01	1770	S wall	mid-wall	3975	300	229.5	594.9	0.2525	0.2525	4.4	3.8	0.24	5.8	7.13	1.03	4.3	4.0			
11:04	1258	SE corner	S1(V-ceiling)								4.4	3.8	0.25	5.8	7.2	0.183	4	3.9	106	
		1258	E wall	mid-wall							3.8	3.9	0.26	6.9	3.94	0.21	4.4	4.0		
		930	SE corner	S2							4.5	3.9	0.16	7.1	7.2	0.71	4.4	4.0		
06/26/01	1770	S wall	mid-wall	2876	7455	33.3	147.7	0.21	0.21	5.8	8.4	0.1075	11.1	8.1	0.188	7.5	4.1	122		
2:55	1258	SE corner	S1(V-ceiling)								5.3	4.1	0.24	7.3	8.44	0.16	7.5	4.1		
		1258	E wall	mid-wall							4.6	4.3	0.18	13.4	8.4	0.32	6.7	4.2		
		930	SE corner	S2							4.5	4.3	0.18	13.4	8.4	0.82	6.2	4.2		
		930	S wall	mid-wall							4.5	4.3	1.28	4.5	4.3	0.82	6.2	4.2		

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/2})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)
	03/15/01	914	NW corner	ground	5120	748	187.2	565.3	0.0375	17	16.9	0.0125	8.3	1.9	0.03	15.5	15.8	112
	12:32	919	NW base	living room					0.015	15.5	17.0	0.0175	11.3	8.5	0.015	17.6	15.5	
	03/16/01	1906	NW top	living room					0.02	12.8	8.5	0.035	13.4	8.5	0.02	13.4	8.1	
	14:42	914	NW corner	ground	570	539	24.6	70.2	1.17	23.2	12.8	0.56	24.3	25.3	1.06	17	12.8	129
	03/19/01	914	NW base	living room					0.51	23.2	12.8	0.41	30.1	25.5	0.57	30.1	24.9	
	11:53	919	NW corner	living room	560	306	33.2	86.2	1.25	18.9	11.5	0.38	26.9	25.1	0.88	18.2	13.5	126
	03/19/01	1906	NW top	living room					0.485	8.9	7.8	0.565	30.1	12.5	0.385	8.6	8.3	
	15:42	919	NW corner	ground	600	286	35.5	91.2	0.73	23.2	16.3	0.26	21.3	14.8	0.49	16.5	14.5	120
	03/20/01	1906	NW top	living room					0.225	25.6	7.8	0.175	18.9	18.8	0.2425	17.6	14.0	
	13:03	914	NW corner	ground	610	294	35.6	91.9	1.13	1.3	24.3	0.32	28.4	17.8	0.72	20.4	14.3	124
	03/20/01	1906	NW top	living room					0.41	24.3	18.3	0.2675	18.9	27.0	0.36	25.4	26.8	
	15:45	919	NW corner	ground	640	304	36.7	95.4	0.68	8	8.3	0.385	18.2	13.3	0.31	17.6	8.5	119
	03/21/01	1906	NW top	living room					0.263	23.2	17.8	0.245	25.6	17.8	0.68	18.9	10.4	
	16:02	914	NW corner	ground	4900	2694	94.4	353.1	0.36	9.4	6.9	0.275	17.6	27.5	0.17	8.6	8.4	
	03/22/01	1906	NW top	living room					0.078	16.5	13.8	0.0375	17.6	12.9	0.055	14.2	11.0	112
	16:16	914	NW corner	ground	4900	3254	85.9	331.6	0.06	8.6	8.4	0.06	12.4	12.6	0.04	11.3	6.9	
	03/23/01	1906	NW top	living room					0.0225	14.2	4.9	0.025	13.5	17.4	0.0525	14.6	4.8	116
	16:06	919	NW corner	ground	4300	504	191.5	541.5	0.04	11.1	8.1	0.04	10.8	8.5	0.06	7.1	8.1	
	03/26/01	1906	NW top	living room					0.0375	16.5	16.8	0.0075	18.2	10.5	0.0175	14.6	15.4	112
	16:10	919	NW base	living room					0.015	15	17.0	0.0175	12.1	11.0	0.015	14.6	15.0	
	03/27/01	1906	NW corner	ground	5000	3408	85.6	333.2	0.095	14.8	8.4	0.035	15.4	14.2	0.02	10.4	8.4	
	14:36	914	NW base	living room					0.05	12.4	3.1	0.06	11.1	8.8	0.0475	7.5	4.8	122
	16:02	919	NW top	living room					0.05	12.4	3.1	0.095	12.8	8.3	0.095	7.5	8.1	
	03/28/01	1906	NW corner	ground	5100	2026	113.3	404.1	0.0975	13.4	12.5	0.03	12.8	12.4	0.0625	12.1	1.3	122
	14:32	919	NW base	living room					0.065	12.8	12.6	0.0475	10.8	12.4	0.0375	11.9	3.4	
	03/28/01	1906	NW top	living room					0.06	10.2	8.5	0.1	12.8	12.6	0.07	7.6	9.1	
	14:41	919	NW corner	ground		NO	TRIGGER											
	03/26/01	1906	NW top	living room														
	16:10	919	NW base	living room														
	03/27/01	1906	NW corner	ground	4020	832	139.4	428.4	0.05	19.6	20.6	0.0225	23.2	20.1	0.0425	17.6	13.8	114
	14:36	914	NW base	living room					0.05	10.2	9.3	0.0275	10.6	11.3	0.0175	13.4	11.4	
	03/27/01	1906	NW top	living room					0.015	13.4	9.3	0.0325	11.1	10.0	0.065	13.1	16.3	114
	16:02	919	NW base	living room					0.065	12.4	9.3	0.0475	10.4	9.9	0.035	4.7	3.3	
	03/28/01	1906	NW corner	ground	3970	546	169.9	486.7	0.1	8.9	8.5	0.065	12.8	9.3	0.075	8.8	8.3	
	14:32	919	NW base	living room					0.025	16.5	11.4	0.025	19.6	7.8	0.0225	13.8	15.4	112
	03/28/01	1906	NW top	living room					0.065	17	11.5	0.0275	11.9	8.1	0.015	20.4	14.8	
	16:23	914	NW corner	ground	5300	2056	116.9	417.9	0.055	10	9.3	0.03	8	8.6	0.055	5.1	14.8	112
	03/29/01	1906	NW top	living room					0.0475	10.2	9.3	0.04	8.2	9.0	0.035	5.5	4.8	
	14:32	919	NW base	living room					0.035	16.5	17.0	0.0075	21.3	2.0	0.015	17.6	15.9	110
	03/29/01	1906	NW corner	ground	3900	686	147.8	441.0	0.03	15.5	11.5	0.01	15	8.3	0.0075	32	16.0	
	16:08	919	NW base	living room					0.03	12.1	8.0	0.02	16.5	16.0	0.015	13.8	9.3	
	03/30/01	1906	NW top	living room					0.02	13.1	9.3	0.0325	11.2	9.3	0.04	10.8	8.3	110
	14:38	914	NW corner	ground		NO	TRIGGER		0.075	8.2	8.0	0.0325	11.9	8.5	0.09	8.6	8.3	
	03/31/2001	1906	NW top	living room					0.0425									
	13:40	914	NW base	living room					0.115									
	04/02/01	1906	NW corner	ground	5420	2618	105.9	384.3	0.0425	14.6	15.8	0.0175	9.4	4.0	0.0425	10	15.3	122
	15:54	919	NW base	living room					0.025	11.9	7.8	0.0175	12.1	7.8	0.03	5.6	3.9	
	04/03/01	1906	NW top	living room					0.0325	cannot read		0.02	28.4	17.8	0.0575	13.8	15.3	106
	13:36	919	NW base	living room					0.0825	14.6	12.0	0.03	15	14.5	0.03	13.4	15.0	
	04/03/01	1906	NW corner	ground	4790	1050	149.3	475.4	0.0625	14.6	12.0	0.055	15.5	14.5	0.045	10.4	8.3	
	15:04	919	NW base	living room					0.0325	19.6	20.1	0.0325	28.4	19.8	0.0275	18.2	17.3	114
	04/03/01	1906	NW top	living room					0.035	14.2	17.4	0.0225	25.6	19.8	0.0175	24.3	19.0	
	15:04	914	NW corner	ground	4790	1161	140.6	456.8	0.04	12.4	8.3	0.025	26.9	19.8	0.02	13.8	8.3	
	15:04	919	NW base	living room					0.0125	17	18.3	0.035	25.6	10.4	0.0775	12.1	10.4	114
	03/26/01	1906	NW top	living room					0.0775	10.8	10.4	0.075	12.1	10.8	0.065	9.3	8.0	

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
TD-PA	05/22/01	1769	SW corner	ground	1437	612	58.1	189.6	0.24	0.14	11.6	7.4	0.065	11.6	7.5	0.24	16.5	7	117	
	10:37	930	SW corner	S1					0.265	0.2	21.3	7.5	0.34	15.5	7.5	0.31	12.4	7		
		930	S wall	mid-wall						0.2	8.6	7.5		0.34	15	7.5	0.415	15	7.1	
		1258	SW corner	S2																
		1258	W wall	mid-wall																
	05/22/01	1769	SW corner	ground	1458	486	66.1	185.8	0.235	0.235	11.6	8.0	0.095	14.2	7.5	0.185	9.4	13.13	119	
	12:16	930	SW corner	S1					0.125	0.125	6.7	7.1	0.46	14.2	7.38	0.215	14.2	7.13		
		930	S wall	mid-wall					0.445	0.3	7.3	7.3								
		1258	SW corner	S2						0.3	8.8	7.3		0.46	13.8	7.4	0.3	8	7.25	
		1258	W wall	mid-wall																
	05/23/01	1769	SW corner	ground	1483	612	59.9	175.0	0.32	0.165	16.5	7.3	0.07	11.2	6.5	0.32	16.5	17.6	119	
	2:15	930	SW corner	S1					0.135	0.135	6.2	7.3	0.34	15	16.5 & 7.4	0.33	13.8	17.25 & 6.3		
		930	S wall	mid-wall					0.355	0.355	18.9	7.3								
		1258	SW corner	S2					0.21	0.21	5.8	7.4		0.35	14.6	16.5 & 7.4	0.27	8.5	7.3	
		1258	W wall	mid-wall																
	05/24/01	1769	SW corner	ground	1390	504	61.9	175.0	0.195	0.165	18.9	20.5	0.115	46.5	20.13	0.195	22.2	19.9	122	
	10:41	930	SW corner	S1					0.09	0.09	11.6	6.8	0.32	14.2	8.25	0.215	16.5	19.8		
	930	S wall	mid-wall					0.535	0.535	19.6	19.8									
	1258	SW corner	S2					0.195	0.195	9.4	7.0		0.32	13.8	8.25	0.185	9.3	9.25		
	1258	W wall	mid-wall																	
05/22/01	1050	SW corner	ground	1472	612	59.5	173.7	0.29	NR	17.6	9.6	0.0725	9.8	7.5	0.29	8.3	7.13	116		
10:37	1770	SW corner	S1(V-ceiling)					0.14	0.14	19.6	12.9	0.53	18.9	17.5	0.24	7.7	7.4			
	1770	S wall	mid-wall					0.39	0.39	19.6	6.4									
	1906	SW corner	S2					0.165	0.165	6.4	7.1		0.14	11.1	7.13	0.505	7.6	6.6		
	1906	W wall	mid-wall																	
05/22/01	1050	SW corner	ground	1507	486	68.4	192.1	0.32	0.32	10.6	7.6	0.0875	19.6	7.4	0.268	7.2	6.63 & 22.3	119		
12:16	1770	SW corner	S1(V-ceiling)					0.23	0.23	10	7.5	0.42	18.9	20.3	0.17	4.9	7.13			
	1770	S wall	mid-wall					0.51	0.51	17.6	26.8 (12.8 & 7.5)									
	1906	SW corner	S2					0.3	0.3	7.8	7.6		0.11	19.6	7.9	0.39	7.4	6.4		
	1906	W wall	mid-wall																	
05/23/01	1050	SW corner	ground	1507	612	60.9	177.9	0.2775	0.1375	7	8.4	0.0875	1.9	6.5	0.278	10.2	7.8	118		
2:15	1770	SW corner	S1(V-ceiling)					0.12	0.12	7.4	7.0	0.54	21.3	18.5	0.23	6.4	7.63			
	1770	S wall	mid-wall					0.59	0.59	16.5	26.1 & 10.8									
	1906	SW corner	S2					0.165	0.165	6.7	7.1		0.08	5.8	6.4	0.315	8.2	6.3		
	1906	W wall	mid-wall																	
05/24/01	1050	SW corner	ground	1510	504	67.3	190.1	0.203	0.1675	7.7	8.1	0.095	30.1	20	0.203	17	20.6	125		
10:41	1770	SW corner	S1(V-ceiling)					0.13	0.13	8.5	6.5	0.56	18.2	20.3	0.16	14.6	20.9			
	1770	S wall	mid-wall					1.2	1.2	17	12.8									
	1906	SW corner	S2					0.19	0.19	10.4	6.5		0.09	7.2	14.3	0.255	7.2	6.5		
	1906	W wall	mid-wall																	

1010 machine on 4 X divide values by 2
1770 machine on 1X mult values by 2

Tennessee																				
Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/2})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (m/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
TD-TN	12/12/2000	1770	E side	ground	1910	1676	46.7	161.2	0.085	0.085	9.6	12.1	0.085	11.9	11.25	0.07	18.2	12.6	124	
	12/21	1010	east side center	see note					0.11	0.11	11.9	6.6	0.16	12.8	13.13	0.235	9.6	6.6		
		1010	center wall- east	mid-wall						0.92	0.92	6.7	13.3							
		1050	west side center	see notes						0.12	0.12	11.9	6.6	0.12	12.8	12.5	0.15	8	6.6	
		1050	bath wall-radial	mid-wall																
	12/12/2000	1770	E side	ground	1225	885	41.2	127.9	0.04	0.04	16	17.5	0.035	11.1	10.88	0.02	18.9	7.8	110	
	17/00	1010	east side center	see note						0.06	0.06	17	17.5	0.06	12.8	12.81	0.05	18.9	6.9	
	3-holes	1010	center wall- east	mid-wall						0.245	0.245	15.5	14.4							
		1050	west side center	see notes						0.055	0.055	16	17.6	0.06	12.8	19.75	0.055	13.1	6.9	
		1050	bath wall-radial	mid-wall																
	12/15/2000	1770	E side	ground	1820	2809	34.3	129.3	0.24	0.24	24.3	18.8	0.135	15.5	12.88	0.18	11.1	3.8	128	
	12/05	1010	east side center	see note						0.195	0.195	18.9	6.5	0.28	15	12	0.28	8.2	6.6	
		1010	center wall- east	mid-wall						2.56	2.56	13.8	14.1							
		1050	west side center	see notes						0.205	0.205	16.5	6.6	0.28	16	12	0.21	14.2	6.6	
		1050	bath wall-radial	mid-wall																
12/12/2000	1769	NE corner	ground	610	1676	149.2	515.7	0.055	0.055	32	35.4	0.02	22.2	17.25	0.025	34.1	17.1	106		
12/19	1258	NE corner	first floor corner						0.04	0.04	18.2	23.0	0.04		17.38	0.035	24.3	6.9		
	1258	midwall	first floor north wall																	
	930	N wall peak	second floor near roof peak																	
	930	midwall	north wall								7.8	7.2	0.04		17.25	0.55	7.3	7.2		
12/12/2000	1769	NW corner	ground				NOT	TRIGGERED			not	measured								
17/00	1769	NE corner	ground																	
12/15/2000	1258	NE corner	first floor corner		5230	2809	98.7	371.6	0.195	0.195	32	33.3	0.105	23.2	11.1	0.125	26.9	14.6	120	
12/05	1258	midwall	first floor north wall						0.105	0.105	18.2	20.8	0.14	21.3	24.5	0.145	18.9	19.3		
	930	N wall peak	second floor near roof peak																	
	930	midwall	north wall						0.105	0.105	18.2	7.1	0.18	21.3	24.75	0.145	8.5	7.1		

Virginia

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/2})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
TSA-VA	11/06/00	1769	NE corner	ground	1213	337	174.6	66.1	0.050	0.050	11.9	4.88	0.050	11.6	12	0.035	12.1	8.25	119	
	15:58	1050	NE corner	S1					0.040	0.040	7.2	6.75	0.080	12.8	12	0.040	8.3	8		
		1050	N wall	mid-wall													0.145	18.2	20.13	
		1010	NE corner	S2						0.070	8.3	6.75	0.080	10.8	12	0.070	10.8	9.25		
		950	NW corner	S2						0.080	8.9	6.75	0.060	13.4	11.75	0.080	10.6	9.25		
	11/07/00	1769	NE corner	ground	1300	361	182.9	68.4	0.030	0.030	9.8	9.13	0.015	8.6	8.5	0.020	9.6	8	117	
	15:41	1050	NE corner	S1						0.030	7.40	7.50	0.040		7.63	0.025	9.40	8.13		
		1050	N wall	mid-wall												0.125	18.90	9.25		
		1010	NE corner	S2						0.080	7.50	7.50	0.040		7.63	0.045	8.80	9.25		
		950	NW corner	S2						0.085	7.80	7.50	0.040		7.88	0.070	8.90	9.25		
	11/08/00	1769	NE corner	ground	1213	361	170.7	63.8	0.050	0.050	9.10	9.63	0.050	14.60	11.88	0.045	10.80	8.88	119	
	15:46	1050	NE corner	S1						0.045	7.20	7.00	0.080	12.40	11.88	0.050	11.10	8.88		
		1050	N wall	mid-wall												0.135	18.90	21.63		
		950	NW corner	S2						0.110	8.10	7.00	0.100	11.30	11.88	0.065	9.30	9.00		
	11/09/00	1769	NE corner	ground	1300	313	191.8	73.5	0.050	0.050	8.5	6.94	0.060	12.8	8.94	0.065	8.9	8.94		
	11:56	1050	NE corner	S1						0.045	6.8	9.13	0.045	6.8	8.5	0.050	10.8	8.25	119	
		1050	N wall	mid-wall						0.050	6.1	7.13	0.080	8.2	8.25	0.045	15.5	8.13		
		1010	NE corner	S2						0.080	6.8	7.5	0.080	7.2	8.25	0.085	8.3	8.13		
		950	NW corner	S2 (3-component)						0.105	6.4	7.5	0.085	8	10.38	0.100	8.3	8.19		
	11/10/00	1769	NE corner	ground	1273	361	179.1	67.0	0.050	0.050	9.4	9.75	0.050	11.1	10.38	0.030	13.1	7.75	119	
12:21	1050	NE corner	S1						0.040	8.3	7	0.080	15.5	10.38	0.050	14.2	7.13			
	1050	N wall	mid-wall												0.190	17	21.13			
	1010	NE corner	S2						0.120	9.8	7.13	0.100	11.1	10.38	0.075	8.2	9.63			
	950	NW corner	S2 (3-component)						0.130	7.3	7.13	0.075	10.6	7.13	0.090	9.1	9.63			
11/11/00	1769	NE corner	ground	1212	361	170.6	63.8	0.060	0.060	12.8	5.88	0.060	9.8	6	0.045	9.4	6.25	128		
13:49	1050	NE corner	S1						0.060	8.1	6	0.080	11.6	6.13	0.055	8.5	6.13			
	1050	N wall	mid-wall												0.375	7.7	21.25			
	1010	NE corner	S2						0.090	7.7	7.38	0.080	10	6.13	0.090	7.8	6.13			
	950	NW corner	S2 (3-component)						0.100	6.8	7.38	0.075	9.8	6.38	0.105	7.8	6.38			
11/06/00	1770	NE corner	ground	1390	337	200.1	75.7	0.045	0.045	23.2	9.75	0.035	14.2	5.38	0.035	23.2	10.31	118		
15:58	930	NE corner	S1						rim				rim							
	1513	NE corner	S1 (3-component)						0.040	14.6	4.75	0.045	19.6	23	0.035	10.6	10.25			
	1258	NE corner	S2						0.070	10.8	10.31	0.060	24.3	23	0.070	7.8	10.13			
	1258	N wall	mid-wall												0.190	9.8	10.31			
	1514	NE corner	S2 (3-component)						0.060	8.6	10.25	0.050	24.3	23	0.060	9.1	10.25			
11/07/00	1770	NE corner	ground	1360	361	191.4	71.6	0.045	0.045	8.6	11.75	0.035	16.5	5.5	0.040	17.6	5.63	116		
15:46	930	NE corner	S1						0.040	8.000	5.63	0.060	22.2	5.63	0.045	17	4.88			
	1513	NE corner	S1 (3-component)						0.060	7.4	5.25	0.065	14.2	5.63	0.040	8.2	5.63			
	1258	NE corner	S2						0.060	7.7	5.69	0.060	17.6	5.63	0.060	8.6	7.06			
	1258	N wall	mid-wall												0.195	9.6	7.13			
11/09/00	1770	NE corner	ground	1370	313	202.2	77.4	0.060	0.060	7.8	7.13	0.065	13.8	5.63	0.055	8.2	5.63	116		
11:56	930	NE corner	S1						0.060	19.6	19.88	0.045	14.6	7.88	0.035	19.6	2			
	1513	NE corner	S1 (3-component)						0.025	15.5	2	0.040		8.13	0.055	22.2	22.38			
	1258	NE corner	S2						0.035	5.8	7.63	0.050	12.4	7.88	0.035	18.2	10.38			
	1258	N wall	mid-wall						0.035	16.5	7	0.060	14.2	8.88	0.070	8.3	7.63			
	1514	NE corner	S2 (3-component)												0.275	11.1	12.63			
11/10/00	1770	NE corner	ground	1375	361	193.5	72.4	0.060	0.060	15.5	7.63	0.050	13.4	5.5	0.040	14.6	7	119		
12:21	930	NE corner	S1						0.060	19.6	11.5	0.035	21.3	5.5	0.040	22.2	9.63			
	1513	NE corner	S1 (3-component)						0.035	10.6	10.38	0.040		25.25	0.050	15.5	5.5			
	1258	NE corner	S2						0.045	16	5.5	0.040	20.4	11.75	0.040	9.3	10.5			
	1258	NE corner	S2						0.060	10	10.5	0.060	21.3	5.63	0.065	7.7	10.38			
	1258	N wall	mid-wall												0.310	7.8	10.5			
11/11/00	1770	NE corner	ground	1375	361	193.5	72.4	0.060	0.060	7.8	10.38	0.045	22.2	5.5	0.065	9.6	10.5	126		
13:49	930	NE corner	S1						0.045	18.2	5.88	0.045	7.1	5.88	0.045	9.6	5.75			
	1258	NE corner	S2						0.055	9.1	5.880	0.060	19.6	6	0.070	14.6	5.88			
	1258	N wall	mid-wall						0.090	8.5	5.88	0.060	8.8	5.88	0.090	7.2	6.13			
	1514	NE corner	S2 (3-component)						0.080	7.5	6	0.060	9.3	5.88	0.085	7.6	5.88			

West Virginia Site 1

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (ms)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Al/blast (dB)		
W8S-VW1	11/27/2000	1769	NE corner	ground	2500	1037	77.6	247.6	0.07	0.045	11.9	13.2	0.045	11.3	11.8	0.07	11.1	12.1	117		
	1659	1258	NE corner	S1						0.04	10.6	15.4	0.06	15	11.9	0.06	12.1	12.1			
			1258	N wall	mid-well																
			900	NE corner	S2						0.065	4.5	4.4	0.18	14.2	13.0	0.065	10.4	7.3		
			900	E wall	mid-well												0.065	4.6	4.4		
		11/29/2000	1769	NE corner	ground		NOT	TRIGGERED													
		17/02																			
		11/29/2000	1769	NE corner	ground	4300	2076	94.4	337.9	0.04	0.04	17.6	13.2	0.01	21.3	13.3	0.04	16.5	13.1	106	
		9/66	1258	NE corner	S1					0.03	0.03	20.4	13.2	0.02	19.6	13.0	0.045	13.8	13.1		
			1258	N wall	mid-well													0.09	16.5	15.4	
			900	NE corner	S2					0.04	0.04	6.7	4.2	0.12	16.5	13.3	0.05	16.5	7.1		
			900	E wall	mid-well												0.05	8.9	4.2		
	11/29/2000	1769	NE corner	ground		NOT	TRIGGERED														
	17/00																				
	11/30/2000	1769	NE corner	ground	3880	2076	85.2	304.9	0.06	0.06	13.8	13.5	0.04	21.3	13.6	0.05	15.5	12.7	110		
	11/57	1258	NE corner	S1					0.055	0.055	11.9	13.6	0.06	19.6	13.6	0.05	12.1	12.6			
		1258	N wall	mid-well													0.14	16	12.7		
		900	NE corner	S2					0.05	0.05	7.1	4.3	0.16	15	13.4	0.065	13.1	12.6			
		900	E wall	mid-well												0.07	8.3	4.3			
	11/27/2000	1770	SE corner	ground	3400	1037	105.6	336.7	0.09	0.065	13.1	11.6	0.055	17	18.5	0.09	13.4	13.1	114		
	16/58	1010	SE corner	S1					0.095	0.095	13.1	13.1	0.1	22.2	18.4	0.08	11.9	11.7			
		1010	E wall	mid-well					0.29	0.29	16	15.7									
		1050	SE corner	S2					0.08	0.08	14.6	13.1	0.1	23.2	18.4	0.11	10.8	7.6			
		1050	S wall	mid-well												0.24	16.5	13.1			
	11/28/2000	1770	SE corner	ground	2410	126	214.7	481.5	0.025	0.02	18.2	12.0	0.01	11.6	2.7	0.025	16.5	12.4	106		
	17/02	1010	SE corner	S1					0.025	0.025	15.5	12.8	0.045	11.6	5.9	0.025	10.4	12.3			
		1010	E wall	mid-well					0.045	0.045	11.6	11.6									
		1050	SE corner	S2					0.03	0.03	17	7.8	0.02		12.8	0.03	9.4	7.9			
		1050	S wall	mid-well												0.06	17	15.6			
	11/29/2000	1770	SE corner	ground	4640	2076	101.8	364.7	0.075	0.075	15	11.4	0.035	18.2	2.1	0.04	20.4	14.8	106		
	9/66	1010	SE corner	S1					0.045	0.045	18.2	14.8	0.08	19.6	14.8	0.09	17.6	11.5			
		1010	E wall	mid-well					0.195	0.195	17	19.0									
		1050	SE corner	S2					0.07	0.07	18.2	19.2	0.06	23.2	14.6	0.075	8.1	7.8			
		1050	S wall	mid-well												0.21	18.2	19.1			
	11/29/2000	1770	SE corner	ground	2240	234	146.4	364.2	0.03	0.025	16	12.3	0.02	11.9	2.6	0.03	14.2	12.6	116		
	17/02	1010	SE corner	S1					0.035	0.035	13.4	12.6	0.040		7.9	0.03	14.6	12.3			
		1010	E wall	mid-well					0.085	0.085	16.5	13.3									
		1050	SE corner	S2					0.045	0.045	10.6	7.8	0.02		7.9	0.05	8.5	7.6			
		1050	S wall	mid-well												0.075	17	13.2			
	11/30/2000	1770	SE corner	ground	4420	2076	97.0	347.4	0.07	0.07	13.1	11.9	0.05	18.2	18.3	0.05	13.1	12.4	110		
	11/55	1010	SE corner	S1					0.06	0.06	17	12.4	0.1	20.4	18.3	0.075	17.6	11.9			
		1010	E wall	mid-well					0.23	0.23	14.2	14.7									
		1050	SE corner	S2					0.065	0.065	17	12.6	0.08	24.3	18.3	0.08	10.4	8.1			
		1050	S wall	mid-well												0.24	17.6	19.5			
	12/1/2000	1770	SE corner	ground	2400	144	200.0	458.6	0.025	0.02	15.5	11.8	0.1	22.2	3.8	0.025	14.2	12.5	110		
	17/06	1010	SE corner	S1					0.025	0.025	15.5	12.6	0.02		8.1	0.025	16	7.7			
		1010	E wall	mid-well					0.06	0.06	17	13.6									
		1050	SE corner	S2					0.025	0.025	16.2	8.1	0.065	17.6	19.4	0.03	9.6	7.8			
		1050	S wall	mid-well												0.065	17.6	19.4			

West Virginia Site 2

Structure	Shot Date and Time	Unit	Structure Location	Placement of Transducer(s)	Distance (ft)	Charge Weight/Delay (lb)	Scaled Distance (ft/lb ^{1/3})	Scaled Distance (ft/lb ^{1/3})	Peak Particle Velocity (in/sec)	T (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	V (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	R (in/s)	Peak Frequency (Hz)	FFT Frequency (Hz)	Airblast (dB)	
TD-WV2	12/4/2000	1769	NW corner	ground	1870	481	85.3	239.2	0.095	0.095	10.6	7.3	0.085	13.1	7.25	0.09	12.4	7.3	112	
	12/23	930	N end-middle	S1						0.305	8.9	7.3	0.12	16.5	7.19	0.085	7.6			
		930	NW wall	mid-wall						0.405	8.9	7.3								
		1288	N end-middle	S2						0.39	7.9	7.3								
		1288	N wall	mid-wall							23.2	6.9								
	12/4/2000	1769	NW corner	ground	2410	415	118.3	323.7	0.06	0.085	23.2	6.9	0.05	25.6	14.4	0.06	16.3	25.0	112	
	5:01	930	N end-middle	S1						0.075	16.5	7.1	0.08	20.4	14.3	0.04	16	6.4		
		930	NW wall	mid-wall						0.115	15	7.1								
		1288	N end-middle	S2						0.085	6	7.1								
	12/5/2000	1769	N wall	mid-wall							14.6	8.9	0.035	15.5	8.5	0.05	6.8	24.4	117	
	12:05	930	NW corner	ground	2600	973	83.4	263.0	0.05	0.04	14.6	8.9	0.06	22.2	14.1	0.045	9.4	6.3		
		930	NW wall	mid-wall						0.11	13.8	6.8								
	1288	N end-middle	S2						0.085	8.9	6.8									
12/5/2000	1769	N wall	mid-wall							13.8	7.0	0.045	17	15.56	0.06	16	6.8	116		
16:54	930	NW corner	ground	2230	625	89.2	261.4	0.06	0.11	11.9	7.1	0.1	18.2	15.7	0.06	11.3	6.8			
	930	N end-middle	S1						0.165	11.6	7.1									
	1288	N end-middle	S2						0.135	7.6	7.1	0.1	14.2	15.3	0.085	11.9	11.6			
12/5/2000	1769	N wall	mid-wall							20.4	7.1	0.015	16	24.3	0.16	24.3	7.1			
18:55	930	NW corner	ground	2670	901	89.0	277.1	0.03	0.025	20.4	7.1	0.02	21.3	15.06	0.03	7.2	6.4	112		
	930	N end-middle	S1						0.06	7.3	7.4	0.02	16	14.7	0.025	8.1	6.3			
	1288	N end-middle	S2						0.085	7	7.4	0.04	15.1	15.1	0.03	5.8	6.4			
12/6/2000	1769	N wall	mid-wall							15.5	7.4	0.025	17	15	0.065	22.2	6.5			
12:22	930	NW corner	ground	2630	901	87.6	272.9	0.025	0.04	15.5	7.4	0.04	14.8	14.8	0.025	10.8	9.5	112		
	930	N end-middle	S1						0.065	11.9	7.3									
	1288	N end-middle	S2						0.05	12.1	7.3	0.04	15.2	15.2	0.045	11.6	11.3			
12/6/2000	1769	N wall	mid-wall							11.6	7.1	0.065	18.2	14.9	0.065	23.2	11.3			
16:52	930	NW corner	ground	1730	452	81.4	225.9	0.085	0.075	11.6	7.1	0.065	16	15	0.08	13.4	7.1	117		
	930	N end-middle	S1						0.255	8.8	7.2									
	1288	N end-middle	S2						0.215	7.4	7.2	0.14	16	15	0.1	8.1	7.2			
12/7/2000	1769	N wall	mid-wall							21.3	7.1	0.02	14.6	13.2	0.04	10.4	5.2	106		
12:13	930	NW corner	ground	2600	793	82.3	281.5	0.04	0.04	12.4	7.1	0.04	13.4	13	0.035	11.1	11.4			
	930	N end-middle	S1						0.06	13.1	7.1									
	1288	N end-middle	S2						0.09	8.9	7.1	0.06	13.4	11.8	0.065	10.8	11.5			
	1288	N wall	mid-wall																	
12/4/2000	1770	NW corner	ground	1720	481	78.4	220.0	0.115	0.11	10.6	7.7	0.085	17.6	14.8	0.15	12.8	8.1	112		
12:23	1010	air channel	upper cornerbeam						0.185	8.9	7.4	0.115	13.1	8.13	0.19	11.9	7.5			
	1050	air channel	vertical on rafter						0.23	19.6	7.4	0.145	17.6	18.63	0.08	16.5	11.6			
	1050	air channel	west wall/first floor																	
	1050	air channel	vertical on post																	
12/4/2000	1770	NW corner	ground	2310	415	113.4	310.3	0.035	0.03	13.1	7.4	0.035	18.9	15.63	0.035	15.5	8.1	114		
5:01	1010	air channel	upper cornerbeam						0.085	20.4	6.4	0.06	22.2	6.06	0.065	19.6	6.4			
	1050	air channel	vertical on rafter						0.08	24.3	6.5	0.04	25.6	19.6	0.05	24.3	21.4			
	1050	air channel	west wall/first floor																	
12/5/2000	1770	NW corner	ground	2500	973	80.1	252.9	0.04	0.03	12.1	8.3	0.04	14.2	11.2	0.035	11.6	8.1	117		
12:05	1010	air channel	upper cornerbeam						0.085	13.1	5.2	0.055	5.8	6.63	0.07	16.5	6.5			
	1010	air channel	vertical on rafter						0.075	15	10.8	0.06	16	10.8	0.045	17	10.8			
	1050	air channel	west wall/first floor						0.075	15	6.6	0.065	10.8	10.84	0.045	15	8.3	119		
12/5/2000	1770	NW corner	ground	2110	625	84.4	247.3	0.05	0.025	14.2	6.9	0.04	14.6	15.6	0.045	15	8.3	119		
4:54	1010	air channel	upper cornerbeam						0.06	6.8	6.3	0.065	6.6	6.75	0.065	6.4	6.3			
	1010	air channel	vertical on rafter						0.04			0.04		14						
	1050	air channel	west wall/first floor						0.045	10.6	6.3	0.04	11.6	6.25	0.025	19.6	12.3			
12/6/2000	1770	NW corner	ground	1610	452	75.7	210.2	0.09	0.09	10.6	7.3	0.075	15.5	15.31	0.065	15.5	8.6	120		
4:52	1010	air channel	upper cornerbeam						0.11	11.3	7.2	0.09	8.4	6.44	0.15	12.1	7.3			
	1010	air channel	vertical on rafter						0.135	18.2	7.2	0.08	20.4	8.2	0.06	24.3	12.5			
	1050	air channel	west wall/first floor						0.06	32	7.2	0.06	16.5	7.2	0.03	14.2	8.1	106		
12/7/2000	1770	NW corner	ground	2480	793	88.1	288.5	0.03	0.02	25.6	3.8	0.025	14.6	15	0.03	4.2	3.8			
12:13	1010	air channel	upper cornerbeam						0.035	4.3	3.8	0.045	6	5.7	0.035	4	3.8			
	1010	air channel	vertical on rafter						0.045	28.4	3.8	0.035	5.8	10.94	0.025	5.3	12.8			
	1050	air channel	west wall/first floor						0.02			0.02		11						

APPENDIX IV

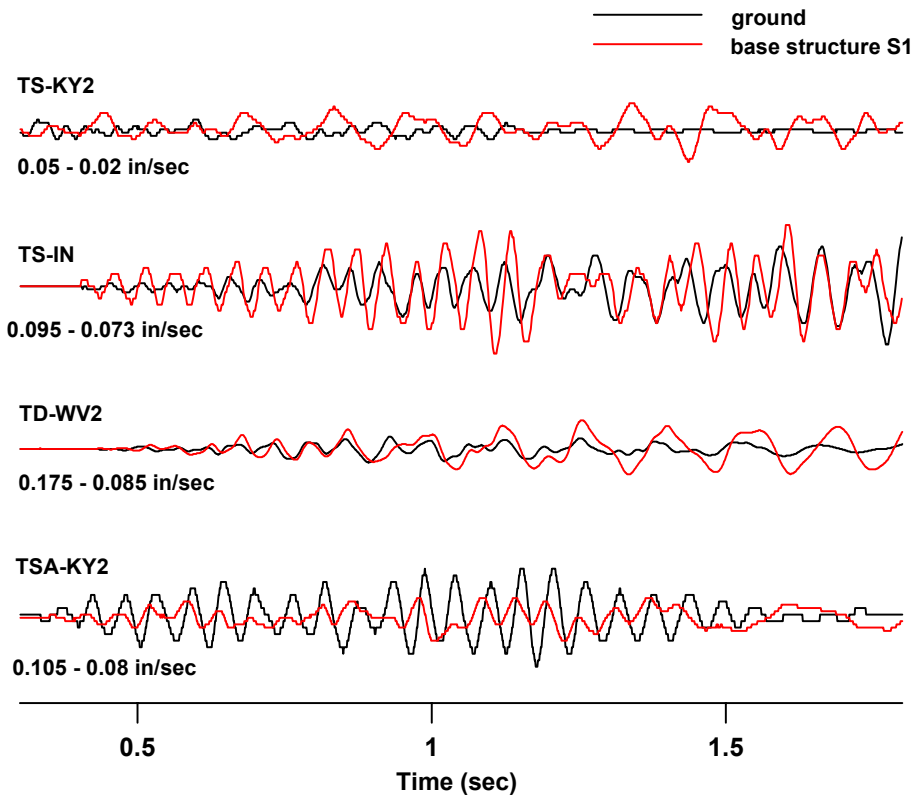
Typical Waveform Time Histories

Appendix IV contains typical ground motion, airblast, and time-correlated structure response time histories. Data for specific shots were selected based on the largest airblast and significant ground motion amplitudes resulting in the highest structure responses. These are considered to be representative “worst case” shot records in this study.

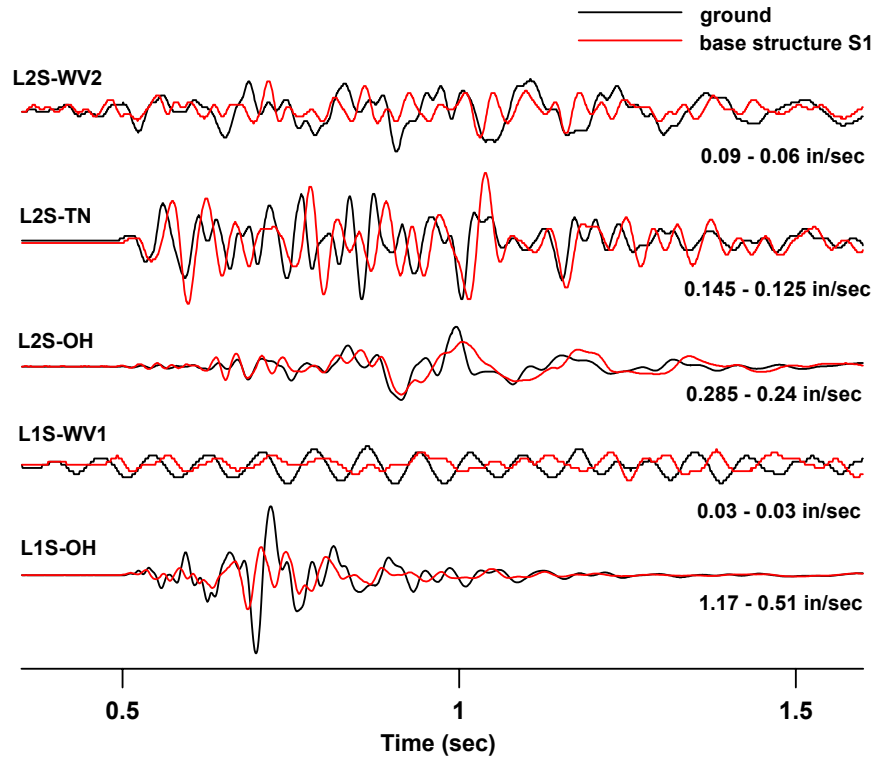
Peak velocities are provided for each waveform. In the case of superimposed waveforms, the range in velocities provided refers to the peak velocity for each waveform. For clarification, the reader is directed to Appendix III.

The following table summarizes the structure designation, shot data and time for selected time histories:

Structure Design	Designation	Shot date	Shot time
Trailer	TS-KY2	11/21/00	15:35
	TS-IN	8/20/01	12:30
	TD-WV2	12/06/00	16:52
	TSA-KY	11/21/00	14:39
	TS-OH	3/28/00	16:23
Log	L2S-WV2	12/06/00	16:52
	L2S-TN	12/15/00	12:05
	L2S-OH	3/16/01	14:43
	L1S-WV1	11/29/00	17:02
	L1S-OH	3/16/01	14:42
Earth and masonry	E1S-NMA	7/26/01	14:55
	E1S-NMB	7/26/01	14:55
	E2S-NM	7/26/01	14:55
Camp	C1S-VA	11/11/00	13:49
	C2S-KYIA	11/15/00	11:48

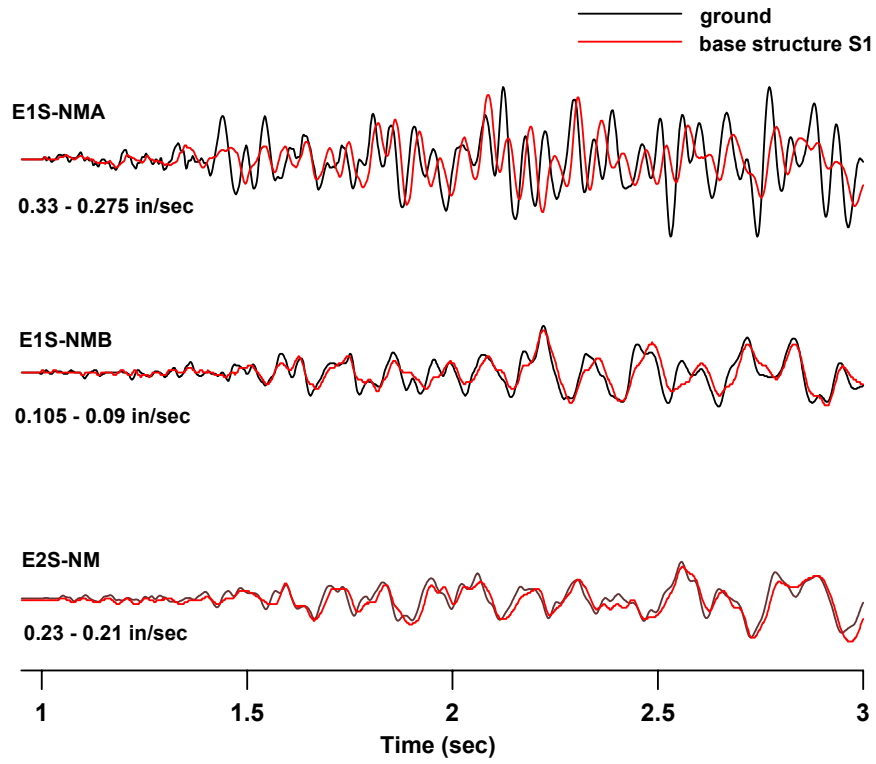


(a)

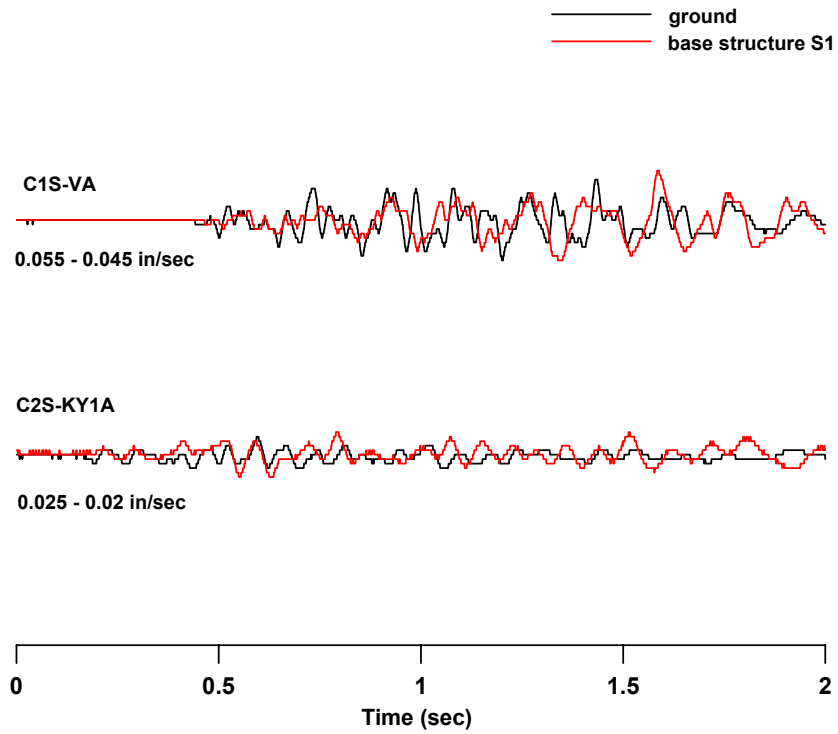


(b)

Figure IV-1 Horizontal components of ground motion and lower structure for (a) manufactured and (b) log structures

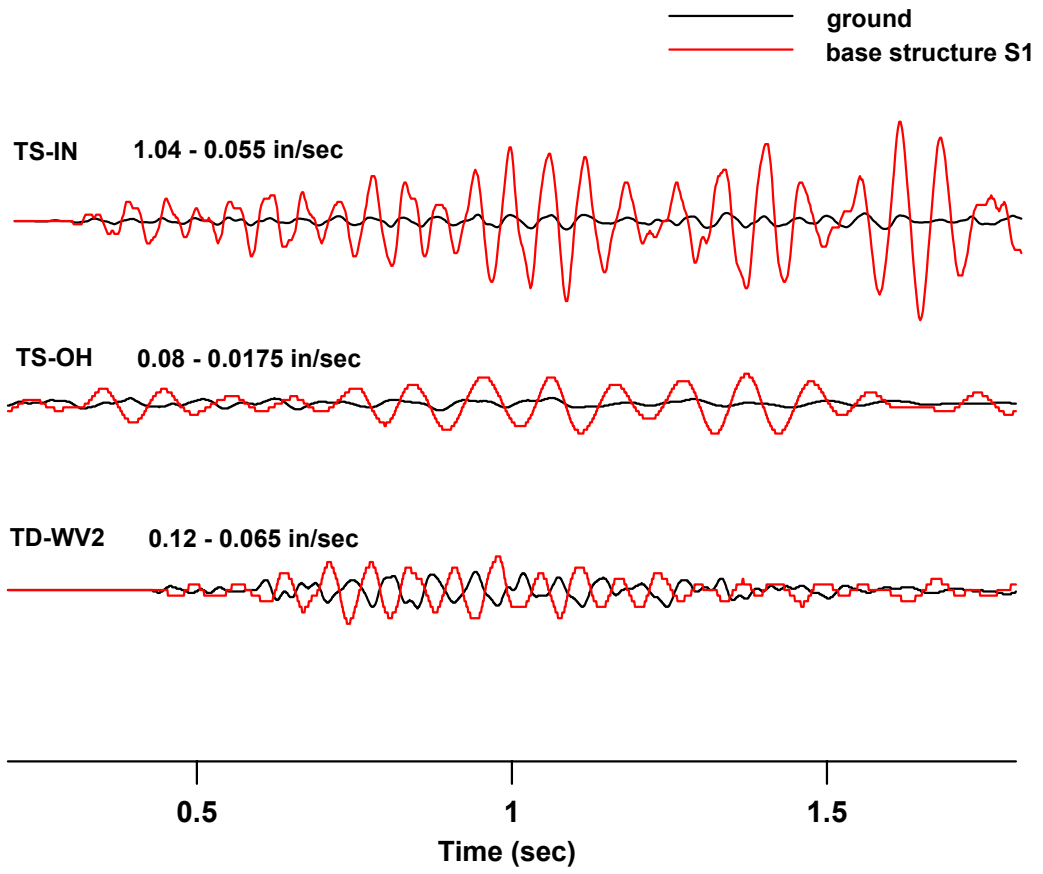


(c)



(d)

Figure IV-1 (cont.) Horizontal components of ground motion and lower structure for (c) earth and masonry and (d) camp structures



(e)

Figure IV-1 (cont.) Vertical components of ground motion and lower structure for (e) single and double wide trailers

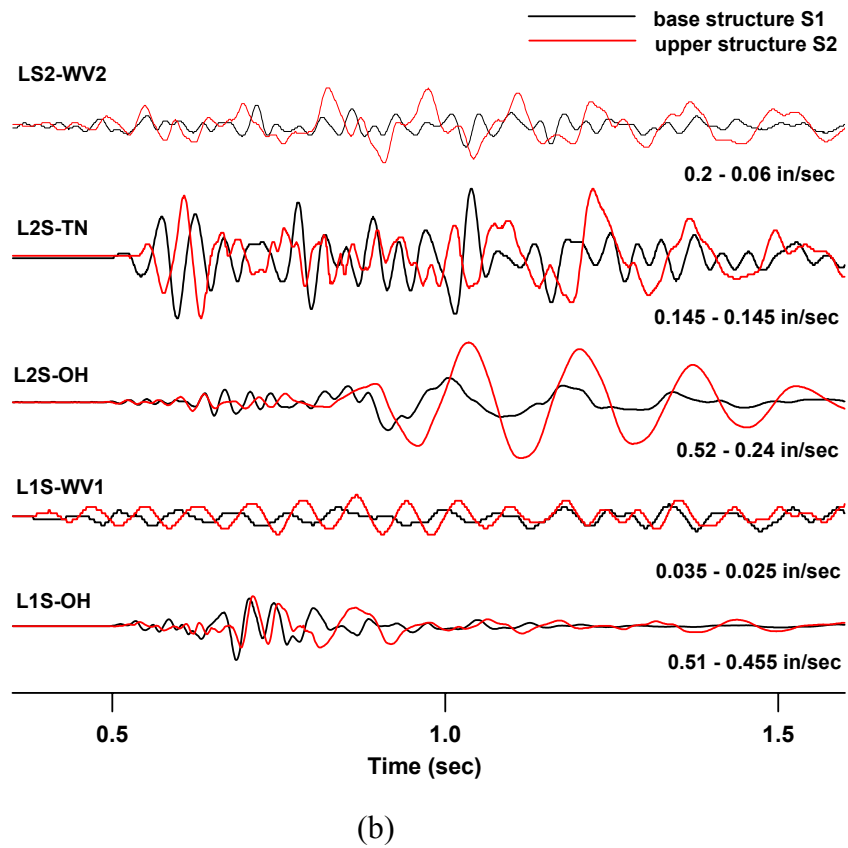
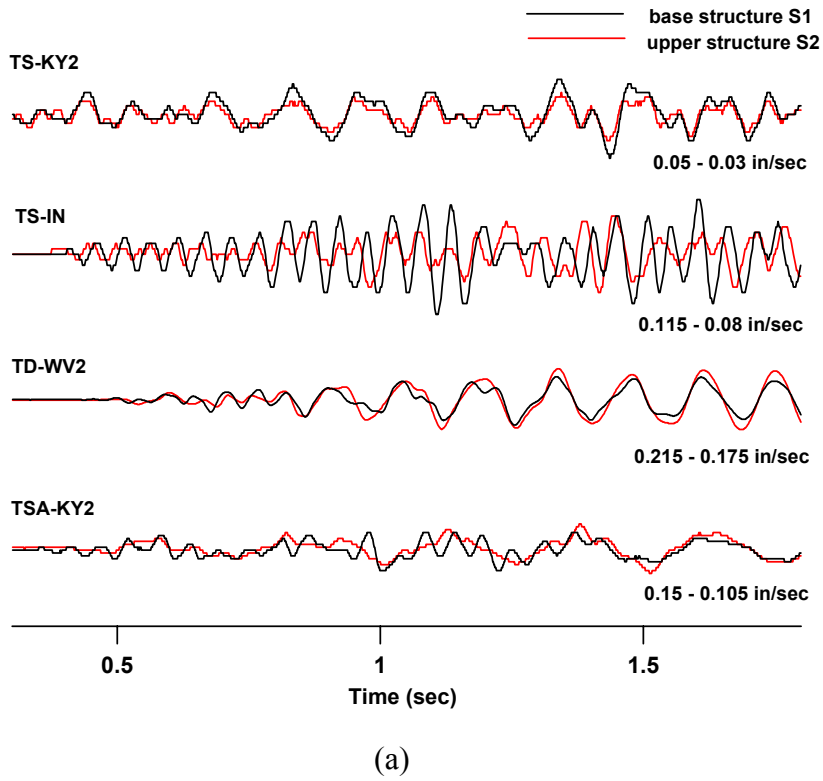
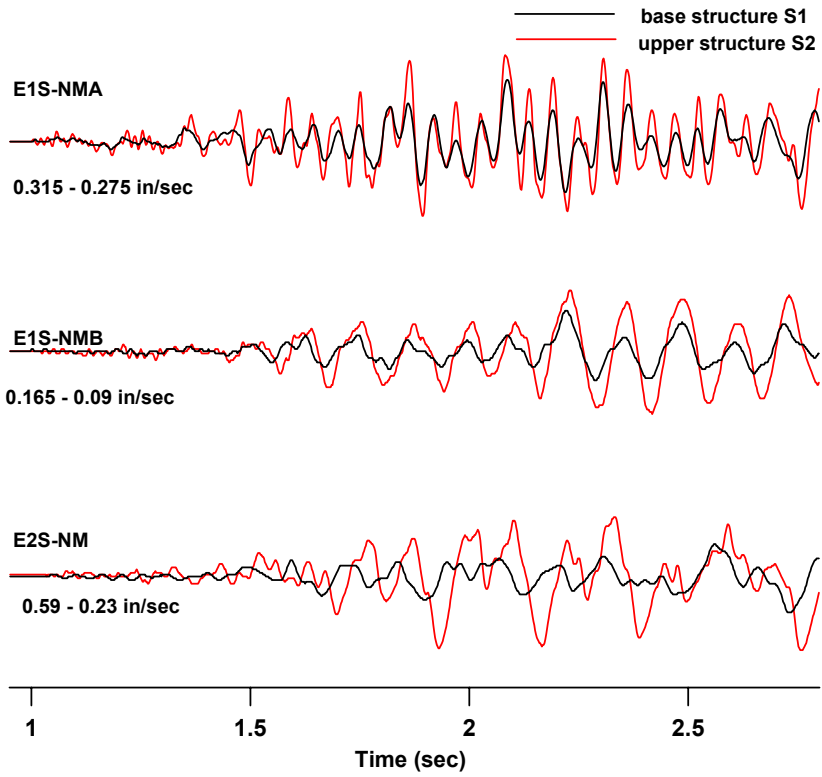
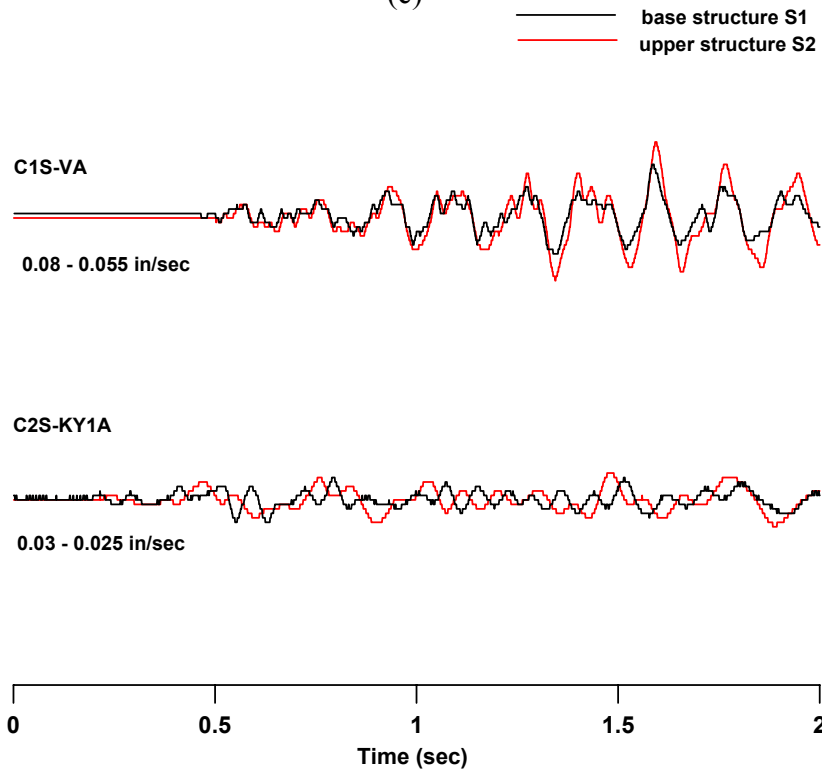


Figure IV-2 Horizontal components of lower and upper structure response for (a) manufactured and (b) log structures



(c)



(d)

Figure IV-2 Horizontal components of lower and upper structure response for (c)) earth and masonry and (d) camp structures

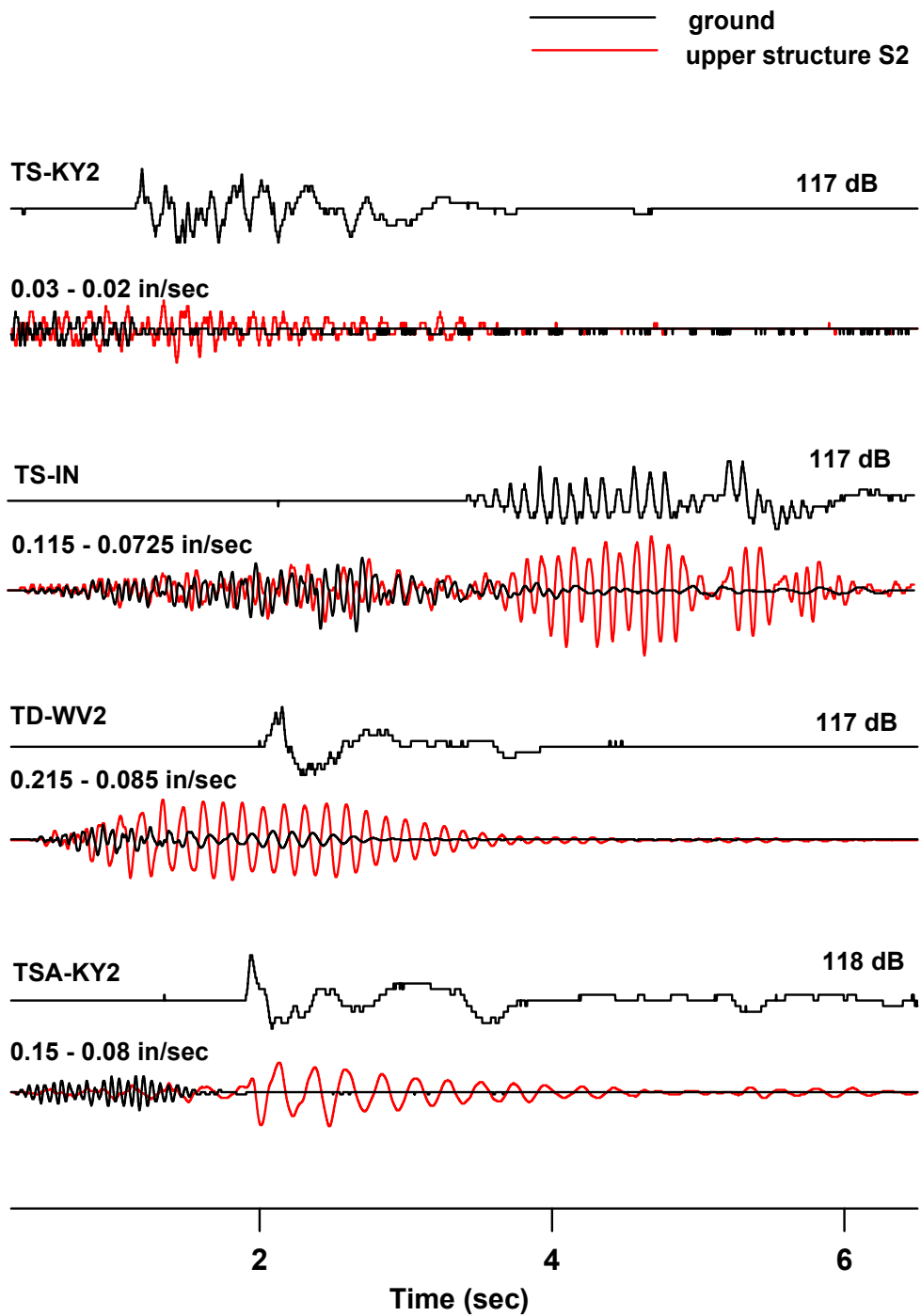


Figure IV-3 Horizontal components of ground motions and upper structure response and air overpressures for manufactured structures

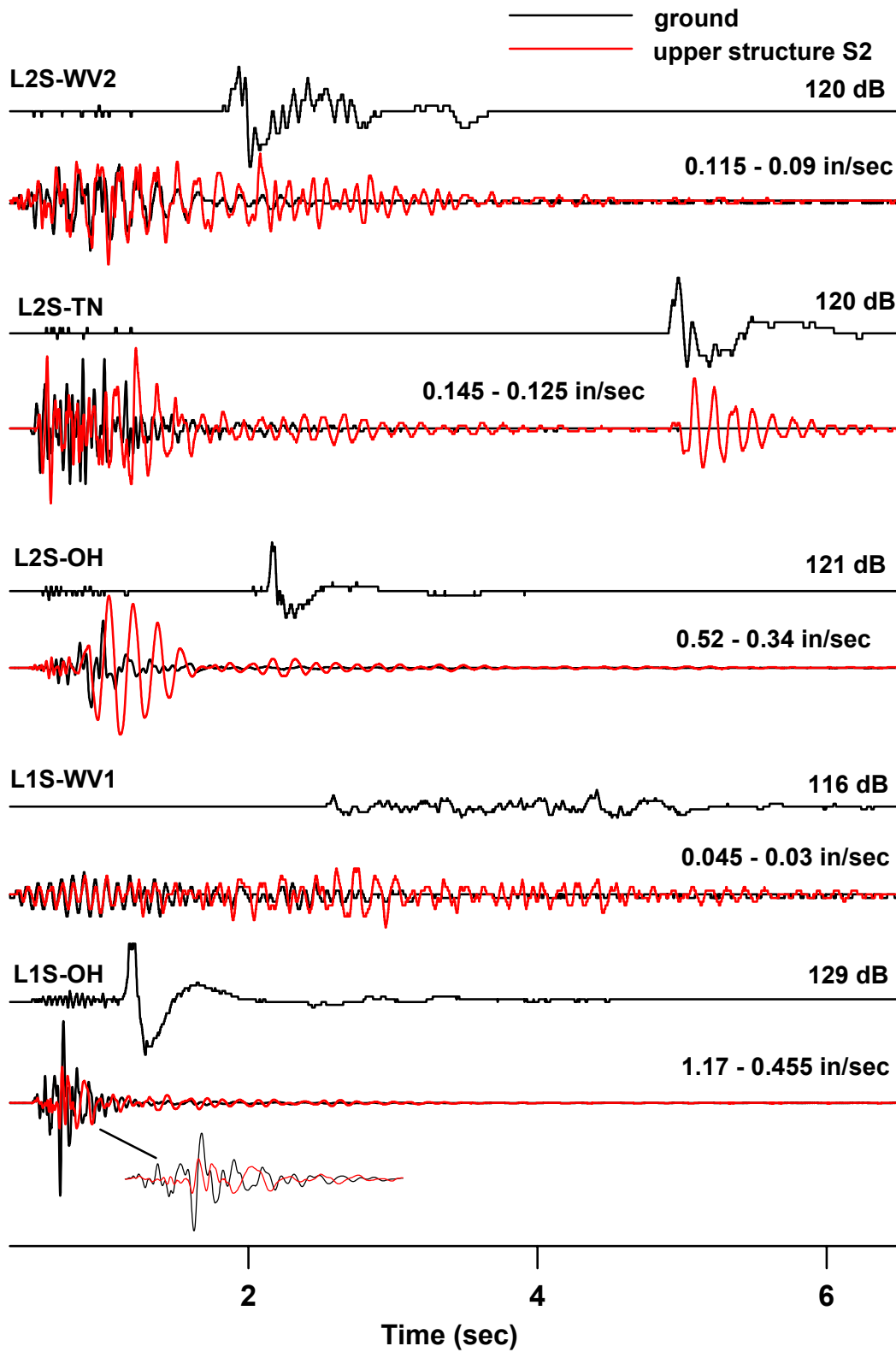


Figure IV-4 Horizontal components of ground motions and upper structure response and air overpressures for log structures

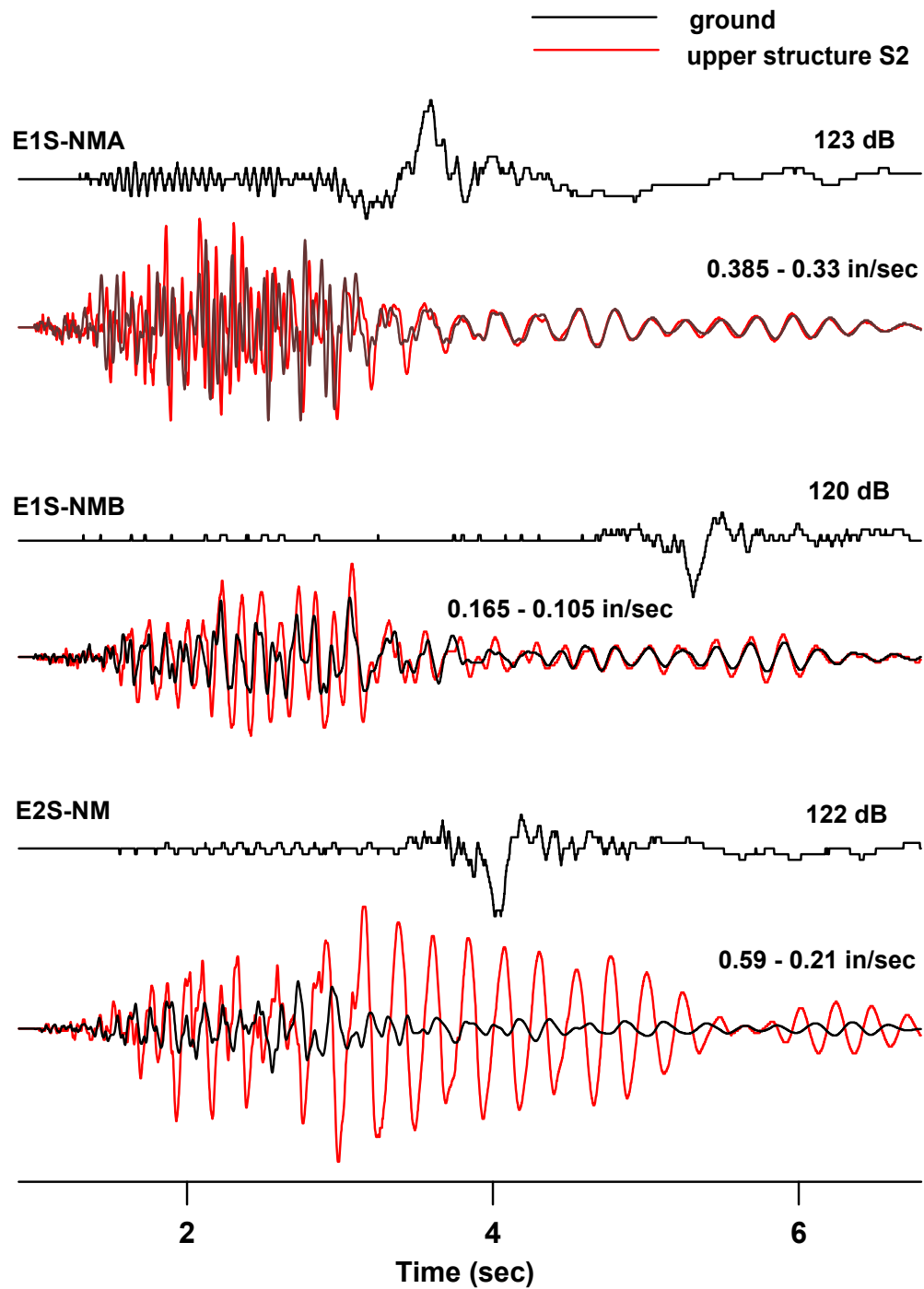


Figure IV-5 Horizontal components of ground motions and upper structure response and air overpressures for earth, masonry, and stone structures

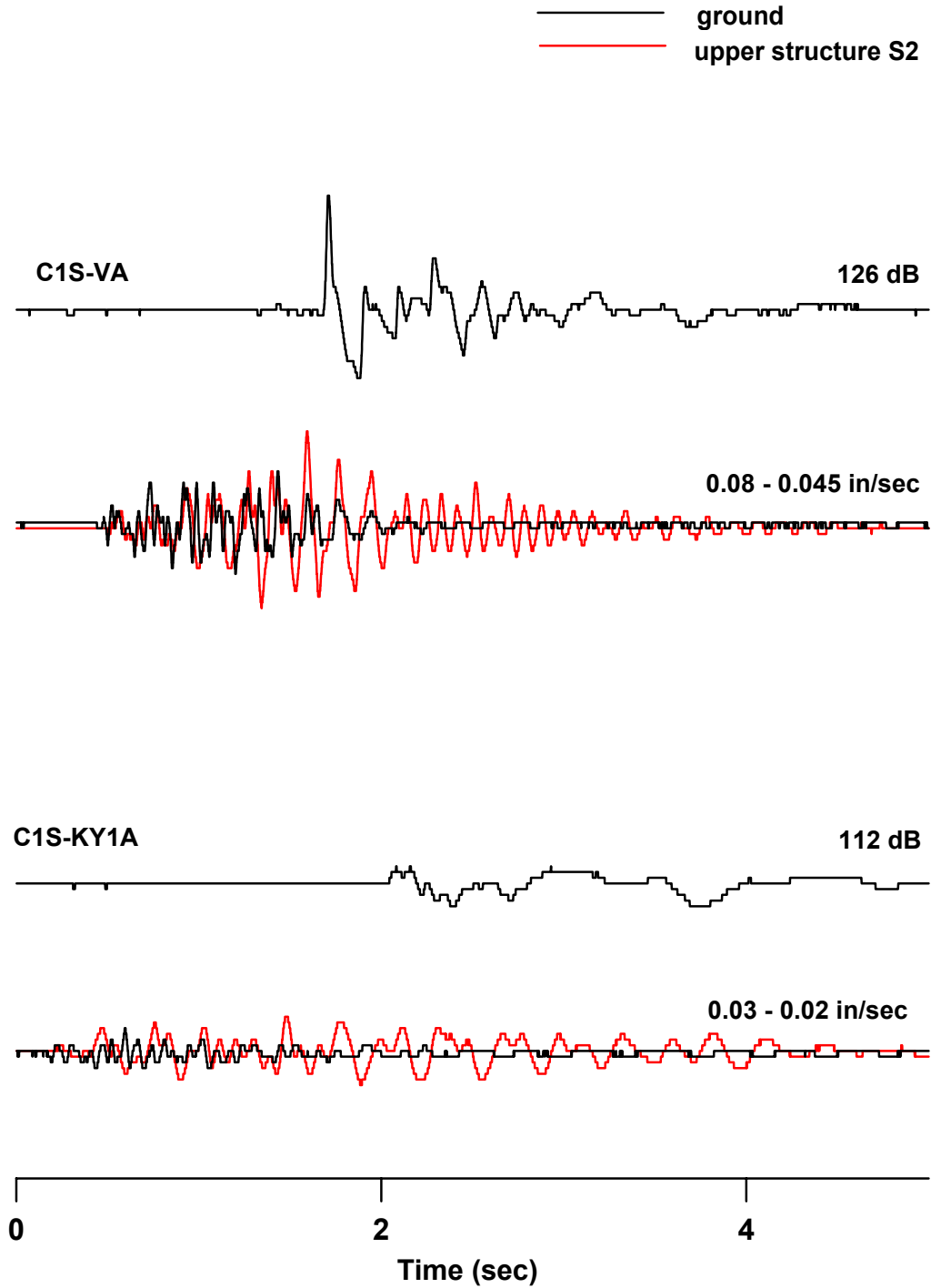


Figure IV-6 Horizontal components of ground motions and upper structure response and air overpressures for camp structures

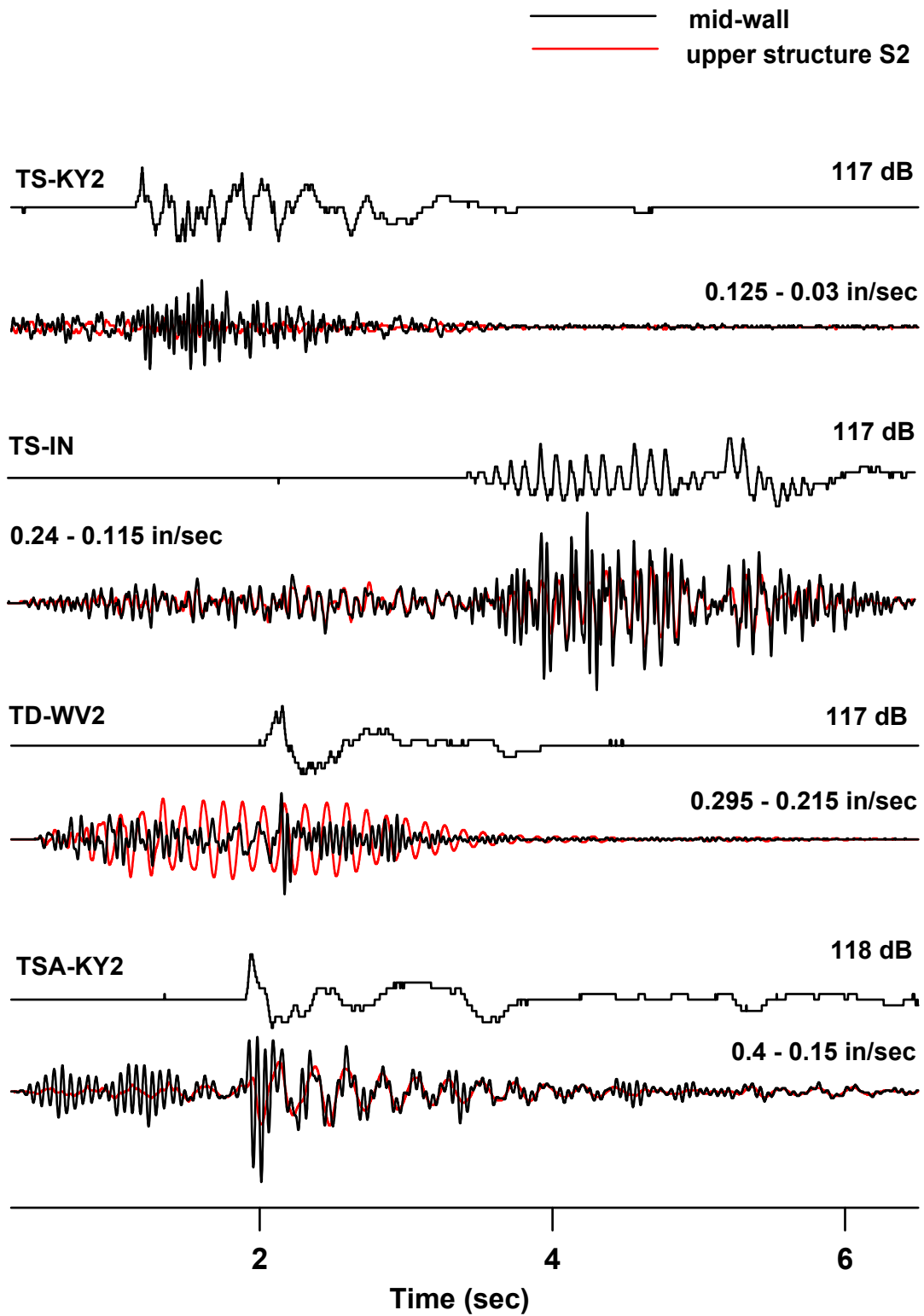


Figure IV-7 Horizontal components of upper structure and mid-wall responses and air overpressures for manufactured structures

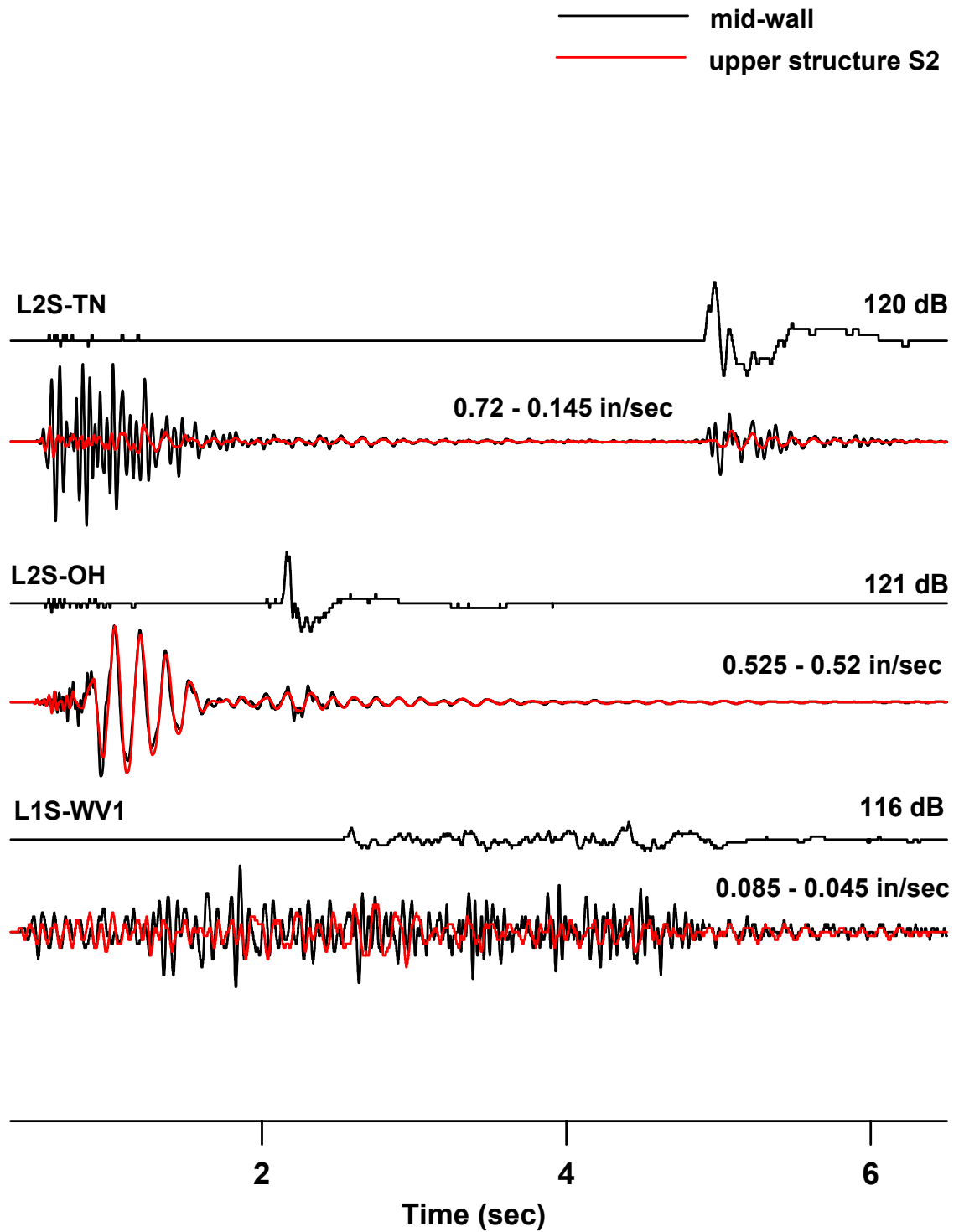


Figure IV-8 Horizontal components of upper structure and mid-wall responses and air overpressures for log structures

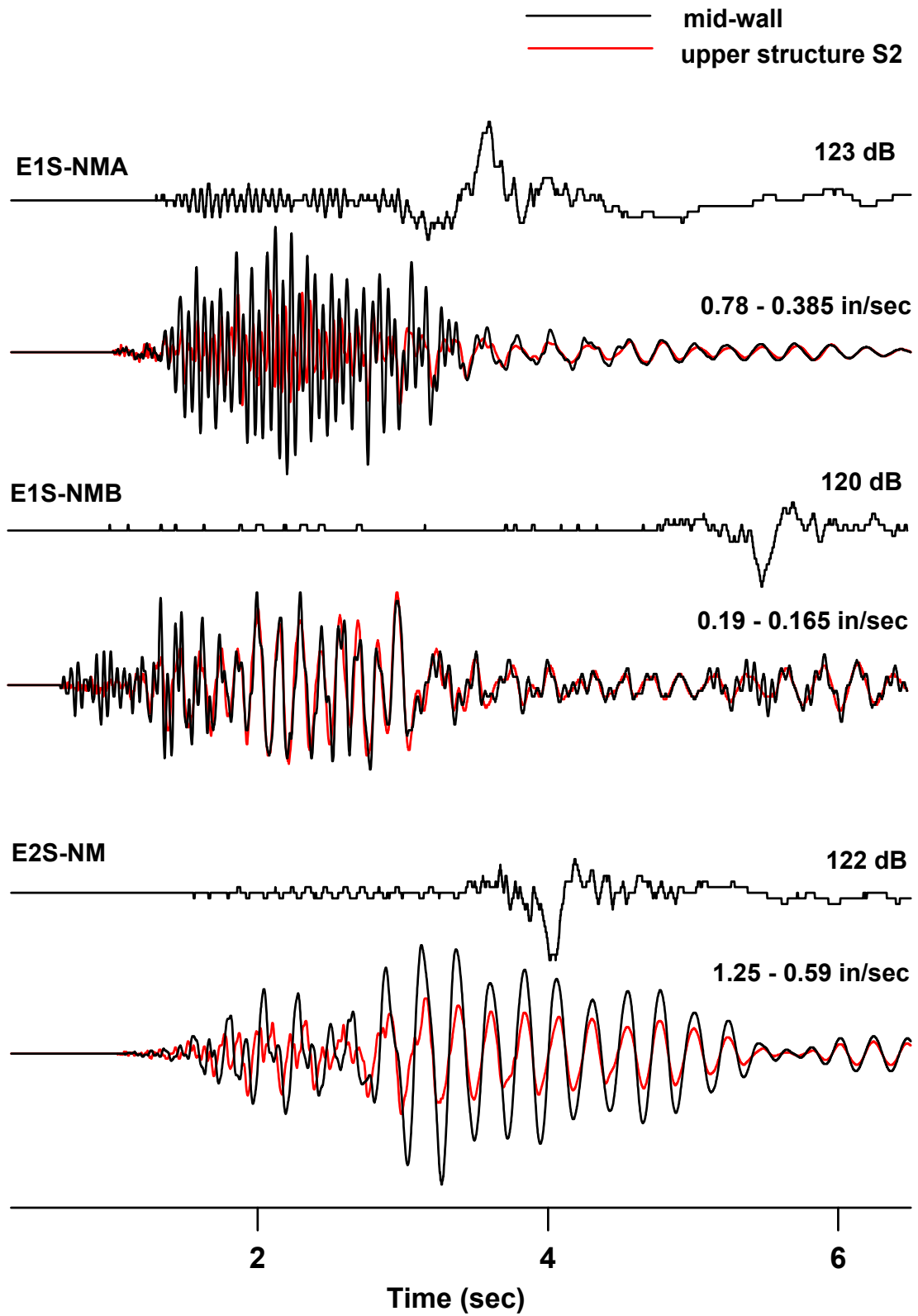


Figure IV-9 Horizontal components of upper structure and mid-wall responses and air overpressures for earth and masonry structures

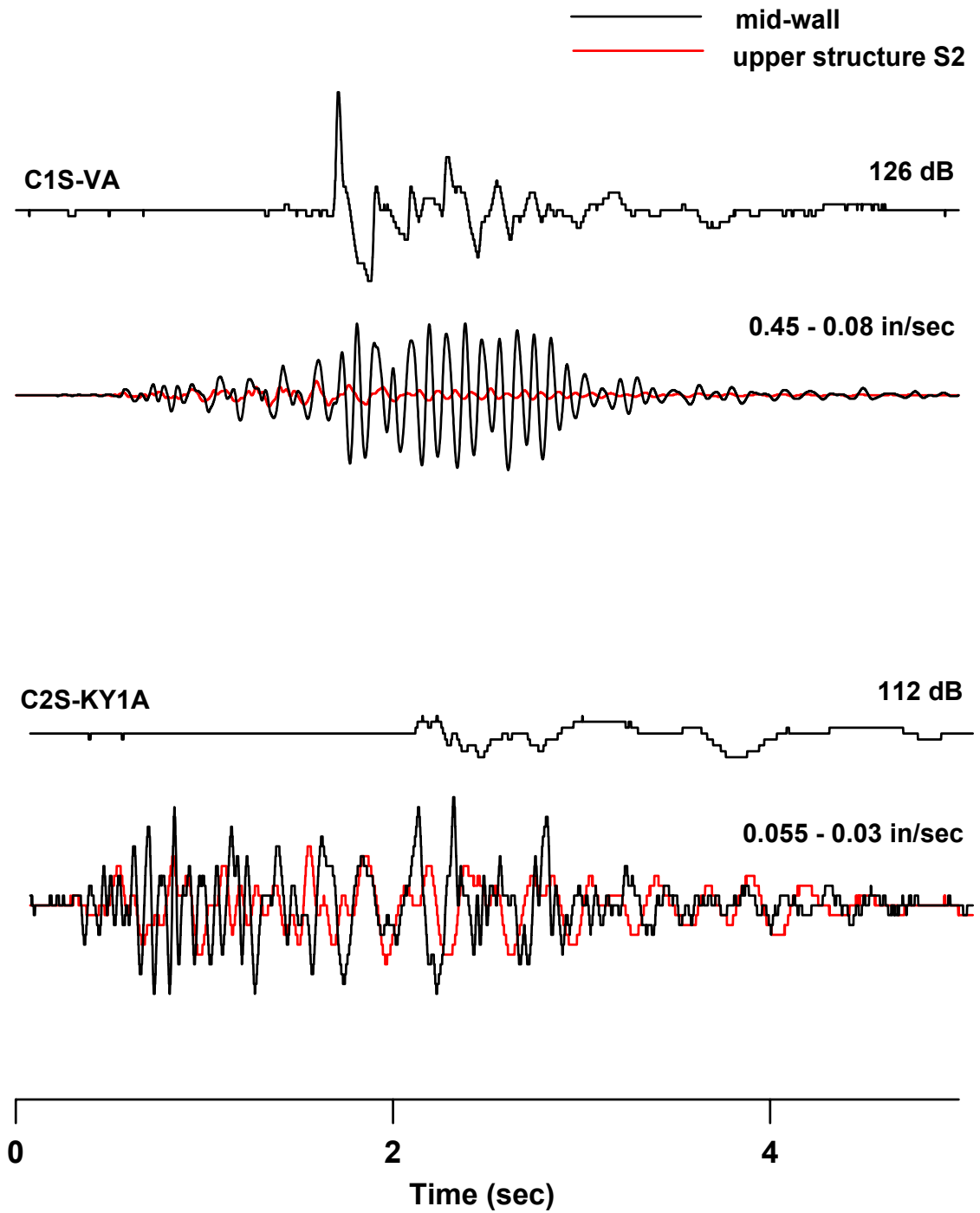
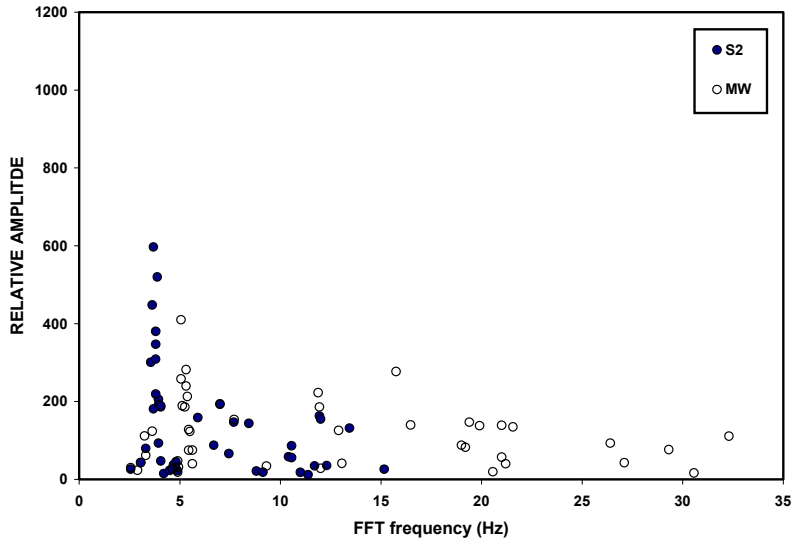


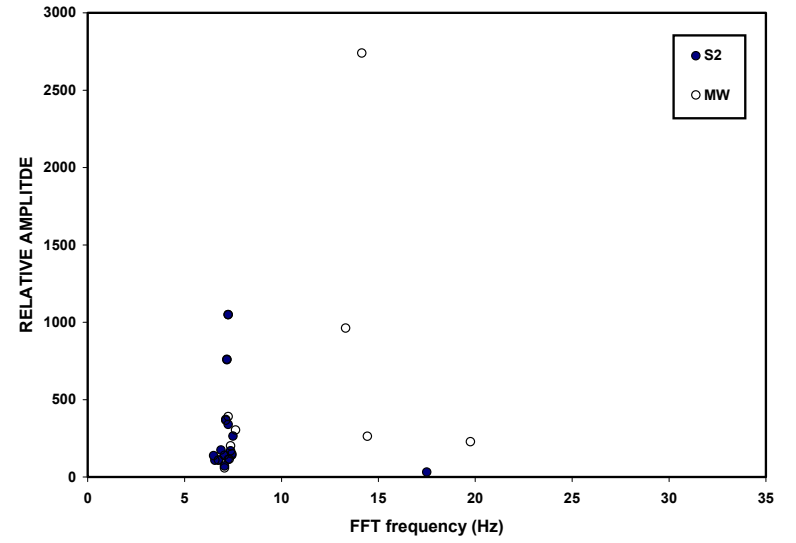
Figure IV-10 Horizontal components of upper structure and mid-wall responses and air overpressures for camp structures

APPENDIX V

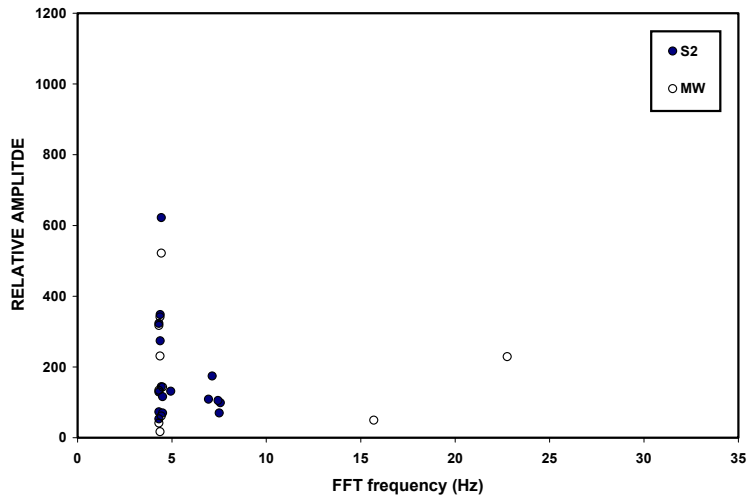
FFT Frequency Correlation Plots



(a)

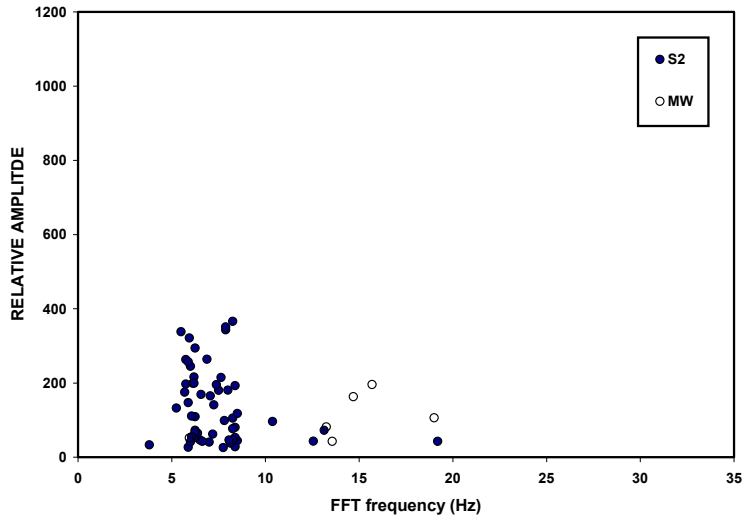


(b)

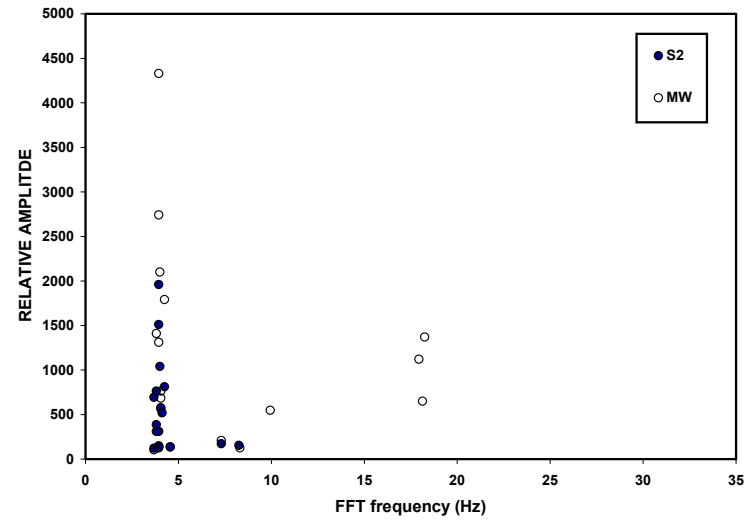


(c)

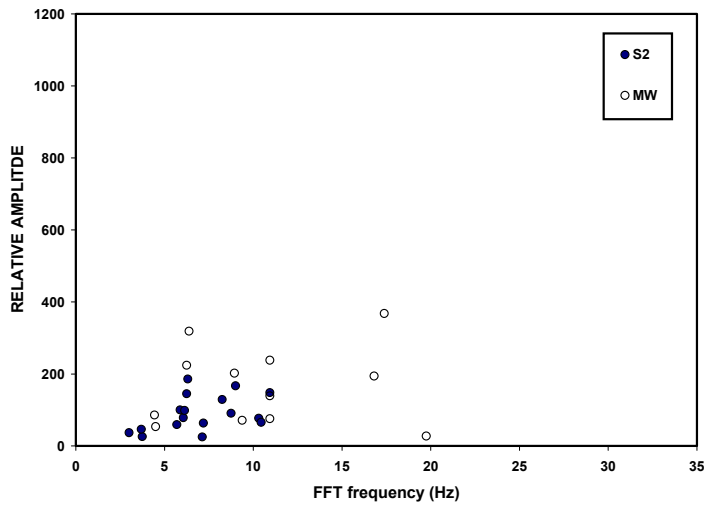
Figure V-1 Trailer responses for (a) single-wide, (b) double-wide and (c) wood frame add-on structures in the transverse direction



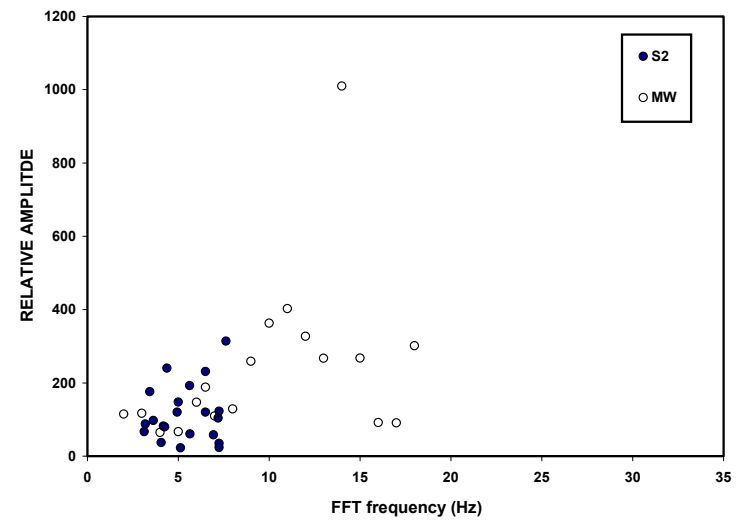
(a)



(b)

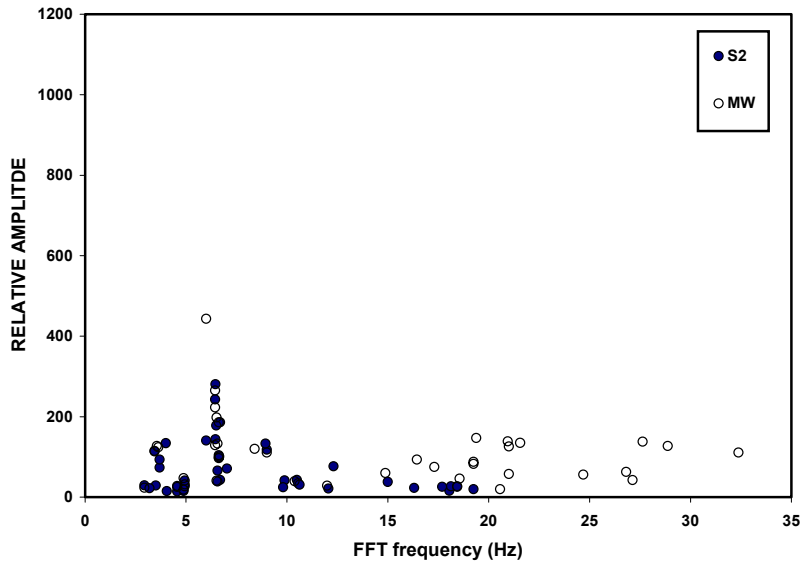


(c)

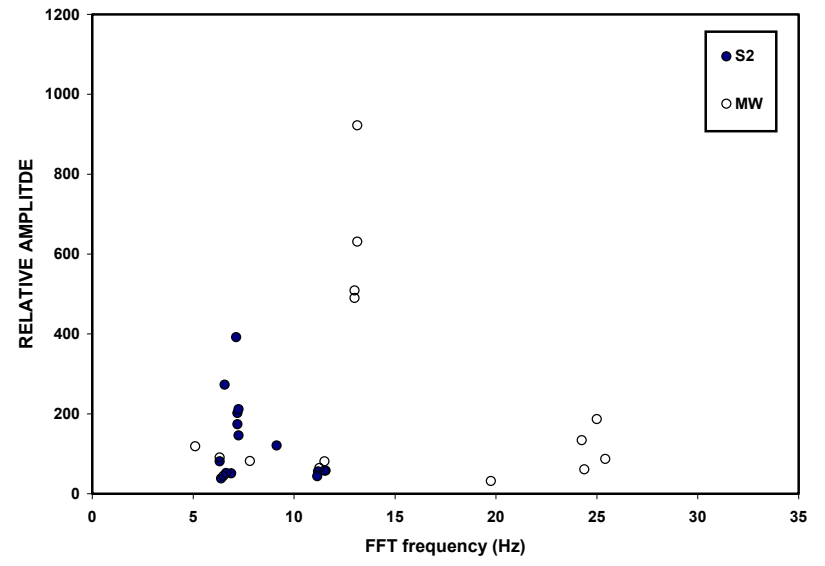


(d)

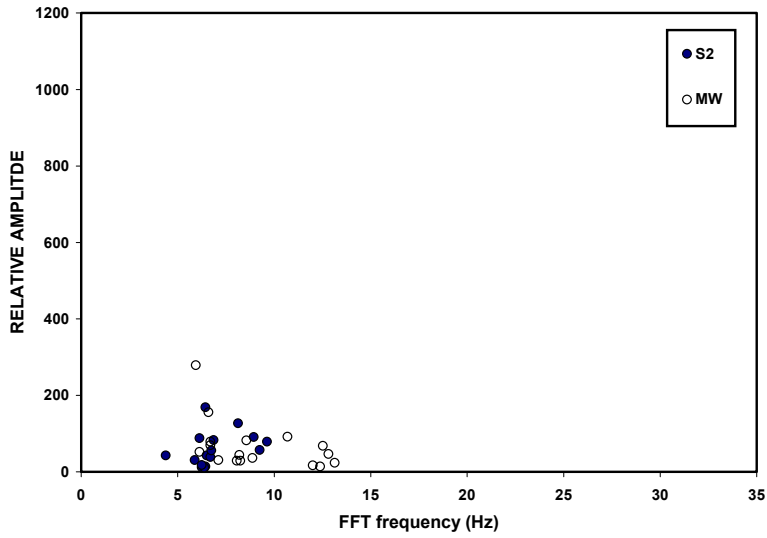
Figure V-2 Transverse structure response for (a) log (b) earth and masonry, (c) camp, and (d) wood-frame structures



(a)

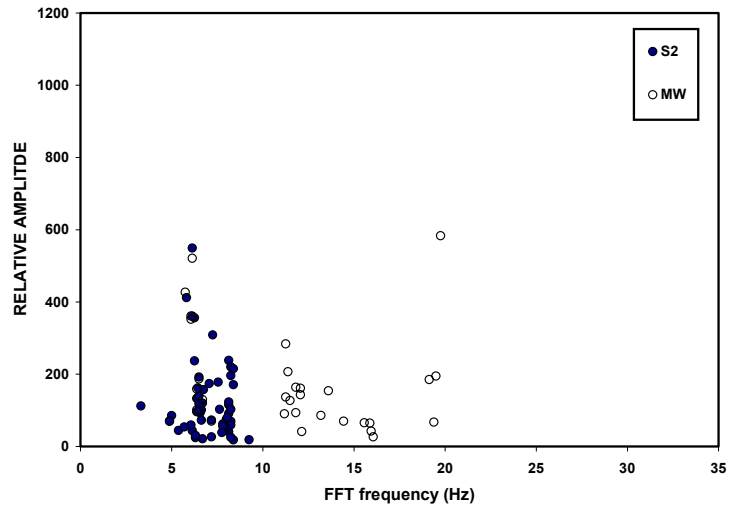


(b)

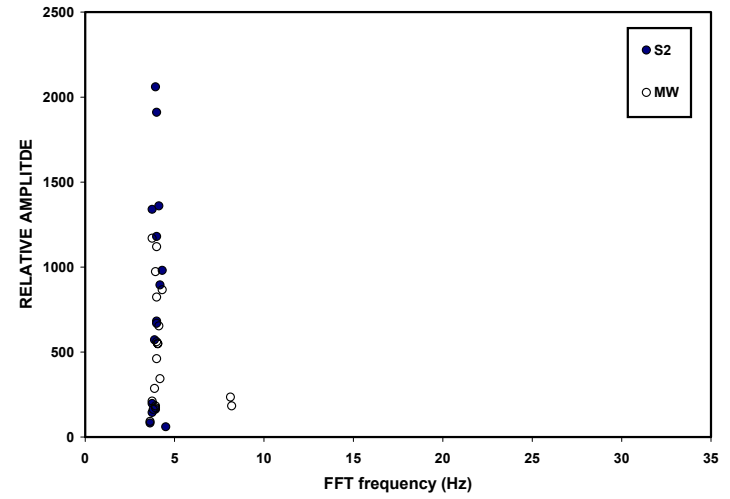


(c)

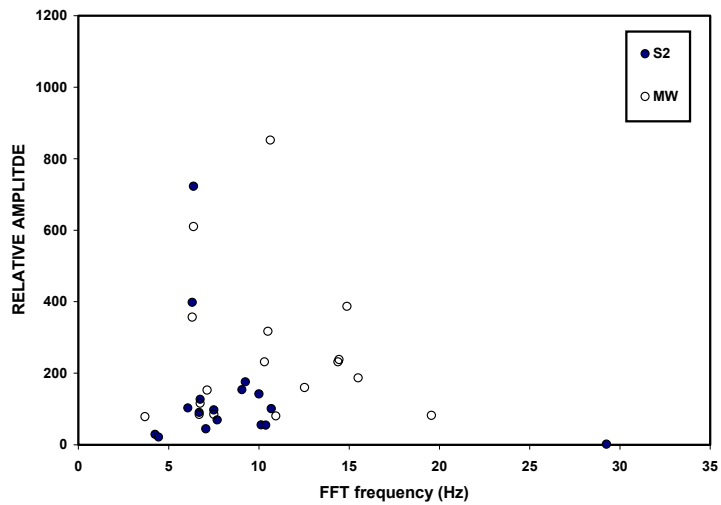
Figure V-3 Trailer responses for (a) single-wide, (b) double-wide and (c) wood frame add-on structures in the radial direction



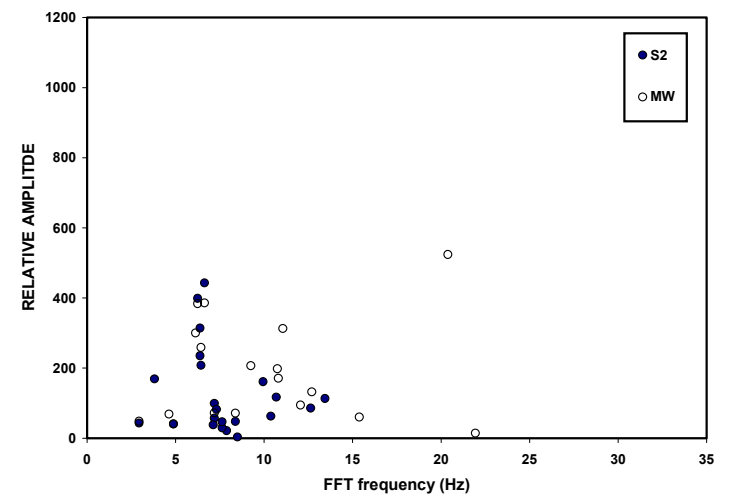
(a)



(b)

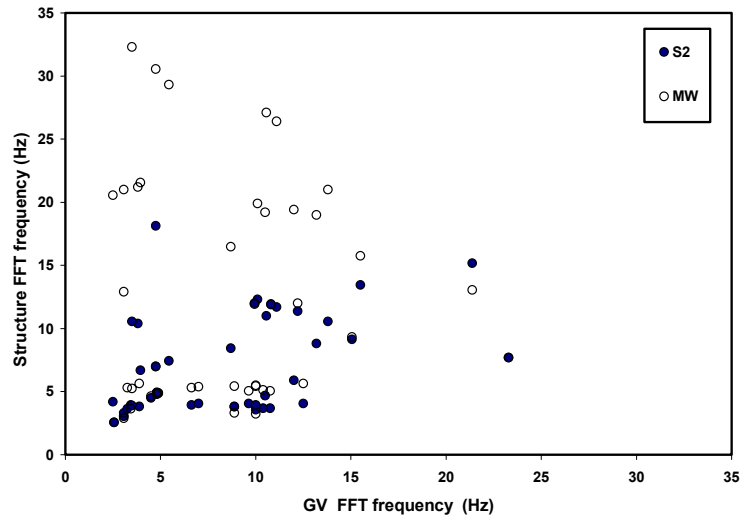


(c)

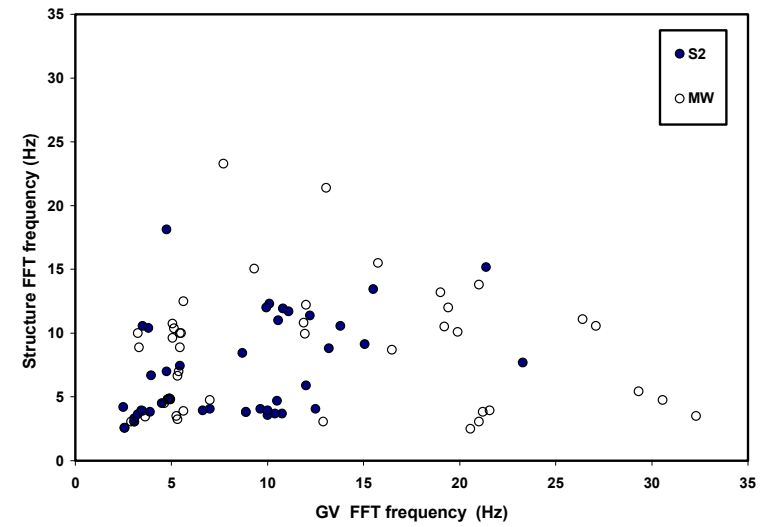


(d)

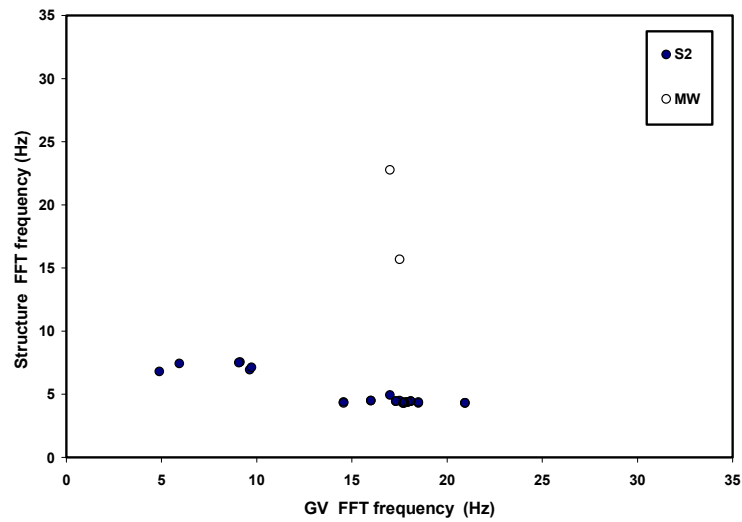
Figure V-4 Radial structure response for (a) log (b) earth and masonry, (c) camp, and (d) wood-frame structures



(a)

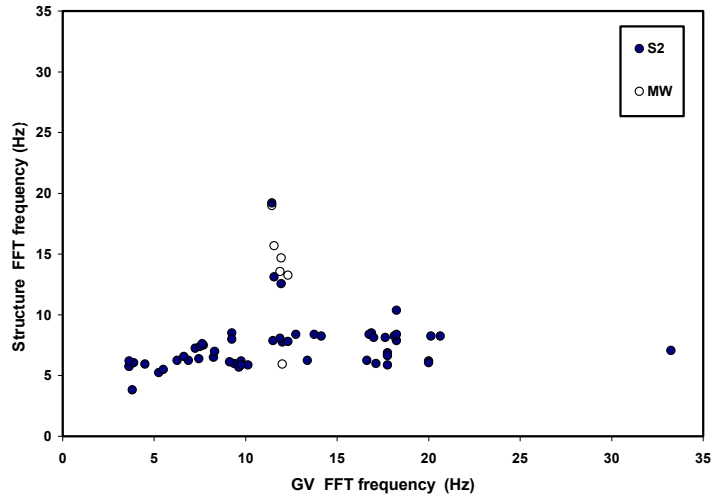


(b)

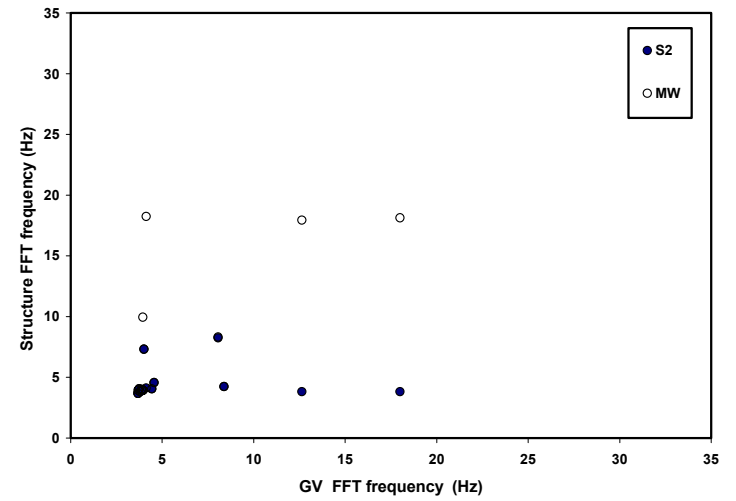


(c)

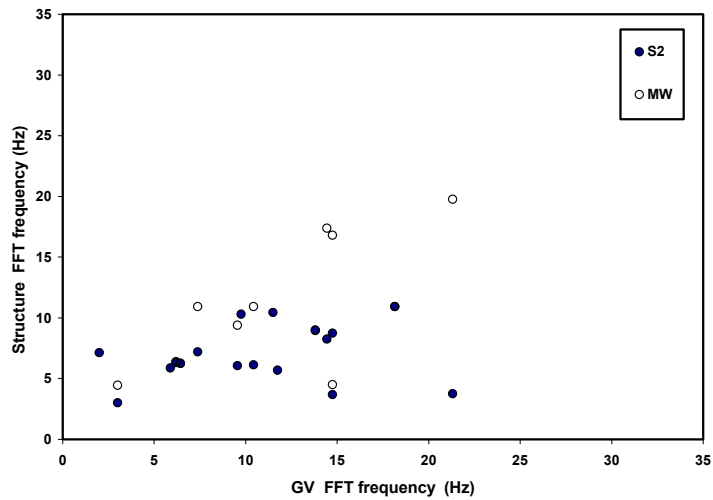
Figure V-5 Trailer responses for (a) single-wide, (b) double-wide and (c) wood frame add-on structures for the transverse component



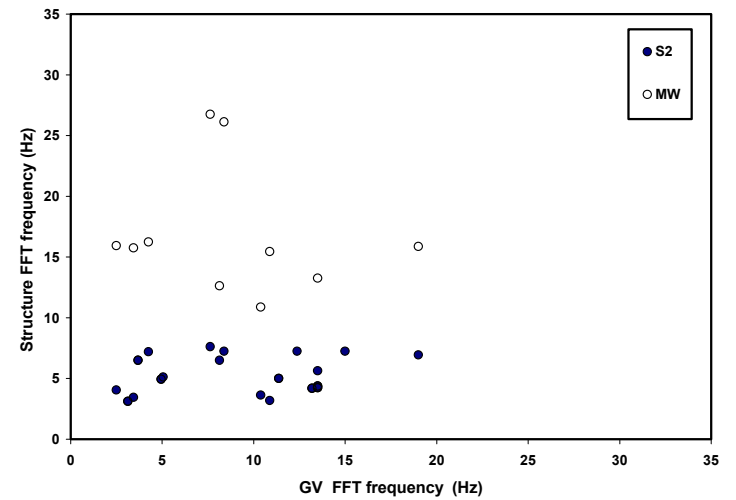
(a)



(b)

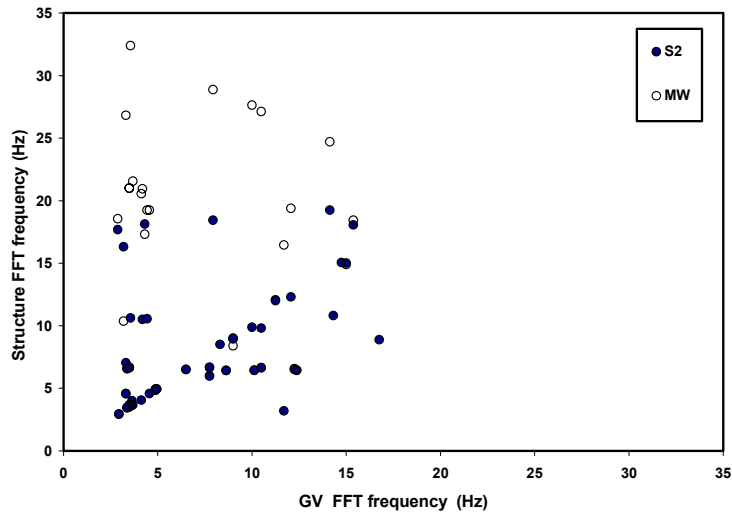


(c)

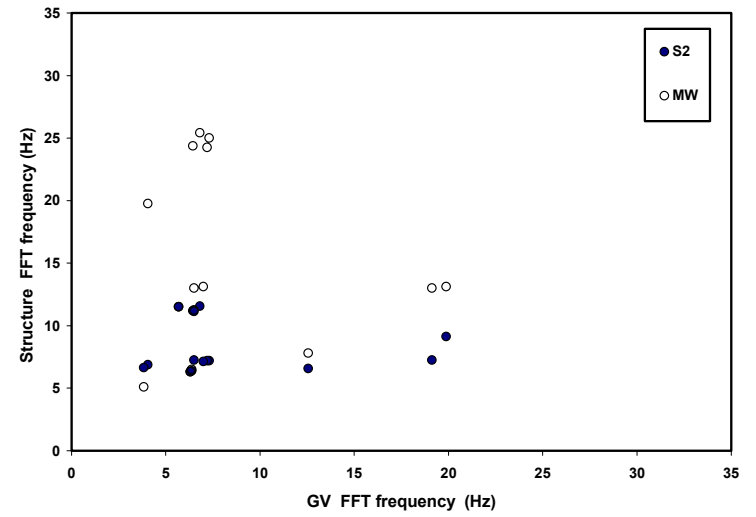


(d)

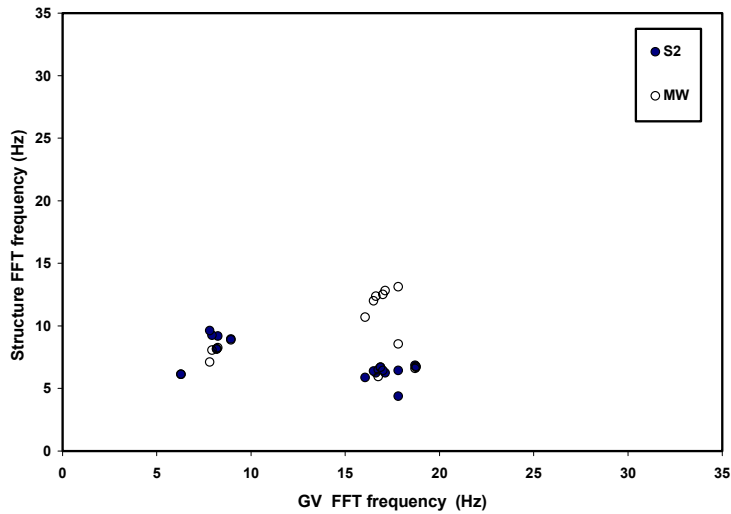
Figure V-6 Transverse structure response for (a) log (b) earth and masonry, (c) camp, and (d) wood-frame structures



(a)

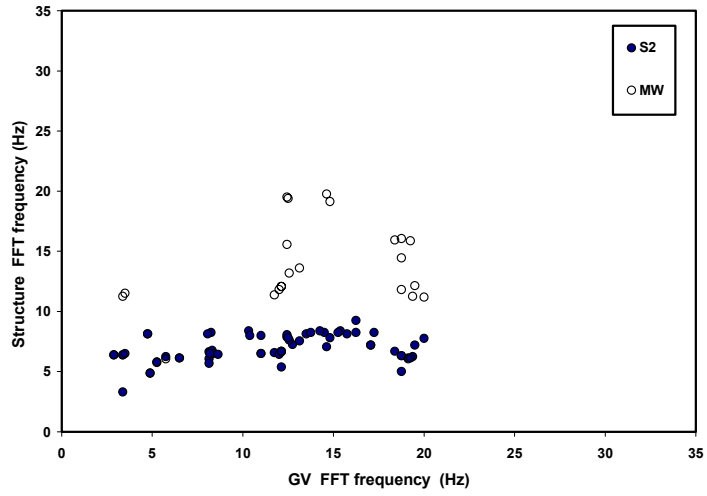


(b)

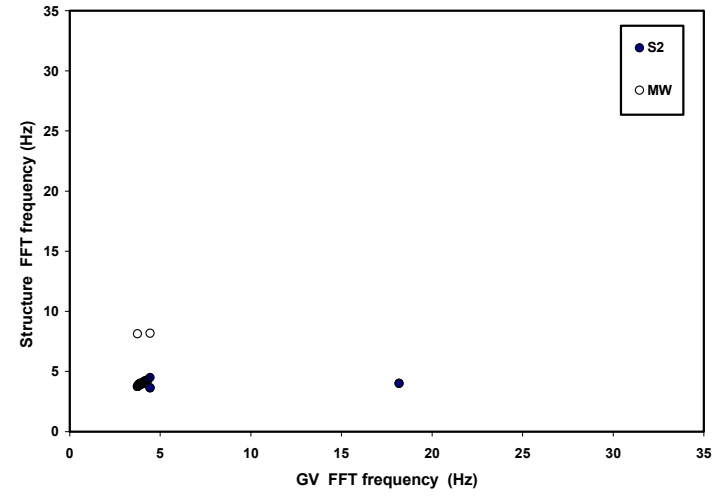


(c)

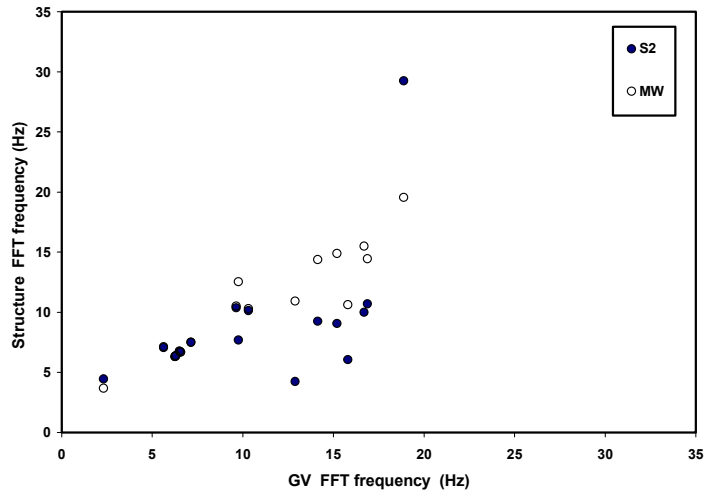
Figure V-7 Trailer responses for (a) single-wide, (b) double-wide and (c) wood frame add-on structures for the radial component



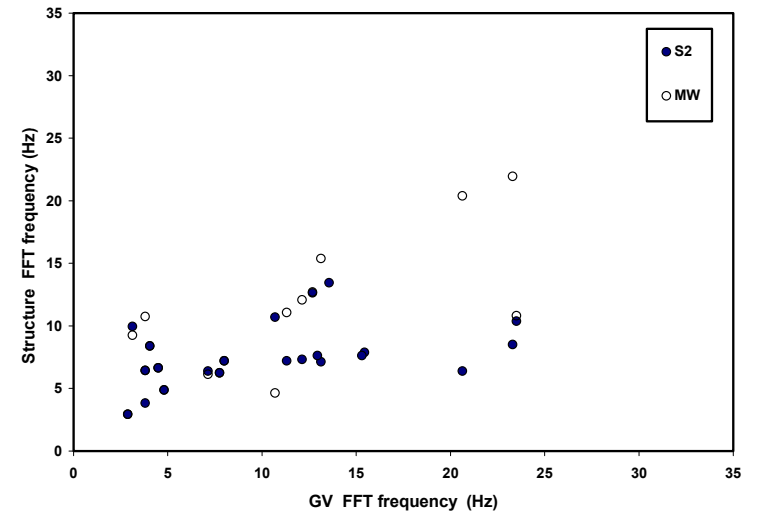
(a)



(b)



(c)



(d)

Figure V-8 Radial structure response for (a) log (b) earth and masonry, (c) camp, and (d) wood-frame structures