



# Improving Performance of Buildings in Very High-Seismic Regions

Volume 2 – Supporting Resources

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**FEMA**





# Improving Performance of Buildings in Very High-Seismic Regions – Volume 2

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Cover photograph: Partially collapsed 15-story building caused by the 1999 Chi-Chi/Nantou, Taiwan Earthquake (image credit: NOAA National Geophysical Data Center, NOAA/NCEI).

**This document is the second of a two-part set.**

Chapter 1 through Chapter 7, Appendix A through  
Appendix G, References, and Project Participants  
can be found in

FEMA P-2343, Volume 1.



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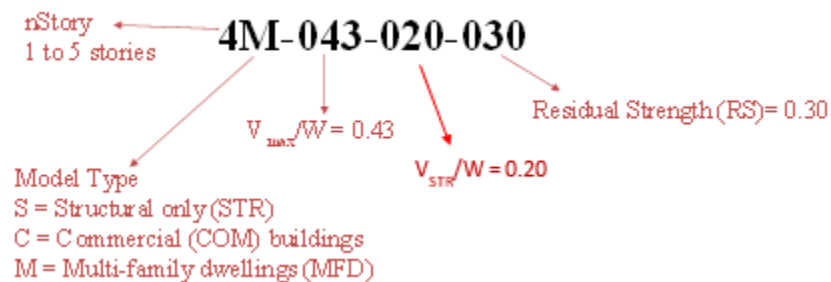
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Table K-1 to Table K-52	Results for DCW eSDOF Models	K-1 to K-53



# Appendix H: Wood Archetype Collapse Results

## H.1 Overview and Organization of Tables

The tables in this appendix show (1) the summary results obtained from incremental dynamic analysis (IDA), and (2) collapse performance evaluation data for each of the three wood archetypes, namely structural-only (STR), commercial buildings (COM), multi-family dwellings (MFD). For clarity, the nomenclature of models for IDA discussed in Chapter 4 is re-introduced in Figure H-1.



**Figure H-1 Nomenclature and model IDs of collapse surface models.**

The IDA and performance evaluation results are organized into four groups of tables. Tables H-1 to Table H-3 show the organization of IDA and collapse performance evaluation tables relevant to COM, MFD, and STR models, respectively, and analyzed using the FEMA P-695 far-field ground motions. Table H-4 shows the organization of the same set of tables for MFD models analyzed using the FEMA P-695 near field ground motions.

The following tables are provided for each of the archetypes and ground motions combinations:

- A study matrix with simulated collapse  $S_{CT}$  obtained from IDA for individual models (see Figure H-1 for nomenclature of models).
- A study matrix with simulated collapse drift ratio ( $DR$ ) obtained from IDA for individual models.
- $S_{CT}$  values of individual models obtained from IDA corresponding to simulated collapse drift ratio ( $DR$ ) and selected non-simulated collapse drift ratios ( $DR = 2.5\%$ ,  $5\%$ ,  $7.5\%$ ,  $10\%$ , and  $15\%$ ), and model period ( $T_1$ ) organized by building height (1 to 5 stories).
- Collapse performance evaluation data versus design  $S_{MT}$  using the response modification factor in Table 12.2-1 of ASCE/SEI 7-22 for light-frame wood walls ( $R = 6.5$ ) for Risk Category II ( $I_e = 1.0$ ) and Risk Category IV ( $I_e = 1.5$ ) designs organized by building height (1 to 5 stories). Collapse performances are evaluated at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70g to 3.0g. The collapse performance evaluation parameters are organized

into three sets of tables selected for  $\hat{S}_{CT}$  at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ .

- $\hat{S}_{CT}$  computed using collapse surface Eqn. 3-10 versus design  $S_{MT}$
- Adjusted collapse margin ratio (ACMR) versus design  $S_{MT}$
- Probability of collapse given  $MCE_R$  level of shaking ( $P[\text{Collapse} | S_{MT}]$ )
- Collapse performance evaluation parameters versus design  $S_{MT}$  using hypothetical values of the  $R/I_e$  ratio to achieve the same target probability of collapse for  $MCE_R$  ground motions of the Very High Seismic (VHS) boundary (i.e.,  $S_{MT} = SDC D_{max}$ ) organized by building height (1 to 5 stories). Two sets of collapse performance evaluation tables are provided one each for target collapse probabilities of  $P[\text{Collapse} | S_{MT}] = 10\%$  and  $2.5\%$ .



**Table H-1 Organization of Appendix H Tables of Wood Light-frame Models with COM Nonstructural Wall Finishes (NS) Subjected to Far-Field Ground Motions**

COM Models, Far-Field Ground Motions									
IDA Results of Individual Models						#Stories			
Table H-	5	Study Matrix with $S_{CT}$				1 to 5			
Table H-	6	Study Matrix with $DR$				1 to 5			
Table H-	7	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				1			
Table H-	8	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				2			
Table H-	9	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				3			
Table H-	10	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				4			
Table H-	11	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				5			
Collapse Performance Evaluation									
R = 6.5		Hypothetical $R/I_e$ Ratio		Parameter	#Stories				
RC II ( $I_e = 1.0$ )	RC IV ( $I_e = 1.5$ )	P[C  $S_{MT}$ ]=10%	P[C  $S_{MT}$ ]=2.5%						
Table H-	12	Table H-	13	Table H-	42	Table H-	43	$\hat{S}_{CT}$	1
Table H-	14	Table H-	15	Table H-	44	Table H-	45	ACMR	
Table H-	16	Table H-	17	Table H-	46	Table H-	47	P[C  $S_{MT}$ ]	
Table H-	18	Table H-	19	Table H-	48	Table H-	49	$\hat{S}_{CT}$	2
Table H-	20	Table H-	21	Table H-	50	Table H-	51	ACMR	
Table H-	22	Table H-	23	Table H-	52	Table H-	53	P[C  $S_{MT}$ ]	
Table H-	24	Table H-	25	Table H-	54	Table H-	55	$\hat{S}_{CT}$	3
Table H-	26	Table H-	27	Table H-	56	Table H-	57	ACMR	
Table H-	28	Table H-	29	Table H-	58	Table H-	59	P[C  $S_{MT}$ ]	
Table H-	30	Table H-	31	Table H-	60	Table H-	61	$\hat{S}_{CT}$	4
Table H-	32	Table H-	33	Table H-	62	Table H-	63	ACMR	
Table H-	34	Table H-	35	Table H-	64	Table H-	65	P[C  $S_{MT}$ ]	
Table H-	36	Table H-	37	Table H-	66	Table H-	67	$\hat{S}_{CT}$	5
Table H-	38	Table H-	39	Table H-	68	Table H-	69	ACMR	
Table H-	40	Table H-	41	Table H-	70	Table H-	71	P[C  $S_{MT}$ ]	

**Table H-2 Organization of Appendix H Tables of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) Subjected to Far-Field Ground Motions**

MFD Models, Far-Field Ground Motions					
IDA Results of Individual Models					#Stories
Table H- 72	Study Matrix with $S_{CT}$				1 to 5
Table H- 73	Study Matrix with $DR$				1 to 5
Table H- 74	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				1
Table H- 75	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				2
Table H- 76	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				3
Table H- 77	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				4
Table H- 78	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				5
Collapse Performance Evaluation					
$R = 6.5$		Hypothetical $R/I_e$ Ratio		Parameter	#Stories
RC II ( $I_e = 1.0$ )	RC IV ( $I_e = 1.5$ )	$P[C S_{MT}] = 10\%$	$P[C S_{MT}] = 2.5\%$		
Table H- 79	Table H- 80	Table H- 109	Table H- 110	$\hat{S}_{CT}$	1
Table H- 81	Table H- 82	Table H- 111	Table H- 112	ACMR	
Table H- 83	Table H- 84	Table H- 113	Table H- 114	$P[C S_{MT}]$	
Table H- 85	Table H- 86	Table H- 115	Table H- 116	$\hat{S}_{CT}$	2
Table H- 87	Table H- 88	Table H- 117	Table H- 118	ACMR	
Table H- 89	Table H- 90	Table H- 119	Table H- 120	$P[C S_{MT}]$	
Table H- 91	Table H- 92	Table H- 121	Table H- 122	$\hat{S}_{CT}$	3
Table H- 93	Table H- 94	Table H- 123	Table H- 124	ACMR	
Table H- 95	Table H- 96	Table H- 125	Table H- 126	$P[C S_{MT}]$	
Table H- 97	Table H- 98	Table H- 127	Table H- 128	$\hat{S}_{CT}$	4
Table H- 99	Table H- 100	Table H- 129	Table H- 130	ACMR	
Table H- 101	Table H- 102	Table H- 131	Table H- 132	$P[C S_{MT}]$	
Table H- 103	Table H- 104	Table H- 133	Table H- 134	$\hat{S}_{CT}$	5
Table H- 105	Table H- 106	Table H- 135	Table H- 136	ACMR	
Table H- 107	Table H- 108	Table H- 137	Table H- 138	$P[C S_{MT}]$	

**Table H-3 Organization of Appendix H Tables of Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR) and Subjected to Far-Field Ground Motions**

STR Models, Far-Field Ground Motions					
IDA Results of Individual Models					#Stories
Table H- 139	Study Matrix with $S_{CT}$				1 to 5
Table H- 140	Study Matrix with $DR$				1 to 5
Table H- 141	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				1
Table H- 142	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				2
Table H- 143	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				3
Table H- 144	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				4
Table H- 145	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				5
Collapse Performance Evaluation					
$R = 6.5$		Hypothetical $R/I_e$ Ratio		Parameter	#Stories
RC II ( $I_e = 1.0$ )	RC IV ( $I_e = 1.5$ )	$P[C S_{MT}] = 10\%$	$P[C S_{MT}] = 2.5\%$		
Table H- 146	Table H- 147	Table H- 176	Table H- 177	$\hat{S}_{CT}$	1
Table H- 148	Table H- 149	Table H- 178	Table H- 179	$ACMR$	
Table H- 150	Table H- 151	Table H- 180	Table H- 181	$P[C S_{MT}]$	
Table H- 152	Table H- 153	Table H- 182	Table H- 183	$\hat{S}_{CT}$	2
Table H- 154	Table H- 155	Table H- 184	Table H- 185	$ACMR$	
Table H- 156	Table H- 157	Table H- 186	Table H- 187	$P[C S_{MT}]$	
Table H- 158	Table H- 159	Table H- 188	Table H- 189	$\hat{S}_{CT}$	3
Table H- 160	Table H- 161	Table H- 190	Table H- 191	$ACMR$	
Table H- 162	Table H- 163	Table H- 192	Table H- 193	$P[C S_{MT}]$	
Table H- 164	Table H- 165	Table H- 194	Table H- 195	$\hat{S}_{CT}$	4
Table H- 166	Table H- 167	Table H- 196	Table H- 197	$ACMR$	
Table H- 168	Table H- 169	Table H- 198	Table H- 199	$P[C S_{MT}]$	
Table H- 170	Table H- 171	Table H- 200	Table H- 201	$\hat{S}_{CT}$	5
Table H- 172	Table H- 173	Table H- 202	Table H- 203	$ACMR$	
Table H- 174	Table H- 175	Table H- 204	Table H- 205	$P[C S_{MT}]$	

**Table H-4 Organization of Appendix H Tables of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) Subjected to Near-Field Ground Motions**

MFD Models, Far-Field Ground Motions					
IDA Results of Individual Models					#Stories
Table H- 206	Study Matrix with $S_{CT}$				1 to 5
Table H- 207	Study Matrix with $DR$				1 to 5
Table H- 208	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				1
Table H- 209	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				2
Table H- 210	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				3
Table H- 211	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				4
Table H- 212	$S_{CT}$ at $DR$ and non-simulated $DR$ s, Model Period ( $T_1$ )				5
Collapse Performance Evaluation					
$R = 6.5$		Hypothetical $R/I_e$ Ratio		Parameter	#Stories
RC II ( $I_e = 1.0$ )	RC IV ( $I_e = 1.5$ )	$P[C S_{MT}] = 10\%$	$P[C S_{MT}] = 2.5\%$		
Table H- 213	Table H- 214	Table H- 243	Table H- 244	$\hat{S}_{CT}$	1
Table H- 215	Table H- 216	Table H- 245	Table H- 246	$ACMR$	
Table H- 217	Table H- 218	Table H- 247	Table H- 248	$P[C S_{MT}]$	
Table H- 219	Table H- 220	Table H- 249	Table H- 250	$\hat{S}_{CT}$	2
Table H- 221	Table H- 222	Table H- 251	Table H- 252	$ACMR$	
Table H- 223	Table H- 224	Table H- 253	Table H- 254	$P[C S_{MT}]$	
Table H- 225	Table H- 226	Table H- 255	Table H- 256	$\hat{S}_{CT}$	3
Table H- 227	Table H- 228	Table H- 257	Table H- 258	$ACMR$	
Table H- 229	Table H- 230	Table H- 259	Table H- 260	$P[C S_{MT}]$	
Table H- 231	Table H- 232	Table H- 261	Table H- 262	$\hat{S}_{CT}$	4
Table H- 233	Table H- 234	Table H- 263	Table H- 264	$ACMR$	
Table H- 235	Table H- 236	Table H- 265	Table H- 266	$P[C S_{MT}]$	
Table H- 237	Table H- 238	Table H- 267	Table H- 268	$\hat{S}_{CT}$	5
Table H- 239	Table H- 240	Table H- 269	Table H- 270	$ACMR$	
Table H- 241	Table H- 242	Table H- 271	Table H- 272	$P[C S_{MT}]$	

**Table H-5 Summary of Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Simulated Collapse Analyses of Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

N	$V_{STR}/W$	$V_{NS}/W$ nominal	$V_{NS}/W$ actual	$V_{max}/W$ without P- $\Delta$	$V_{max}/W$ with P- $\Delta$	$S_{CT}$ given RS as a fraction of $V_{max}/W$					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.50	0.52	0.55	0.54			2.69	2.07	1.71	
1	0.10	0.50	0.53	0.60	0.59			3.25	2.41	1.97	
1	0.15	0.50	0.54	0.65	0.64			4.34	2.77	2.03	
1	0.20	0.50	0.56	0.70	0.69				3.20	2.52	
1	0.30	0.50	0.58	0.80	0.79				3.55	2.82	
1	0.45	0.50	0.61	0.95	0.94				4.21	3.30	
1	0.60	0.50	0.64	1.10	1.08					3.67	3.20
1	0.80	0.50	0.65	1.30	1.28					4.04	3.54
1	1.00	0.50	0.65	1.50	1.48					4.51	3.86
1	1.20	0.50	0.67	1.70	1.67						4.07
2	0.05	0.25	0.26	0.30	0.28	2.37	1.94	1.59			
2	0.10	0.25	0.26	0.35	0.33	3.22	2.62	2.05	1.67		
2	0.15	0.25	0.26	0.40	0.38	4.29	3.45	2.66	1.99		
2	0.20	0.25	0.28	0.45	0.43		4.22	3.14	2.31		
2	0.30	0.25	0.30	0.55	0.53			4.01	2.94	2.42	
2	0.45	0.25	0.31	0.70	0.68				3.60	2.87	
2	0.60	0.25	0.32	0.85	0.83				3.90	3.38	
2	0.80	0.25	0.33	1.05	1.03					3.79	3.41
2	1.00	0.25	0.33	1.25	1.23					4.09	3.67
2	1.20	0.25	0.33	1.45	1.43					4.61	4.13
3	0.05	0.17	0.17	0.22	0.20	1.54	1.38				
3	0.10	0.17	0.18	0.27	0.25	2.09	1.80	1.60			
3	0.15	0.17	0.18	0.32	0.30	2.79	2.36	2.01			
3	0.20	0.17	0.18	0.37	0.35	3.91	3.17	2.56	2.12		
3	0.30	0.17	0.19	0.47	0.45		4.81	3.53	2.64		
3	0.45	0.17	0.20	0.62	0.60			4.45	3.38	3.01	
3	0.60	0.17	0.22	0.77	0.75				3.95	3.60	
3	0.80	0.17	0.22	0.97	0.95				4.58	4.12	
3	1.00	0.17	0.22	1.17	1.15					4.47	4.27
3	1.20	0.17	0.22	1.37	1.35					4.98	4.68
4	0.05	0.13	0.13	0.18	0.16	1.33	1.21				
4	0.10	0.13	0.13	0.23	0.21	1.72	1.51	1.42			
4	0.15	0.13	0.13	0.28	0.26	2.10	1.82	1.69			
4	0.20	0.13	0.13	0.33	0.31	2.61	2.25	1.99			
4	0.30	0.13	0.14	0.43	0.41		3.79	2.94	2.56		
4	0.45	0.13	0.16	0.58	0.56			4.25	3.26	2.97	
4	0.60	0.13	0.16	0.73	0.71				3.54	3.39	
4	0.80	0.13	0.16	0.93	0.91				4.12	3.87	
4	1.00	0.13	0.17	1.13	1.11					4.37	4.04
4	1.20	0.13	0.17	1.33	1.31					4.73	4.60
5	0.05	0.10	0.10	0.15	0.13	1.17					
5	0.10	0.10	0.10	0.20	0.18	1.53	1.37				
5	0.15	0.10	0.10	0.25	0.23	1.86	1.67	1.55			
5	0.20	0.10	0.10	0.30	0.28	2.25	1.98	1.81			
5	0.30	0.10	0.10	0.40	0.38	4.02	3.38	2.70	2.28		
5	0.45	0.10	0.12	0.55	0.53			3.71	2.97	2.85	
5	0.60	0.10	0.13	0.70	0.68				3.45	3.24	
5	0.80	0.10	0.13	0.90	0.88				3.89	3.68	
5	1.00	0.10	0.13	1.10	1.08					4.24	4.07
5	1.20	0.10	0.13	1.30	1.28					4.48	4.36

**Table H-6 Summary of Median Peak 1<sup>st</sup>-Story Drift Ratio (DR) Results of Simulated Collapse Analyses of Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

N	V <sub>STR</sub> /W	V <sub>NS</sub> /W nominal	V <sub>NS</sub> /W actual	V <sub>max</sub> /W without P-Δ	V <sub>max</sub> /W with P-Δ	DR (%) given RS as a fraction of V <sub>max</sub> /W					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.50	0.52	0.55	0.54			15.87	10.39	5.91	
1	0.10	0.50	0.53	0.60	0.59			18.26	10.76	7.03	
1	0.15	0.50	0.54	0.65	0.64			22.76	13.67	5.40	
1	0.20	0.50	0.56	0.70	0.69				15.95	9.32	
1	0.30	0.50	0.58	0.80	0.79				16.36	10.47	
1	0.45	0.50	0.61	0.95	0.94				17.10	11.19	
1	0.60	0.50	0.64	1.10	1.08					11.24	6.88
1	0.80	0.50	0.65	1.30	1.28					12.38	6.78
1	1.00	0.50	0.65	1.50	1.48					11.99	6.89
1	1.20	0.50	0.67	1.70	1.67						6.18
2	0.05	0.25	0.26	0.30	0.28	19.31	15.14	11.20			
2	0.10	0.25	0.26	0.35	0.33	22.26	17.86	13.04	7.43		
2	0.15	0.25	0.26	0.40	0.38	26.07	21.00	15.73	8.97		
2	0.20	0.25	0.28	0.45	0.43		23.65	16.90	10.63		
2	0.30	0.25	0.30	0.55	0.53			20.48	12.21	8.38	
2	0.45	0.25	0.31	0.70	0.68				15.57	9.00	
2	0.60	0.25	0.32	0.85	0.83				13.35	9.94	
2	0.80	0.25	0.33	1.05	1.03					9.96	6.52
2	1.00	0.25	0.33	1.25	1.23					9.66	6.18
2	1.20	0.25	0.33	1.45	1.43					10.71	6.65
3	0.05	0.17	0.17	0.22	0.20	11.90	8.36				
3	0.10	0.17	0.18	0.27	0.25	16.14	12.28	8.04			
3	0.15	0.17	0.18	0.32	0.30	20.13	15.87	10.77			
3	0.20	0.17	0.18	0.37	0.35	22.96	18.35	12.86	7.54		
3	0.30	0.17	0.19	0.47	0.45		23.86	17.12	9.35		
3	0.45	0.17	0.20	0.62	0.60			19.69	11.40	7.70	
3	0.60	0.17	0.22	0.77	0.75				12.28	8.65	
3	0.80	0.17	0.22	0.97	0.95				12.76	8.31	
3	1.00	0.17	0.22	1.17	1.15					6.88	5.57
3	1.20	0.17	0.22	1.37	1.35					8.21	5.37
4	0.05	0.13	0.13	0.18	0.16	9.27	6.38				
4	0.10	0.13	0.13	0.23	0.21	12.62	9.23	5.46			
4	0.15	0.13	0.13	0.28	0.26	16.66	11.28	6.99			
4	0.20	0.13	0.13	0.33	0.31	18.11	11.91	8.37			
4	0.30	0.13	0.14	0.43	0.41		15.84	11.62	7.97		
4	0.45	0.13	0.16	0.58	0.56			15.31	9.02	6.50	
4	0.60	0.13	0.16	0.73	0.71				7.86	6.34	
4	0.80	0.13	0.16	0.93	0.91				8.02	6.49	
4	1.00	0.13	0.17	1.13	1.11					6.69	4.68
4	1.20	0.13	0.17	1.33	1.31					6.25	4.89
5	0.05	0.10	0.10	0.15	0.13	5.91					
5	0.10	0.10	0.10	0.20	0.18	9.47	6.57				
5	0.15	0.10	0.10	0.25	0.23	12.13	8.75	4.80			
5	0.20	0.10	0.10	0.30	0.28	14.77	10.06	6.51			
5	0.30	0.10	0.10	0.40	0.38	17.88	13.36	10.95	6.12		
5	0.45	0.10	0.12	0.55	0.53			11.93	6.90	6.00	
5	0.60	0.10	0.13	0.70	0.68				7.82	5.58	
5	0.80	0.10	0.13	0.90	0.88				6.77	5.39	
5	1.00	0.10	0.13	1.10	1.08					5.93	4.87
5	1.20	0.10	0.13	1.30	1.28					5.93	4.37

**Table H-7 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CT</sub>*(*C<sub>u</sub>T<sub>a</sub>*) Results of Collapse Analyses of 1-Story Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period <i>T</i> <sub>1</sub> (s)
	Non-Simulated Collapse <i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub></i> ) at <i>DR</i>					Simulated Collapse		
1C-	2.5%	5.0%	7.5%	10%	15%	<i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub></i> )	<i>DR</i>	
055-005-045	1.30	1.66	1.85	2.03	2.35	2.69	15.9%	0.26
055-005-030	1.30	1.66	1.79	1.94	2.07	2.07	10.4%	0.25
055-005-020	1.30	1.60	1.71	1.71	1.71	1.71	5.9%	0.24
060-010-045	1.40	1.84	2.04	2.32	2.80	3.25	18.3%	0.26
060-010-030	1.40	1.81	1.98	2.13	2.41	2.41	10.8%	0.25
060-010-020	1.41	1.77	1.97	1.97	1.97	1.97	7.0%	0.24
065-015-045	1.50	1.93	2.18	2.50	3.15	4.34	22.8%	0.26
065-015-030	1.50	1.93	2.12	2.35	2.77	2.77	13.7%	0.25
065-015-020	1.51	1.92	2.03	2.03	2.03	2.03	5.4%	0.25
070-020-030	1.61	2.06	2.31	2.60	3.03	3.20	16.0%	0.23
070-020-020	1.62	2.04	2.26	2.52	2.52	2.52	9.3%	0.21
080-030-030	1.79	2.28	2.56	2.84	3.31	3.55	16.4%	0.19
080-030-020	1.80	2.27	2.52	2.69	2.82	2.82	10.5%	0.22
095-045-030	2.01	2.53	2.90	3.14	3.71	4.21	17.1%	0.21
095-045-020	2.03	2.53	2.85	3.02	3.30	3.30	11.2%	0.19
110-060-020	2.25	2.82	3.14	3.34	3.67	3.67	11.2%	0.18
110-060-010	2.24	2.85	3.20	3.20	3.20	3.20	6.9%	0.17
130-080-020	2.53	3.11	3.47	3.69	4.04	4.04	12.4%	0.17
130-080-010	2.55	3.16	3.54	3.54	3.54	3.54	6.8%	0.16
150-100-020	2.79	3.45	3.78	4.02	4.51	4.51	12.0%	0.16
150-100-010	2.79	3.43	3.86	3.86	3.86	3.86	6.9%	0.18
170-120-010	3.09	3.72	4.07	4.07	4.07	4.07	6.2%	0.15

Note: Upper limit of Code Period,  $C_u T_a = 0.16s$ ,  $V_{NS}/W = 0.50$

**Table H-8 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CR</sub>*) Results of Collapse Analyses of 2-Story Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CR}(C_uT_a)$ at <i>DR</i>					Simulated Collapse		
2C-	2.5%	5.0%	7.5%	10%	15%	$S_{CR}(C_uT_a)$	<i>DR</i>	
030-005-075	1.05	1.37	1.58	1.70	2.03	2.37	19.3%	0.39
030-005-060	1.03	1.29	1.43	1.54	1.80	1.94	15.1%	0.39
030-005-045	1.02	1.25	1.36	1.49	1.59	1.59	11.2%	0.38
035-010-075	1.16	1.51	1.81	2.08	2.53	3.22	22.3%	0.37
035-010-060	1.14	1.51	1.72	1.94	2.33	2.62	17.9%	0.36
035-010-045	1.15	1.50	1.64	1.83	2.05	2.05	13.0%	0.35
035-010-030	1.16	1.46	1.67	1.67	1.67	1.67	7.4%	0.35
040-015-075	1.25	1.70	2.01	2.34	2.90	4.28	26.1%	0.35
040-015-060	1.26	1.67	1.90	2.23	2.70	3.45	21.0%	0.34
040-015-045	1.25	1.64	1.89	2.11	2.45	2.66	15.7%	0.33
040-015-030	1.25	1.66	1.84	1.99	1.99	1.99	9.0%	0.33
045-020-060	1.34	1.79	2.14	2.45	3.02	4.22	23.7%	0.32
045-020-045	1.34	1.80	2.07	2.35	2.76	3.14	16.9%	0.31
045-020-030	1.33	1.78	1.97	2.16	2.31	2.31	10.6%	0.31
055-030-045	1.52	2.07	2.34	2.69	3.25	4.01	20.5%	0.29
055-030-030	1.54	2.09	2.28	2.52	2.94	2.94	12.2%	0.28
055-030-020	1.56	2.07	2.27	2.42	2.42	2.42	8.4%	0.28
070-045-030	1.83	2.36	2.70	2.95	3.41	3.60	15.6%	0.25
070-045-020	1.87	2.35	2.63	2.87	2.87	2.87	9.0%	0.25
085-060-030	2.09	2.67	3.05	3.23	3.90	3.90	13.3%	0.24
085-060-020	2.10	2.64	3.02	3.38	3.38	3.38	9.9%	0.23
105-080-020	2.38	3.00	3.35	3.52	3.79	3.79	10.0%	0.21
105-080-010	2.41	2.99	3.41	3.41	3.41	3.41	6.5%	0.21
125-100-020	2.67	3.34	3.65	4.09	4.09	4.09	9.7%	0.20
125-100-010	2.71	3.39	3.67	3.67	3.67	3.67	6.2%	0.20
145-120-020	3.01	3.73	4.01	4.24	4.61	4.61	10.7%	0.19
145-120-010	3.03	3.76	4.13	4.13	4.13	4.13	6.7%	0.18

Note: Upper limit of Code Period,  $C_uT_a = 0.26s$ ,  $V_{NS}/W = 0.25$



**Table H-9 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 3-Story Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
3C-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
022-005-075	1.10	1.28	1.35	1.41	1.54	1.54	11.9%	0.53
022-005-060	1.09	1.23	1.25	1.38	1.38	1.38	8.4%	0.52
027-010-075	1.24	1.53	1.66	1.75	1.91	2.09	16.1%	0.48
027-010-060	1.21	1.47	1.56	1.62	1.80	1.80	12.3%	0.47
027-010-045	1.22	1.42	1.48	1.60	1.60	1.60	8.0%	0.46
032-015-075	1.34	1.71	1.87	2.08	2.34	2.79	20.1%	0.45
032-015-060	1.35	1.69	1.80	1.93	2.24	2.36	15.9%	0.44
032-015-045	1.34	1.66	1.76	1.92	2.01	2.01	10.8%	0.43
037-020-075	1.52	1.96	2.21	2.51	2.95	3.91	23.0%	0.42
037-020-060	1.50	1.92	2.13	2.35	2.75	3.17	18.3%	0.41
037-020-045	1.52	1.88	2.07	2.20	2.56	2.56	12.9%	0.40
037-020-030	1.51	1.86	2.03	2.12	2.12	2.12	7.5%	0.39
047-030-060	1.72	2.24	2.50	2.80	3.43	4.81	23.9%	0.37
047-030-045	1.72	2.23	2.43	2.69	3.14	3.53	17.1%	0.36
047-030-030	1.71	2.19	2.40	2.64	2.64	2.64	9.4%	0.36
062-045-045	2.09	2.66	3.03	3.27	3.74	4.45	19.7%	0.32
062-045-030	2.05	2.66	2.89	3.05	3.38	3.38	11.4%	0.32
062-045-020	2.09	2.63	2.81	3.01	3.01	3.01	7.7%	0.32
077-060-030	2.39	3.02	3.29	3.47	3.95	3.95	12.3%	0.29
077-060-020	2.41	3.09	3.36	3.60	3.60	3.60	8.6%	0.29
097-080-030	2.82	3.53	3.82	4.04	4.58	4.58	12.8%	0.26
097-080-020	2.81	3.46	3.82	4.12	4.12	4.12	8.3%	0.26
117-100-020	3.18	3.90	4.47	4.47	4.47	4.47	6.9%	0.24
117-100-010	3.16	3.88	4.27	4.27	4.27	4.27	5.6%	0.24
137-120-020	3.51	4.41	4.60	4.98	4.98	4.98	8.2%	0.22
137-120-010	3.48	4.39	4.68	4.68	4.68	4.68	5.4%	0.22

Note: Upper limit of Code Period,  $C_uT_a = 0.36s$ ,  $V_{NS}/W = 0.17$

**Table H-10 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 4-Story Wood Light-frame Models with COM Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
4C-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
018-005-075	1.04	1.21	1.24	1.33	1.33	1.33	9.3%	0.66
018-005-060	1.04	1.13	1.21	1.21	1.21	1.21	6.4%	0.64
023-010-075	1.24	1.48	1.52	1.57	1.72	1.72	12.6%	0.59
023-010-060	1.23	1.39	1.43	1.51	1.51	1.51	9.2%	0.58
023-010-045	1.24	1.39	1.42	1.42	1.42	1.42	5.5%	0.56
028-015-075	1.40	1.73	1.81	1.85	1.97	2.10	16.7%	0.54
028-015-060	1.39	1.64	1.67	1.69	1.82	1.82	11.3%	0.53
028-015-045	1.40	1.64	1.69	1.69	1.69	1.69	7.0%	0.52
033-020-075	1.52	1.95	2.09	2.19	2.36	2.61	18.1%	0.50
033-020-060	1.53	1.86	1.96	2.02	2.25	2.25	11.9%	0.50
033-020-045	1.51	1.84	1.91	1.99	1.99	1.99	8.4%	0.48
043-030-060	1.84	2.25	2.47	2.66	3.24	3.79	15.8%	0.44
043-030-045	1.84	2.24	2.45	2.62	2.94	2.94	11.6%	0.43
043-030-030	1.79	2.22	2.43	2.56	2.56	2.56	8.0%	0.43
058-045-045	2.16	2.71	2.94	3.18	3.61	4.25	15.3%	0.38
058-045-030	2.16	2.71	2.91	3.26	3.26	3.26	9.0%	0.38
058-045-020	2.17	2.70	2.97	2.97	2.97	2.97	6.5%	0.37
073-060-030	2.52	3.11	3.23	3.54	3.54	3.54	7.9%	0.34
073-060-020	2.50	3.10	3.39	3.39	3.39	3.39	6.3%	0.34
093-080-030	2.92	3.59	3.74	4.12	4.12	4.12	8.0%	0.31
093-080-020	2.81	3.47	3.87	3.87	3.87	3.87	6.5%	0.30
113-100-020	3.21	3.88	4.37	4.37	4.37	4.37	6.7%	0.28
113-100-010	3.14	4.04	4.04	4.04	4.04	4.04	4.7%	0.28
133-120-020	3.57	4.30	4.73	4.73	4.73	4.73	6.2%	0.26
133-120-010	3.54	4.60	4.60	4.60	4.60	4.60	4.9%	0.26

Note: Upper limit of Code Period,  $C_uT_a = 0.45s$ ,  $V_{NS}/W = 0.13$

**Table H-11 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CT</sub>*) Results of Collapse Analyses of 5-Story Wood Light-Frame Models with COM Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at <i>DR</i>					Simulated Collapse		
5C-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	<i>DR</i>	
015-005-075	0.97	1.10	1.17	1.17	1.17	1.17	5.9%	0.79
020-010-075	1.16	1.38	1.43	1.53	1.53	1.53	9.5%	0.70
020-010-060	1.15	1.31	1.37	1.37	1.37	1.37	6.6%	0.69
025-015-075	1.31	1.64	1.70	1.73	1.86	1.86	12.1%	0.64
025-015-060	1.32	1.58	1.59	1.67	1.67	1.67	8.8%	0.62
025-015-045	1.31	1.55	1.55	1.55	1.55	1.55	4.8%	0.61
030-020-075	1.50	1.85	1.94	2.00	2.25	2.25	14.8%	0.59
030-020-060	1.48	1.80	1.86	1.90	1.98	1.98	10.1%	0.58
030-020-045	1.47	1.72	1.81	1.81	1.81	1.81	6.5%	0.57
040-030-075	1.80	2.27	2.46	2.67	3.11	4.02	17.9%	0.52
040-030-060	1.80	2.20	2.34	2.50	3.38	3.38	13.4%	0.51
040-030-045	1.78	2.17	2.34	2.44	2.70	2.70	10.9%	0.50
040-030-030	1.78	2.13	2.28	2.28	2.28	2.28	6.1%	0.49
055-045-045	2.19	2.67	2.84	3.00	3.71	3.71	11.9%	0.43
055-045-030	2.20	2.62	2.97	2.97	2.97	2.97	6.9%	0.43
055-045-020	2.19	2.66	2.85	2.85	2.85	2.85	6.0%	0.43
070-060-030	2.50	3.02	3.16	3.45	3.45	3.45	7.8%	0.39
070-060-020	2.48	3.01	3.24	3.24	3.24	3.24	5.6%	0.38
090-080-030	2.81	3.44	3.89	3.89	3.89	3.89	6.8%	0.34
090-080-020	2.87	3.41	3.68	3.68	3.68	3.68	5.4%	0.34
110-100-020	3.18	3.94	4.24	4.24	4.24	4.24	5.9%	0.31
110-100-010	3.15	4.07	4.07	4.07	4.07	4.07	4.9%	0.31
130-120-020	3.43	4.19	4.48	4.48	4.48	4.48	5.9%	0.29
130-120-010	3.54	4.36	4.36	4.36	4.36	4.36	4.4%	0.29

Note: Upper limit of Code Period,  $C_uT_a = 0.53s$ ,  $V_{NS}/W = 0.10$

**Table H-12 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.57	1.38	1.67	1.90	2.07	2.26	2.21	12.80%
0.8	0.59	1.43	1.73	1.97	2.15	2.34	2.28	12.68%
0.9	0.62	1.47	1.78	2.03	2.22	2.41	2.35	12.57%
1.0	0.64	1.52	1.84	2.10	2.29	2.48	2.42	12.46%
1.1	0.67	1.57	1.90	2.16	2.36	2.56	2.48	12.34%
1.2	0.69	1.61	1.95	2.22	2.43	2.63	2.55	12.23%
1.3	0.71	1.66	2.01	2.28	2.49	2.69	2.61	12.12%
1.4	0.74	1.70	2.06	2.35	2.56	2.76	2.67	12.01%
1.5	0.76	1.74	2.11	2.41	2.62	2.83	2.74	11.90%
1.6	0.79	1.79	2.16	2.46	2.68	2.89	2.79	11.80%
1.7	0.81	1.83	2.22	2.52	2.75	2.95	2.85	11.69%
1.8	0.83	1.87	2.27	2.58	2.81	3.01	2.91	11.58%
1.9	0.86	1.91	2.32	2.63	2.87	3.07	2.96	11.48%
2.0	0.88	1.95	2.37	2.69	2.92	3.13	3.01	11.38%
2.1	0.91	2.00	2.41	2.74	2.98	3.18	3.07	11.27%
2.2	0.93	2.04	2.46	2.80	3.04	3.23	3.12	11.17%
2.3	0.95	2.08	2.51	2.85	3.09	3.28	3.16	11.07%
2.4	0.98	2.12	2.56	2.90	3.14	3.33	3.21	10.97%
2.5	1.00	2.16	2.60	2.95	3.19	3.38	3.26	10.87%
2.6	1.03	2.19	2.65	3.00	3.24	3.43	3.30	10.77%
2.7	1.05	2.23	2.69	3.04	3.29	3.47	3.34	10.68%
2.8	1.07	2.27	2.73	3.09	3.34	3.52	3.38	10.58%
2.9	1.10	2.31	2.78	3.14	3.39	3.56	3.42	10.48%
3.0	1.12	2.34	2.82	3.18	3.43	3.60	3.46	10.39%

**Table H-13** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		$S_{CT}$ (g) at $DR$						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.65	1.54	1.87	2.13	2.32	2.52	2.45	12.40%
0.8	0.69	1.61	1.95	2.22	2.43	2.63	2.55	12.23%
0.9	0.73	1.68	2.03	2.32	2.53	2.73	2.64	12.07%
1.0	0.76	1.74	2.11	2.41	2.62	2.83	2.74	11.90%
1.1	0.80	1.81	2.19	2.49	2.72	2.92	2.82	11.74%
1.2	0.83	1.87	2.27	2.58	2.81	3.01	2.91	11.58%
1.3	0.87	1.93	2.34	2.66	2.89	3.10	2.99	11.43%
1.4	0.91	2.00	2.41	2.74	2.98	3.18	3.07	11.27%
1.5	0.94	2.06	2.49	2.82	3.06	3.26	3.14	11.12%
1.6	0.98	2.12	2.56	2.90	3.14	3.33	3.21	10.97%
1.7	1.01	2.17	2.62	2.97	3.22	3.41	3.28	10.82%
1.8	1.05	2.23	2.69	3.04	3.29	3.47	3.34	10.68%
1.9	1.09	2.29	2.76	3.11	3.36	3.54	3.40	10.53%
2.0	1.12	2.34	2.82	3.18	3.43	3.60	3.46	10.39%
2.1	1.16	2.40	2.88	3.25	3.50	3.66	3.52	10.25%
2.2	1.20	2.45	2.94	3.31	3.56	3.72	3.57	10.11%
2.3	1.23	2.51	3.00	3.37	3.62	3.77	3.62	9.97%
2.4	1.27	2.56	3.06	3.43	3.68	3.82	3.67	9.84%
2.5	1.30	2.61	3.11	3.49	3.73	3.86	3.71	9.71%
2.6	1.34	2.66	3.17	3.54	3.79	3.91	3.75	9.57%
2.7	1.38	2.71	3.22	3.59	3.84	3.95	3.79	9.44%
2.8	1.41	2.75	3.27	3.64	3.88	3.98	3.83	9.32%
2.9	1.45	2.80	3.32	3.69	3.93	4.02	3.87	9.19%
3.0	1.48	2.85	3.36	3.74	3.97	4.05	3.90	9.07%

**Table H-14 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story COM Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.92	0.57	2.29	2.98	3.61	3.94	4.29	4.19
0.8	7.23	0.59	2.07	2.70	3.27	3.57	3.88	3.79
0.9	6.68	0.62	1.90	2.48	3.00	3.28	3.56	3.47
1.0	6.25	0.64	1.76	2.30	2.79	3.04	3.30	3.21
1.1	5.90	0.67	1.65	2.15	2.61	2.85	3.09	3.00
1.2	5.60	0.69	1.56	2.03	2.46	2.69	2.91	2.83
1.3	5.35	0.71	1.48	1.93	2.34	2.55	2.76	2.67
1.4	5.14	0.74	1.41	1.84	2.23	2.43	2.62	2.54
1.5	4.95	0.76	1.35	1.76	2.13	2.32	2.51	2.43
1.6	4.79	0.79	1.30	1.69	2.05	2.23	2.40	2.32
1.7	4.64	0.81	1.25	1.63	1.97	2.15	2.31	2.23
1.8	4.52	0.83	1.21	1.57	1.91	2.07	2.22	2.15
1.9	4.40	0.86	1.17	1.52	1.84	2.01	2.15	2.07
2.0	4.30	0.88	1.13	1.48	1.79	1.94	2.08	2.00
2.1	4.21	0.91	1.10	1.44	1.74	1.89	2.01	1.94
2.2	4.12	0.93	1.07	1.40	1.69	1.83	1.95	1.88
2.3	4.05	0.95	1.05	1.36	1.65	1.79	1.90	1.83
2.4	3.98	0.98	1.02	1.33	1.61	1.74	1.85	1.78
2.5	3.91	1.00	1.00	1.30	1.57	1.70	1.80	1.73
2.6	3.85	1.03	0.98	1.27	1.53	1.66	1.75	1.69
2.7	3.79	1.05	0.96	1.25	1.50	1.62	1.71	1.65
2.8	3.74	1.07	0.94	1.22	1.47	1.59	1.67	1.61
2.9	3.69	1.10	0.92	1.20	1.44	1.55	1.63	1.57
3.0	3.65	1.12	0.91	1.17	1.41	1.52	1.60	1.53

**Table H-15 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story COM Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	6.06	0.65	2.56	3.34	4.01	4.42	4.79	4.66
0.8	5.60	0.69	2.34	3.05	3.67	4.03	4.37	4.24
0.9	5.24	0.73	2.16	2.82	3.40	3.73	4.03	3.91
1.0	4.95	0.76	2.02	2.64	3.17	3.49	3.76	3.64
1.1	4.71	0.80	1.91	2.49	2.99	3.28	3.53	3.41
1.2	4.52	0.83	1.81	2.36	2.84	3.11	3.34	3.22
1.3	4.35	0.87	1.73	2.25	2.70	2.96	3.17	3.06
1.4	4.21	0.91	1.65	2.16	2.59	2.83	3.02	2.91
1.5	4.08	0.94	1.59	2.07	2.48	2.72	2.89	2.78
1.6	3.98	0.98	1.53	2.00	2.39	2.61	2.77	2.67
1.7	3.88	1.01	1.48	1.93	2.31	2.52	2.67	2.56
1.8	3.79	1.05	1.44	1.87	2.23	2.43	2.57	2.47
1.9	3.72	1.09	1.40	1.81	2.16	2.36	2.48	2.38
2.0	3.65	1.12	1.36	1.76	2.10	2.28	2.40	2.30
2.1	3.59	1.16	1.33	1.72	2.04	2.22	2.32	2.23
2.2	3.53	1.20	1.29	1.67	1.99	2.15	2.25	2.16
2.3	3.48	1.23	1.26	1.63	1.94	2.09	2.18	2.09
2.4	3.43	1.27	1.24	1.59	1.89	2.04	2.12	2.03
2.5	3.39	1.30	1.21	1.56	1.84	1.99	2.06	1.97
2.6	3.35	1.34	1.19	1.52	1.80	1.94	2.00	1.92
2.7	3.31	1.38	1.16	1.49	1.76	1.89	1.94	1.87
2.8	3.28	1.41	1.14	1.46	1.72	1.84	1.89	1.82
2.9	3.25	1.45	1.12	1.43	1.68	1.80	1.84	1.77
3.0	3.22	1.48	1.10	1.40	1.64	1.76	1.80	1.72

**Table H-16 Values of the  $MCE_R$  collapse probability for the 1-Story COM wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.92	0.57	3.3%	1.5%	1.0%	1.1%	0.8%	0.8%
0.8	7.23	0.59	5.3%	2.4%	1.6%	1.7%	1.2%	1.3%
0.9	6.68	0.62	7.7%	3.5%	2.3%	2.4%	1.7%	1.9%
1.0	6.25	0.64	10.4%	4.8%	3.1%	3.2%	2.3%	2.6%
1.1	5.90	0.67	13.2%	6.2%	4.0%	4.0%	3.0%	3.3%
1.2	5.60	0.69	16.2%	7.8%	5.1%	5.0%	3.8%	4.2%
1.3	5.35	0.71	19.3%	9.4%	6.1%	5.9%	4.6%	5.1%
1.4	5.14	0.74	22.3%	11.2%	7.3%	6.9%	5.4%	6.0%
1.5	4.95	0.76	25.3%	12.9%	8.4%	8.0%	6.3%	7.0%
1.6	4.79	0.79	28.3%	14.7%	9.6%	9.0%	7.2%	8.0%
1.7	4.64	0.81	31.1%	16.4%	10.8%	10.1%	8.2%	9.1%
1.8	4.52	0.83	33.8%	18.2%	12.1%	11.2%	9.1%	10.1%
1.9	4.40	0.86	36.5%	20.0%	13.3%	12.3%	10.1%	11.2%
2.0	4.30	0.88	39.0%	21.7%	14.5%	13.4%	11.1%	12.3%
2.1	4.21	0.91	41.4%	23.4%	15.8%	14.5%	12.2%	13.4%
2.2	4.12	0.93	43.7%	25.1%	17.0%	15.6%	13.2%	14.6%
2.3	4.05	0.95	45.9%	26.7%	18.2%	16.7%	14.2%	15.7%
2.4	3.98	0.98	48.0%	28.3%	19.4%	17.8%	15.3%	16.9%
2.5	3.91	1.00	50.0%	29.9%	20.7%	18.8%	16.4%	18.0%
2.6	3.85	1.03	51.9%	31.5%	21.9%	19.9%	17.4%	19.1%
2.7	3.79	1.05	53.7%	33.0%	23.1%	21.0%	18.5%	20.3%
2.8	3.74	1.07	55.4%	34.5%	24.2%	22.1%	19.6%	21.5%
2.9	3.69	1.10	57.1%	35.9%	25.4%	23.1%	20.7%	22.6%
3.0	3.65	1.12	58.6%	37.4%	26.6%	24.2%	21.8%	23.8%



**Table H-17 Values of the  $MCE_R$  collapse probability for the 1-Story COM wood light-frame archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	6.06	0.65	0.9%	0.4%	0.3%	0.3%	0.2%	0.3%
0.8	5.60	0.69	1.7%	0.7%	0.5%	0.6%	0.4%	0.4%
0.9	5.24	0.73	2.7%	1.1%	0.7%	0.8%	0.6%	0.7%
1.0	4.95	0.76	3.9%	1.5%	1.0%	1.2%	0.8%	0.9%
1.1	4.71	0.80	5.3%	2.1%	1.4%	1.5%	1.1%	1.3%
1.2	4.52	0.83	6.9%	2.8%	1.9%	2.0%	1.4%	1.7%
1.3	4.35	0.87	8.6%	3.6%	2.3%	2.4%	1.8%	2.1%
1.4	4.21	0.91	10.4%	4.4%	2.9%	2.9%	2.2%	2.6%
1.5	4.08	0.94	12.3%	5.3%	3.4%	3.5%	2.7%	3.1%
1.6	3.98	0.98	14.2%	6.2%	4.1%	4.0%	3.2%	3.7%
1.7	3.88	1.01	16.2%	7.2%	4.7%	4.7%	3.7%	4.3%
1.8	3.79	1.05	18.2%	8.2%	5.4%	5.3%	4.3%	5.0%
1.9	3.72	1.09	20.1%	9.3%	6.1%	6.0%	4.9%	5.7%
2.0	3.65	1.12	22.1%	10.4%	6.9%	6.7%	5.6%	6.5%
2.1	3.59	1.16	24.1%	11.5%	7.7%	7.4%	6.3%	7.3%
2.2	3.53	1.20	26.0%	12.7%	8.5%	8.2%	7.1%	8.1%
2.3	3.48	1.23	27.9%	13.9%	9.3%	8.9%	7.8%	8.9%
2.4	3.43	1.27	29.8%	15.1%	10.2%	9.8%	8.7%	9.7%
2.5	3.39	1.30	31.7%	16.3%	11.1%	10.6%	9.5%	10.6%
2.6	3.35	1.34	33.5%	17.5%	12.0%	11.5%	10.4%	11.5%
2.7	3.31	1.38	35.3%	18.8%	13.0%	12.4%	11.3%	12.4%
2.8	3.28	1.41	37.1%	20.1%	13.9%	13.3%	12.3%	13.3%
2.9	3.25	1.45	38.8%	21.3%	15.0%	14.3%	13.3%	14.3%
3.0	3.22	1.48	40.6%	22.6%	16.0%	15.2%	14.4%	15.3%

**Table H-18** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.53	1.51	1.89	2.19	2.41	2.63	2.61	13.81%	
0.8	0.55	1.55	1.94	2.25	2.48	2.70	2.67	13.58%	
0.9	0.57	1.60	2.00	2.32	2.55	2.76	2.73	13.35%	
1.0	0.60	1.65	2.06	2.38	2.61	2.82	2.79	13.12%	
1.1	0.62	1.69	2.11	2.44	2.68	2.88	2.84	12.90%	
1.2	0.65	1.74	2.16	2.50	2.74	2.94	2.90	12.68%	
1.3	0.67	1.78	2.22	2.56	2.80	3.00	2.95	12.47%	
1.4	0.69	1.82	2.27	2.62	2.86	3.06	3.00	12.26%	
1.5	0.72	1.87	2.32	2.68	2.92	3.11	3.05	12.05%	
1.6	0.74	1.91	2.37	2.73	2.98	3.16	3.10	11.85%	
1.7	0.77	1.95	2.43	2.79	3.04	3.22	3.15	11.65%	
1.8	0.79	2.00	2.48	2.84	3.09	3.27	3.19	11.46%	
1.9	0.82	2.04	2.53	2.90	3.15	3.32	3.23	11.26%	
2.0	0.84	2.08	2.57	2.95	3.20	3.37	3.28	11.07%	
2.1	0.86	2.12	2.62	3.00	3.26	3.41	3.32	10.89%	
2.2	0.89	2.16	2.67	3.05	3.31	3.46	3.36	10.70%	
2.3	0.91	2.21	2.72	3.10	3.36	3.50	3.39	10.52%	
2.4	0.94	2.25	2.76	3.15	3.40	3.55	3.43	10.35%	
2.5	0.96	2.29	2.81	3.19	3.45	3.59	3.46	10.17%	
2.6	0.98	2.33	2.85	3.24	3.50	3.63	3.50	10.00%	
2.7	1.01	2.37	2.89	3.29	3.54	3.67	3.53	9.83%	
2.8	1.03	2.40	2.94	3.33	3.59	3.71	3.56	9.67%	
2.9	1.06	2.44	2.98	3.37	3.63	3.75	3.59	9.50%	
3.0	1.08	2.48	3.02	3.42	3.67	3.78	3.62	9.34%	

**Table H-19** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.61	1.67	2.08	2.41	2.65	2.85	2.81	13.01%	
0.8	0.65	1.74	2.16	2.50	2.74	2.94	2.90	12.68%	
0.9	0.68	1.80	2.24	2.59	2.83	3.03	2.97	12.37%	
1.0	0.72	1.87	2.32	2.68	2.92	3.11	3.05	12.05%	
1.1	0.75	1.93	2.40	2.76	3.01	3.19	3.12	11.75%	
1.2	0.79	2.00	2.48	2.84	3.09	3.27	3.19	11.46%	
1.3	0.83	2.06	2.55	2.92	3.18	3.34	3.26	11.17%	
1.4	0.86	2.12	2.62	3.00	3.26	3.41	3.32	10.89%	
1.5	0.90	2.18	2.69	3.07	3.33	3.48	3.37	10.61%	
1.6	0.94	2.25	2.76	3.15	3.40	3.55	3.43	10.35%	
1.7	0.97	2.31	2.83	3.22	3.47	3.61	3.48	10.09%	
1.8	1.01	2.37	2.89	3.29	3.54	3.67	3.53	9.83%	
1.9	1.04	2.42	2.96	3.35	3.61	3.73	3.57	9.59%	
2.0	1.08	2.48	3.02	3.42	3.67	3.78	3.62	9.34%	
2.1	1.12	2.54	3.08	3.48	3.73	3.83	3.66	9.11%	
2.2	1.15	2.59	3.14	3.54	3.78	3.88	3.69	8.88%	
2.3	1.19	2.65	3.20	3.59	3.84	3.93	3.73	8.66%	
2.4	1.22	2.70	3.25	3.65	3.89	3.97	3.76	8.44%	
2.5	1.26	2.76	3.31	3.70	3.94	4.01	3.79	8.23%	
2.6	1.30	2.81	3.36	3.75	3.98	4.05	3.81	8.02%	
2.7	1.33	2.86	3.41	3.80	4.02	4.09	3.84	7.82%	
2.8	1.37	2.91	3.46	3.84	4.06	4.12	3.86	7.62%	
2.9	1.41	2.96	3.51	3.89	4.10	4.15	3.88	7.43%	
3.0	1.44	3.01	3.55	3.93	4.13	4.18	3.90	7.24%	

**Table H-20 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story COM Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.32	0.53	2.50	3.37	4.12	4.58	5.01	4.96
0.8	6.70	0.55	2.25	3.04	3.71	4.12	4.49	4.44
0.9	6.22	0.57	2.06	2.78	3.40	3.76	4.08	4.03
1.0	5.83	0.60	1.91	2.57	3.14	3.48	3.76	3.70
1.1	5.52	0.62	1.78	2.40	2.93	3.24	3.49	3.44
1.2	5.25	0.65	1.68	2.25	2.75	3.04	3.26	3.21
1.3	5.03	0.67	1.59	2.13	2.60	2.87	3.07	3.02
1.4	4.84	0.69	1.51	2.03	2.47	2.72	2.90	2.85
1.5	4.67	0.72	1.44	1.94	2.35	2.59	2.76	2.70
1.6	4.53	0.74	1.39	1.86	2.25	2.48	2.63	2.58
1.7	4.40	0.77	1.33	1.78	2.16	2.38	2.52	2.46
1.8	4.28	0.79	1.29	1.72	2.08	2.29	2.41	2.36
1.9	4.18	0.82	1.25	1.66	2.01	2.20	2.32	2.26
2.0	4.09	0.84	1.21	1.61	1.95	2.13	2.24	2.18
2.1	4.01	0.86	1.17	1.56	1.89	2.06	2.16	2.10
2.2	3.93	0.89	1.14	1.52	1.83	2.00	2.09	2.03
2.3	3.86	0.91	1.11	1.48	1.78	1.94	2.03	1.96
2.4	3.80	0.94	1.09	1.44	1.73	1.89	1.97	1.90
2.5	3.74	0.96	1.06	1.40	1.69	1.84	1.91	1.84
2.6	3.69	0.98	1.04	1.37	1.65	1.79	1.86	1.79
2.7	3.64	1.01	1.02	1.34	1.61	1.74	1.81	1.74
2.8	3.59	1.03	1.00	1.31	1.57	1.70	1.76	1.69
2.9	3.55	1.06	0.98	1.28	1.54	1.66	1.72	1.64
3.0	3.51	1.08	0.96	1.26	1.50	1.63	1.68	1.60

**Table H-21 Summary of Adjusted Collapse Margin Ratio (ACMR) Calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story COM Models Assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.67	0.61	2.77	3.72	4.54	5.03	5.42	5.35
0.8	5.25	0.65	2.52	3.38	4.12	4.56	4.89	4.81
0.9	4.93	0.68	2.32	3.12	3.80	4.19	4.48	4.40
1.0	4.67	0.72	2.17	2.90	3.53	3.89	4.14	4.06
1.1	4.46	0.75	2.04	2.73	3.31	3.64	3.86	3.77
1.2	4.28	0.79	1.93	2.58	3.13	3.43	3.62	3.54
1.3	4.14	0.83	1.84	2.45	2.97	3.25	3.42	3.33
1.4	4.01	0.86	1.76	2.34	2.83	3.09	3.24	3.15
1.5	3.90	0.90	1.69	2.24	2.71	2.95	3.09	2.99
1.6	3.80	0.94	1.63	2.16	2.60	2.83	2.95	2.85
1.7	3.72	0.97	1.57	2.08	2.50	2.72	2.82	2.72
1.8	3.64	1.01	1.52	2.01	2.41	2.62	2.71	2.61
1.9	3.57	1.04	1.48	1.95	2.33	2.52	2.61	2.50
2.0	3.51	1.08	1.44	1.89	2.25	2.44	2.52	2.40
2.1	3.46	1.12	1.40	1.83	2.19	2.36	2.43	2.31
2.2	3.41	1.15	1.37	1.78	2.12	2.29	2.35	2.22
2.3	3.36	1.19	1.34	1.74	2.06	2.22	2.27	2.15
2.4	3.32	1.22	1.31	1.69	2.01	2.15	2.20	2.07
2.5	3.28	1.26	1.28	1.65	1.95	2.09	2.14	2.00
2.6	3.24	1.30	1.25	1.62	1.90	2.04	2.07	1.94
2.7	3.21	1.33	1.23	1.58	1.86	1.98	2.01	1.88
2.8	3.18	1.37	1.21	1.55	1.81	1.93	1.96	1.82
2.9	3.15	1.41	1.19	1.51	1.77	1.88	1.90	1.76
3.0	3.12	1.44	1.17	1.48	1.73	1.83	1.85	1.71

**Table H-22 Values of the  $MCE_R$  Collapse Probability for the 2-Story COM Wood Light-frame Archetype, Assuming Risk Category II Seismic Design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.32	0.53	2.1%	0.8%	0.5%	0.6%	0.4%	0.4%
0.8	6.70	0.55	3.5%	1.3%	0.9%	0.9%	0.6%	0.7%
0.9	6.22	0.57	5.4%	2.1%	1.3%	1.4%	1.0%	1.0%
1.0	5.83	0.60	7.5%	3.0%	1.9%	1.9%	1.4%	1.5%
1.1	5.52	0.62	9.9%	4.0%	2.5%	2.5%	1.9%	2.0%
1.2	5.25	0.65	12.5%	5.2%	3.3%	3.2%	2.4%	2.6%
1.3	5.03	0.67	15.2%	6.5%	4.1%	4.0%	3.1%	3.3%
1.4	4.84	0.69	17.9%	7.9%	5.0%	4.8%	3.8%	4.0%
1.5	4.67	0.72	20.7%	9.3%	6.0%	5.6%	4.5%	4.9%
1.6	4.53	0.74	23.4%	10.8%	7.0%	6.5%	5.4%	5.7%
1.7	4.40	0.77	26.1%	12.4%	8.0%	7.4%	6.2%	6.7%
1.8	4.28	0.79	28.7%	13.9%	9.1%	8.4%	7.1%	7.6%
1.9	4.18	0.82	31.3%	15.5%	10.2%	9.4%	8.0%	8.7%
2.0	4.09	0.84	33.8%	17.1%	11.3%	10.4%	9.0%	9.7%
2.1	4.01	0.86	36.2%	18.7%	12.5%	11.4%	9.9%	10.8%
2.2	3.93	0.89	38.5%	20.3%	13.6%	12.4%	10.9%	11.9%
2.3	3.86	0.91	40.7%	21.8%	14.8%	13.5%	12.0%	13.1%
2.4	3.80	0.94	42.8%	23.4%	15.9%	14.5%	13.0%	14.2%
2.5	3.74	0.96	44.8%	24.9%	17.1%	15.6%	14.0%	15.4%
2.6	3.69	0.98	46.7%	26.4%	18.3%	16.6%	15.1%	16.6%
2.7	3.64	1.01	48.6%	27.9%	19.4%	17.7%	16.2%	17.7%
2.8	3.59	1.03	50.4%	29.4%	20.6%	18.7%	17.3%	18.9%
2.9	3.55	1.06	52.0%	30.9%	21.8%	19.8%	18.3%	20.0%
3.0	3.51	1.08	53.7%	32.3%	22.9%	20.9%	19.4%	21.2%

**Table H-23 Values of the  $MCE_R$  collapse probability for the 2-Story COM wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.67	0.61	0.5%	0.2%	0.1%	0.2%	0.1%	0.1%
0.8	5.25	0.65	1.1%	0.3%	0.2%	0.3%	0.2%	0.2%
0.9	4.93	0.68	1.8%	0.6%	0.4%	0.5%	0.3%	0.4%
1.0	4.67	0.72	2.7%	0.9%	0.6%	0.7%	0.5%	0.5%
1.1	4.46	0.75	3.7%	1.3%	0.8%	0.9%	0.7%	0.8%
1.2	4.28	0.79	5.0%	1.8%	1.1%	1.3%	1.0%	1.1%
1.3	4.14	0.83	6.4%	2.3%	1.5%	1.6%	1.3%	1.4%
1.4	4.01	0.86	7.9%	2.9%	1.9%	2.0%	1.6%	1.8%
1.5	3.90	0.90	9.5%	3.6%	2.3%	2.4%	2.0%	2.3%
1.6	3.80	0.94	11.1%	4.4%	2.8%	2.9%	2.5%	2.8%
1.7	3.72	0.97	12.9%	5.2%	3.4%	3.5%	3.0%	3.4%
1.8	3.64	1.01	14.6%	6.0%	3.9%	4.0%	3.5%	4.0%
1.9	3.57	1.04	16.4%	7.0%	4.5%	4.6%	4.1%	4.5%
2.0	3.51	1.08	18.1%	7.9%	5.2%	5.2%	4.7%	5.1%
2.1	3.46	1.12	19.9%	8.9%	5.9%	5.9%	5.3%	5.8%
2.2	3.41	1.15	21.7%	9.9%	6.6%	6.6%	6.0%	6.5%
2.3	3.36	1.19	23.4%	11.0%	7.4%	7.4%	6.8%	7.2%
2.4	3.32	1.22	25.2%	12.1%	8.2%	8.1%	7.6%	8.0%
2.5	3.28	1.26	26.9%	13.2%	9.0%	9.0%	8.4%	8.9%
2.6	3.24	1.30	28.6%	14.3%	9.9%	9.8%	9.3%	9.7%
2.7	3.21	1.33	30.2%	15.5%	10.8%	10.7%	10.2%	10.7%
2.8	3.18	1.37	31.9%	16.7%	11.7%	11.6%	11.1%	11.7%
2.9	3.15	1.41	33.5%	17.9%	12.7%	12.5%	12.1%	12.8%
3.0	3.12	1.44	35.1%	19.1%	13.7%	13.5%	13.1%	14.0%

**Table H-24 Selected Values of  $\hat{S}_{CT}$  Extracted from the Collapse Surface of the 3-Story COM Wood Light-frame Archetype at Discrete Values of  $V_{max}/W$  and Corresponding to Increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.39	1.56	1.86	2.09	2.27	2.46	2.44	13.72%	
0.8	0.41	1.62	1.93	2.19	2.38	2.57	2.54	13.53%	
0.9	0.43	1.68	2.01	2.28	2.48	2.68	2.64	13.35%	
1.0	0.46	1.74	2.09	2.37	2.57	2.78	2.74	13.17%	
1.1	0.48	1.80	2.16	2.45	2.67	2.88	2.83	13.00%	
1.2	0.51	1.85	2.24	2.54	2.76	2.97	2.92	12.82%	
1.3	0.53	1.91	2.31	2.62	2.85	3.07	3.01	12.65%	
1.4	0.55	1.97	2.38	2.71	2.94	3.16	3.09	12.48%	
1.5	0.58	2.03	2.45	2.79	3.03	3.25	3.18	12.32%	
1.6	0.60	2.08	2.52	2.87	3.12	3.33	3.26	12.15%	
1.7	0.63	2.14	2.59	2.95	3.20	3.41	3.33	11.99%	
1.8	0.65	2.19	2.66	3.02	3.28	3.49	3.41	11.83%	
1.9	0.68	2.25	2.73	3.10	3.36	3.57	3.48	11.67%	
2.0	0.70	2.30	2.79	3.17	3.44	3.64	3.55	11.51%	
2.1	0.72	2.35	2.86	3.24	3.52	3.71	3.61	11.36%	
2.2	0.75	2.41	2.92	3.32	3.59	3.78	3.68	11.21%	
2.3	0.77	2.46	2.98	3.39	3.66	3.85	3.74	11.06%	
2.4	0.80	2.51	3.05	3.45	3.73	3.91	3.80	10.91%	
2.5	0.82	2.56	3.11	3.52	3.80	3.97	3.86	10.76%	
2.6	0.84	2.62	3.17	3.58	3.86	4.03	3.91	10.62%	
2.7	0.87	2.67	3.23	3.65	3.93	4.09	3.97	10.48%	
2.8	0.89	2.72	3.29	3.71	3.99	4.14	4.02	10.34%	
2.9	0.92	2.77	3.34	3.77	4.05	4.19	4.07	10.20%	
3.0	0.94	2.81	3.40	3.83	4.11	4.24	4.11	10.06%	



**Table H-25 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).**

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.47	1.77	2.12	2.41	2.62	2.83	2.78	13.09%	
0.8	0.51	1.85	2.24	2.54	2.76	2.97	2.92	12.82%	
0.9	0.54	1.94	2.35	2.66	2.90	3.11	3.05	12.57%	
1.0	0.58	2.03	2.45	2.79	3.03	3.25	3.18	12.32%	
1.1	0.62	2.11	2.56	2.91	3.16	3.37	3.29	12.07%	
1.2	0.65	2.19	2.66	3.02	3.28	3.49	3.41	11.83%	
1.3	0.69	2.27	2.76	3.14	3.40	3.60	3.51	11.59%	
1.4	0.72	2.35	2.86	3.24	3.52	3.71	3.61	11.36%	
1.5	0.76	2.43	2.95	3.35	3.63	3.81	3.71	11.13%	
1.6	0.80	2.51	3.05	3.45	3.73	3.91	3.80	10.91%	
1.7	0.83	2.59	3.14	3.55	3.83	4.00	3.89	10.69%	
1.8	0.87	2.67	3.23	3.65	3.93	4.09	3.97	10.48%	
1.9	0.90	2.74	3.31	3.74	4.02	4.17	4.04	10.27%	
2.0	0.94	2.81	3.40	3.83	4.11	4.24	4.11	10.06%	
2.1	0.98	2.89	3.48	3.92	4.19	4.31	4.18	9.86%	
2.2	1.01	2.96	3.56	4.00	4.27	4.38	4.24	9.66%	
2.3	1.05	3.03	3.64	4.08	4.34	4.44	4.30	9.47%	
2.4	1.09	3.10	3.71	4.15	4.41	4.50	4.36	9.28%	
2.5	1.12	3.17	3.79	4.22	4.48	4.55	4.41	9.09%	
2.6	1.16	3.24	3.86	4.29	4.54	4.60	4.46	8.91%	
2.7	1.19	3.30	3.93	4.36	4.60	4.65	4.50	8.73%	
2.8	1.23	3.37	3.99	4.42	4.65	4.69	4.54	8.56%	
2.9	1.27	3.43	4.06	4.48	4.69	4.72	4.58	8.39%	
3.0	1.30	3.49	4.12	4.53	4.74	4.76	4.61	8.22%	

**Table H-26 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story COM Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.38	0.39	2.59	3.31	3.95	4.32	4.68	4.63
0.8	5.00	0.41	2.35	3.02	3.61	3.95	4.28	4.22
0.9	4.71	0.43	2.16	2.79	3.34	3.66	3.96	3.90
1.0	4.47	0.46	2.02	2.61	3.12	3.42	3.70	3.64
1.1	4.28	0.48	1.89	2.46	2.94	3.23	3.48	3.42
1.2	4.12	0.51	1.79	2.33	2.79	3.06	3.30	3.24
1.3	3.98	0.53	1.71	2.22	2.66	2.92	3.14	3.08
1.4	3.86	0.55	1.63	2.13	2.55	2.80	3.00	2.94
1.5	3.76	0.58	1.57	2.04	2.45	2.69	2.88	2.82
1.6	3.67	0.60	1.51	1.97	2.37	2.59	2.77	2.71
1.7	3.60	0.63	1.46	1.91	2.29	2.50	2.67	2.61
1.8	3.53	0.65	1.41	1.85	2.22	2.43	2.58	2.52
1.9	3.47	0.68	1.37	1.79	2.15	2.35	2.50	2.44
2.0	3.41	0.70	1.33	1.75	2.09	2.29	2.42	2.36
2.1	3.36	0.72	1.30	1.70	2.04	2.23	2.35	2.29
2.2	3.31	0.75	1.27	1.66	1.99	2.17	2.28	2.22
2.3	3.27	0.77	1.24	1.62	1.94	2.12	2.22	2.16
2.4	3.23	0.80	1.21	1.59	1.90	2.07	2.17	2.11
2.5	3.20	0.82	1.19	1.55	1.86	2.02	2.11	2.05
2.6	3.17	0.84	1.17	1.52	1.82	1.98	2.06	2.00
2.7	3.14	0.87	1.15	1.49	1.78	1.94	2.01	1.95
2.8	3.11	0.89	1.13	1.47	1.75	1.90	1.97	1.91
2.9	3.08	0.92	1.11	1.44	1.72	1.86	1.92	1.86
3.0	3.06	0.94	1.09	1.42	1.69	1.82	1.88	1.82

**Table H-27 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story COM Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.37	0.47	2.93	3.79	4.54	4.98	5.37	5.29
0.8	4.12	0.51	2.69	3.49	4.19	4.59	4.95	4.86
0.9	3.92	0.54	2.50	3.26	3.91	4.28	4.60	4.51
1.0	3.76	0.58	2.35	3.07	3.68	4.03	4.32	4.22
1.1	3.63	0.62	2.22	2.91	3.49	3.82	4.08	3.98
1.2	3.53	0.65	2.12	2.77	3.33	3.64	3.87	3.78
1.3	3.44	0.69	2.03	2.65	3.18	3.48	3.69	3.59
1.4	3.36	0.72	1.95	2.55	3.06	3.34	3.53	3.43
1.5	3.29	0.76	1.88	2.46	2.95	3.21	3.38	3.29
1.6	3.23	0.80	1.82	2.38	2.85	3.10	3.25	3.16
1.7	3.18	0.83	1.77	2.31	2.76	3.00	3.13	3.04
1.8	3.14	0.87	1.72	2.24	2.68	2.90	3.02	2.93
1.9	3.09	0.90	1.67	2.18	2.60	2.81	2.92	2.83
2.0	3.06	0.94	1.63	2.12	2.53	2.73	2.82	2.74
2.1	3.02	0.98	1.60	2.07	2.46	2.65	2.73	2.65
2.2	2.99	1.01	1.56	2.02	2.40	2.58	2.65	2.56
2.3	2.96	1.05	1.53	1.98	2.34	2.51	2.57	2.48
2.4	2.94	1.09	1.50	1.93	2.28	2.45	2.49	2.41
2.5	2.92	1.12	1.47	1.89	2.23	2.38	2.42	2.34
2.6	2.89	1.16	1.44	1.85	2.18	2.32	2.35	2.27
2.7	2.87	1.19	1.42	1.82	2.13	2.26	2.29	2.21
2.8	2.85	1.23	1.40	1.78	2.08	2.21	2.23	2.15
2.9	2.84	1.27	1.37	1.75	2.04	2.15	2.17	2.09
3.0	2.82	1.30	1.35	1.72	1.99	2.10	2.11	2.03

**Table H-28 Values of the  $MCE_R$  collapse probability for the 3-Story COM wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.38	0.39	1.7%	0.8%	0.6%	0.7%	0.5%	0.5%
0.8	5.00	0.41	2.9%	1.3%	1.0%	1.1%	0.8%	0.8%
0.9	4.71	0.43	4.3%	2.0%	1.4%	1.5%	1.1%	1.2%
1.0	4.47	0.46	6.0%	2.8%	1.9%	2.0%	1.5%	1.6%
1.1	4.28	0.48	7.8%	3.6%	2.5%	2.5%	1.9%	2.0%
1.2	4.12	0.51	9.7%	4.5%	3.1%	3.1%	2.3%	2.5%
1.3	3.98	0.53	11.8%	5.5%	3.7%	3.7%	2.8%	3.0%
1.4	3.86	0.55	13.8%	6.6%	4.4%	4.3%	3.4%	3.6%
1.5	3.76	0.58	15.9%	7.6%	5.1%	5.0%	3.9%	4.2%
1.6	3.67	0.60	18.0%	8.7%	5.9%	5.6%	4.5%	4.9%
1.7	3.60	0.63	20.1%	9.9%	6.6%	6.3%	5.1%	5.5%
1.8	3.53	0.65	22.1%	11.0%	7.4%	7.0%	5.7%	6.2%
1.9	3.47	0.68	24.1%	12.1%	8.2%	7.7%	6.4%	6.9%
2.0	3.41	0.70	26.1%	13.3%	9.0%	8.4%	7.0%	7.6%
2.1	3.36	0.72	28.0%	14.4%	9.7%	9.1%	7.7%	8.4%
2.2	3.31	0.75	29.8%	15.5%	10.6%	9.8%	8.4%	9.1%
2.3	3.27	0.77	31.6%	16.7%	11.4%	10.6%	9.1%	9.9%
2.4	3.23	0.80	33.3%	17.8%	12.2%	11.3%	9.9%	10.7%
2.5	3.20	0.82	35.0%	18.9%	13.0%	12.0%	10.6%	11.5%
2.6	3.17	0.84	36.6%	20.0%	13.8%	12.8%	11.4%	12.4%
2.7	3.14	0.87	38.2%	21.1%	14.6%	13.6%	12.2%	13.2%
2.8	3.11	0.89	39.7%	22.2%	15.5%	14.3%	13.0%	14.1%
2.9	3.08	0.92	41.1%	23.3%	16.3%	15.1%	13.8%	15.0%
3.0	3.06	0.94	42.5%	24.3%	17.1%	15.9%	14.6%	15.8%

**Table H-29 Values of the  $MCE_R$  collapse probability for the 3-Story COM wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.37	0.47	0.4%	0.2%	0.1%	0.2%	0.1%	0.1%
0.8	4.12	0.51	0.7%	0.3%	0.2%	0.3%	0.2%	0.2%
0.9	3.92	0.54	1.1%	0.4%	0.3%	0.4%	0.3%	0.3%
1.0	3.76	0.58	1.6%	0.6%	0.5%	0.6%	0.4%	0.4%
1.1	3.63	0.62	2.3%	0.9%	0.6%	0.7%	0.5%	0.6%
1.2	3.53	0.65	3.0%	1.2%	0.8%	0.9%	0.7%	0.8%
1.3	3.44	0.69	3.8%	1.5%	1.0%	1.2%	0.9%	1.0%
1.4	3.36	0.72	4.7%	1.9%	1.3%	1.4%	1.1%	1.2%
1.5	3.29	0.76	5.7%	2.3%	1.5%	1.7%	1.3%	1.5%
1.6	3.23	0.80	6.7%	2.7%	1.8%	2.0%	1.6%	1.8%
1.7	3.18	0.83	7.7%	3.2%	2.1%	2.3%	1.9%	2.2%
1.8	3.14	0.87	8.8%	3.6%	2.5%	2.6%	2.2%	2.5%
1.9	3.09	0.90	9.9%	4.2%	2.8%	3.0%	2.6%	2.9%
2.0	3.06	0.94	11.0%	4.7%	3.2%	3.4%	3.0%	3.4%
2.1	3.02	0.98	12.2%	5.3%	3.6%	3.8%	3.4%	3.8%
2.2	2.99	1.01	13.3%	5.9%	4.0%	4.2%	3.8%	4.2%
2.3	2.96	1.05	14.4%	6.5%	4.5%	4.7%	4.3%	4.6%
2.4	2.94	1.09	15.6%	7.1%	4.9%	5.2%	4.8%	5.0%
2.5	2.92	1.12	16.8%	7.8%	5.4%	5.7%	5.4%	5.5%
2.6	2.89	1.16	17.9%	8.5%	6.0%	6.3%	6.0%	6.0%
2.7	2.87	1.19	19.1%	9.2%	6.5%	6.9%	6.6%	6.6%
2.8	2.85	1.23	20.3%	9.9%	7.1%	7.5%	7.3%	7.1%
2.9	2.84	1.27	21.4%	10.7%	7.7%	8.2%	8.0%	7.7%
3.0	2.82	1.30	22.6%	11.5%	8.4%	8.9%	8.7%	8.4%

**Table H-30** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.32	1.55	1.77	1.93	2.04	2.10	2.05	10.47%
0.8	0.35	1.61	1.85	2.03	2.15	2.21	2.16	10.34%
0.9	0.37	1.68	1.94	2.13	2.26	2.32	2.26	10.21%
1.0	0.40	1.75	2.02	2.23	2.36	2.43	2.36	10.07%
1.1	0.42	1.81	2.11	2.32	2.47	2.53	2.46	9.94%
1.2	0.45	1.87	2.19	2.42	2.57	2.64	2.56	9.82%
1.3	0.47	1.94	2.27	2.51	2.66	2.74	2.65	9.69%
1.4	0.49	2.00	2.34	2.60	2.76	2.83	2.74	9.57%
1.5	0.52	2.06	2.42	2.69	2.85	2.93	2.83	9.44%
1.6	0.54	2.12	2.50	2.77	2.95	3.02	2.91	9.32%
1.7	0.57	2.18	2.57	2.86	3.04	3.11	2.99	9.20%
1.8	0.59	2.24	2.64	2.94	3.12	3.20	3.07	9.08%
1.9	0.61	2.29	2.71	3.02	3.21	3.28	3.14	8.97%
2.0	0.64	2.35	2.78	3.10	3.29	3.36	3.22	8.85%
2.1	0.66	2.41	2.85	3.17	3.37	3.44	3.29	8.74%
2.2	0.69	2.46	2.92	3.25	3.45	3.52	3.35	8.62%
2.3	0.71	2.52	2.98	3.32	3.52	3.59	3.42	8.51%
2.4	0.73	2.57	3.05	3.39	3.59	3.66	3.48	8.40%
2.5	0.76	2.62	3.11	3.46	3.66	3.73	3.54	8.29%
2.6	0.78	2.67	3.17	3.52	3.73	3.79	3.60	8.19%
2.7	0.81	2.72	3.23	3.59	3.80	3.86	3.65	8.08%
2.8	0.83	2.77	3.29	3.65	3.86	3.92	3.70	7.98%
2.9	0.86	2.82	3.35	3.71	3.92	3.98	3.75	7.88%
3.0	0.88	2.87	3.40	3.77	3.98	4.03	3.80	7.77%

**Table H-31** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV (= 1.5).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.41	1.78	2.06	2.28	2.41	2.48	2.41	10.01%
0.8	0.45	1.87	2.19	2.42	2.57	2.64	2.56	9.82%
0.9	0.48	1.97	2.31	2.55	2.71	2.79	2.70	9.63%
1.0	0.52	2.06	2.42	2.69	2.85	2.93	2.83	9.44%
1.1	0.55	2.15	2.53	2.81	2.99	3.06	2.95	9.26%
1.2	0.59	2.24	2.64	2.94	3.12	3.20	3.07	9.08%
1.3	0.63	2.32	2.75	3.06	3.25	3.32	3.18	8.91%
1.4	0.66	2.41	2.85	3.17	3.37	3.44	3.29	8.74%
1.5	0.70	2.49	2.95	3.28	3.48	3.55	3.38	8.57%
1.6	0.73	2.57	3.05	3.39	3.59	3.66	3.48	8.40%
1.7	0.77	2.65	3.14	3.49	3.70	3.76	3.57	8.24%
1.8	0.81	2.72	3.23	3.59	3.80	3.86	3.65	8.08%
1.9	0.84	2.80	3.32	3.68	3.89	3.95	3.73	7.93%
2.0	0.88	2.87	3.40	3.77	3.98	4.03	3.80	7.77%
2.1	0.92	2.94	3.48	3.86	4.06	4.11	3.87	7.62%
2.2	0.95	3.01	3.56	3.94	4.14	4.19	3.93	7.48%
2.3	0.99	3.08	3.63	4.01	4.22	4.26	3.99	7.33%
2.4	1.02	3.14	3.70	4.08	4.28	4.32	4.05	7.19%
2.5	1.06	3.20	3.77	4.15	4.35	4.38	4.10	7.05%
2.6	1.10	3.27	3.83	4.21	4.40	4.43	4.14	6.92%
2.7	1.13	3.32	3.89	4.27	4.46	4.48	4.18	6.78%
2.8	1.17	3.38	3.95	4.32	4.50	4.52	4.22	6.65%
2.9	1.20	3.44	4.01	4.37	4.54	4.56	4.25	6.53%
3.0	1.24	3.49	4.06	4.42	4.58	4.59	4.28	6.40%

**Table H-32 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story COM Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.53	0.32	2.57	3.15	3.64	3.87	3.99	3.90
0.8	4.25	0.35	2.34	2.90	3.35	3.57	3.68	3.59
0.9	4.04	0.37	2.17	2.69	3.13	3.33	3.43	3.35
1.0	3.87	0.40	2.03	2.53	2.94	3.14	3.23	3.15
1.1	3.73	0.42	1.91	2.39	2.79	2.98	3.06	2.98
1.2	3.62	0.45	1.81	2.28	2.66	2.84	2.92	2.83
1.3	3.52	0.47	1.73	2.18	2.55	2.73	2.80	2.71
1.4	3.44	0.49	1.66	2.09	2.45	2.62	2.69	2.60
1.5	3.37	0.52	1.59	2.02	2.36	2.53	2.60	2.50
1.6	3.30	0.54	1.54	1.95	2.29	2.45	2.51	2.41
1.7	3.25	0.57	1.49	1.89	2.22	2.37	2.43	2.33
1.8	3.20	0.59	1.44	1.84	2.15	2.31	2.36	2.26
1.9	3.15	0.61	1.40	1.79	2.10	2.24	2.30	2.19
2.0	3.11	0.64	1.36	1.74	2.04	2.19	2.23	2.13
2.1	3.08	0.66	1.33	1.70	1.99	2.13	2.18	2.07
2.2	3.04	0.69	1.30	1.66	1.95	2.08	2.13	2.02
2.3	3.01	0.71	1.27	1.62	1.90	2.04	2.08	1.97
2.4	2.98	0.73	1.24	1.59	1.86	1.99	2.03	1.92
2.5	2.96	0.76	1.22	1.56	1.83	1.95	1.98	1.87
2.6	2.94	0.78	1.19	1.52	1.79	1.91	1.94	1.83
2.7	2.91	0.81	1.17	1.50	1.75	1.87	1.90	1.79
2.8	2.89	0.83	1.15	1.47	1.72	1.83	1.86	1.75
2.9	2.88	0.86	1.13	1.44	1.69	1.80	1.82	1.71
3.0	2.86	0.88	1.11	1.42	1.66	1.76	1.79	1.67



**Table H-33 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story COM Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.80	0.41	2.95	3.69	4.29	4.59	4.72	4.59
0.8	3.62	0.45	2.72	3.42	3.99	4.27	4.38	4.25
0.9	3.48	0.48	2.54	3.20	3.75	4.01	4.12	3.98
1.0	3.37	0.52	2.39	3.03	3.55	3.80	3.89	3.75
1.1	3.27	0.55	2.27	2.88	3.38	3.62	3.71	3.56
1.2	3.20	0.59	2.16	2.75	3.23	3.46	3.54	3.39
1.3	3.13	0.63	2.07	2.64	3.10	3.32	3.40	3.24
1.4	3.08	0.66	1.99	2.55	2.99	3.20	3.27	3.11
1.5	3.03	0.70	1.92	2.46	2.89	3.09	3.15	2.99
1.6	2.98	0.73	1.86	2.38	2.80	2.99	3.04	2.88
1.7	2.95	0.77	1.81	2.31	2.71	2.89	2.94	2.78
1.8	2.91	0.81	1.76	2.24	2.63	2.81	2.85	2.68
1.9	2.88	0.84	1.71	2.18	2.56	2.72	2.76	2.59
2.0	2.86	0.88	1.66	2.13	2.49	2.65	2.68	2.51
2.1	2.83	0.92	1.62	2.07	2.42	2.57	2.61	2.43
2.2	2.81	0.95	1.59	2.02	2.36	2.50	2.53	2.36
2.3	2.79	0.99	1.55	1.97	2.30	2.44	2.46	2.28
2.4	2.77	1.02	1.52	1.93	2.25	2.37	2.39	2.21
2.5	2.76	1.06	1.49	1.88	2.19	2.31	2.33	2.14
2.6	2.74	1.10	1.46	1.84	2.14	2.25	2.27	2.08
2.7	2.73	1.13	1.43	1.80	2.09	2.20	2.21	2.01
2.8	2.71	1.17	1.40	1.76	2.04	2.14	2.15	1.95
2.9	2.70	1.20	1.37	1.73	1.99	2.08	2.09	1.90
3.0	2.69	1.24	1.35	1.69	1.94	2.03	2.03	1.84

**Table H-34 Values of the  $MCE_R$  collapse probability for the 4-Story COM wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.53	0.32	1.8%	1.1%	0.9%	1.2%	1.1%	1.2%
0.8	4.25	0.35	2.9%	1.7%	1.4%	1.7%	1.5%	1.7%
0.9	4.04	0.37	4.3%	2.4%	1.9%	2.2%	2.0%	2.2%
1.0	3.87	0.40	5.8%	3.2%	2.5%	2.8%	2.5%	2.8%
1.1	3.73	0.42	7.5%	4.0%	3.1%	3.4%	3.1%	3.4%
1.2	3.62	0.45	9.3%	5.0%	3.8%	4.1%	3.7%	4.0%
1.3	3.52	0.47	11.2%	6.0%	4.5%	4.7%	4.3%	4.7%
1.4	3.44	0.49	13.1%	7.0%	5.2%	5.4%	4.9%	5.3%
1.5	3.37	0.52	15.1%	8.0%	5.9%	6.1%	5.6%	6.0%
1.6	3.30	0.54	17.0%	9.1%	6.6%	6.8%	6.3%	6.7%
1.7	3.25	0.57	18.9%	10.1%	7.4%	7.5%	6.9%	7.3%
1.8	3.20	0.59	20.8%	11.2%	8.1%	8.2%	7.6%	8.0%
1.9	3.15	0.61	22.7%	12.3%	8.9%	8.9%	8.3%	8.8%
2.0	3.11	0.64	24.5%	13.4%	9.7%	9.6%	9.0%	9.5%
2.1	3.08	0.66	26.3%	14.5%	10.5%	10.3%	9.7%	10.2%
2.2	3.04	0.69	28.1%	15.6%	11.3%	11.1%	10.4%	11.0%
2.3	3.01	0.71	29.8%	16.7%	12.1%	11.8%	11.2%	11.8%
2.4	2.98	0.73	31.5%	17.8%	12.9%	12.5%	11.9%	12.6%
2.5	2.96	0.76	33.2%	18.9%	13.7%	13.3%	12.7%	13.4%
2.6	2.94	0.78	34.8%	19.9%	14.5%	14.1%	13.4%	14.2%
2.7	2.91	0.81	36.3%	21.0%	15.3%	14.8%	14.2%	15.0%
2.8	2.89	0.83	37.9%	22.1%	16.2%	15.6%	15.0%	15.9%
2.9	2.88	0.86	39.4%	23.2%	17.0%	16.4%	15.8%	16.8%
3.0	2.86	0.88	40.8%	24.3%	17.9%	17.2%	16.6%	17.7%

**Table H-35 Values of the  $MCE_R$  collapse probability for the 4-Story COM wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.80	0.41	0.3%	0.2%	0.2%	0.3%	0.2%	0.3%
0.8	3.62	0.45	0.6%	0.3%	0.3%	0.4%	0.4%	0.4%
0.9	3.48	0.48	1.0%	0.5%	0.4%	0.6%	0.5%	0.5%
1.0	3.37	0.52	1.5%	0.7%	0.6%	0.8%	0.7%	0.7%
1.1	3.27	0.55	2.0%	0.9%	0.7%	1.0%	0.9%	0.9%
1.2	3.20	0.59	2.7%	1.2%	0.9%	1.2%	1.1%	1.1%
1.3	3.13	0.63	3.4%	1.5%	1.2%	1.5%	1.3%	1.3%
1.4	3.08	0.66	4.2%	1.9%	1.4%	1.7%	1.6%	1.5%
1.5	3.03	0.70	5.1%	2.3%	1.7%	2.0%	1.8%	1.8%
1.6	2.98	0.73	6.0%	2.7%	2.0%	2.3%	2.2%	2.1%
1.7	2.95	0.77	7.0%	3.1%	2.3%	2.7%	2.5%	2.4%
1.8	2.91	0.81	8.0%	3.6%	2.6%	3.0%	2.8%	2.7%
1.9	2.88	0.84	9.0%	4.1%	3.0%	3.4%	3.2%	3.0%
2.0	2.86	0.88	10.1%	4.7%	3.4%	3.8%	3.6%	3.4%
2.1	2.83	0.92	11.3%	5.3%	3.8%	4.3%	4.1%	3.8%
2.2	2.81	0.95	12.4%	5.9%	4.3%	4.8%	4.6%	4.3%
2.3	2.79	0.99	13.6%	6.5%	4.8%	5.3%	5.1%	4.8%
2.4	2.77	1.02	14.8%	7.2%	5.3%	5.8%	5.6%	5.4%
2.5	2.76	1.06	16.1%	8.0%	5.8%	6.4%	6.2%	6.0%
2.6	2.74	1.10	17.3%	8.7%	6.4%	7.0%	6.8%	6.7%
2.7	2.73	1.13	18.6%	9.5%	7.0%	7.6%	7.5%	7.5%
2.8	2.71	1.17	20.0%	10.4%	7.7%	8.3%	8.2%	8.3%
2.9	2.70	1.20	21.3%	11.2%	8.4%	9.1%	9.0%	9.1%
3.0	2.69	1.24	22.7%	12.2%	9.2%	9.9%	9.8%	10.1%

**Table H-36** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.29	1.50	1.69	1.83	1.92	1.98	1.91	9.40%	
0.8	0.31	1.57	1.78	1.93	2.03	2.09	2.01	9.28%	
0.9	0.34	1.64	1.86	2.03	2.14	2.21	2.11	9.17%	
1.0	0.36	1.71	1.95	2.13	2.25	2.31	2.21	9.05%	
1.1	0.39	1.78	2.03	2.22	2.35	2.42	2.30	8.94%	
1.2	0.41	1.85	2.12	2.32	2.45	2.52	2.40	8.82%	
1.3	0.44	1.91	2.20	2.41	2.55	2.62	2.48	8.71%	
1.4	0.46	1.98	2.28	2.50	2.64	2.72	2.57	8.60%	
1.5	0.48	2.04	2.36	2.59	2.74	2.81	2.66	8.50%	
1.6	0.51	2.11	2.43	2.67	2.83	2.90	2.74	8.39%	
1.7	0.53	2.17	2.51	2.76	2.91	2.99	2.82	8.28%	
1.8	0.56	2.23	2.58	2.84	3.00	3.08	2.89	8.18%	
1.9	0.58	2.29	2.65	2.92	3.08	3.16	2.96	8.08%	
2.0	0.60	2.35	2.72	2.99	3.17	3.24	3.03	7.98%	
2.1	0.63	2.41	2.79	3.07	3.24	3.31	3.10	7.88%	
2.2	0.65	2.47	2.86	3.14	3.32	3.39	3.17	7.78%	
2.3	0.68	2.52	2.92	3.22	3.39	3.46	3.23	7.68%	
2.4	0.70	2.58	2.99	3.29	3.47	3.53	3.29	7.58%	
2.5	0.72	2.63	3.05	3.35	3.54	3.60	3.35	7.49%	
2.6	0.75	2.68	3.11	3.42	3.60	3.66	3.41	7.40%	
2.7	0.77	2.73	3.17	3.48	3.67	3.72	3.46	7.30%	
2.8	0.80	2.78	3.23	3.54	3.73	3.78	3.51	7.21%	
2.9	0.82	2.83	3.29	3.60	3.79	3.84	3.56	7.12%	
3.0	0.85	2.88	3.34	3.66	3.84	3.89	3.61	7.03%	

**Table H-37** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story COM wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.38	1.75	1.99	2.18	2.30	2.37	2.26	8.99%	
0.8	0.41	1.85	2.12	2.32	2.45	2.52	2.40	8.82%	
0.9	0.45	1.95	2.24	2.45	2.60	2.67	2.53	8.66%	
1.0	0.48	2.04	2.36	2.59	2.74	2.81	2.66	8.50%	
1.1	0.52	2.14	2.47	2.71	2.87	2.95	2.78	8.34%	
1.2	0.56	2.23	2.58	2.84	3.00	3.08	2.89	8.18%	
1.3	0.59	2.32	2.69	2.96	3.13	3.20	3.00	8.03%	
1.4	0.63	2.41	2.79	3.07	3.24	3.31	3.10	7.88%	
1.5	0.66	2.49	2.89	3.18	3.36	3.43	3.20	7.73%	
1.6	0.70	2.58	2.99	3.29	3.47	3.53	3.29	7.58%	
1.7	0.74	2.66	3.08	3.39	3.57	3.63	3.38	7.44%	
1.8	0.77	2.73	3.17	3.48	3.67	3.72	3.46	7.30%	
1.9	0.81	2.81	3.26	3.57	3.76	3.81	3.54	7.17%	
2.0	0.85	2.88	3.34	3.66	3.84	3.89	3.61	7.03%	
2.1	0.88	2.95	3.42	3.74	3.93	3.97	3.68	6.90%	
2.2	0.92	3.02	3.49	3.82	4.00	4.04	3.74	6.77%	
2.3	0.95	3.08	3.57	3.90	4.07	4.10	3.80	6.64%	
2.4	0.99	3.14	3.63	3.97	4.14	4.16	3.85	6.52%	
2.5	1.03	3.20	3.70	4.03	4.20	4.22	3.90	6.40%	
2.6	1.06	3.26	3.76	4.09	4.25	4.27	3.95	6.28%	
2.7	1.10	3.32	3.82	4.15	4.30	4.31	3.99	6.16%	
2.8	1.13	3.37	3.87	4.20	4.34	4.35	4.03	6.04%	
2.9	1.17	3.42	3.92	4.24	4.38	4.39	4.06	5.93%	
3.0	1.21	3.47	3.97	4.29	4.41	4.42	4.09	5.82%	

**Table H-38 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story COM Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.05	0.29	2.48	3.01	3.45	3.66	3.76	3.61
0.8	3.84	0.31	2.28	2.77	3.18	3.38	3.48	3.33
0.9	3.67	0.34	2.11	2.59	2.98	3.16	3.26	3.11
1.0	3.54	0.36	1.98	2.44	2.81	2.99	3.08	2.93
1.1	3.43	0.39	1.88	2.31	2.67	2.84	2.92	2.78
1.2	3.34	0.41	1.79	2.20	2.55	2.71	2.79	2.65
1.3	3.26	0.44	1.71	2.11	2.45	2.61	2.68	2.53
1.4	3.20	0.46	1.64	2.03	2.36	2.51	2.58	2.43
1.5	3.14	0.48	1.58	1.96	2.28	2.43	2.49	2.34
1.6	3.09	0.51	1.53	1.90	2.20	2.35	2.41	2.26
1.7	3.05	0.53	1.48	1.84	2.14	2.28	2.34	2.19
1.8	3.01	0.56	1.44	1.79	2.08	2.22	2.27	2.12
1.9	2.98	0.58	1.40	1.75	2.03	2.16	2.21	2.06
2.0	2.94	0.60	1.36	1.70	1.98	2.11	2.15	2.01
2.1	2.92	0.63	1.33	1.66	1.93	2.05	2.10	1.95
2.2	2.89	0.65	1.30	1.62	1.89	2.01	2.05	1.90
2.3	2.87	0.68	1.27	1.59	1.85	1.96	2.00	1.86
2.4	2.85	0.70	1.24	1.56	1.81	1.92	1.96	1.81
2.5	2.83	0.72	1.22	1.53	1.77	1.88	1.91	1.77
2.6	2.81	0.75	1.20	1.50	1.74	1.84	1.87	1.73
2.7	2.79	0.77	1.17	1.47	1.70	1.81	1.83	1.69
2.8	2.77	0.80	1.15	1.44	1.67	1.77	1.80	1.65
2.9	2.76	0.82	1.13	1.42	1.64	1.74	1.76	1.61
3.0	2.75	0.85	1.11	1.39	1.61	1.70	1.73	1.57

**Table H-39 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story COM Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.48	0.38	2.89	3.56	4.10	4.37	4.50	4.27
0.8	3.34	0.41	2.68	3.31	3.82	4.07	4.19	3.97
0.9	3.23	0.45	2.51	3.11	3.60	3.84	3.94	3.72
1.0	3.14	0.48	2.37	2.94	3.41	3.64	3.74	3.52
1.1	3.07	0.52	2.26	2.81	3.26	3.47	3.56	3.34
1.2	3.01	0.56	2.16	2.69	3.12	3.33	3.41	3.19
1.3	2.96	0.59	2.07	2.58	3.00	3.20	3.27	3.05
1.4	2.92	0.63	2.00	2.49	2.89	3.08	3.15	2.93
1.5	2.88	0.66	1.93	2.41	2.80	2.98	3.04	2.82
1.6	2.85	0.70	1.87	2.33	2.71	2.88	2.93	2.72
1.7	2.82	0.74	1.81	2.27	2.63	2.79	2.84	2.62
1.8	2.79	0.77	1.76	2.20	2.55	2.71	2.75	2.53
1.9	2.77	0.81	1.71	2.14	2.48	2.63	2.67	2.44
2.0	2.75	0.85	1.67	2.09	2.42	2.56	2.59	2.36
2.1	2.73	0.88	1.63	2.03	2.35	2.49	2.51	2.28
2.2	2.71	0.92	1.59	1.99	2.29	2.42	2.44	2.21
2.3	2.69	0.95	1.55	1.94	2.24	2.35	2.37	2.14
2.4	2.68	0.99	1.52	1.89	2.18	2.29	2.31	2.08
2.5	2.67	1.03	1.49	1.85	2.13	2.23	2.24	2.01
2.6	2.65	1.06	1.46	1.81	2.08	2.17	2.18	1.95
2.7	2.64	1.10	1.43	1.77	2.03	2.12	2.12	1.90
2.8	2.63	1.13	1.40	1.73	1.98	2.06	2.07	1.84
2.9	2.62	1.17	1.37	1.69	1.93	2.01	2.01	1.79
3.0	2.61	1.21	1.34	1.65	1.89	1.96	1.96	1.74

**Table H-40 Values of the  $MCE_R$  collapse probability for the 5-Story COM wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.05	0.29	2.2%	1.4%	1.2%	1.5%	1.4%	1.4%
0.8	3.84	0.31	3.4%	2.1%	1.8%	2.1%	1.9%	2.0%
0.9	3.67	0.34	4.8%	2.9%	2.4%	2.7%	2.4%	2.6%
1.0	3.54	0.36	6.4%	3.7%	3.0%	3.4%	3.1%	3.2%
1.1	3.43	0.39	8.1%	4.7%	3.7%	4.1%	3.7%	3.9%
1.2	3.34	0.41	9.9%	5.7%	4.4%	4.8%	4.3%	4.6%
1.3	3.26	0.44	11.7%	6.7%	5.2%	5.5%	5.0%	5.3%
1.4	3.20	0.46	13.6%	7.8%	6.0%	6.2%	5.7%	6.0%
1.5	3.14	0.48	15.4%	8.9%	6.7%	7.0%	6.4%	6.8%
1.6	3.09	0.51	17.3%	10.0%	7.5%	7.7%	7.1%	7.5%
1.7	3.05	0.53	19.2%	11.1%	8.3%	8.5%	7.8%	8.3%
1.8	3.01	0.56	21.0%	12.2%	9.1%	9.2%	8.6%	9.1%
1.9	2.98	0.58	22.8%	13.3%	10.0%	10.0%	9.3%	9.9%
2.0	2.94	0.60	24.6%	14.4%	10.8%	10.7%	10.1%	10.7%
2.1	2.92	0.63	26.3%	15.5%	11.6%	11.5%	10.8%	11.5%
2.2	2.89	0.65	28.0%	16.6%	12.4%	12.3%	11.6%	12.3%
2.3	2.87	0.68	29.7%	17.7%	13.3%	13.1%	12.4%	13.2%
2.4	2.85	0.70	31.3%	18.8%	14.1%	13.8%	13.2%	14.1%
2.5	2.83	0.72	32.9%	19.9%	15.0%	14.6%	14.0%	15.0%
2.6	2.81	0.75	34.5%	21.0%	15.8%	15.4%	14.8%	15.9%
2.7	2.79	0.77	36.1%	22.1%	16.7%	16.2%	15.6%	16.9%
2.8	2.77	0.80	37.6%	23.2%	17.5%	17.0%	16.4%	18.0%
2.9	2.76	0.82	39.1%	24.3%	18.4%	17.9%	17.3%	19.0%
3.0	2.75	0.85	40.6%	25.4%	19.3%	18.7%	18.2%	20.1%



**Table H-41 Values of the  $MCE_R$  collapse probability for the 5-Story COM wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.48	0.38	0.4%	0.2%	0.2%	0.4%	0.3%	0.3%
0.8	3.34	0.41	0.7%	0.4%	0.4%	0.5%	0.5%	0.4%
0.9	3.23	0.45	1.1%	0.6%	0.5%	0.7%	0.6%	0.6%
1.0	3.14	0.48	1.5%	0.8%	0.7%	0.9%	0.8%	0.8%
1.1	3.07	0.52	2.1%	1.1%	0.9%	1.2%	1.0%	1.0%
1.2	3.01	0.56	2.7%	1.4%	1.1%	1.4%	1.3%	1.2%
1.3	2.96	0.59	3.4%	1.7%	1.4%	1.7%	1.6%	1.4%
1.4	2.92	0.63	4.2%	2.1%	1.7%	2.0%	1.9%	1.7%
1.5	2.88	0.66	5.0%	2.5%	2.0%	2.4%	2.2%	2.0%
1.6	2.85	0.70	5.9%	3.0%	2.3%	2.7%	2.5%	2.3%
1.7	2.82	0.74	6.9%	3.5%	2.7%	3.1%	2.9%	2.7%
1.8	2.79	0.77	7.9%	4.0%	3.0%	3.5%	3.3%	3.1%
1.9	2.77	0.81	8.9%	4.5%	3.4%	3.9%	3.7%	3.5%
2.0	2.75	0.85	10.0%	5.1%	3.9%	4.4%	4.2%	4.0%
2.1	2.73	0.88	11.1%	5.7%	4.3%	4.9%	4.7%	4.5%
2.2	2.71	0.92	12.3%	6.4%	4.8%	5.4%	5.2%	5.1%
2.3	2.69	0.95	13.5%	7.1%	5.4%	6.0%	5.8%	5.7%
2.4	2.68	0.99	14.8%	7.8%	5.9%	6.6%	6.4%	6.4%
2.5	2.67	1.03	16.1%	8.6%	6.6%	7.2%	7.1%	7.2%
2.6	2.65	1.06	17.4%	9.4%	7.2%	7.9%	7.8%	8.0%
2.7	2.64	1.10	18.8%	10.3%	7.9%	8.6%	8.5%	8.8%
2.8	2.63	1.13	20.2%	11.2%	8.6%	9.4%	9.3%	9.7%
2.9	2.62	1.17	21.7%	12.1%	9.4%	10.2%	10.2%	10.7%
3.0	2.61	1.21	23.2%	13.2%	10.2%	11.1%	11.1%	11.8%

**Table H-42 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.52	1.28	1.54	1.75	1.91	2.08	2.04	13.06%
0.8	0.53	1.31	1.58	1.80	1.96	2.14	2.09	12.98%
0.9	0.55	1.34	1.62	1.84	2.01	2.19	2.14	12.90%
1.0	0.56	1.37	1.66	1.89	2.06	2.25	2.19	12.82%
1.1	0.58	1.41	1.70	1.93	2.11	2.30	2.24	12.74%
1.2	0.60	1.44	1.74	1.98	2.16	2.35	2.29	12.66%
1.3	0.61	1.47	1.78	2.02	2.21	2.40	2.34	12.58%
1.4	0.63	1.50	1.82	2.07	2.26	2.45	2.39	12.50%
1.5	0.65	1.53	1.85	2.11	2.31	2.50	2.43	12.43%
1.6	0.66	1.56	1.89	2.16	2.35	2.55	2.48	12.35%
1.7	0.68	1.59	1.93	2.20	2.40	2.60	2.52	12.27%
1.8	0.70	1.62	1.97	2.24	2.45	2.65	2.57	12.20%
1.9	0.71	1.65	2.00	2.28	2.49	2.69	2.61	12.12%
2.0	0.73	1.68	2.04	2.32	2.54	2.74	2.65	12.05%
2.1	0.75	1.71	2.08	2.37	2.58	2.78	2.70	11.97%
2.2	0.76	1.74	2.11	2.41	2.62	2.83	2.74	11.90%
2.3	0.78	1.77	2.15	2.45	2.67	2.87	2.78	11.83%
2.4	0.80	1.80	2.18	2.49	2.71	2.91	2.82	11.75%
2.5	0.81	1.83	2.22	2.53	2.75	2.96	2.86	11.68%
2.6	0.83	1.86	2.25	2.56	2.79	3.00	2.89	11.61%
2.7	0.84	1.89	2.29	2.60	2.83	3.04	2.93	11.54%
2.8	0.86	1.92	2.32	2.64	2.87	3.08	2.97	11.47%
2.9	0.88	1.95	2.36	2.68	2.91	3.11	3.00	11.39%
3.0	0.89	1.98	2.39	2.72	2.95	3.15	3.04	11.32%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 9.5

**Table H-43** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.70	1.62	1.97	2.24	2.45	2.65	2.57	12.20%
0.8	0.74	1.70	2.06	2.35	2.56	2.76	2.68	12.01%
0.9	0.78	1.78	2.15	2.45	2.67	2.88	2.78	11.82%
1.0	0.82	1.85	2.24	2.55	2.78	2.98	2.88	11.63%
1.1	0.87	1.93	2.33	2.65	2.88	3.09	2.98	11.45%
1.2	0.91	2.00	2.42	2.75	2.98	3.18	3.07	11.26%
1.3	0.95	2.07	2.50	2.84	3.08	3.28	3.16	11.09%
1.4	0.99	2.14	2.58	2.93	3.17	3.36	3.24	10.91%
1.5	1.03	2.21	2.66	3.01	3.26	3.45	3.31	10.74%
1.6	1.08	2.27	2.74	3.10	3.35	3.52	3.39	10.57%
1.7	1.12	2.34	2.81	3.18	3.43	3.60	3.46	10.40%
1.8	1.16	2.40	2.89	3.25	3.50	3.66	3.52	10.24%
1.9	1.20	2.47	2.96	3.33	3.58	3.73	3.58	10.08%
2.0	1.25	2.53	3.02	3.40	3.65	3.79	3.64	9.92%
2.1	1.29	2.59	3.09	3.47	3.71	3.84	3.69	9.76%
2.2	1.33	2.65	3.15	3.53	3.77	3.90	3.74	9.61%
2.3	1.37	2.70	3.21	3.59	3.83	3.94	3.79	9.45%
2.4	1.42	2.76	3.27	3.65	3.89	3.99	3.83	9.30%
2.5	1.46	2.81	3.33	3.71	3.94	4.03	3.87	9.16%
2.6	1.50	2.87	3.38	3.76	3.98	4.06	3.91	9.01%
2.7	1.54	2.92	3.44	3.81	4.03	4.10	3.95	8.87%
2.8	1.59	2.97	3.49	3.85	4.07	4.12	3.98	8.73%
2.9	1.63	3.02	3.53	3.90	4.10	4.15	4.00	8.59%
3.0	1.67	3.06	3.58	3.94	4.13	4.17	4.03	8.46%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 3.7

**Table H-44 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.5$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.51	0.52	2.11	2.74	3.30	3.63	3.96	3.87
0.8	9.49	0.53	1.90	2.47	2.96	3.26	3.55	3.48
0.9	8.69	0.55	1.73	2.25	2.70	2.97	3.24	3.17
1.0	8.06	0.56	1.59	2.07	2.49	2.74	2.99	2.92
1.1	7.54	0.58	1.48	1.93	2.32	2.55	2.78	2.71
1.2	7.11	0.60	1.39	1.81	2.18	2.40	2.60	2.54
1.3	6.74	0.61	1.31	1.71	2.06	2.26	2.46	2.39
1.4	6.43	0.63	1.24	1.62	1.95	2.15	2.33	2.27
1.5	6.16	0.65	1.18	1.55	1.86	2.04	2.22	2.16
1.6	5.92	0.66	1.13	1.48	1.78	1.96	2.12	2.06
1.7	5.71	0.68	1.09	1.42	1.71	1.88	2.03	1.97
1.8	5.52	0.70	1.05	1.37	1.64	1.81	1.96	1.90
1.9	5.36	0.71	1.01	1.32	1.59	1.74	1.88	1.83
2.0	5.20	0.73	0.98	1.28	1.53	1.69	1.82	1.76
2.1	5.07	0.75	0.95	1.24	1.49	1.63	1.76	1.71
2.2	4.95	0.76	0.92	1.20	1.44	1.59	1.71	1.65
2.3	4.83	0.78	0.89	1.17	1.40	1.54	1.66	1.61
2.4	4.73	0.80	0.87	1.14	1.37	1.50	1.61	1.56
2.5	4.63	0.81	0.85	1.11	1.33	1.46	1.57	1.52
2.6	4.55	0.83	0.83	1.08	1.30	1.43	1.53	1.48
2.7	4.46	0.84	0.81	1.06	1.27	1.40	1.50	1.44
2.8	4.39	0.86	0.79	1.04	1.25	1.36	1.46	1.41
2.9	4.32	0.88	0.78	1.02	1.22	1.34	1.43	1.38
3.0	4.25	0.89	0.76	1.00	1.19	1.31	1.40	1.35

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-45 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 3.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.52	0.70	2.69	3.51	4.23	4.65	5.03	4.88
0.8	5.13	0.74	2.47	3.22	3.87	4.26	4.60	4.45
0.9	4.82	0.78	2.29	2.99	3.60	3.95	4.25	4.11
1.0	4.57	0.82	2.15	2.81	3.37	3.70	3.97	3.83
1.1	4.37	0.87	2.03	2.65	3.18	3.49	3.73	3.60
1.2	4.20	0.91	1.93	2.52	3.02	3.31	3.53	3.40
1.3	4.06	0.95	1.85	2.41	2.88	3.15	3.35	3.23
1.4	3.94	0.99	1.77	2.31	2.76	3.01	3.20	3.08
1.5	3.83	1.03	1.71	2.22	2.65	2.89	3.05	2.94
1.6	3.74	1.08	1.65	2.14	2.55	2.78	2.93	2.82
1.7	3.66	1.12	1.60	2.07	2.47	2.68	2.81	2.70
1.8	3.58	1.16	1.55	2.00	2.39	2.59	2.71	2.60
1.9	3.52	1.20	1.51	1.94	2.31	2.50	2.61	2.51
2.0	3.46	1.25	1.47	1.89	2.24	2.43	2.52	2.42
2.1	3.41	1.29	1.43	1.84	2.18	2.35	2.43	2.34
2.2	3.36	1.33	1.39	1.79	2.12	2.28	2.36	2.26
2.3	3.32	1.37	1.36	1.75	2.06	2.22	2.28	2.19
2.4	3.28	1.42	1.33	1.70	2.01	2.15	2.21	2.12
2.5	3.24	1.46	1.31	1.67	1.96	2.09	2.14	2.06
2.6	3.20	1.50	1.28	1.63	1.91	2.04	2.08	2.00
2.7	3.17	1.54	1.25	1.59	1.86	1.98	2.02	1.94
2.8	3.14	1.59	1.23	1.56	1.82	1.93	1.96	1.88
2.9	3.12	1.63	1.21	1.52	1.77	1.88	1.90	1.83
3.0	3.09	1.67	1.18	1.49	1.73	1.83	1.85	1.78

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-46 Values of the  $MCE_R$  collapse probability for the 1-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.5$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.51	0.52	4.8%	2.2%	1.5%	1.6%	1.1%	1.2%
0.8	9.49	0.53	7.7%	3.6%	2.4%	2.4%	1.7%	1.9%
0.9	8.69	0.55	11.2%	5.3%	3.5%	3.5%	2.5%	2.7%
1.0	8.06	0.56	15.0%	7.2%	4.8%	4.6%	3.4%	3.7%
1.1	7.54	0.58	19.1%	9.4%	6.3%	5.9%	4.4%	4.8%
1.2	7.11	0.60	23.2%	11.8%	7.9%	7.3%	5.5%	6.0%
1.3	6.74	0.61	27.4%	14.2%	9.5%	8.7%	6.7%	7.3%
1.4	6.43	0.63	31.4%	16.7%	11.2%	10.2%	7.9%	8.6%
1.5	6.16	0.65	35.3%	19.2%	13.0%	11.7%	9.2%	10.0%
1.6	5.92	0.66	39.1%	21.7%	14.8%	13.2%	10.5%	11.4%
1.7	5.71	0.68	42.6%	24.2%	16.5%	14.7%	11.8%	12.8%
1.8	5.52	0.70	46.0%	26.6%	18.3%	16.2%	13.2%	14.3%
1.9	5.36	0.71	49.1%	29.0%	20.1%	17.7%	14.5%	15.7%
2.0	5.20	0.73	52.0%	31.3%	21.8%	19.2%	15.9%	17.2%
2.1	5.07	0.75	54.8%	33.5%	23.5%	20.7%	17.2%	18.6%
2.2	4.95	0.76	57.4%	35.7%	25.2%	22.1%	18.6%	20.1%
2.3	4.83	0.78	59.8%	37.8%	26.8%	23.5%	19.9%	21.5%
2.4	4.73	0.80	62.0%	39.8%	28.5%	24.9%	21.2%	22.9%
2.5	4.63	0.81	64.1%	41.7%	30.0%	26.3%	22.5%	24.3%
2.6	4.55	0.83	66.0%	43.6%	31.6%	27.6%	23.8%	25.7%
2.7	4.46	0.84	67.8%	45.4%	33.1%	28.9%	25.1%	27.0%
2.8	4.39	0.86	69.5%	47.1%	34.5%	30.2%	26.4%	28.3%
2.9	4.32	0.88	71.1%	48.7%	35.9%	31.5%	27.6%	29.7%
3.0	4.25	0.89	72.5%	50.3%	37.3%	32.7%	28.8%	31.0%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-47 Values of the  $MCE_R$  collapse probability for the 1-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 3.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse  $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.52	0.70	0.7%	0.3%	0.2%	0.3%	0.2%	0.2%
0.8	5.13	0.74	1.2%	0.5%	0.3%	0.4%	0.3%	0.3%
0.9	4.82	0.78	1.9%	0.7%	0.5%	0.6%	0.4%	0.5%
1.0	4.57	0.82	2.8%	1.1%	0.8%	0.9%	0.6%	0.7%
1.1	4.37	0.87	3.8%	1.5%	1.0%	1.2%	0.8%	1.0%
1.2	4.20	0.91	5.0%	2.0%	1.3%	1.5%	1.1%	1.3%
1.3	4.06	0.95	6.3%	2.6%	1.7%	1.8%	1.4%	1.7%
1.4	3.94	0.99	7.6%	3.2%	2.1%	2.2%	1.7%	2.1%
1.5	3.83	1.03	9.1%	3.8%	2.6%	2.7%	2.1%	2.5%
1.6	3.74	1.08	10.6%	4.5%	3.0%	3.1%	2.5%	3.0%
1.7	3.66	1.12	12.1%	5.3%	3.6%	3.6%	3.0%	3.5%
1.8	3.58	1.16	13.7%	6.1%	4.1%	4.2%	3.5%	4.1%
1.9	3.52	1.20	15.3%	7.0%	4.7%	4.8%	4.1%	4.7%
2.0	3.46	1.25	17.0%	7.9%	5.3%	5.4%	4.6%	5.3%
2.1	3.41	1.29	18.6%	8.8%	6.0%	6.0%	5.3%	6.0%
2.2	3.36	1.33	20.3%	9.8%	6.7%	6.7%	6.0%	6.6%
2.3	3.32	1.37	21.9%	10.8%	7.4%	7.4%	6.7%	7.3%
2.4	3.28	1.42	23.6%	11.8%	8.2%	8.2%	7.5%	8.0%
2.5	3.24	1.46	25.3%	12.9%	9.0%	8.9%	8.3%	8.8%
2.6	3.20	1.50	27.0%	14.0%	9.8%	9.8%	9.2%	9.6%
2.7	3.17	1.54	28.6%	15.1%	10.7%	10.7%	10.1%	10.5%
2.8	3.14	1.59	30.3%	16.3%	11.6%	11.6%	11.1%	11.4%
2.9	3.12	1.63	31.9%	17.5%	12.6%	12.5%	12.1%	12.4%
3.0	3.09	1.67	33.6%	18.7%	13.6%	13.6%	13.2%	13.4%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-48 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.41	1.27	1.59	1.85	2.05	2.29	2.29	15.03%
0.8	0.41	1.29	1.61	1.87	2.07	2.31	2.31	14.96%
0.9	0.42	1.30	1.62	1.89	2.09	2.33	2.33	14.89%
1.0	0.43	1.31	1.64	1.91	2.12	2.35	2.35	14.81%
1.1	0.43	1.33	1.66	1.93	2.14	2.37	2.37	14.74%
1.2	0.44	1.34	1.68	1.95	2.16	2.39	2.38	14.67%
1.3	0.45	1.35	1.69	1.97	2.18	2.41	2.40	14.60%
1.4	0.45	1.37	1.71	1.99	2.20	2.43	2.42	14.53%
1.5	0.46	1.38	1.73	2.01	2.22	2.45	2.44	14.46%
1.6	0.47	1.40	1.74	2.03	2.24	2.47	2.46	14.39%
1.7	0.47	1.41	1.76	2.05	2.26	2.49	2.48	14.32%
1.8	0.48	1.42	1.78	2.06	2.28	2.51	2.49	14.25%
1.9	0.49	1.44	1.79	2.08	2.30	2.53	2.51	14.18%
2.0	0.50	1.45	1.81	2.10	2.32	2.55	2.53	14.11%
2.1	0.50	1.46	1.83	2.12	2.34	2.57	2.55	14.04%
2.2	0.51	1.48	1.84	2.14	2.36	2.59	2.57	13.98%
2.3	0.52	1.49	1.86	2.16	2.38	2.61	2.58	13.91%
2.4	0.52	1.50	1.88	2.18	2.40	2.63	2.60	13.84%
2.5	0.53	1.52	1.89	2.20	2.42	2.64	2.62	13.77%
2.6	0.54	1.53	1.91	2.22	2.44	2.66	2.64	13.71%
2.7	0.54	1.54	1.93	2.23	2.46	2.68	2.65	13.64%
2.8	0.55	1.56	1.94	2.25	2.48	2.70	2.67	13.57%
2.9	0.56	1.57	1.96	2.27	2.50	2.72	2.69	13.51%
3.0	0.56	1.58	1.98	2.29	2.52	2.74	2.70	13.44%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 22.7



**Table H-49 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.59	1.64	2.04	2.36	2.60	2.81	2.77	13.17%
0.8	0.63	1.70	2.12	2.45	2.69	2.89	2.85	12.87%
0.9	0.66	1.76	2.20	2.53	2.78	2.98	2.93	12.56%
1.0	0.69	1.82	2.27	2.62	2.86	3.05	3.00	12.27%
1.1	0.73	1.88	2.34	2.70	2.94	3.13	3.07	11.98%
1.2	0.76	1.94	2.41	2.77	3.02	3.20	3.13	11.70%
1.3	0.79	2.00	2.48	2.85	3.10	3.27	3.20	11.43%
1.4	0.83	2.06	2.55	2.92	3.18	3.34	3.26	11.16%
1.5	0.86	2.12	2.62	3.00	3.25	3.41	3.31	10.90%
1.6	0.90	2.18	2.68	3.07	3.32	3.47	3.37	10.64%
1.7	0.93	2.23	2.75	3.13	3.39	3.54	3.42	10.39%
1.8	0.96	2.29	2.81	3.20	3.46	3.60	3.47	10.15%
1.9	1.00	2.35	2.87	3.26	3.52	3.65	3.51	9.91%
2.0	1.03	2.40	2.93	3.33	3.58	3.71	3.56	9.68%
2.1	1.06	2.46	2.99	3.39	3.64	3.76	3.60	9.45%
2.2	1.10	2.51	3.05	3.45	3.70	3.81	3.63	9.23%
2.3	1.13	2.56	3.11	3.50	3.75	3.85	3.67	9.02%
2.4	1.16	2.61	3.16	3.56	3.80	3.90	3.70	8.80%
2.5	1.20	2.66	3.21	3.61	3.85	3.94	3.73	8.60%
2.6	1.23	2.71	3.26	3.66	3.90	3.98	3.76	8.40%
2.7	1.27	2.76	3.31	3.71	3.94	4.02	3.79	8.20%
2.8	1.30	2.81	3.36	3.75	3.98	4.05	3.81	8.01%
2.9	1.33	2.86	3.41	3.80	4.02	4.09	3.84	7.82%
3.0	1.37	2.91	3.46	3.84	4.06	4.12	3.86	7.64%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 4.7

**Table H-50 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	19.74	0.41	2.11	2.84	3.49	3.90	4.35	4.35
0.8	17.57	0.41	1.86	2.51	3.08	3.45	3.84	3.84
0.9	15.88	0.42	1.68	2.26	2.77	3.10	3.44	3.44
1.0	14.53	0.43	1.52	2.05	2.52	2.81	3.13	3.12
1.1	13.42	0.43	1.40	1.88	2.31	2.58	2.87	2.86
1.2	12.50	0.44	1.30	1.75	2.14	2.39	2.65	2.64
1.3	11.72	0.45	1.21	1.63	2.00	2.23	2.47	2.46
1.4	11.05	0.45	1.13	1.53	1.87	2.09	2.31	2.30
1.5	10.47	0.46	1.07	1.44	1.77	1.97	2.17	2.16
1.6	9.96	0.47	1.01	1.36	1.67	1.86	2.05	2.04
1.7	9.51	0.47	0.96	1.29	1.59	1.77	1.95	1.94
1.8	9.11	0.48	0.92	1.23	1.51	1.69	1.86	1.84
1.9	8.76	0.49	0.88	1.18	1.45	1.61	1.77	1.76
2.0	8.44	0.50	0.84	1.13	1.39	1.54	1.70	1.68
2.1	8.15	0.50	0.81	1.09	1.33	1.48	1.63	1.61
2.2	7.88	0.51	0.78	1.05	1.28	1.43	1.56	1.55
2.3	7.64	0.52	0.75	1.01	1.24	1.38	1.51	1.49
2.4	7.42	0.52	0.73	0.98	1.20	1.33	1.46	1.44
2.5	7.22	0.53	0.70	0.95	1.16	1.29	1.41	1.39
2.6	7.03	0.54	0.68	0.92	1.12	1.25	1.36	1.35
2.7	6.86	0.54	0.66	0.89	1.09	1.21	1.32	1.31
2.8	6.70	0.55	0.64	0.87	1.06	1.18	1.28	1.27
2.9	6.55	0.56	0.63	0.84	1.03	1.15	1.25	1.23
3.0	6.41	0.56	0.61	0.82	1.01	1.12	1.21	1.20

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-51 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.91	0.59	2.71	3.65	4.46	4.94	5.34	5.27
0.8	5.47	0.63	2.46	3.31	4.04	4.47	4.81	4.74
0.9	5.12	0.66	2.27	3.05	3.72	4.10	4.40	4.32
1.0	4.84	0.69	2.11	2.84	3.45	3.81	4.06	3.99
1.1	4.62	0.73	1.99	2.66	3.23	3.56	3.78	3.71
1.2	4.43	0.76	1.88	2.51	3.05	3.35	3.55	3.47
1.3	4.27	0.79	1.79	2.39	2.89	3.17	3.35	3.27
1.4	4.13	0.83	1.71	2.28	2.76	3.02	3.18	3.09
1.5	4.01	0.86	1.64	2.18	2.64	2.88	3.02	2.94
1.6	3.91	0.90	1.58	2.10	2.53	2.76	2.89	2.80
1.7	3.82	0.93	1.53	2.02	2.43	2.65	2.77	2.68
1.8	3.74	0.96	1.48	1.95	2.35	2.55	2.66	2.56
1.9	3.66	1.00	1.43	1.89	2.27	2.46	2.56	2.46
2.0	3.60	1.03	1.39	1.83	2.20	2.38	2.46	2.36
2.1	3.54	1.06	1.36	1.78	2.13	2.31	2.38	2.27
2.2	3.48	1.10	1.32	1.73	2.07	2.23	2.30	2.19
2.3	3.43	1.13	1.29	1.69	2.01	2.17	2.23	2.12
2.4	3.39	1.16	1.26	1.65	1.96	2.11	2.16	2.04
2.5	3.35	1.20	1.24	1.61	1.91	2.05	2.10	1.98
2.6	3.31	1.23	1.21	1.57	1.86	1.99	2.04	1.92
2.7	3.27	1.27	1.19	1.53	1.81	1.94	1.98	1.86
2.8	3.24	1.30	1.17	1.50	1.77	1.89	1.93	1.80
2.9	3.21	1.33	1.14	1.47	1.73	1.85	1.87	1.75
3.0	3.18	1.37	1.13	1.44	1.69	1.80	1.83	1.70

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-52 Values of the  $MCE_R$  collapse probability for the 2-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	19.74	0.41	4.9%	1.9%	1.2%	1.2%	0.7%	0.7%
0.8	17.57	0.41	8.3%	3.3%	2.0%	2.0%	1.2%	1.2%
0.9	15.88	0.42	12.6%	5.2%	3.2%	3.0%	2.0%	2.0%
1.0	14.53	0.43	17.5%	7.5%	4.6%	4.2%	2.9%	2.9%
1.1	13.42	0.43	22.8%	10.3%	6.4%	5.7%	4.0%	4.0%
1.2	12.50	0.44	28.2%	13.3%	8.3%	7.3%	5.2%	5.3%
1.3	11.72	0.45	33.7%	16.5%	10.4%	9.1%	6.6%	6.7%
1.4	11.05	0.45	39.0%	19.9%	12.7%	11.0%	8.1%	8.2%
1.5	10.47	0.46	44.2%	23.3%	15.1%	12.9%	9.8%	9.9%
1.6	9.96	0.47	49.0%	26.8%	17.5%	15.0%	11.5%	11.7%
1.7	9.51	0.47	53.5%	30.3%	20.0%	17.1%	13.3%	13.5%
1.8	9.11	0.48	57.7%	33.7%	22.5%	19.2%	15.1%	15.4%
1.9	8.76	0.49	61.5%	37.0%	25.1%	21.3%	17.0%	17.3%
2.0	8.44	0.50	65.0%	40.2%	27.6%	23.4%	18.9%	19.3%
2.1	8.15	0.50	68.2%	43.3%	30.0%	25.5%	20.9%	21.3%
2.2	7.88	0.51	71.1%	46.3%	32.5%	27.6%	22.8%	23.2%
2.3	7.64	0.52	73.8%	49.1%	34.8%	29.7%	24.7%	25.2%
2.4	7.42	0.52	76.2%	51.8%	37.1%	31.7%	26.6%	27.1%
2.5	7.22	0.53	78.3%	54.3%	39.4%	33.6%	28.5%	29.0%
2.6	7.03	0.54	80.2%	56.7%	41.5%	35.5%	30.3%	30.9%
2.7	6.86	0.54	82.0%	59.0%	43.6%	37.4%	32.1%	32.8%
2.8	6.70	0.55	83.6%	61.2%	45.7%	39.2%	33.9%	34.6%
2.9	6.55	0.56	85.0%	63.2%	47.6%	41.0%	35.7%	36.4%
3.0	6.41	0.56	86.3%	65.1%	49.5%	42.7%	37.4%	38.1%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-53 Values of the  $MCE_R$  collapse probability for the 2-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.91	0.59	0.6%	0.2%	0.1%	0.2%	0.1%	0.1%
0.8	5.47	0.63	1.2%	0.4%	0.3%	0.3%	0.2%	0.2%
0.9	5.12	0.66	2.0%	0.7%	0.4%	0.5%	0.4%	0.4%
1.0	4.84	0.69	3.1%	1.0%	0.7%	0.8%	0.5%	0.6%
1.1	4.62	0.73	4.3%	1.5%	0.9%	1.0%	0.8%	0.9%
1.2	4.43	0.76	5.7%	2.0%	1.3%	1.4%	1.1%	1.2%
1.3	4.27	0.79	7.3%	2.7%	1.7%	1.8%	1.4%	1.6%
1.4	4.13	0.83	9.0%	3.4%	2.1%	2.2%	1.8%	2.0%
1.5	4.01	0.86	10.8%	4.1%	2.6%	2.7%	2.2%	2.5%
1.6	3.91	0.90	12.7%	5.0%	3.2%	3.2%	2.7%	3.1%
1.7	3.82	0.93	14.6%	5.9%	3.8%	3.8%	3.2%	3.7%
1.8	3.74	0.96	16.5%	6.9%	4.4%	4.4%	3.8%	4.4%
1.9	3.66	1.00	18.4%	7.9%	5.1%	5.1%	4.4%	5.0%
2.0	3.60	1.03	20.4%	8.9%	5.8%	5.7%	5.0%	5.7%
2.1	3.54	1.06	22.3%	10.0%	6.5%	6.4%	5.7%	6.4%
2.2	3.48	1.10	24.2%	11.1%	7.3%	7.2%	6.5%	7.1%
2.3	3.43	1.13	26.1%	12.2%	8.1%	8.0%	7.2%	7.9%
2.4	3.39	1.16	28.0%	13.4%	9.0%	8.8%	8.1%	8.7%
2.5	3.35	1.20	29.8%	14.6%	9.9%	9.6%	8.9%	9.6%
2.6	3.31	1.23	31.6%	15.8%	10.8%	10.5%	9.8%	10.5%
2.7	3.27	1.27	33.4%	17.1%	11.7%	11.4%	10.7%	11.4%
2.8	3.24	1.30	35.1%	18.3%	12.7%	12.3%	11.7%	12.5%
2.9	3.21	1.33	36.8%	19.6%	13.7%	13.3%	12.7%	13.5%
3.0	3.18	1.37	38.4%	20.9%	14.7%	14.3%	13.7%	14.6%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-54 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.30	1.33	1.55	1.74	1.88	2.03	2.02	14.43%
0.8	0.31	1.36	1.59	1.78	1.93	2.09	2.08	14.34%
0.9	0.32	1.39	1.63	1.83	1.98	2.14	2.13	14.25%
1.0	0.33	1.42	1.67	1.87	2.03	2.20	2.18	14.16%
1.1	0.34	1.45	1.71	1.92	2.08	2.25	2.23	14.07%
1.2	0.35	1.47	1.74	1.96	2.13	2.30	2.28	13.98%
1.3	0.36	1.50	1.78	2.00	2.17	2.36	2.33	13.90%
1.4	0.37	1.53	1.82	2.05	2.22	2.41	2.38	13.81%
1.5	0.39	1.56	1.85	2.09	2.27	2.46	2.43	13.72%
1.6	0.40	1.59	1.89	2.13	2.32	2.51	2.48	13.64%
1.7	0.41	1.61	1.93	2.18	2.37	2.56	2.53	13.55%
1.8	0.42	1.64	1.96	2.22	2.41	2.61	2.58	13.47%
1.9	0.43	1.67	2.00	2.26	2.46	2.66	2.62	13.39%
2.0	0.44	1.70	2.03	2.30	2.50	2.71	2.67	13.30%
2.1	0.45	1.72	2.07	2.34	2.55	2.75	2.71	13.22%
2.2	0.46	1.75	2.10	2.38	2.59	2.80	2.76	13.14%
2.3	0.47	1.78	2.14	2.42	2.64	2.85	2.80	13.05%
2.4	0.49	1.80	2.17	2.47	2.68	2.89	2.84	12.97%
2.5	0.50	1.83	2.21	2.51	2.73	2.94	2.89	12.89%
2.6	0.51	1.86	2.24	2.54	2.77	2.98	2.93	12.81%
2.7	0.52	1.89	2.28	2.58	2.81	3.02	2.97	12.73%
2.8	0.53	1.91	2.31	2.62	2.85	3.07	3.01	12.65%
2.9	0.54	1.94	2.34	2.66	2.90	3.11	3.05	12.57%
3.0	0.55	1.97	2.38	2.70	2.94	3.15	3.09	12.50%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 14.0

**Table H-55** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.41	1.61	1.92	2.17	2.36	2.55	2.52	13.57%
0.8	0.43	1.68	2.01	2.27	2.47	2.67	2.63	13.36%
0.9	0.46	1.74	2.09	2.37	2.58	2.78	2.74	13.16%
1.0	0.49	1.81	2.17	2.47	2.69	2.89	2.85	12.97%
1.1	0.51	1.87	2.26	2.56	2.79	3.00	2.95	12.77%
1.2	0.54	1.94	2.34	2.66	2.89	3.10	3.04	12.58%
1.3	0.57	2.00	2.42	2.75	2.99	3.20	3.14	12.40%
1.4	0.59	2.06	2.50	2.84	3.09	3.30	3.23	12.21%
1.5	0.62	2.12	2.57	2.93	3.18	3.39	3.31	12.03%
1.6	0.65	2.19	2.65	3.01	3.27	3.48	3.40	11.85%
1.7	0.68	2.25	2.73	3.10	3.36	3.57	3.48	11.67%
1.8	0.70	2.31	2.80	3.18	3.45	3.65	3.56	11.50%
1.9	0.73	2.37	2.87	3.26	3.53	3.73	3.63	11.33%
2.0	0.76	2.43	2.94	3.34	3.61	3.80	3.70	11.16%
2.1	0.78	2.48	3.01	3.42	3.69	3.88	3.77	10.99%
2.2	0.81	2.54	3.08	3.49	3.77	3.94	3.83	10.82%
2.3	0.84	2.60	3.15	3.57	3.84	4.01	3.90	10.66%
2.4	0.86	2.66	3.22	3.64	3.92	4.08	3.96	10.50%
2.5	0.89	2.71	3.28	3.71	3.99	4.14	4.01	10.35%
2.6	0.92	2.77	3.35	3.77	4.05	4.19	4.07	10.19%
2.7	0.94	2.82	3.41	3.84	4.12	4.25	4.12	10.04%
2.8	0.97	2.88	3.47	3.90	4.18	4.30	4.17	9.89%
2.9	1.00	2.93	3.53	3.96	4.24	4.35	4.22	9.74%
3.0	1.03	2.98	3.59	4.02	4.30	4.40	4.26	9.60%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 5.8

**Table H-56 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 14.0$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.87	0.30	2.21	2.78	3.27	3.56	3.86	3.84
0.8	8.06	0.31	1.97	2.49	2.94	3.20	3.47	3.45
0.9	7.42	0.32	1.79	2.26	2.68	2.92	3.17	3.15
1.0	6.92	0.33	1.64	2.08	2.47	2.70	2.92	2.90
1.1	6.50	0.34	1.52	1.94	2.30	2.51	2.72	2.70
1.2	6.15	0.35	1.42	1.82	2.16	2.36	2.55	2.53
1.3	5.86	0.36	1.34	1.71	2.03	2.22	2.41	2.39
1.4	5.61	0.37	1.27	1.62	1.93	2.11	2.29	2.27
1.5	5.39	0.39	1.20	1.54	1.84	2.01	2.18	2.16
1.6	5.20	0.40	1.15	1.48	1.76	1.93	2.09	2.06
1.7	5.04	0.41	1.10	1.42	1.69	1.85	2.00	1.98
1.8	4.89	0.42	1.06	1.36	1.63	1.78	1.93	1.90
1.9	4.75	0.43	1.02	1.31	1.57	1.72	1.86	1.84
2.0	4.63	0.44	0.98	1.27	1.52	1.67	1.80	1.77
2.1	4.52	0.45	0.95	1.23	1.47	1.61	1.74	1.72
2.2	4.43	0.46	0.92	1.19	1.43	1.57	1.69	1.67
2.3	4.34	0.47	0.90	1.16	1.39	1.53	1.65	1.62
2.4	4.25	0.49	0.87	1.13	1.36	1.49	1.60	1.58
2.5	4.18	0.50	0.85	1.10	1.32	1.45	1.56	1.54
2.6	4.11	0.51	0.83	1.08	1.29	1.42	1.52	1.50
2.7	4.04	0.52	0.81	1.05	1.26	1.39	1.49	1.46
2.8	3.98	0.53	0.79	1.03	1.24	1.36	1.46	1.43
2.9	3.92	0.54	0.78	1.01	1.21	1.33	1.43	1.40
3.0	3.87	0.55	0.76	0.99	1.19	1.30	1.40	1.37

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-57 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.8$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.06	0.41	2.67	3.43	4.09	4.48	4.85	4.79
0.8	4.72	0.43	2.43	3.13	3.75	4.11	4.44	4.38
0.9	4.46	0.46	2.24	2.90	3.48	3.81	4.11	4.05
1.0	4.25	0.49	2.10	2.72	3.26	3.57	3.85	3.79
1.1	4.07	0.51	1.97	2.57	3.08	3.37	3.63	3.56
1.2	3.93	0.54	1.87	2.44	2.92	3.20	3.44	3.37
1.3	3.81	0.57	1.78	2.33	2.79	3.06	3.28	3.21
1.4	3.71	0.59	1.71	2.23	2.68	2.93	3.14	3.07
1.5	3.61	0.62	1.64	2.15	2.58	2.82	3.01	2.94
1.6	3.54	0.65	1.58	2.07	2.49	2.72	2.89	2.82
1.7	3.47	0.68	1.53	2.00	2.41	2.63	2.79	2.72
1.8	3.40	0.70	1.49	1.94	2.33	2.55	2.70	2.63
1.9	3.35	0.73	1.44	1.89	2.27	2.47	2.61	2.54
2.0	3.30	0.76	1.41	1.84	2.20	2.40	2.53	2.46
2.1	3.25	0.78	1.37	1.79	2.15	2.34	2.45	2.39
2.2	3.21	0.81	1.34	1.75	2.10	2.28	2.38	2.32
2.3	3.17	0.84	1.31	1.71	2.05	2.22	2.32	2.25
2.4	3.14	0.86	1.28	1.68	2.00	2.17	2.26	2.19
2.5	3.11	0.89	1.26	1.64	1.96	2.12	2.20	2.14
2.6	3.08	0.92	1.23	1.61	1.92	2.07	2.15	2.08
2.7	3.05	0.94	1.21	1.58	1.88	2.03	2.09	2.03
2.8	3.03	0.97	1.19	1.55	1.84	1.99	2.04	1.98
2.9	3.00	1.00	1.17	1.52	1.80	1.94	2.00	1.93
3.0	2.98	1.03	1.15	1.49	1.77	1.90	1.95	1.89

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-58 Values of the  $MCE_R$  collapse probability for the 3-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 14.0$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.87	0.30	3.9%	2.1%	1.6%	1.7%	1.2%	1.2%
0.8	8.06	0.31	6.6%	3.4%	2.5%	2.6%	1.9%	1.9%
0.9	7.42	0.32	9.8%	5.1%	3.7%	3.7%	2.7%	2.8%
1.0	6.92	0.33	13.5%	7.1%	5.0%	4.9%	3.7%	3.8%
1.1	6.50	0.34	17.5%	9.3%	6.5%	6.2%	4.8%	4.9%
1.2	6.15	0.35	21.6%	11.7%	8.1%	7.7%	5.9%	6.1%
1.3	5.86	0.36	25.8%	14.1%	9.8%	9.1%	7.1%	7.3%
1.4	5.61	0.37	29.9%	16.7%	11.6%	10.6%	8.4%	8.6%
1.5	5.39	0.39	34.0%	19.2%	13.4%	12.2%	9.7%	10.0%
1.6	5.20	0.40	37.8%	21.8%	15.2%	13.7%	11.0%	11.4%
1.7	5.04	0.41	41.5%	24.3%	17.0%	15.2%	12.4%	12.8%
1.8	4.89	0.42	45.0%	26.8%	18.8%	16.8%	13.7%	14.2%
1.9	4.75	0.43	48.4%	29.3%	20.6%	18.3%	15.0%	15.6%
2.0	4.63	0.44	51.5%	31.6%	22.4%	19.8%	16.4%	17.0%
2.1	4.52	0.45	54.3%	33.9%	24.1%	21.2%	17.7%	18.4%
2.2	4.43	0.46	57.1%	36.1%	25.8%	22.7%	19.0%	19.7%
2.3	4.34	0.47	59.6%	38.2%	27.4%	24.1%	20.3%	21.1%
2.4	4.25	0.49	61.9%	40.2%	29.0%	25.4%	21.6%	22.4%
2.5	4.18	0.50	64.1%	42.2%	30.6%	26.8%	22.9%	23.7%
2.6	4.11	0.51	66.1%	44.1%	32.1%	28.1%	24.1%	25.0%
2.7	4.04	0.52	68.0%	45.9%	33.5%	29.4%	25.3%	26.3%
2.8	3.98	0.53	69.8%	47.6%	35.0%	30.6%	26.5%	27.6%
2.9	3.92	0.54	71.4%	49.2%	36.4%	31.8%	27.7%	28.8%
3.0	3.87	0.55	72.9%	50.8%	37.7%	33.0%	28.9%	30.0%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-59 Values of the  $MCE_R$  collapse probability for the 3-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.8$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.06	0.41	0.7%	0.3%	0.2%	0.3%	0.2%	0.2%
0.8	4.72	0.43	1.3%	0.6%	0.4%	0.5%	0.3%	0.4%
0.9	4.46	0.46	2.2%	0.9%	0.6%	0.7%	0.5%	0.5%
1.0	4.25	0.49	3.2%	1.3%	0.9%	1.0%	0.7%	0.8%
1.1	4.07	0.51	4.5%	1.8%	1.2%	1.4%	1.0%	1.0%
1.2	3.93	0.54	5.9%	2.4%	1.6%	1.7%	1.2%	1.4%
1.3	3.81	0.57	7.4%	3.0%	2.0%	2.1%	1.5%	1.7%
1.4	3.71	0.59	9.0%	3.7%	2.4%	2.5%	1.9%	2.1%
1.5	3.61	0.62	10.7%	4.5%	2.9%	3.0%	2.3%	2.5%
1.6	3.54	0.65	12.5%	5.3%	3.4%	3.4%	2.7%	3.0%
1.7	3.47	0.68	14.3%	6.1%	4.0%	3.9%	3.1%	3.4%
1.8	3.40	0.70	16.1%	7.0%	4.5%	4.5%	3.6%	4.0%
1.9	3.35	0.73	17.9%	7.9%	5.1%	5.0%	4.1%	4.5%
2.0	3.30	0.76	19.7%	8.8%	5.7%	5.5%	4.6%	5.1%
2.1	3.25	0.78	21.4%	9.7%	6.3%	6.1%	5.1%	5.7%
2.2	3.21	0.81	23.2%	10.7%	7.0%	6.7%	5.7%	6.3%
2.3	3.17	0.84	24.9%	11.6%	7.6%	7.3%	6.3%	7.0%
2.4	3.14	0.86	26.6%	12.6%	8.3%	7.9%	6.9%	7.7%
2.5	3.11	0.89	28.3%	13.6%	9.0%	8.6%	7.6%	8.4%
2.6	3.08	0.92	29.9%	14.6%	9.7%	9.2%	8.3%	9.1%
2.7	3.05	0.94	31.5%	15.6%	10.4%	9.9%	9.0%	9.9%
2.8	3.03	0.97	33.0%	16.6%	11.1%	10.6%	9.7%	10.6%
2.9	3.00	1.00	34.5%	17.6%	11.9%	11.3%	10.4%	11.3%
3.0	2.98	1.03	36.0%	18.6%	12.7%	12.1%	11.2%	12.1%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-60 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.28	1.41	1.59	1.72	1.81	1.86	1.83	10.75%
0.8	0.29	1.46	1.65	1.80	1.89	1.95	1.91	10.65%
0.9	0.31	1.51	1.71	1.87	1.97	2.03	1.99	10.55%
1.0	0.33	1.56	1.78	1.94	2.05	2.11	2.07	10.46%
1.1	0.35	1.60	1.84	2.02	2.13	2.19	2.14	10.36%
1.2	0.36	1.65	1.90	2.09	2.21	2.27	2.22	10.27%
1.3	0.38	1.70	1.96	2.16	2.28	2.35	2.29	10.17%
1.4	0.40	1.74	2.02	2.23	2.36	2.43	2.36	10.08%
1.5	0.41	1.79	2.08	2.29	2.43	2.50	2.43	9.99%
1.6	0.43	1.84	2.14	2.36	2.51	2.57	2.50	9.89%
1.7	0.45	1.88	2.20	2.43	2.58	2.65	2.57	9.80%
1.8	0.47	1.93	2.25	2.49	2.65	2.72	2.63	9.71%
1.9	0.48	1.97	2.31	2.56	2.72	2.79	2.70	9.62%
2.0	0.50	2.01	2.36	2.62	2.78	2.86	2.76	9.53%
2.1	0.52	2.06	2.42	2.68	2.85	2.92	2.82	9.45%
2.2	0.53	2.10	2.47	2.74	2.92	2.99	2.88	9.36%
2.3	0.55	2.14	2.53	2.80	2.98	3.05	2.94	9.27%
2.4	0.57	2.18	2.58	2.86	3.04	3.12	3.00	9.19%
2.5	0.59	2.23	2.63	2.92	3.11	3.18	3.05	9.10%
2.6	0.60	2.27	2.68	2.98	3.17	3.24	3.11	9.02%
2.7	0.62	2.31	2.73	3.04	3.23	3.30	3.16	8.94%
2.8	0.64	2.35	2.78	3.09	3.28	3.36	3.21	8.86%
2.9	0.65	2.39	2.83	3.15	3.34	3.41	3.26	8.77%
3.0	0.67	2.43	2.88	3.20	3.40	3.47	3.31	8.69%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 9.1

**Table H-61** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.38	1.69	1.95	2.14	2.27	2.34	2.28	10.19%
0.8	0.41	1.77	2.06	2.27	2.41	2.48	2.41	10.02%
0.9	0.44	1.86	2.17	2.39	2.54	2.61	2.53	9.85%
1.0	0.47	1.94	2.27	2.51	2.67	2.74	2.65	9.68%
1.1	0.50	2.02	2.37	2.63	2.79	2.87	2.77	9.52%
1.2	0.53	2.10	2.47	2.74	2.92	2.99	2.88	9.36%
1.3	0.57	2.18	2.57	2.85	3.03	3.11	2.99	9.20%
1.4	0.60	2.25	2.66	2.96	3.15	3.22	3.09	9.05%
1.5	0.63	2.33	2.75	3.06	3.25	3.33	3.18	8.90%
1.6	0.66	2.40	2.84	3.16	3.36	3.43	3.28	8.75%
1.7	0.69	2.47	2.93	3.26	3.46	3.53	3.36	8.60%
1.8	0.72	2.54	3.02	3.35	3.56	3.62	3.45	8.46%
1.9	0.75	2.61	3.10	3.44	3.65	3.72	3.53	8.32%
2.0	0.79	2.68	3.18	3.53	3.74	3.80	3.60	8.18%
2.1	0.82	2.74	3.25	3.61	3.82	3.88	3.67	8.04%
2.2	0.85	2.81	3.33	3.70	3.91	3.96	3.74	7.90%
2.3	0.88	2.87	3.40	3.77	3.98	4.03	3.80	7.77%
2.4	0.91	2.93	3.47	3.85	4.06	4.10	3.86	7.64%
2.5	0.94	2.99	3.54	3.92	4.12	4.17	3.92	7.51%
2.6	0.97	3.05	3.60	3.98	4.19	4.23	3.97	7.39%
2.7	1.01	3.11	3.67	4.05	4.25	4.29	4.02	7.26%
2.8	1.04	3.16	3.73	4.11	4.31	4.34	4.06	7.14%
2.9	1.07	3.22	3.78	4.16	4.36	4.39	4.11	7.02%
3.0	1.10	3.27	3.84	4.22	4.41	4.43	4.15	6.90%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 5.0

**Table H-62 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.41	0.28	2.34	2.83	3.24	3.44	3.54	3.47
0.8	5.02	0.29	2.12	2.58	2.96	3.14	3.24	3.17
0.9	4.73	0.31	1.94	2.38	2.74	2.91	3.00	2.94
1.0	4.49	0.33	1.81	2.22	2.56	2.73	2.81	2.75
1.1	4.29	0.35	1.69	2.09	2.42	2.58	2.65	2.59
1.2	4.13	0.36	1.60	1.98	2.29	2.45	2.52	2.46
1.3	4.00	0.38	1.52	1.89	2.19	2.34	2.40	2.34
1.4	3.88	0.40	1.45	1.80	2.10	2.24	2.30	2.24
1.5	3.78	0.41	1.38	1.73	2.02	2.16	2.22	2.16
1.6	3.69	0.43	1.33	1.67	1.95	2.08	2.14	2.08
1.7	3.61	0.45	1.28	1.61	1.89	2.02	2.07	2.01
1.8	3.54	0.47	1.24	1.56	1.83	1.96	2.01	1.94
1.9	3.48	0.48	1.20	1.52	1.78	1.90	1.95	1.89
2.0	3.42	0.50	1.17	1.48	1.73	1.85	1.90	1.83
2.1	3.37	0.52	1.14	1.44	1.69	1.81	1.85	1.78
2.2	3.32	0.53	1.11	1.40	1.65	1.76	1.81	1.74
2.3	3.28	0.55	1.08	1.37	1.61	1.72	1.77	1.70
2.4	3.24	0.57	1.06	1.34	1.58	1.69	1.73	1.66
2.5	3.21	0.59	1.03	1.31	1.54	1.65	1.69	1.62
2.6	3.17	0.60	1.01	1.29	1.51	1.62	1.66	1.58
2.7	3.14	0.62	0.99	1.26	1.48	1.59	1.62	1.55
2.8	3.11	0.64	0.97	1.24	1.46	1.56	1.59	1.52
2.9	3.09	0.65	0.96	1.22	1.43	1.53	1.57	1.49
3.0	3.06	0.67	0.94	1.20	1.41	1.51	1.54	1.46

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-63 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.0$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.02	0.38	2.80	3.48	4.04	4.31	4.44	4.33
0.8	3.81	0.41	2.57	3.22	3.75	4.00	4.12	4.00
0.9	3.65	0.44	2.39	3.01	3.51	3.75	3.86	3.74
1.0	3.52	0.47	2.25	2.84	3.32	3.55	3.65	3.53
1.1	3.41	0.50	2.13	2.70	3.16	3.38	3.47	3.34
1.2	3.32	0.53	2.03	2.57	3.02	3.23	3.31	3.19
1.3	3.25	0.57	1.94	2.47	2.90	3.10	3.18	3.05
1.4	3.18	0.60	1.87	2.38	2.79	2.99	3.06	2.93
1.5	3.13	0.63	1.80	2.30	2.70	2.89	2.95	2.81
1.6	3.08	0.66	1.74	2.22	2.61	2.79	2.85	2.71
1.7	3.04	0.69	1.69	2.16	2.53	2.71	2.76	2.62
1.8	3.00	0.72	1.64	2.09	2.46	2.63	2.68	2.54
1.9	2.96	0.75	1.59	2.04	2.39	2.56	2.60	2.46
2.0	2.93	0.79	1.55	1.99	2.33	2.49	2.53	2.38
2.1	2.91	0.82	1.52	1.94	2.27	2.42	2.46	2.31
2.2	2.88	0.85	1.48	1.89	2.22	2.36	2.39	2.25
2.3	2.86	0.88	1.45	1.85	2.16	2.30	2.33	2.18
2.4	2.84	0.91	1.42	1.81	2.12	2.25	2.27	2.13
2.5	2.82	0.94	1.39	1.77	2.07	2.19	2.22	2.07
2.6	2.80	0.97	1.36	1.73	2.02	2.14	2.16	2.01
2.7	2.78	1.01	1.34	1.70	1.98	2.09	2.11	1.95
2.8	2.77	1.04	1.31	1.66	1.94	2.05	2.06	1.90
2.9	2.75	1.07	1.29	1.63	1.90	2.00	2.01	1.85
3.0	2.74	1.10	1.26	1.60	1.86	1.96	1.97	1.80

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-64 Values of the  $MCE_R$  collapse probability for the 4-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.41	0.28	3.0%	1.9%	1.6%	2.0%	1.8%	1.9%
0.8	5.02	0.29	4.8%	2.9%	2.4%	2.8%	2.5%	2.7%
0.9	4.73	0.31	7.0%	4.1%	3.3%	3.7%	3.4%	3.6%
1.0	4.49	0.33	9.5%	5.5%	4.3%	4.7%	4.3%	4.6%
1.1	4.29	0.35	12.1%	7.0%	5.4%	5.7%	5.2%	5.6%
1.2	4.13	0.36	14.9%	8.6%	6.5%	6.8%	6.2%	6.7%
1.3	4.00	0.38	17.8%	10.2%	7.7%	7.9%	7.2%	7.8%
1.4	3.88	0.40	20.7%	11.9%	8.9%	8.9%	8.2%	8.9%
1.5	3.78	0.41	23.5%	13.6%	10.1%	10.0%	9.2%	10.0%
1.6	3.69	0.43	26.3%	15.2%	11.3%	11.1%	10.2%	11.1%
1.7	3.61	0.45	29.0%	16.9%	12.5%	12.1%	11.2%	12.1%
1.8	3.54	0.47	31.6%	18.5%	13.6%	13.2%	12.3%	13.2%
1.9	3.48	0.48	34.1%	20.2%	14.8%	14.2%	13.2%	14.2%
2.0	3.42	0.50	36.5%	21.8%	16.0%	15.2%	14.2%	15.2%
2.1	3.37	0.52	38.8%	23.3%	17.1%	16.2%	15.2%	16.3%
2.2	3.32	0.53	41.1%	24.8%	18.2%	17.2%	16.2%	17.3%
2.3	3.28	0.55	43.2%	26.3%	19.3%	18.2%	17.2%	18.3%
2.4	3.24	0.57	45.2%	27.8%	20.4%	19.2%	18.1%	19.4%
2.5	3.21	0.59	47.1%	29.2%	21.5%	20.1%	19.1%	20.4%
2.6	3.17	0.60	49.0%	30.6%	22.6%	21.1%	20.0%	21.4%
2.7	3.14	0.62	50.8%	32.0%	23.6%	22.0%	20.9%	22.4%
2.8	3.11	0.64	52.5%	33.3%	24.7%	22.9%	21.8%	23.4%
2.9	3.09	0.65	54.1%	34.6%	25.7%	23.8%	22.8%	24.4%
3.0	3.06	0.67	55.6%	35.8%	26.7%	24.7%	23.7%	25.4%

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-65 Values of the  $MCE_R$  collapse probability for the 4-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.0$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.02	0.38	0.5%	0.3%	0.3%	0.4%	0.3%	0.4%
0.8	3.81	0.41	0.9%	0.5%	0.4%	0.6%	0.5%	0.6%
0.9	3.65	0.44	1.5%	0.7%	0.6%	0.8%	0.7%	0.8%
1.0	3.52	0.47	2.1%	1.0%	0.8%	1.1%	0.9%	1.0%
1.1	3.41	0.50	2.9%	1.4%	1.1%	1.3%	1.2%	1.3%
1.2	3.32	0.53	3.8%	1.8%	1.4%	1.6%	1.5%	1.5%
1.3	3.25	0.57	4.9%	2.2%	1.7%	2.0%	1.8%	1.8%
1.4	3.18	0.60	5.9%	2.7%	2.0%	2.3%	2.1%	2.2%
1.5	3.13	0.63	7.1%	3.2%	2.4%	2.7%	2.5%	2.5%
1.6	3.08	0.66	8.3%	3.8%	2.8%	3.1%	2.8%	2.9%
1.7	3.04	0.69	9.6%	4.4%	3.2%	3.5%	3.2%	3.2%
1.8	3.00	0.72	10.9%	5.0%	3.6%	3.9%	3.7%	3.7%
1.9	2.96	0.75	12.2%	5.7%	4.0%	4.4%	4.1%	4.1%
2.0	2.93	0.79	13.5%	6.4%	4.5%	4.9%	4.6%	4.5%
2.1	2.91	0.82	14.9%	7.1%	5.0%	5.4%	5.1%	5.0%
2.2	2.88	0.85	16.3%	7.8%	5.6%	5.9%	5.6%	5.6%
2.3	2.86	0.88	17.7%	8.6%	6.1%	6.5%	6.2%	6.1%
2.4	2.84	0.91	19.1%	9.4%	6.7%	7.0%	6.8%	6.7%
2.5	2.82	0.94	20.6%	10.2%	7.3%	7.7%	7.4%	7.3%
2.6	2.80	0.97	22.0%	11.1%	7.9%	8.3%	8.0%	8.0%
2.7	2.78	1.01	23.5%	12.0%	8.6%	9.0%	8.7%	8.8%
2.8	2.77	1.04	24.9%	12.9%	9.3%	9.7%	9.4%	9.6%
2.9	2.75	1.07	26.4%	13.8%	10.0%	10.4%	10.2%	10.5%
3.0	2.74	1.10	27.8%	14.8%	10.8%	11.1%	11.0%	11.4%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-66 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.25	1.39	1.55	1.67	1.75	1.80	1.74	9.58%
0.8	0.27	1.44	1.62	1.75	1.84	1.89	1.83	9.49%
0.9	0.29	1.50	1.69	1.83	1.93	1.99	1.91	9.39%
1.0	0.31	1.56	1.76	1.91	2.01	2.07	1.99	9.30%
1.1	0.33	1.61	1.83	1.99	2.10	2.16	2.07	9.21%
1.2	0.35	1.67	1.90	2.07	2.18	2.25	2.15	9.12%
1.3	0.37	1.72	1.96	2.14	2.26	2.33	2.22	9.03%
1.4	0.39	1.78	2.03	2.22	2.34	2.41	2.30	8.94%
1.5	0.40	1.83	2.09	2.29	2.42	2.49	2.37	8.85%
1.6	0.42	1.88	2.16	2.36	2.50	2.57	2.44	8.77%
1.7	0.44	1.93	2.22	2.44	2.58	2.65	2.51	8.68%
1.8	0.46	1.98	2.28	2.51	2.65	2.72	2.58	8.60%
1.9	0.48	2.04	2.34	2.57	2.72	2.80	2.64	8.51%
2.0	0.50	2.09	2.40	2.64	2.79	2.87	2.71	8.43%
2.1	0.52	2.13	2.46	2.71	2.86	2.94	2.77	8.35%
2.2	0.54	2.18	2.52	2.77	2.93	3.01	2.83	8.26%
2.3	0.56	2.23	2.58	2.84	3.00	3.07	2.89	8.18%
2.4	0.57	2.28	2.64	2.90	3.07	3.14	2.95	8.10%
2.5	0.59	2.32	2.69	2.96	3.13	3.20	3.00	8.02%
2.6	0.61	2.37	2.75	3.02	3.19	3.26	3.06	7.94%
2.7	0.63	2.41	2.80	3.08	3.25	3.32	3.11	7.87%
2.8	0.65	2.46	2.85	3.14	3.31	3.38	3.16	7.79%
2.9	0.67	2.50	2.90	3.19	3.37	3.44	3.21	7.71%
3.0	0.69	2.55	2.95	3.25	3.43	3.49	3.26	7.64%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 8.3

**Table H-67** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story COM wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.35	1.68	1.91	2.09	2.20	2.27	2.17	9.10%
0.8	0.39	1.78	2.03	2.22	2.35	2.42	2.30	8.94%
0.9	0.42	1.87	2.14	2.35	2.48	2.56	2.43	8.79%
1.0	0.45	1.96	2.25	2.47	2.62	2.69	2.55	8.64%
1.1	0.49	2.05	2.36	2.59	2.74	2.82	2.66	8.49%
1.2	0.52	2.14	2.47	2.71	2.87	2.94	2.77	8.34%
1.3	0.55	2.22	2.57	2.82	2.99	3.06	2.88	8.20%
1.4	0.58	2.30	2.67	2.93	3.10	3.17	2.98	8.06%
1.5	0.62	2.38	2.76	3.04	3.21	3.28	3.07	7.92%
1.6	0.65	2.46	2.85	3.14	3.32	3.39	3.17	7.78%
1.7	0.68	2.54	2.94	3.24	3.42	3.48	3.25	7.65%
1.8	0.72	2.61	3.03	3.33	3.51	3.58	3.33	7.52%
1.9	0.75	2.68	3.12	3.42	3.61	3.66	3.41	7.39%
2.0	0.78	2.75	3.20	3.51	3.69	3.75	3.48	7.26%
2.1	0.82	2.82	3.27	3.59	3.78	3.83	3.55	7.14%
2.2	0.85	2.89	3.35	3.67	3.85	3.90	3.62	7.02%
2.3	0.88	2.95	3.42	3.75	3.93	3.97	3.68	6.90%
2.4	0.92	3.01	3.49	3.82	4.00	4.03	3.74	6.78%
2.5	0.95	3.07	3.56	3.89	4.06	4.09	3.79	6.66%
2.6	0.98	3.13	3.62	3.95	4.12	4.15	3.84	6.55%
2.7	1.01	3.19	3.68	4.01	4.18	4.20	3.89	6.43%
2.8	1.05	3.24	3.74	4.07	4.23	4.25	3.93	6.32%
2.9	1.08	3.29	3.79	4.12	4.28	4.29	3.97	6.22%
3.0	1.11	3.34	3.84	4.17	4.32	4.33	4.01	6.11%

Note: SDC  $D_{max}$  S<sub>MT</sub> = 1.5g,  $R/I_e$  = 4.7

**Table H-68 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 8.3$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.52	0.25	2.30	2.76	3.15	3.33	3.42	3.30
0.8	4.25	0.27	2.09	2.53	2.89	3.06	3.15	3.03
0.9	4.04	0.29	1.93	2.35	2.69	2.85	2.93	2.82
1.0	3.87	0.31	1.81	2.20	2.52	2.68	2.76	2.64
1.1	3.73	0.33	1.70	2.08	2.39	2.54	2.61	2.50
1.2	3.62	0.35	1.61	1.98	2.27	2.42	2.49	2.37
1.3	3.52	0.37	1.54	1.89	2.18	2.32	2.39	2.27
1.4	3.44	0.39	1.47	1.81	2.09	2.23	2.29	2.18
1.5	3.36	0.40	1.41	1.74	2.02	2.15	2.21	2.10
1.6	3.30	0.42	1.36	1.69	1.95	2.08	2.14	2.02
1.7	3.24	0.44	1.32	1.63	1.89	2.02	2.07	1.96
1.8	3.19	0.46	1.28	1.59	1.84	1.96	2.01	1.90
1.9	3.15	0.48	1.24	1.54	1.79	1.91	1.96	1.84
2.0	3.11	0.50	1.21	1.50	1.74	1.86	1.91	1.79
2.1	3.07	0.52	1.18	1.47	1.70	1.81	1.86	1.75
2.2	3.04	0.54	1.15	1.43	1.66	1.77	1.82	1.70
2.3	3.01	0.56	1.12	1.40	1.63	1.73	1.78	1.66
2.4	2.98	0.57	1.10	1.37	1.59	1.70	1.74	1.62
2.5	2.96	0.59	1.08	1.35	1.56	1.66	1.70	1.59
2.6	2.93	0.61	1.06	1.32	1.53	1.63	1.67	1.55
2.7	2.91	0.63	1.04	1.30	1.51	1.60	1.64	1.52
2.8	2.89	0.65	1.02	1.27	1.48	1.57	1.61	1.49
2.9	2.87	0.67	1.00	1.25	1.45	1.55	1.58	1.46
3.0	2.86	0.69	0.98	1.23	1.43	1.52	1.55	1.44

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-69 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story COM Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.59	0.35	2.79	3.42	3.94	4.19	4.31	4.11
0.8	3.43	0.39	2.58	3.17	3.66	3.90	4.02	3.81
0.9	3.31	0.42	2.41	2.98	3.44	3.67	3.78	3.57
1.0	3.22	0.45	2.27	2.82	3.26	3.48	3.58	3.37
1.1	3.14	0.49	2.16	2.68	3.11	3.32	3.41	3.20
1.2	3.07	0.52	2.07	2.57	2.98	3.18	3.26	3.06
1.3	3.02	0.55	1.98	2.47	2.87	3.06	3.13	2.93
1.4	2.97	0.58	1.91	2.38	2.76	2.95	3.02	2.81
1.5	2.93	0.62	1.84	2.30	2.67	2.85	2.91	2.71
1.6	2.89	0.65	1.78	2.23	2.59	2.76	2.81	2.61
1.7	2.86	0.68	1.73	2.17	2.51	2.67	2.73	2.53
1.8	2.83	0.72	1.68	2.11	2.44	2.60	2.64	2.44
1.9	2.81	0.75	1.64	2.05	2.38	2.52	2.57	2.36
2.0	2.78	0.78	1.60	2.00	2.32	2.46	2.49	2.29
2.1	2.76	0.82	1.56	1.95	2.26	2.39	2.42	2.22
2.2	2.74	0.85	1.52	1.90	2.20	2.33	2.36	2.15
2.3	2.73	0.88	1.49	1.86	2.15	2.27	2.30	2.09
2.4	2.71	0.92	1.46	1.82	2.10	2.22	2.24	2.02
2.5	2.70	0.95	1.43	1.78	2.05	2.16	2.18	1.97
2.6	2.68	0.98	1.40	1.74	2.01	2.11	2.12	1.91
2.7	2.67	1.01	1.37	1.70	1.96	2.06	2.07	1.86
2.8	2.66	1.05	1.34	1.67	1.92	2.01	2.02	1.81
2.9	2.65	1.08	1.32	1.63	1.87	1.96	1.97	1.76
3.0	2.64	1.11	1.29	1.60	1.83	1.91	1.92	1.71

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-70 Values of the  $MCE_R$  collapse probability for the 5-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 8.3$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.52	0.25	3.2%	2.1%	1.9%	2.3%	2.0%	2.2%
0.8	4.25	0.27	5.0%	3.2%	2.7%	3.1%	2.8%	3.0%
0.9	4.04	0.29	7.1%	4.4%	3.6%	4.0%	3.6%	3.9%
1.0	3.87	0.31	9.5%	5.8%	4.6%	5.0%	4.5%	4.9%
1.1	3.73	0.33	11.9%	7.2%	5.7%	6.0%	5.5%	5.9%
1.2	3.62	0.35	14.4%	8.7%	6.8%	7.1%	6.4%	6.9%
1.3	3.52	0.37	17.0%	10.2%	7.9%	8.1%	7.4%	7.9%
1.4	3.44	0.39	19.5%	11.7%	9.0%	9.1%	8.3%	9.0%
1.5	3.36	0.40	22.0%	13.3%	10.1%	10.1%	9.3%	10.0%
1.6	3.30	0.42	24.5%	14.8%	11.2%	11.1%	10.3%	11.0%
1.7	3.24	0.44	26.9%	16.3%	12.3%	12.1%	11.2%	12.1%
1.8	3.19	0.46	29.2%	17.8%	13.4%	13.1%	12.2%	13.1%
1.9	3.15	0.48	31.5%	19.3%	14.5%	14.1%	13.1%	14.2%
2.0	3.11	0.50	33.6%	20.8%	15.6%	15.1%	14.1%	15.2%
2.1	3.07	0.52	35.7%	22.2%	16.7%	16.0%	15.0%	16.3%
2.2	3.04	0.54	37.7%	23.6%	17.7%	17.0%	16.0%	17.3%
2.3	3.01	0.56	39.7%	25.0%	18.8%	17.9%	16.9%	18.4%
2.4	2.98	0.57	41.5%	26.3%	19.8%	18.9%	17.8%	19.4%
2.5	2.96	0.59	43.3%	27.6%	20.8%	19.8%	18.7%	20.5%
2.6	2.93	0.61	45.1%	28.9%	21.9%	20.7%	19.6%	21.5%
2.7	2.91	0.63	46.7%	30.2%	22.9%	21.6%	20.6%	22.5%
2.8	2.89	0.65	48.3%	31.5%	23.9%	22.5%	21.5%	23.6%
2.9	2.87	0.67	49.9%	32.7%	24.8%	23.4%	22.4%	24.6%
3.0	2.86	0.69	51.4%	33.9%	25.8%	24.3%	23.3%	25.7%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-71 Values of the  $MCE_R$  collapse probability for the 5-Story COM wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set**

$R/I_e = 4.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.59	0.35	0.5%	0.3%	0.3%	0.5%	0.4%	0.4%
0.8	3.43	0.39	0.9%	0.5%	0.5%	0.7%	0.6%	0.6%
0.9	3.31	0.42	1.4%	0.8%	0.7%	0.9%	0.8%	0.8%
1.0	3.22	0.45	2.0%	1.1%	0.9%	1.2%	1.0%	1.0%
1.1	3.14	0.49	2.7%	1.4%	1.2%	1.5%	1.3%	1.3%
1.2	3.07	0.52	3.5%	1.8%	1.4%	1.8%	1.6%	1.5%
1.3	3.02	0.55	4.4%	2.2%	1.8%	2.1%	1.9%	1.8%
1.4	2.97	0.58	5.3%	2.7%	2.1%	2.5%	2.2%	2.2%
1.5	2.93	0.62	6.3%	3.2%	2.5%	2.9%	2.6%	2.5%
1.6	2.89	0.65	7.4%	3.7%	2.8%	3.3%	3.0%	2.9%
1.7	2.86	0.68	8.5%	4.3%	3.3%	3.7%	3.4%	3.3%
1.8	2.83	0.72	9.6%	4.9%	3.7%	4.1%	3.9%	3.7%
1.9	2.81	0.75	10.8%	5.5%	4.2%	4.6%	4.3%	4.2%
2.0	2.78	0.78	12.1%	6.2%	4.7%	5.1%	4.8%	4.7%
2.1	2.76	0.82	13.4%	6.9%	5.2%	5.6%	5.4%	5.3%
2.2	2.74	0.85	14.7%	7.6%	5.7%	6.2%	5.9%	5.9%
2.3	2.73	0.88	16.0%	8.4%	6.3%	6.8%	6.5%	6.6%
2.4	2.71	0.92	17.4%	9.2%	6.9%	7.4%	7.2%	7.3%
2.5	2.70	0.95	18.8%	10.0%	7.5%	8.1%	7.8%	8.1%
2.6	2.68	0.98	20.2%	10.9%	8.2%	8.7%	8.6%	8.9%
2.7	2.67	1.01	21.6%	11.8%	8.9%	9.5%	9.3%	9.8%
2.8	2.66	1.05	23.1%	12.8%	9.7%	10.2%	10.1%	10.7%
2.9	2.65	1.08	24.6%	13.8%	10.4%	11.0%	10.9%	11.7%
3.0	2.64	1.11	26.1%	14.8%	11.3%	11.9%	11.8%	12.8%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-72 Summary of Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Simulated Collapse Analyses of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

N	$V_{STR}/W$	$V_{NS}/W$ nominal	$V_{NS}/W$ actual	$V_{max}/W$ without P- $\Delta$	$V_{max}/W$ with P- $\Delta$	$S_{CT}$ given RS as a fraction of $V_{max}/W$					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.90	0.92	0.95	0.94				4.27	2.87	
1	0.10	0.90	0.93	1.00	0.99				4.67	3.22	2.52
1	0.15	0.90	0.95	1.05	1.04					3.34	2.77
1	0.20	0.90	0.97	1.10	1.09					3.44	2.89
1	0.30	0.90	1.00	1.20	1.19					3.93	3.11
1	0.45	0.90	1.03	1.35	1.34					4.33	3.47
1	0.60	0.90	1.07	1.50	1.49					4.65	3.77
1	0.80	0.90	1.12	1.70	1.69						4.21
1	1.00	0.90	1.16	1.90	1.89						4.47
1	1.20	0.90	1.19	2.10	2.08						4.78
2	0.05	0.45	0.46	0.50	0.49		4.22	3.13	2.36	1.83	
2	0.10	0.45	0.48	0.55	0.54			3.68	2.64	2.20	
2	0.15	0.45	0.49	0.60	0.59			4.32	3.06	2.39	
2	0.20	0.45	0.50	0.65	0.64			4.74	3.40	2.58	
2	0.30	0.45	0.53	0.75	0.74				3.78	3.10	
2	0.45	0.45	0.55	0.90	0.88				4.44	3.50	
2	0.60	0.45	0.58	1.05	1.03					3.96	3.45
2	0.80	0.45	0.58	1.25	1.23					4.32	3.78
2	1.00	0.45	0.58	1.45	1.43					4.76	4.10
2	1.20	0.45	0.60	1.65	1.63						4.54
3	0.05	0.30	0.31	0.35	0.33	2.68	2.27	1.92	1.61		
3	0.10	0.30	0.31	0.40	0.38	3.64	2.97	2.42	1.99		
3	0.15	0.30	0.32	0.45	0.43		3.91	3.05	2.34		
3	0.20	0.30	0.33	0.50	0.48		4.78	3.68	2.77	2.36	
3	0.30	0.30	0.35	0.60	0.58			4.26	3.30	2.77	
3	0.45	0.30	0.38	0.75	0.73				3.90	3.44	
3	0.60	0.30	0.38	0.90	0.88				4.50	3.93	
3	0.80	0.30	0.39	1.10	1.08					4.37	4.15
3	1.00	0.30	0.39	1.30	1.28					4.84	4.29
3	1.20	0.30	0.39	1.50	1.48					5.25	4.77
4	0.05	0.23	0.24	0.28	0.26	1.96	1.67	1.48			
4	0.10	0.23	0.24	0.33	0.31	2.27	2.01	1.79			
4	0.15	0.23	0.24	0.38	0.36	2.91	2.50	2.15	1.98		
4	0.20	0.23	0.25	0.43	0.41		3.37	2.71	2.27		
4	0.30	0.23	0.27	0.53	0.51			3.97	2.94	2.64	
4	0.45	0.23	0.29	0.68	0.66				3.59	3.21	
4	0.60	0.23	0.27	0.83	0.81				3.92	3.62	
4	0.80	0.23	0.30	1.03	1.01					4.20	3.93
4	1.00	0.23	0.30	1.23	1.21					4.46	4.43
4	1.20	0.23	0.30	1.43	1.41					5.01	4.55
5	0.05	0.18	0.18	0.23	0.21	1.56	1.39	1.29			
5	0.10	0.18	0.19	0.28	0.26	1.95	1.70	1.53			
5	0.15	0.18	0.19	0.33	0.31	2.33	2.00	1.83			
5	0.20	0.18	0.19	0.38	0.36	3.07	2.60	2.20	2.04		
5	0.30	0.18	0.20	0.48	0.46		4.05	3.12	2.56		
5	0.45	0.18	0.21	0.63	0.61			4.06	3.22	2.97	
5	0.60	0.18	0.23	0.78	0.76				3.63	3.32	
5	0.80	0.18	0.23	0.98	0.96				4.44	3.86	
5	1.00	0.18	0.24	1.18	1.16					3.98	4.11
5	1.20	0.18	0.24	1.38	1.36					4.67	4.45



**Table H-73 Summary of Median Peak 1<sup>st</sup>-Story Drift Ratio (DR) Results of Simulated Collapse Analyses of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

N	V <sub>STR</sub> /W	V <sub>NS</sub> /W nominal	V <sub>NS</sub> /W actual	V <sub>max</sub> /W without P-Δ	V <sub>max</sub> /W with P-Δ	DR (%) given RS as a fraction of V <sub>max</sub> /W					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.90	0.92	0.95	0.94				17.84	9.77	
1	0.10	0.90	0.93	1.00	0.99				19.93	12.88	5.09
1	0.15	0.90	0.95	1.05	1.04					11.51	6.33
1	0.20	0.90	0.97	1.10	1.09					11.83	6.57
1	0.30	0.90	1.00	1.20	1.19					13.77	7.02
1	0.45	0.90	1.03	1.35	1.34					13.38	7.45
1	0.60	0.90	1.07	1.50	1.49					14.09	7.74
1	0.80	0.90	1.12	1.70	1.69						7.63
1	1.00	0.90	1.16	1.90	1.89						6.86
1	1.20	0.90	1.19	2.10	2.08						7.04
2	0.05	0.45	0.46	0.50	0.49		24.76	17.76	12.01	6.15	
2	0.10	0.45	0.48	0.55	0.54			19.36	12.18	7.77	
2	0.15	0.45	0.49	0.60	0.59			21.93	14.08	8.61	
2	0.20	0.45	0.50	0.65	0.64			24.23	15.96	9.57	
2	0.30	0.45	0.53	0.75	0.74				16.27	10.38	
2	0.45	0.45	0.55	0.90	0.88				17.46	10.57	
2	0.60	0.45	0.58	1.05	1.03					11.25	6.58
2	0.80	0.45	0.58	1.25	1.23					11.97	6.83
2	1.00	0.45	0.58	1.45	1.43					12.14	6.93
2	1.20	0.45	0.60	1.65	1.63						6.80
3	0.05	0.30	0.31	0.35	0.33	18.75	15.75	10.69	5.34		
3	0.10	0.30	0.31	0.40	0.38	23.19	19.31	13.89	7.98		
3	0.15	0.30	0.32	0.45	0.43		23.02	15.87	9.28		
3	0.20	0.30	0.33	0.50	0.48		24.85	17.19	11.27	7.21	
3	0.30	0.30	0.35	0.60	0.58			19.44	12.57	7.99	
3	0.45	0.30	0.38	0.75	0.73				13.44	8.82	
3	0.60	0.30	0.38	0.90	0.88				15.13	9.19	
3	0.80	0.30	0.39	1.10	1.08					7.98	6.02
3	1.00	0.30	0.39	1.30	1.28					8.82	5.42
3	1.20	0.30	0.39	1.50	1.48					9.16	5.72
4	0.05	0.23	0.24	0.28	0.26	17.20	11.24	7.60			
4	0.10	0.23	0.24	0.33	0.31	18.97	15.35	9.37			
4	0.15	0.23	0.24	0.38	0.36	22.41	15.57	10.07	5.86		
4	0.20	0.23	0.25	0.43	0.41		17.36	11.97	7.58		
4	0.30	0.23	0.27	0.53	0.51			15.55	10.37	6.96	
4	0.45	0.23	0.29	0.68	0.66				10.85	7.32	
4	0.60	0.23	0.27	0.83	0.81				10.21	7.67	
4	0.80	0.23	0.30	1.03	1.01					7.82	5.50
4	1.00	0.23	0.30	1.23	1.21					6.22	5.58
4	1.20	0.23	0.30	1.43	1.41					6.98	4.82
5	0.05	0.18	0.18	0.23	0.21	12.24	8.27	5.35			
5	0.10	0.18	0.19	0.28	0.26	15.19	11.39	6.18			
5	0.15	0.18	0.19	0.33	0.31	19.39	13.27	8.37			
5	0.20	0.18	0.19	0.38	0.36	20.61	14.02	8.74	5.73		
5	0.30	0.18	0.20	0.48	0.46		18.67	11.80	8.46		
5	0.45	0.18	0.21	0.63	0.61			15.05	8.77	6.74	
5	0.60	0.18	0.23	0.78	0.76				9.28	6.04	
5	0.80	0.18	0.23	0.98	0.96				10.17	6.56	
5	1.00	0.18	0.24	1.18	1.16					5.34	4.81
5	1.20	0.18	0.24	1.38	1.36					5.90	4.50

**Table H-74 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 1-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
1M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
095-005-030	1.87	2.24	2.48	2.71	3.29	4.27	17.8%	0.20
095-005-020	1.87	2.19	2.41	2.87	2.87	2.87	9.8%	0.20
100-010-030	1.99	2.38	2.67	2.97	3.57	4.67	19.9%	0.19
100-010-020	1.99	2.35	2.63	2.82	3.22	3.22	12.9%	0.19
100-010-010	1.97	2.33	2.52	2.52	2.52	2.52	5.1%	0.19
105-015-020	2.08	2.50	2.74	2.93	3.34	3.34	11.5%	0.19
105-015-010	2.06	2.48	2.77	2.77	2.77	2.77	6.3%	0.18
110-020-020	2.16	2.57	2.86	3.01	3.44	3.44	11.8%	0.18
110-020-010	2.13	2.57	2.89	2.89	2.89	2.89	6.6%	0.18
120-030-020	2.35	2.84	3.08	3.34	3.93	3.93	13.8%	0.17
120-030-010	2.32	2.81	3.11	3.11	3.11	3.11	7.0%	0.17
135-045-020	2.60	3.08	3.35	3.64	4.33	4.33	13.4%	0.16
135-045-010	2.60	3.08	3.32	3.47	3.47	3.47	7.5%	0.16
150-060-020	2.85	3.39	3.70	3.95	4.65	4.65	14.1%	0.16
150-060-010	2.85	3.37	3.59	3.77	3.77	3.77	7.7%	0.15
170-080-010	3.18	3.80	4.00	4.21	4.21	4.21	7.6%	0.14
190-100-010	3.50	4.04	4.47	4.47	4.47	4.47	6.9%	0.14
210-120-010	3.79	4.28	4.78	4.78	4.78	4.78	7.0%	0.13

\* Upper limit of Code Period,  $C_uT_a = 0.16s$ ,  $V_{NS}/W = 0.90$

**Table H-75 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 2-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
2M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
050-005-060	1.40	1.78	2.09	2.43	2.91	4.22	24.8%	0.30
050-005-045	1.37	1.72	1.98	2.23	2.66	3.13	17.8%	0.30
050-005-030	1.36	1.67	1.89	2.13	2.36	2.36	12.0%	0.29
050-005-020	1.35	1.64	1.83	1.83	1.83	1.83	6.2%	0.29
055-010-045	1.50	1.87	2.15	2.41	2.96	3.68	19.4%	0.28
055-010-030	1.49	1.85	2.08	2.30	2.64	2.64	12.2%	0.28
055-010-020	1.48	1.85	2.05	2.20	2.20	2.20	7.8%	0.28
060-015-045	1.58	1.98	2.31	2.62	3.19	4.32	21.9%	0.27
060-015-030	1.60	2.01	2.24	2.46	3.06	3.06	14.1%	0.27
060-015-020	1.59	2.03	2.19	2.39	2.39	2.39	8.6%	0.26
065-020-045	1.70	2.17	2.50	2.89	3.48	4.74	24.2%	0.26
065-020-030	1.69	2.13	2.43	2.67	3.14	3.40	16.0%	0.26
065-020-020	1.71	2.10	2.37	2.58	2.58	2.58	9.6%	0.25
075-030-030	1.90	2.37	2.73	3.00	3.49	3.78	16.3%	0.24
075-030-020	1.91	2.40	2.68	2.86	3.10	3.10	10.4%	0.24
090-045-030	2.21	2.75	3.07	3.32	3.93	4.44	17.5%	0.22
090-045-020	2.21	2.72	3.08	3.22	3.50	3.50	10.6%	0.22
105-060-020	2.45	3.01	3.31	3.56	3.96	3.96	11.3%	0.20
105-060-010	2.46	3.04	3.45	3.45	3.45	3.45	6.6%	0.20
125-080-020	2.77	3.34	3.71	4.00	4.32	4.32	12.0%	0.19
125-080-010	2.80	3.37	3.78	3.78	3.78	3.78	6.8%	0.19
145-100-020	3.07	3.75	4.01	4.25	4.76	4.76	12.1%	0.18
145-100-010	3.06	3.68	4.10	4.10	4.10	4.10	6.9%	0.18
165-120-010	3.41	4.09	4.54	4.54	4.54	4.54	6.8%	0.17

\* Upper limit of Code Period,  $C_uT_a = 0.26s$ ,  $V_{NS}/W = 0.45$

**Table H-76 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CR}$ ) Results of Collapse Analyses of 3-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CR}(C_uT_a)$ at DR					Simulated Collapse		
3M-	2.5%	5.0%	7.5%	10%	15%	$S_{CR}(C_uT_a)$	DR	
035-005-075	1.38	1.74	1.91	2.03	2.25	2.68	18.8%	0.42
035-005-060	1.35	1.63	1.75	1.87	2.10	2.27	15.7%	0.41
035-005-045	1.35	1.59	1.72	1.81	1.92	1.92	10.7%	0.41
035-005-030	1.31	1.50	1.61	1.61	1.61	1.61	5.3%	0.40
040-010-075	1.51	1.93	2.18	2.40	2.84	3.64	23.2%	0.39
040-010-060	1.48	1.82	2.02	2.30	2.59	2.97	19.3%	0.39
040-010-045	1.48	1.76	1.90	2.07	2.42	2.42	13.9%	0.38
040-010-030	1.45	1.76	1.86	1.99	1.99	1.99	8.0%	0.37
045-015-060	1.60	2.02	2.27	2.51	2.97	3.91	23.0%	0.36
045-015-045	1.59	1.95	2.17	2.37	2.71	3.05	15.9%	0.36
045-015-030	1.58	1.94	2.13	2.34	2.34	2.34	9.3%	0.35
050-020-060	1.74	2.20	2.54	2.82	3.48	4.78	24.8%	0.35
050-020-045	1.72	2.17	2.46	2.74	3.12	3.68	17.2%	0.34
050-020-030	1.70	2.10	2.38	2.56	2.77	2.77	11.3%	0.33
050-020-020	1.67	2.10	2.36	2.36	2.36	2.36	7.2%	0.33
060-030-045	1.97	2.45	2.74	3.05	3.53	4.26	19.4%	0.31
060-030-030	1.95	2.47	2.71	2.92	3.30	3.30	12.6%	0.31
060-030-020	1.93	2.43	2.65	2.77	2.77	2.77	8.0%	0.30
075-045-030	2.28	2.82	3.18	3.38	3.90	3.90	13.4%	0.28
075-045-020	2.28	2.83	3.15	3.44	3.44	3.44	8.8%	0.28
090-060-030	2.59	3.21	3.57	3.84	4.23	4.50	15.1%	0.26
090-060-020	2.59	3.23	3.61	3.93	3.93	3.93	9.2%	0.26
110-080-020	2.96	3.65	3.94	4.37	4.37	4.37	8.0%	0.24
110-080-010	3.01	3.70	4.15	4.15	4.15	4.15	6.0%	0.23
130-100-020	3.36	4.18	4.40	4.84	4.84	4.84	8.8%	0.22
130-100-010	3.34	3.93	4.29	4.29	4.29	4.29	5.4%	0.22
150-120-020	3.70	4.54	4.74	5.25	5.25	5.25	9.2%	0.21
150-120-010	3.73	4.37	4.77	4.77	4.77	4.77	5.7%	0.21

\* Upper limit of Code Period,  $C_uT_a = 0.36s$ ,  $V_{NS}/W = 0.30$

**Table H-77 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 4-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
4M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
028-005-075	1.32	1.57	1.66	1.68	1.77	1.96	17.2%	0.52
028-005-060	1.29	1.46	1.48	1.52	1.67	1.67	11.2%	0.52
028-005-045	1.26	1.39	1.41	1.48	1.48	1.48	7.6%	0.51
033-010-075	1.45	1.77	1.87	1.91	2.05	2.27	19.0%	0.49
033-010-060	1.44	1.70	1.75	1.81	1.91	2.01	15.3%	0.48
033-010-045	1.39	1.65	1.69	1.79	1.79	1.79	9.4%	0.47
038-015-075	1.61	2.01	2.23	2.34	2.50	2.91	22.4%	0.46
038-015-060	1.59	1.93	2.04	2.17	2.35	2.50	15.6%	0.45
038-015-045	1.52	1.87	1.95	2.05	2.15	2.15	10.1%	0.44
038-015-030	1.53	1.89	1.98	1.98	1.98	1.98	5.9%	0.43
043-020-060	1.71	2.15	2.34	2.55	2.95	3.37	17.4%	0.42
043-020-045	1.70	2.09	2.26	2.41	2.71	2.71	12.0%	0.41
043-020-030	1.67	2.08	2.20	2.27	2.27	2.27	7.6%	0.41
053-030-045	1.98	2.41	2.65	2.90	3.37	3.97	15.5%	0.38
053-030-030	1.96	2.43	2.60	2.72	2.94	2.94	10.4%	0.37
053-030-020	1.92	2.39	2.64	2.64	2.64	2.64	7.0%	0.37
068-045-030	2.31	2.85	3.10	3.26	3.59	3.59	10.9%	0.34
068-045-020	2.30	2.81	3.21	3.21	3.21	3.21	7.3%	0.33
083-060-030	2.62	3.22	3.47	3.58	3.92	3.92	10.2%	0.31
083-060-020	2.61	3.22	3.39	3.62	3.62	3.62	7.7%	0.31
103-080-020	2.94	3.67	3.96	4.20	4.20	4.20	7.8%	0.28
103-080-010	3.02	3.69	3.93	3.93	3.93	3.93	5.5%	0.28
123-100-020	3.32	4.09	4.46	4.46	4.46	4.46	6.2%	0.26
123-100-010	3.25	4.08	4.43	4.43	4.43	4.43	5.6%	0.26
143-120-020	3.60	4.47	5.01	5.01	5.01	5.01	7.0%	0.24
143-120-010	3.62	4.55	4.55	4.55	4.55	4.55	4.8%	0.24

\* Upper limit of Code Period,  $C_uT_a = 0.45s$ ,  $V_{NS}/W = 0.23$

**Table H-78 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 5-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
5M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
023-005-075	1.18	1.35	1.39	1.43	1.56	1.56	12.2%	0.63
023-005-060	1.18	1.27	1.30	1.39	1.39	1.39	8.3%	0.62
023-005-045	1.17	1.24	1.29	1.29	1.29	1.29	5.4%	0.62
028-010-075	1.34	1.60	1.69	1.72	1.83	1.95	15.2%	0.58
028-010-060	1.34	1.52	1.53	1.57	1.70	1.70	11.4%	0.57
028-010-045	1.32	1.49	1.53	1.53	1.53	1.53	6.2%	0.56
033-015-075	1.48	1.81	1.92	1.98	2.09	2.33	19.4%	0.54
033-015-060	1.48	1.74	1.78	1.83	2.00	2.00	13.3%	0.53
033-015-045	1.48	1.69	1.74	1.83	1.83	1.83	8.4%	0.52
038-020-075	1.68	2.02	2.23	2.37	2.69	3.07	20.6%	0.51
038-020-060	1.66	1.96	2.09	2.22	2.60	2.60	14.0%	0.50
038-020-045	1.62	1.89	2.02	2.20	2.20	2.20	8.7%	0.49
038-020-030	1.59	1.93	2.04	2.04	2.04	2.04	5.7%	0.48
048-030-060	1.91	2.34	2.58	2.77	3.17	4.05	18.7%	0.45
048-030-045	1.87	2.28	2.40	2.55	3.12	3.12	11.8%	0.44
048-030-030	1.85	2.25	2.39	2.56	2.56	2.56	8.5%	0.43
063-045-045	2.24	2.75	2.88	3.05	3.55	4.06	15.1%	0.40
063-045-030	2.22	2.73	2.88	3.22	3.22	3.22	8.8%	0.39
063-045-020	2.19	2.71	2.97	2.97	2.97	2.97	6.7%	0.38
078-060-030	2.57	3.20	3.33	3.63	3.63	3.63	9.3%	0.35
078-060-020	2.50	3.10	3.32	3.32	3.32	3.32	6.0%	0.35
098-080-030	2.96	3.70	3.88	4.03	4.44	4.44	10.2%	0.32
098-080-020	2.81	3.45	3.86	3.86	3.86	3.86	6.6%	0.32
118-100-020	3.17	3.71	3.98	3.98	3.98	3.98	5.3%	0.29
118-100-010	3.16	4.11	4.11	4.11	4.11	4.11	4.8%	0.29
138-120-020	3.63	4.36	4.67	4.67	4.67	4.67	5.9%	0.27
138-120-010	3.57	4.45	4.45	4.45	4.45	4.45	4.5%	0.27

\* Upper limit of Code Period,  $C_uT_a = 0.53s$ ,  $VNS/W = 0.18$

**Table H-79 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	1.77	3.32	3.80	4.14	4.34	4.40	4.20	8.11%	
0.8	1.79	3.35	3.84	4.18	4.38	4.44	4.23	8.02%	
0.9	1.82	3.39	3.88	4.22	4.42	4.47	4.26	7.93%	
1.0	1.84	3.42	3.91	4.26	4.46	4.51	4.29	7.84%	
1.1	1.87	3.46	3.95	4.30	4.49	4.54	4.32	7.75%	
1.2	1.89	3.49	3.99	4.34	4.53	4.57	4.35	7.66%	
1.3	1.91	3.52	4.03	4.38	4.57	4.60	4.38	7.57%	
1.4	1.94	3.56	4.06	4.41	4.60	4.64	4.41	7.48%	
1.5	1.96	3.59	4.10	4.45	4.64	4.67	4.44	7.40%	
1.6	1.99	3.62	4.14	4.49	4.67	4.70	4.47	7.31%	
1.7	2.01	3.65	4.17	4.52	4.70	4.73	4.49	7.23%	
1.8	2.03	3.69	4.21	4.56	4.74	4.76	4.52	7.15%	
1.9	2.06	3.72	4.24	4.59	4.77	4.79	4.55	7.07%	
2.0	2.08	3.75	4.28	4.63	4.80	4.82	4.57	6.99%	
2.1	2.11	3.78	4.31	4.66	4.83	4.85	4.60	6.91%	
2.2	2.13	3.81	4.35	4.70	4.86	4.88	4.62	6.83%	
2.3	2.15	3.84	4.38	4.73	4.89	4.91	4.64	6.75%	
2.4	2.18	3.87	4.41	4.76	4.92	4.93	4.67	6.67%	
2.5	2.20	3.90	4.44	4.79	4.95	4.96	4.69	6.60%	
2.6	2.23	3.93	4.48	4.83	4.98	4.99	4.71	6.52%	
2.7	2.25	3.96	4.51	4.86	5.01	5.01	4.73	6.45%	
2.8	2.27	3.98	4.54	4.89	5.03	5.04	4.76	6.37%	
2.9	2.30	4.01	4.57	4.92	5.06	5.07	4.78	6.30%	
3.0	2.32	4.04	4.60	4.95	5.09	5.09	4.80	6.23%	

**Table H-80 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.85	3.44	3.93	4.28	4.47	4.52	4.31	7.79%
0.8	1.89	3.49	3.99	4.34	4.53	4.57	4.35	7.66%
0.9	1.93	3.54	4.05	4.39	4.58	4.62	4.40	7.53%
1.0	1.96	3.59	4.10	4.45	4.64	4.67	4.44	7.40%
1.1	2.00	3.64	4.16	4.50	4.69	4.71	4.48	7.27%
1.2	2.03	3.69	4.21	4.56	4.74	4.76	4.52	7.15%
1.3	2.07	3.73	4.26	4.61	4.78	4.80	4.56	7.03%
1.4	2.11	3.78	4.31	4.66	4.83	4.85	4.60	6.91%
1.5	2.14	3.82	4.36	4.71	4.88	4.89	4.63	6.79%
1.6	2.18	3.87	4.41	4.76	4.92	4.93	4.67	6.67%
1.7	2.21	3.91	4.46	4.81	4.97	4.97	4.70	6.56%
1.8	2.25	3.96	4.51	4.86	5.01	5.01	4.73	6.45%
1.9	2.29	4.00	4.55	4.90	5.05	5.05	4.77	6.34%
2.0	2.32	4.04	4.60	4.95	5.09	5.09	4.80	6.23%
2.1	2.36	4.08	4.64	4.99	5.13	5.13	4.83	6.12%
2.2	2.40	4.12	4.69	5.04	5.16	5.16	4.86	6.02%
2.3	2.43	4.16	4.73	5.08	5.20	5.20	4.88	5.91%
2.4	2.47	4.20	4.77	5.12	5.23	5.23	4.91	5.81%
2.5	2.50	4.24	4.81	5.16	5.27	5.27	4.94	5.71%
2.6	2.54	4.27	4.85	5.20	5.30	5.30	4.96	5.62%
2.7	2.58	4.31	4.89	5.23	5.33	5.33	4.98	5.52%
2.8	2.61	4.35	4.93	5.27	5.36	5.36	5.01	5.42%
2.9	2.65	4.38	4.97	5.30	5.39	5.39	5.03	5.33%
3.0	2.68	4.41	5.01	5.34	5.42	5.42	5.05	5.24%



**Table H-81 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	24.64	1.77	5.50	6.78	7.81	8.25	8.37	7.94
0.8	21.85	1.79	4.86	6.00	6.90	7.28	7.38	7.00
0.9	19.68	1.82	4.37	5.38	6.19	6.53	6.61	6.26
1.0	17.95	1.84	3.97	4.89	5.62	5.93	5.99	5.67
1.1	16.53	1.87	3.64	4.49	5.16	5.43	5.49	5.19
1.2	15.35	1.89	3.37	4.16	4.77	5.02	5.07	4.79
1.3	14.35	1.91	3.14	3.87	4.44	4.67	4.71	4.45
1.4	13.49	1.94	2.95	3.63	4.16	4.37	4.40	4.16
1.5	12.75	1.96	2.78	3.42	3.92	4.11	4.14	3.90
1.6	12.10	1.99	2.63	3.23	3.70	3.88	3.91	3.67
1.7	11.53	2.01	2.49	3.07	3.51	3.68	3.70	3.47
1.8	11.02	2.03	2.38	2.92	3.34	3.50	3.52	3.29
1.9	10.56	2.06	2.27	2.79	3.19	3.34	3.35	3.13
2.0	10.15	2.08	2.17	2.67	3.05	3.19	3.21	2.98
2.1	9.78	2.11	2.09	2.57	2.93	3.06	3.07	2.85
2.2	9.44	2.13	2.01	2.47	2.82	2.94	2.95	2.73
2.3	9.13	2.15	1.94	2.38	2.71	2.83	2.84	2.62
2.4	8.85	2.18	1.87	2.30	2.62	2.73	2.73	2.52
2.5	8.59	2.20	1.81	2.22	2.53	2.63	2.64	2.43
2.6	8.35	2.23	1.75	2.15	2.45	2.55	2.55	2.34
2.7	8.13	2.25	1.70	2.09	2.37	2.47	2.47	2.26
2.8	7.92	2.27	1.65	2.03	2.30	2.39	2.39	2.19
2.9	7.73	2.30	1.61	1.97	2.24	2.32	2.32	2.12
3.0	7.55	2.32	1.56	1.92	2.18	2.26	2.26	2.05

**Table H-82 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	17.21	1.85	5.70	7.02	8.07	8.50	8.59	8.13
0.8	15.35	1.89	5.06	6.24	7.16	7.53	7.60	7.19
0.9	13.91	1.93	4.56	5.62	6.44	6.77	6.83	6.45
1.0	12.75	1.96	4.16	5.13	5.87	6.16	6.21	5.85
1.1	11.80	2.00	3.84	4.72	5.41	5.67	5.70	5.35
1.2	11.02	2.03	3.56	4.38	5.01	5.25	5.28	4.93
1.3	10.35	2.07	3.33	4.10	4.68	4.89	4.92	4.58
1.4	9.78	2.11	3.13	3.85	4.40	4.59	4.61	4.28
1.5	9.28	2.14	2.96	3.63	4.15	4.32	4.34	4.01
1.6	8.85	2.18	2.81	3.45	3.93	4.09	4.10	3.78
1.7	8.47	2.21	2.67	3.28	3.74	3.88	3.89	3.58
1.8	8.13	2.25	2.55	3.13	3.56	3.70	3.70	3.39
1.9	7.82	2.29	2.44	3.00	3.41	3.53	3.54	3.23
2.0	7.55	2.32	2.34	2.87	3.27	3.38	3.39	3.08
2.1	7.30	2.36	2.25	2.76	3.14	3.25	3.25	2.95
2.2	7.08	2.40	2.17	2.66	3.02	3.12	3.12	2.82
2.3	6.87	2.43	2.10	2.57	2.91	3.01	3.01	2.71
2.4	6.68	2.47	2.03	2.49	2.81	2.90	2.90	2.60
2.5	6.51	2.50	1.97	2.41	2.72	2.80	2.80	2.51
2.6	6.35	2.54	1.91	2.33	2.64	2.71	2.71	2.42
2.7	6.20	2.58	1.85	2.27	2.56	2.63	2.63	2.33
2.8	6.06	2.61	1.80	2.20	2.48	2.55	2.55	2.26
2.9	5.94	2.65	1.75	2.14	2.41	2.47	2.47	2.18
3.0	5.82	2.68	1.71	2.09	2.35	2.40	2.40	2.12

**Table H-83 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	24.64	1.77	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	21.85	1.79	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.9	19.68	1.82	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%
1.0	17.95	1.84	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%
1.1	16.53	1.87	0.2%	0.1%	0.1%	0.2%	0.2%	0.1%
1.2	15.35	1.89	0.3%	0.2%	0.2%	0.4%	0.3%	0.2%
1.3	14.35	1.91	0.5%	0.3%	0.3%	0.5%	0.5%	0.3%
1.4	13.49	1.94	0.8%	0.5%	0.5%	0.7%	0.7%	0.5%
1.5	12.75	1.96	1.2%	0.7%	0.7%	0.9%	0.9%	0.7%
1.6	12.10	1.99	1.6%	0.9%	0.9%	1.2%	1.2%	0.9%
1.7	11.53	2.01	2.1%	1.2%	1.1%	1.5%	1.5%	1.1%
1.8	11.02	2.03	2.7%	1.6%	1.4%	1.8%	1.8%	1.4%
1.9	10.56	2.06	3.4%	2.0%	1.7%	2.2%	2.2%	1.8%
2.0	10.15	2.08	4.2%	2.5%	2.1%	2.7%	2.6%	2.1%
2.1	9.78	2.11	5.1%	3.0%	2.5%	3.1%	3.1%	2.6%
2.2	9.44	2.13	6.1%	3.5%	3.0%	3.6%	3.6%	3.1%
2.3	9.13	2.15	7.1%	4.1%	3.5%	4.2%	4.1%	3.6%
2.4	8.85	2.18	8.2%	4.8%	4.0%	4.7%	4.7%	4.1%
2.5	8.59	2.20	9.4%	5.5%	4.6%	5.3%	5.3%	4.8%
2.6	8.35	2.23	10.6%	6.3%	5.2%	6.0%	5.9%	5.4%
2.7	8.13	2.25	11.9%	7.1%	5.8%	6.6%	6.6%	6.1%
2.8	7.92	2.27	13.3%	7.9%	6.5%	7.3%	7.3%	6.9%
2.9	7.73	2.30	14.7%	8.8%	7.1%	8.0%	8.0%	7.7%
3.0	7.55	2.32	16.1%	9.7%	7.9%	8.8%	8.7%	8.5%

**Table H-84 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	17.21	1.85	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	15.35	1.89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.9	13.91	1.93	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.0	12.75	1.96	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.1	11.80	2.00	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
1.2	11.02	2.03	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1.3	10.35	2.07	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%
1.4	9.78	2.11	0.2%	0.1%	0.2%	0.3%	0.3%	0.1%
1.5	9.28	2.14	0.3%	0.2%	0.2%	0.4%	0.4%	0.2%
1.6	8.85	2.18	0.5%	0.3%	0.3%	0.5%	0.5%	0.3%
1.7	8.47	2.21	0.7%	0.4%	0.4%	0.7%	0.7%	0.4%
1.8	8.13	2.25	1.0%	0.6%	0.6%	0.9%	0.9%	0.5%
1.9	7.82	2.29	1.3%	0.7%	0.7%	1.1%	1.1%	0.7%
2.0	7.55	2.32	1.7%	0.9%	0.9%	1.3%	1.3%	0.9%
2.1	7.30	2.36	2.1%	1.2%	1.1%	1.6%	1.6%	1.1%
2.2	7.08	2.40	2.6%	1.5%	1.4%	1.9%	1.9%	1.4%
2.3	6.87	2.43	3.2%	1.8%	1.6%	2.3%	2.3%	1.7%
2.4	6.68	2.47	3.8%	2.1%	1.9%	2.6%	2.6%	2.0%
2.5	6.51	2.50	4.6%	2.5%	2.3%	3.1%	3.1%	2.4%
2.6	6.35	2.54	5.3%	3.0%	2.6%	3.5%	3.5%	2.8%
2.7	6.20	2.58	6.2%	3.5%	3.0%	4.0%	4.0%	3.3%
2.8	6.06	2.61	7.1%	4.0%	3.4%	4.5%	4.5%	3.8%
2.9	5.94	2.65	8.0%	4.5%	3.9%	5.0%	5.0%	4.4%
3.0	5.82	2.68	9.1%	5.1%	4.4%	5.6%	5.6%	5.0%

**Table H-85** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.74	1.91	2.31	2.64	2.89	3.18	3.12	13.41%
0.8	0.76	1.96	2.36	2.70	2.95	3.24	3.17	13.22%
0.9	0.79	2.00	2.42	2.76	3.02	3.30	3.23	13.03%
1.0	0.81	2.05	2.47	2.82	3.08	3.36	3.28	12.84%
1.1	0.84	2.10	2.53	2.87	3.14	3.42	3.33	12.66%
1.2	0.86	2.15	2.58	2.93	3.20	3.47	3.37	12.48%
1.3	0.88	2.19	2.64	2.99	3.25	3.52	3.42	12.30%
1.4	0.91	2.24	2.69	3.04	3.31	3.57	3.47	12.12%
1.5	0.93	2.29	2.74	3.10	3.37	3.62	3.51	11.95%
1.6	0.96	2.33	2.79	3.15	3.42	3.67	3.55	11.78%
1.7	0.98	2.38	2.84	3.21	3.47	3.72	3.59	11.61%
1.8	1.01	2.42	2.89	3.26	3.53	3.76	3.64	11.44%
1.9	1.03	2.47	2.94	3.31	3.58	3.80	3.67	11.28%
2.0	1.05	2.51	2.99	3.36	3.63	3.85	3.71	11.12%
2.1	1.08	2.55	3.04	3.41	3.68	3.89	3.75	10.96%
2.2	1.10	2.59	3.08	3.46	3.72	3.92	3.79	10.80%
2.3	1.13	2.64	3.13	3.51	3.77	3.96	3.82	10.64%
2.4	1.15	2.68	3.17	3.55	3.82	4.00	3.86	10.49%
2.5	1.17	2.72	3.22	3.60	3.86	4.03	3.89	10.34%
2.6	1.20	2.76	3.26	3.64	3.90	4.07	3.92	10.19%
2.7	1.22	2.80	3.31	3.69	3.95	4.10	3.95	10.05%
2.8	1.25	2.84	3.35	3.73	3.99	4.13	3.98	9.90%
2.9	1.27	2.88	3.39	3.77	4.03	4.17	4.01	9.76%
3.0	1.29	2.92	3.43	3.82	4.07	4.20	4.04	9.62%

**Table H-86 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).**

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.82	2.08	2.50	2.85	3.11	3.39	3.30	12.75%
0.8	0.86	2.15	2.58	2.93	3.20	3.47	3.37	12.48%
0.9	0.90	2.22	2.66	3.02	3.28	3.55	3.44	12.21%
1.0	0.93	2.29	2.74	3.10	3.37	3.62	3.51	11.95%
1.1	0.97	2.35	2.82	3.18	3.45	3.69	3.57	11.69%
1.2	1.01	2.42	2.89	3.26	3.53	3.76	3.64	11.44%
1.3	1.04	2.49	2.96	3.34	3.60	3.82	3.69	11.20%
1.4	1.08	2.55	3.04	3.41	3.68	3.89	3.75	10.96%
1.5	1.11	2.62	3.11	3.48	3.75	3.94	3.80	10.72%
1.6	1.15	2.68	3.17	3.55	3.82	4.00	3.86	10.49%
1.7	1.19	2.74	3.24	3.62	3.88	4.05	3.90	10.27%
1.8	1.22	2.80	3.31	3.69	3.95	4.10	3.95	10.05%
1.9	1.26	2.86	3.37	3.75	4.01	4.15	4.00	9.83%
2.0	1.29	2.92	3.43	3.82	4.07	4.20	4.04	9.62%
2.1	1.33	2.97	3.49	3.88	4.12	4.24	4.08	9.41%
2.2	1.37	3.03	3.55	3.93	4.18	4.28	4.12	9.21%
2.3	1.40	3.08	3.61	3.99	4.23	4.32	4.15	9.01%
2.4	1.44	3.14	3.67	4.05	4.28	4.36	4.19	8.82%
2.5	1.48	3.19	3.72	4.10	4.32	4.40	4.22	8.63%
2.6	1.51	3.24	3.77	4.15	4.37	4.43	4.25	8.45%
2.7	1.55	3.29	3.83	4.20	4.41	4.46	4.28	8.27%
2.8	1.58	3.34	3.88	4.24	4.45	4.49	4.31	8.09%
2.9	1.62	3.39	3.92	4.29	4.48	4.52	4.33	7.91%
3.0	1.66	3.44	3.97	4.33	4.52	4.55	4.36	7.74%

**Table H-87 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.31	0.74	3.16	4.12	4.97	5.49	6.05	5.93
0.8	9.31	0.76	2.83	3.69	4.45	4.91	5.39	5.28
0.9	8.54	0.79	2.58	3.36	4.04	4.46	4.88	4.77
1.0	7.92	0.81	2.38	3.09	3.72	4.09	4.47	4.36
1.1	7.41	0.84	2.21	2.87	3.45	3.79	4.13	4.02
1.2	6.99	0.86	2.08	2.69	3.23	3.54	3.85	3.74
1.3	6.64	0.88	1.96	2.53	3.03	3.33	3.60	3.50
1.4	6.33	0.91	1.86	2.40	2.87	3.15	3.39	3.29
1.5	6.06	0.93	1.77	2.28	2.73	2.99	3.21	3.11
1.6	5.83	0.96	1.69	2.18	2.60	2.84	3.05	2.95
1.7	5.63	0.98	1.62	2.09	2.49	2.72	2.91	2.81
1.8	5.45	1.01	1.56	2.01	2.39	2.61	2.78	2.69
1.9	5.28	1.03	1.51	1.93	2.30	2.50	2.66	2.57
2.0	5.14	1.05	1.46	1.87	2.22	2.41	2.56	2.47
2.1	5.00	1.08	1.41	1.81	2.14	2.33	2.46	2.38
2.2	4.88	1.10	1.37	1.75	2.08	2.25	2.37	2.29
2.3	4.77	1.13	1.33	1.70	2.01	2.18	2.29	2.21
2.4	4.67	1.15	1.29	1.65	1.95	2.12	2.22	2.14
2.5	4.58	1.17	1.26	1.61	1.90	2.05	2.15	2.07
2.6	4.49	1.20	1.23	1.57	1.85	2.00	2.08	2.01
2.7	4.41	1.22	1.20	1.53	1.80	1.94	2.02	1.95
2.8	4.34	1.25	1.18	1.50	1.76	1.89	1.96	1.89
2.9	4.27	1.27	1.15	1.46	1.72	1.85	1.91	1.84
3.0	4.21	1.29	1.13	1.43	1.68	1.80	1.86	1.79

**Table H-88 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.66	0.82	3.44	4.47	5.37	5.90	6.44	6.27
0.8	6.99	0.86	3.11	4.04	4.84	5.31	5.77	5.61
0.9	6.48	0.90	2.86	3.70	4.42	4.85	5.24	5.09
1.0	6.06	0.93	2.65	3.42	4.09	4.48	4.82	4.67
1.1	5.73	0.97	2.48	3.20	3.82	4.17	4.47	4.32
1.2	5.45	1.01	2.34	3.01	3.58	3.91	4.17	4.03
1.3	5.21	1.04	2.22	2.85	3.39	3.69	3.91	3.78
1.4	5.00	1.08	2.11	2.71	3.22	3.49	3.69	3.56
1.5	4.83	1.11	2.02	2.59	3.06	3.32	3.50	3.37
1.6	4.67	1.15	1.94	2.48	2.93	3.17	3.32	3.20
1.7	4.53	1.19	1.87	2.38	2.81	3.04	3.17	3.05
1.8	4.41	1.22	1.80	2.30	2.71	2.92	3.03	2.92
1.9	4.30	1.26	1.75	2.22	2.61	2.81	2.91	2.80
2.0	4.21	1.29	1.69	2.15	2.52	2.70	2.79	2.68
2.1	4.12	1.33	1.64	2.08	2.44	2.61	2.69	2.58
2.2	4.04	1.37	1.60	2.02	2.36	2.53	2.59	2.48
2.3	3.96	1.40	1.56	1.96	2.29	2.45	2.50	2.39
2.4	3.90	1.44	1.52	1.91	2.23	2.37	2.42	2.31
2.5	3.84	1.48	1.48	1.86	2.16	2.30	2.34	2.24
2.6	3.78	1.51	1.45	1.81	2.11	2.23	2.27	2.16
2.7	3.73	1.55	1.41	1.77	2.05	2.17	2.20	2.10
2.8	3.68	1.58	1.38	1.73	2.00	2.11	2.13	2.03
2.9	3.63	1.62	1.36	1.69	1.95	2.06	2.07	1.97
3.0	3.59	1.66	1.33	1.65	1.91	2.00	2.02	1.92



**Table H-89 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.31	0.74	0.5%	0.2%	0.2%	0.2%	0.1%	0.2%
0.8	9.31	0.76	1.0%	0.4%	0.3%	0.4%	0.2%	0.3%
0.9	8.54	0.79	1.7%	0.8%	0.6%	0.6%	0.4%	0.5%
1.0	7.92	0.81	2.7%	1.2%	0.8%	0.9%	0.6%	0.7%
1.1	7.41	0.84	3.9%	1.7%	1.2%	1.3%	0.9%	1.0%
1.2	6.99	0.86	5.2%	2.4%	1.7%	1.8%	1.2%	1.4%
1.3	6.64	0.88	6.8%	3.1%	2.2%	2.2%	1.6%	1.8%
1.4	6.33	0.91	8.5%	4.0%	2.8%	2.8%	2.1%	2.3%
1.5	6.06	0.93	10.3%	4.9%	3.4%	3.4%	2.6%	2.9%
1.6	5.83	0.96	12.2%	6.0%	4.1%	4.1%	3.2%	3.6%
1.7	5.63	0.98	14.1%	7.0%	4.9%	4.8%	3.8%	4.2%
1.8	5.45	1.01	16.1%	8.2%	5.7%	5.5%	4.4%	5.0%
1.9	5.28	1.03	18.2%	9.4%	6.5%	6.3%	5.1%	5.8%
2.0	5.14	1.05	20.2%	10.6%	7.4%	7.1%	5.9%	6.6%
2.1	5.00	1.08	22.3%	11.8%	8.3%	7.9%	6.7%	7.5%
2.2	4.88	1.10	24.3%	13.1%	9.2%	8.8%	7.5%	8.4%
2.3	4.77	1.13	26.3%	14.4%	10.2%	9.7%	8.4%	9.3%
2.4	4.67	1.15	28.3%	15.7%	11.2%	10.6%	9.2%	10.3%
2.5	4.58	1.17	30.3%	17.1%	12.2%	11.5%	10.2%	11.3%
2.6	4.49	1.20	32.2%	18.4%	13.2%	12.4%	11.1%	12.3%
2.7	4.41	1.22	34.1%	19.7%	14.2%	13.4%	12.1%	13.4%
2.8	4.34	1.25	35.9%	21.1%	15.2%	14.3%	13.0%	14.4%
2.9	4.27	1.27	37.7%	22.4%	16.3%	15.3%	14.0%	15.3%
3.0	4.21	1.29	39.5%	23.7%	17.3%	16.3%	15.0%	16.3%

**Table H-90 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.66	0.82	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
0.8	6.99	0.86	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
0.9	6.48	0.90	0.4%	0.2%	0.1%	0.2%	0.1%	0.2%
1.0	6.06	0.93	0.7%	0.3%	0.2%	0.3%	0.2%	0.3%
1.1	5.73	0.97	1.1%	0.5%	0.4%	0.5%	0.3%	0.4%
1.2	5.45	1.01	1.7%	0.7%	0.5%	0.7%	0.5%	0.6%
1.3	5.21	1.04	2.3%	1.0%	0.7%	0.9%	0.7%	0.8%
1.4	5.00	1.08	3.1%	1.3%	1.0%	1.1%	0.9%	1.0%
1.5	4.83	1.11	3.9%	1.7%	1.3%	1.4%	1.1%	1.4%
1.6	4.67	1.15	4.9%	2.2%	1.6%	1.8%	1.4%	1.7%
1.7	4.53	1.19	5.9%	2.7%	1.9%	2.2%	1.8%	2.1%
1.8	4.41	1.22	7.0%	3.2%	2.3%	2.6%	2.2%	2.6%
1.9	4.30	1.26	8.2%	3.8%	2.8%	3.0%	2.6%	3.0%
2.0	4.21	1.29	9.4%	4.5%	3.2%	3.5%	3.1%	3.4%
2.1	4.12	1.33	10.7%	5.2%	3.7%	4.0%	3.6%	3.9%
2.2	4.04	1.37	12.1%	5.9%	4.3%	4.6%	4.2%	4.4%
2.3	3.96	1.40	13.5%	6.7%	4.9%	5.2%	4.8%	5.0%
2.4	3.90	1.44	14.9%	7.5%	5.5%	5.8%	5.4%	5.6%
2.5	3.84	1.48	16.3%	8.4%	6.1%	6.5%	6.1%	6.2%
2.6	3.78	1.51	17.8%	9.3%	6.8%	7.2%	6.8%	6.8%
2.7	3.73	1.55	19.3%	10.2%	7.5%	7.9%	7.6%	7.5%
2.8	3.68	1.58	20.8%	11.2%	8.3%	8.7%	8.4%	8.3%
2.9	3.63	1.62	22.3%	12.1%	9.0%	9.5%	9.3%	9.0%
3.0	3.59	1.66	23.9%	13.2%	9.9%	10.3%	10.1%	9.8%

**Table H-91** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.52	1.78	2.14	2.42	2.63	2.83	2.81	13.83%	
0.8	0.54	1.84	2.21	2.51	2.72	2.92	2.89	13.60%	
0.9	0.56	1.89	2.28	2.59	2.81	3.00	2.98	13.37%	
1.0	0.59	1.95	2.36	2.67	2.90	3.09	3.06	13.15%	
1.1	0.61	2.00	2.43	2.75	2.99	3.17	3.14	12.92%	
1.2	0.64	2.06	2.50	2.83	3.07	3.25	3.22	12.71%	
1.3	0.66	2.11	2.56	2.91	3.15	3.33	3.29	12.50%	
1.4	0.69	2.17	2.63	2.99	3.23	3.40	3.36	12.29%	
1.5	0.71	2.22	2.70	3.06	3.31	3.48	3.43	12.08%	
1.6	0.73	2.28	2.76	3.13	3.39	3.55	3.50	11.88%	
1.7	0.76	2.33	2.83	3.21	3.46	3.62	3.57	11.68%	
1.8	0.78	2.38	2.89	3.28	3.54	3.69	3.63	11.48%	
1.9	0.81	2.44	2.95	3.34	3.61	3.76	3.69	11.29%	
2.0	0.83	2.49	3.02	3.41	3.68	3.83	3.75	11.10%	
2.1	0.85	2.54	3.08	3.48	3.75	3.89	3.81	10.92%	
2.2	0.88	2.59	3.14	3.54	3.81	3.95	3.86	10.73%	
2.3	0.90	2.64	3.20	3.61	3.88	4.01	3.92	10.55%	
2.4	0.93	2.69	3.25	3.67	3.94	4.07	3.97	10.38%	
2.5	0.95	2.74	3.31	3.73	4.00	4.13	4.02	10.20%	
2.6	0.97	2.79	3.37	3.79	4.06	4.18	4.06	10.03%	
2.7	1.00	2.84	3.42	3.85	4.12	4.24	4.11	9.86%	
2.8	1.02	2.89	3.48	3.90	4.17	4.29	4.15	9.70%	
2.9	1.05	2.94	3.53	3.96	4.23	4.34	4.19	9.54%	
3.0	1.07	2.99	3.58	4.01	4.28	4.39	4.23	9.38%	

**Table H-92 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).**

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.60	1.98	2.39	2.71	2.94	3.13	3.10	13.03%
0.8	0.64	2.06	2.50	2.83	3.07	3.25	3.22	12.71%
0.9	0.67	2.14	2.60	2.95	3.19	3.37	3.33	12.39%
1.0	0.71	2.22	2.70	3.06	3.31	3.48	3.43	12.08%
1.1	0.75	2.30	2.80	3.17	3.43	3.59	3.53	11.78%
1.2	0.78	2.38	2.89	3.28	3.54	3.69	3.63	11.48%
1.3	0.82	2.46	2.99	3.38	3.64	3.79	3.72	11.20%
1.4	0.85	2.54	3.08	3.48	3.75	3.89	3.81	10.92%
1.5	0.89	2.62	3.17	3.58	3.84	3.98	3.89	10.64%
1.6	0.93	2.69	3.25	3.67	3.94	4.07	3.97	10.38%
1.7	0.96	2.77	3.34	3.76	4.03	4.16	4.04	10.12%
1.8	1.00	2.84	3.42	3.85	4.12	4.24	4.11	9.86%
1.9	1.03	2.92	3.50	3.93	4.20	4.31	4.17	9.62%
2.0	1.07	2.99	3.58	4.01	4.28	4.39	4.23	9.38%
2.1	1.11	3.06	3.66	4.09	4.36	4.45	4.28	9.14%
2.2	1.14	3.14	3.74	4.17	4.43	4.52	4.33	8.91%
2.3	1.18	3.21	3.81	4.24	4.49	4.58	4.38	8.69%
2.4	1.22	3.28	3.88	4.31	4.56	4.63	4.42	8.47%
2.5	1.25	3.35	3.95	4.37	4.62	4.69	4.47	8.26%
2.6	1.29	3.41	4.01	4.43	4.67	4.73	4.50	8.05%
2.7	1.32	3.48	4.08	4.49	4.72	4.78	4.54	7.85%
2.8	1.36	3.55	4.14	4.55	4.77	4.82	4.57	7.65%
2.9	1.40	3.62	4.20	4.60	4.82	4.86	4.60	7.46%
3.0	1.43	3.68	4.26	4.65	4.86	4.89	4.62	7.28%

**Table H-93 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.19	0.52	2.95	3.82	4.57	5.00	5.37	5.34
0.8	6.59	0.54	2.66	3.46	4.14	4.53	4.85	4.81
0.9	6.12	0.56	2.44	3.17	3.80	4.16	4.44	4.40
1.0	5.74	0.59	2.26	2.94	3.53	3.86	4.11	4.07
1.1	5.43	0.61	2.11	2.76	3.30	3.61	3.83	3.79
1.2	5.18	0.64	1.99	2.60	3.12	3.40	3.60	3.56
1.3	4.96	0.66	1.89	2.46	2.95	3.22	3.40	3.37
1.4	4.77	0.69	1.80	2.35	2.81	3.07	3.23	3.19
1.5	4.61	0.71	1.72	2.25	2.69	2.94	3.08	3.04
1.6	4.47	0.73	1.65	2.16	2.59	2.82	2.95	2.91
1.7	4.34	0.76	1.59	2.08	2.49	2.71	2.83	2.79
1.8	4.23	0.78	1.54	2.01	2.40	2.61	2.73	2.68
1.9	4.13	0.81	1.49	1.94	2.32	2.53	2.63	2.58
2.0	4.05	0.83	1.44	1.89	2.25	2.45	2.54	2.50
2.1	3.96	0.85	1.40	1.83	2.19	2.37	2.46	2.41
2.2	3.89	0.88	1.37	1.78	2.13	2.30	2.39	2.34
2.3	3.82	0.90	1.33	1.74	2.07	2.24	2.32	2.26
2.4	3.76	0.93	1.30	1.69	2.02	2.18	2.26	2.20
2.5	3.71	0.95	1.27	1.66	1.97	2.13	2.20	2.14
2.6	3.65	0.97	1.25	1.62	1.92	2.08	2.14	2.08
2.7	3.61	1.00	1.22	1.58	1.88	2.03	2.09	2.02
2.8	3.56	1.02	1.20	1.55	1.84	1.98	2.04	1.97
2.9	3.52	1.05	1.18	1.52	1.80	1.94	1.99	1.92
3.0	3.48	1.07	1.16	1.49	1.77	1.90	1.94	1.87

**Table H-94 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.58	0.60	3.27	4.27	5.12	5.59	5.94	5.89
0.8	5.18	0.64	2.99	3.90	4.67	5.10	5.40	5.35
0.9	4.86	0.67	2.76	3.61	4.32	4.72	4.97	4.92
1.0	4.61	0.71	2.58	3.37	4.04	4.40	4.63	4.57
1.1	4.41	0.75	2.43	3.18	3.80	4.14	4.34	4.27
1.2	4.23	0.78	2.30	3.01	3.60	3.92	4.09	4.02
1.3	4.09	0.82	2.20	2.87	3.43	3.73	3.88	3.81
1.4	3.96	0.85	2.10	2.75	3.28	3.56	3.70	3.62
1.5	3.86	0.89	2.02	2.64	3.15	3.41	3.53	3.45
1.6	3.76	0.93	1.95	2.54	3.03	3.27	3.39	3.30
1.7	3.68	0.96	1.89	2.46	2.92	3.15	3.25	3.16
1.8	3.61	1.00	1.83	2.38	2.82	3.04	3.13	3.03
1.9	3.54	1.03	1.78	2.31	2.73	2.94	3.02	2.92
2.0	3.48	1.07	1.74	2.24	2.65	2.85	2.92	2.81
2.1	3.43	1.11	1.69	2.18	2.57	2.76	2.82	2.71
2.2	3.38	1.14	1.65	2.12	2.50	2.68	2.73	2.61
2.3	3.33	1.18	1.62	2.07	2.43	2.60	2.65	2.52
2.4	3.29	1.22	1.58	2.02	2.37	2.53	2.57	2.44
2.5	3.25	1.25	1.55	1.97	2.31	2.46	2.49	2.36
2.6	3.22	1.29	1.52	1.93	2.25	2.39	2.42	2.29
2.7	3.19	1.32	1.50	1.89	2.20	2.33	2.35	2.22
2.8	3.16	1.36	1.47	1.85	2.14	2.27	2.29	2.15
2.9	3.13	1.40	1.45	1.81	2.09	2.21	2.23	2.09
3.0	3.10	1.43	1.42	1.77	2.05	2.15	2.17	2.03

**Table H-95 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.19	0.52	0.8%	0.4%	0.3%	0.4%	0.3%	0.3%
0.8	6.59	0.54	1.5%	0.7%	0.5%	0.6%	0.4%	0.4%
0.9	6.12	0.56	2.4%	1.0%	0.8%	0.9%	0.7%	0.7%
1.0	5.74	0.59	3.5%	1.5%	1.1%	1.2%	0.9%	1.0%
1.1	5.43	0.61	4.8%	2.1%	1.5%	1.6%	1.3%	1.3%
1.2	5.18	0.64	6.3%	2.8%	1.9%	2.1%	1.6%	1.7%
1.3	4.96	0.66	7.9%	3.6%	2.4%	2.6%	2.1%	2.2%
1.4	4.77	0.69	9.6%	4.4%	3.0%	3.1%	2.5%	2.6%
1.5	4.61	0.71	11.4%	5.3%	3.6%	3.6%	3.0%	3.2%
1.6	4.47	0.73	13.3%	6.2%	4.2%	4.2%	3.6%	3.7%
1.7	4.34	0.76	15.1%	7.2%	4.9%	4.8%	4.1%	4.4%
1.8	4.23	0.78	17.0%	8.2%	5.6%	5.5%	4.7%	5.0%
1.9	4.13	0.81	18.9%	9.2%	6.3%	6.1%	5.3%	5.7%
2.0	4.05	0.83	20.8%	10.2%	7.0%	6.8%	6.0%	6.4%
2.1	3.96	0.85	22.6%	11.3%	7.7%	7.5%	6.6%	7.1%
2.2	3.89	0.88	24.4%	12.4%	8.5%	8.2%	7.3%	7.9%
2.3	3.82	0.90	26.2%	13.5%	9.3%	8.9%	8.0%	8.7%
2.4	3.76	0.93	27.9%	14.6%	10.1%	9.7%	8.7%	9.5%
2.5	3.71	0.95	29.6%	15.7%	10.9%	10.4%	9.5%	10.3%
2.6	3.65	0.97	31.2%	16.8%	11.7%	11.2%	10.2%	11.1%
2.7	3.61	1.00	32.8%	17.9%	12.5%	11.9%	11.0%	11.9%
2.8	3.56	1.02	34.4%	19.0%	13.4%	12.7%	11.8%	12.7%
2.9	3.52	1.05	35.9%	20.0%	14.2%	13.5%	12.6%	13.5%
3.0	3.48	1.07	37.3%	21.1%	15.1%	14.3%	13.4%	14.3%

**Table H-96 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.58	0.60	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
0.8	5.18	0.64	0.3%	0.1%	0.1%	0.2%	0.1%	0.1%
0.9	4.86	0.67	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%
1.0	4.61	0.71	0.9%	0.3%	0.3%	0.4%	0.3%	0.3%
1.1	4.41	0.75	1.3%	0.5%	0.4%	0.5%	0.4%	0.4%
1.2	4.23	0.78	1.8%	0.7%	0.5%	0.7%	0.5%	0.6%
1.3	4.09	0.82	2.5%	1.0%	0.7%	0.8%	0.7%	0.8%
1.4	3.96	0.85	3.1%	1.2%	0.9%	1.1%	0.9%	1.0%
1.5	3.86	0.89	3.9%	1.6%	1.1%	1.3%	1.1%	1.2%
1.6	3.76	0.93	4.7%	1.9%	1.3%	1.6%	1.3%	1.5%
1.7	3.68	0.96	5.6%	2.3%	1.6%	1.8%	1.6%	1.8%
1.8	3.61	1.00	6.5%	2.7%	1.9%	2.2%	1.9%	2.1%
1.9	3.54	1.03	7.4%	3.2%	2.2%	2.5%	2.2%	2.4%
2.0	3.48	1.07	8.4%	3.7%	2.6%	2.9%	2.6%	2.7%
2.1	3.43	1.11	9.4%	4.2%	2.9%	3.3%	3.0%	3.1%
2.2	3.38	1.14	10.4%	4.7%	3.3%	3.7%	3.4%	3.5%
2.3	3.33	1.18	11.5%	5.3%	3.8%	4.1%	3.8%	3.9%
2.4	3.29	1.22	12.5%	5.9%	4.2%	4.6%	4.3%	4.3%
2.5	3.25	1.25	13.6%	6.5%	4.7%	5.1%	4.8%	4.8%
2.6	3.22	1.29	14.6%	7.2%	5.2%	5.7%	5.4%	5.3%
2.7	3.19	1.32	15.7%	7.9%	5.8%	6.2%	6.0%	5.8%
2.8	3.16	1.36	16.8%	8.6%	6.4%	6.8%	6.6%	6.4%
2.9	3.13	1.40	17.8%	9.3%	7.0%	7.5%	7.3%	7.0%
3.0	3.10	1.43	18.9%	10.1%	7.6%	8.2%	8.0%	7.7%



**Table H-97 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).**

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.42	1.71	1.97	2.17	2.30	2.38	2.36	12.28%	
0.8	0.44	1.77	2.05	2.26	2.40	2.48	2.46	12.03%	
0.9	0.47	1.83	2.13	2.35	2.50	2.58	2.56	11.79%	
1.0	0.49	1.89	2.21	2.44	2.60	2.68	2.65	11.55%	
1.1	0.52	1.95	2.28	2.53	2.69	2.77	2.74	11.32%	
1.2	0.54	2.01	2.36	2.62	2.79	2.87	2.83	11.09%	
1.3	0.56	2.07	2.43	2.70	2.88	2.96	2.91	10.86%	
1.4	0.59	2.12	2.51	2.79	2.97	3.05	3.00	10.65%	
1.5	0.61	2.18	2.58	2.87	3.05	3.13	3.07	10.43%	
1.6	0.64	2.24	2.65	2.95	3.14	3.22	3.15	10.22%	
1.7	0.66	2.29	2.72	3.03	3.22	3.30	3.22	10.01%	
1.8	0.68	2.35	2.78	3.10	3.30	3.38	3.29	9.81%	
1.9	0.71	2.40	2.85	3.18	3.38	3.46	3.36	9.61%	
2.0	0.73	2.45	2.92	3.25	3.46	3.53	3.42	9.42%	
2.1	0.76	2.51	2.98	3.32	3.53	3.61	3.48	9.23%	
2.2	0.78	2.56	3.04	3.39	3.60	3.68	3.54	9.04%	
2.3	0.80	2.61	3.11	3.46	3.67	3.75	3.59	8.86%	
2.4	0.83	2.66	3.17	3.53	3.74	3.81	3.65	8.68%	
2.5	0.85	2.71	3.23	3.59	3.81	3.88	3.70	8.50%	
2.6	0.88	2.76	3.28	3.66	3.87	3.94	3.75	8.33%	
2.7	0.90	2.81	3.34	3.72	3.94	4.00	3.79	8.16%	
2.8	0.92	2.85	3.40	3.78	4.00	4.06	3.83	8.00%	
2.9	0.95	2.90	3.45	3.84	4.06	4.11	3.87	7.84%	
3.0	0.97	2.95	3.50	3.89	4.11	4.17	3.91	7.68%	

**Table H-98** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.50	1.92	2.25	2.49	2.65	2.73	2.70	11.43%	
0.8	0.54	2.01	2.36	2.62	2.79	2.87	2.83	11.09%	
0.9	0.58	2.10	2.47	2.75	2.92	3.00	2.96	10.75%	
1.0	0.61	2.18	2.58	2.87	3.05	3.13	3.07	10.43%	
1.1	0.65	2.26	2.68	2.99	3.18	3.26	3.19	10.12%	
1.2	0.68	2.35	2.78	3.10	3.30	3.38	3.29	9.81%	
1.3	0.72	2.43	2.88	3.21	3.42	3.50	3.39	9.51%	
1.4	0.76	2.51	2.98	3.32	3.53	3.61	3.48	9.23%	
1.5	0.79	2.58	3.07	3.43	3.64	3.71	3.57	8.95%	
1.6	0.83	2.66	3.17	3.53	3.74	3.81	3.65	8.68%	
1.7	0.86	2.73	3.25	3.62	3.84	3.91	3.72	8.42%	
1.8	0.90	2.81	3.34	3.72	3.94	4.00	3.79	8.16%	
1.9	0.94	2.88	3.42	3.81	4.03	4.09	3.85	7.92%	
2.0	0.97	2.95	3.50	3.89	4.11	4.17	3.91	7.68%	
2.1	1.01	3.02	3.58	3.97	4.19	4.24	3.97	7.45%	
2.2	1.05	3.08	3.66	4.05	4.27	4.32	4.02	7.22%	
2.3	1.08	3.15	3.73	4.13	4.34	4.38	4.06	7.01%	
2.4	1.12	3.21	3.80	4.20	4.41	4.45	4.10	6.79%	
2.5	1.15	3.27	3.86	4.26	4.47	4.51	4.14	6.59%	
2.6	1.19	3.34	3.93	4.33	4.53	4.56	4.17	6.39%	
2.7	1.23	3.39	3.99	4.39	4.58	4.61	4.20	6.20%	
2.8	1.26	3.45	4.05	4.44	4.63	4.65	4.23	6.01%	
2.9	1.30	3.51	4.10	4.49	4.68	4.69	4.26	5.83%	
3.0	1.33	3.56	4.16	4.54	4.72	4.73	4.28	5.65%	

**Table H-99 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.83	0.42	2.83	3.52	4.09	4.37	4.51	4.49
0.8	5.40	0.44	2.57	3.21	3.73	4.00	4.12	4.10
0.9	5.06	0.47	2.36	2.96	3.45	3.70	3.81	3.78
1.0	4.79	0.49	2.19	2.76	3.23	3.46	3.56	3.53
1.1	4.57	0.52	2.06	2.60	3.04	3.26	3.35	3.32
1.2	4.38	0.54	1.94	2.46	2.88	3.09	3.18	3.14
1.3	4.23	0.56	1.84	2.34	2.75	2.94	3.03	2.98
1.4	4.09	0.59	1.76	2.24	2.63	2.82	2.89	2.85
1.5	3.98	0.61	1.69	2.15	2.52	2.71	2.78	2.73
1.6	3.87	0.64	1.62	2.07	2.43	2.61	2.67	2.62
1.7	3.78	0.66	1.56	2.00	2.35	2.52	2.58	2.52
1.8	3.70	0.68	1.51	1.93	2.28	2.44	2.50	2.43
1.9	3.63	0.71	1.47	1.88	2.21	2.37	2.42	2.35
2.0	3.57	0.73	1.42	1.82	2.15	2.30	2.35	2.27
2.1	3.51	0.76	1.38	1.77	2.09	2.24	2.28	2.20
2.2	3.46	0.78	1.35	1.73	2.04	2.18	2.22	2.13
2.3	3.41	0.80	1.32	1.69	1.99	2.12	2.17	2.07
2.4	3.37	0.83	1.29	1.65	1.94	2.07	2.11	2.01
2.5	3.33	0.85	1.26	1.61	1.90	2.03	2.06	1.96
2.6	3.29	0.88	1.23	1.58	1.86	1.98	2.02	1.91
2.7	3.25	0.90	1.21	1.55	1.82	1.94	1.97	1.86
2.8	3.22	0.92	1.18	1.52	1.78	1.90	1.93	1.81
2.9	3.19	0.95	1.16	1.49	1.75	1.86	1.89	1.77
3.0	3.16	0.97	1.14	1.46	1.71	1.82	1.85	1.72

**Table H-100 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.67	0.50	3.18	4.01	4.69	5.03	5.18	5.13
0.8	4.38	0.54	2.91	3.69	4.32	4.63	4.76	4.71
0.9	4.16	0.58	2.70	3.43	4.03	4.32	4.44	4.37
1.0	3.98	0.61	2.53	3.22	3.79	4.06	4.17	4.09
1.1	3.83	0.65	2.39	3.05	3.59	3.84	3.94	3.85
1.2	3.70	0.68	2.27	2.90	3.41	3.66	3.75	3.64
1.3	3.60	0.72	2.17	2.77	3.26	3.50	3.58	3.46
1.4	3.51	0.76	2.08	2.66	3.13	3.35	3.43	3.30
1.5	3.43	0.79	2.00	2.56	3.02	3.23	3.29	3.15
1.6	3.37	0.83	1.93	2.47	2.91	3.11	3.17	3.02
1.7	3.31	0.86	1.87	2.39	2.81	3.01	3.06	2.90
1.8	3.25	0.90	1.81	2.32	2.73	2.91	2.96	2.79
1.9	3.21	0.94	1.76	2.25	2.64	2.82	2.86	2.68
2.0	3.16	0.97	1.71	2.19	2.57	2.73	2.77	2.58
2.1	3.12	1.01	1.67	2.13	2.50	2.66	2.69	2.49
2.2	3.09	1.05	1.63	2.08	2.43	2.58	2.61	2.40
2.3	3.06	1.08	1.59	2.03	2.37	2.51	2.54	2.31
2.4	3.03	1.12	1.55	1.98	2.31	2.44	2.46	2.22
2.5	3.00	1.15	1.52	1.93	2.25	2.38	2.40	2.14
2.6	2.98	1.19	1.49	1.89	2.20	2.32	2.33	2.07
2.7	2.95	1.23	1.46	1.85	2.14	2.26	2.27	2.00
2.8	2.93	1.26	1.43	1.81	2.09	2.20	2.21	1.93
2.9	2.91	1.30	1.40	1.77	2.05	2.15	2.15	1.87
3.0	2.89	1.33	1.38	1.73	2.00	2.09	2.10	1.81

**Table H-101 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.83	0.42	1.0%	0.6%	0.5%	0.7%	0.6%	0.6%
0.8	5.40	0.44	1.8%	1.0%	0.8%	1.0%	0.9%	0.9%
0.9	5.06	0.47	2.8%	1.5%	1.2%	1.5%	1.3%	1.3%
1.0	4.79	0.49	4.1%	2.1%	1.7%	1.9%	1.7%	1.8%
1.1	4.57	0.52	5.5%	2.8%	2.2%	2.5%	2.2%	2.3%
1.2	4.38	0.54	7.0%	3.6%	2.7%	3.0%	2.7%	2.8%
1.3	4.23	0.56	8.7%	4.5%	3.3%	3.6%	3.3%	3.4%
1.4	4.09	0.59	10.5%	5.4%	3.9%	4.2%	3.8%	4.1%
1.5	3.98	0.61	12.3%	6.3%	4.6%	4.8%	4.4%	4.7%
1.6	3.87	0.64	14.1%	7.3%	5.3%	5.5%	5.1%	5.4%
1.7	3.78	0.66	16.0%	8.3%	6.0%	6.2%	5.7%	6.2%
1.8	3.70	0.68	17.9%	9.4%	6.7%	6.9%	6.4%	6.8%
1.9	3.63	0.71	19.8%	10.4%	7.5%	7.6%	7.0%	7.5%
2.0	3.57	0.73	21.7%	11.5%	8.3%	8.3%	7.7%	8.2%
2.1	3.51	0.76	23.5%	12.6%	9.0%	9.0%	8.4%	8.9%
2.2	3.46	0.78	25.3%	13.7%	9.8%	9.7%	9.2%	9.6%
2.3	3.41	0.80	27.1%	14.8%	10.6%	10.5%	9.9%	10.4%
2.4	3.37	0.83	28.8%	15.9%	11.4%	11.2%	10.6%	11.1%
2.5	3.33	0.85	30.6%	17.0%	12.2%	12.0%	11.4%	11.9%
2.6	3.29	0.88	32.2%	18.1%	13.0%	12.7%	12.1%	12.7%
2.7	3.25	0.90	33.9%	19.2%	13.9%	13.5%	12.9%	13.6%
2.8	3.22	0.92	35.5%	20.3%	14.7%	14.3%	13.7%	14.5%
2.9	3.19	0.95	37.0%	21.4%	15.6%	15.0%	14.5%	15.4%
3.0	3.16	0.97	38.5%	22.5%	16.4%	15.8%	15.3%	16.3%

**Table H-102 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.67	0.50	0.2%	0.1%	0.1%	0.2%	0.1%	0.1%
0.8	4.38	0.54	0.4%	0.2%	0.2%	0.3%	0.2%	0.2%
0.9	4.16	0.58	0.7%	0.3%	0.3%	0.4%	0.3%	0.4%
1.0	3.98	0.61	1.0%	0.5%	0.4%	0.5%	0.5%	0.5%
1.1	3.83	0.65	1.5%	0.7%	0.5%	0.7%	0.6%	0.7%
1.2	3.70	0.68	2.0%	0.9%	0.7%	0.9%	0.8%	0.9%
1.3	3.60	0.72	2.7%	1.2%	0.9%	1.1%	1.0%	1.1%
1.4	3.51	0.76	3.4%	1.5%	1.1%	1.4%	1.3%	1.3%
1.5	3.43	0.79	4.2%	1.8%	1.4%	1.7%	1.5%	1.5%
1.6	3.37	0.83	5.0%	2.2%	1.6%	2.0%	1.8%	1.7%
1.7	3.31	0.86	6.0%	2.6%	1.9%	2.3%	2.1%	2.0%
1.8	3.25	0.90	6.9%	3.1%	2.2%	2.6%	2.4%	2.3%
1.9	3.21	0.94	7.9%	3.6%	2.6%	3.0%	2.8%	2.6%
2.0	3.16	0.97	9.0%	4.1%	3.0%	3.4%	3.2%	3.0%
2.1	3.12	1.01	10.1%	4.6%	3.4%	3.8%	3.6%	3.4%
2.2	3.09	1.05	11.2%	5.2%	3.8%	4.2%	4.1%	3.9%
2.3	3.06	1.08	12.4%	5.8%	4.2%	4.7%	4.5%	4.4%
2.4	3.03	1.12	13.6%	6.5%	4.7%	5.2%	5.1%	5.0%
2.5	3.00	1.15	14.8%	7.2%	5.2%	5.8%	5.6%	5.7%
2.6	2.98	1.19	16.0%	7.9%	5.8%	6.3%	6.2%	6.4%
2.7	2.95	1.23	17.3%	8.6%	6.4%	6.9%	6.8%	7.2%
2.8	2.93	1.26	18.6%	9.4%	7.0%	7.6%	7.5%	8.1%
2.9	2.91	1.30	19.8%	10.3%	7.6%	8.3%	8.2%	9.0%
3.0	2.89	1.33	21.2%	11.1%	8.3%	9.0%	8.9%	10.0%

**Table H-103** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.36	1.60	1.81	1.96	2.07	2.15	2.11	11.32%	
0.8	0.39	1.67	1.89	2.06	2.18	2.26	2.22	11.15%	
0.9	0.41	1.73	1.97	2.15	2.28	2.37	2.32	10.99%	
1.0	0.44	1.79	2.05	2.25	2.38	2.47	2.41	10.82%	
1.1	0.46	1.85	2.13	2.34	2.48	2.57	2.51	10.67%	
1.2	0.48	1.91	2.20	2.42	2.58	2.67	2.60	10.51%	
1.3	0.51	1.97	2.28	2.51	2.67	2.77	2.69	10.35%	
1.4	0.53	2.03	2.35	2.60	2.76	2.86	2.77	10.20%	
1.5	0.56	2.09	2.43	2.68	2.85	2.95	2.85	10.05%	
1.6	0.58	2.15	2.50	2.76	2.94	3.03	2.93	9.90%	
1.7	0.60	2.20	2.57	2.84	3.02	3.12	3.01	9.76%	
1.8	0.63	2.26	2.64	2.92	3.10	3.20	3.08	9.62%	
1.9	0.65	2.32	2.70	2.99	3.18	3.28	3.15	9.47%	
2.0	0.68	2.37	2.77	3.07	3.26	3.36	3.22	9.33%	
2.1	0.70	2.42	2.84	3.14	3.34	3.43	3.29	9.20%	
2.2	0.73	2.48	2.90	3.21	3.41	3.50	3.35	9.06%	
2.3	0.75	2.53	2.96	3.28	3.48	3.57	3.41	8.93%	
2.4	0.77	2.58	3.02	3.35	3.55	3.64	3.47	8.80%	
2.5	0.80	2.63	3.08	3.41	3.62	3.70	3.52	8.67%	
2.6	0.82	2.68	3.14	3.47	3.68	3.76	3.58	8.54%	
2.7	0.85	2.73	3.20	3.54	3.74	3.82	3.63	8.42%	
2.8	0.87	2.78	3.26	3.60	3.80	3.87	3.68	8.29%	
2.9	0.89	2.83	3.31	3.65	3.86	3.93	3.72	8.17%	
3.0	0.92	2.88	3.36	3.71	3.91	3.98	3.77	8.05%	

**Table H-104** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.45	1.82	2.09	2.29	2.43	2.52	2.46	10.74%
0.8	0.48	1.91	2.20	2.42	2.58	2.67	2.60	10.51%
0.9	0.52	2.00	2.32	2.55	2.72	2.81	2.73	10.28%
1.0	0.56	2.09	2.43	2.68	2.85	2.95	2.85	10.05%
1.1	0.59	2.18	2.53	2.80	2.98	3.08	2.97	9.83%
1.2	0.63	2.26	2.64	2.92	3.10	3.20	3.08	9.62%
1.3	0.67	2.34	2.74	3.03	3.22	3.32	3.19	9.40%
1.4	0.70	2.42	2.84	3.14	3.34	3.43	3.29	9.20%
1.5	0.74	2.50	2.93	3.25	3.45	3.54	3.38	9.00%
1.6	0.77	2.58	3.02	3.35	3.55	3.64	3.47	8.80%
1.7	0.81	2.66	3.11	3.44	3.65	3.73	3.55	8.60%
1.8	0.85	2.73	3.20	3.54	3.74	3.82	3.63	8.42%
1.9	0.88	2.81	3.28	3.62	3.83	3.90	3.70	8.23%
2.0	0.92	2.88	3.36	3.71	3.91	3.98	3.77	8.05%
2.1	0.95	2.95	3.44	3.79	3.99	4.05	3.83	7.87%
2.2	0.99	3.02	3.52	3.87	4.07	4.12	3.89	7.70%
2.3	1.03	3.08	3.59	3.94	4.14	4.18	3.94	7.53%
2.4	1.06	3.15	3.66	4.01	4.20	4.24	3.99	7.37%
2.5	1.10	3.21	3.72	4.07	4.26	4.29	4.04	7.20%
2.6	1.14	3.27	3.79	4.13	4.31	4.34	4.08	7.05%
2.7	1.17	3.33	3.85	4.19	4.36	4.38	4.12	6.89%
2.8	1.21	3.39	3.90	4.24	4.40	4.42	4.16	6.74%
2.9	1.24	3.45	3.96	4.29	4.44	4.45	4.19	6.59%
3.0	1.28	3.50	4.01	4.33	4.47	4.48	4.22	6.45%



**Table H-105 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.07	0.36	2.66	3.23	3.70	3.94	4.09	4.02
0.8	4.73	0.39	2.42	2.95	3.40	3.62	3.76	3.68
0.9	4.46	0.41	2.23	2.74	3.16	3.37	3.50	3.42
1.0	4.25	0.44	2.08	2.56	2.96	3.17	3.29	3.21
1.1	4.08	0.46	1.95	2.42	2.80	3.00	3.11	3.03
1.2	3.94	0.48	1.85	2.30	2.67	2.85	2.96	2.88
1.3	3.81	0.51	1.76	2.19	2.55	2.73	2.83	2.75
1.4	3.71	0.53	1.68	2.10	2.45	2.62	2.72	2.63
1.5	3.62	0.56	1.62	2.02	2.36	2.53	2.61	2.53
1.6	3.54	0.58	1.56	1.95	2.28	2.44	2.52	2.44
1.7	3.47	0.60	1.50	1.89	2.21	2.36	2.44	2.35
1.8	3.41	0.63	1.46	1.83	2.14	2.29	2.36	2.27
1.9	3.35	0.65	1.41	1.78	2.08	2.23	2.30	2.20
2.0	3.30	0.68	1.37	1.73	2.02	2.17	2.23	2.14
2.1	3.26	0.70	1.34	1.69	1.97	2.11	2.17	2.08
2.2	3.21	0.73	1.31	1.65	1.93	2.06	2.12	2.02
2.3	3.18	0.75	1.28	1.61	1.88	2.01	2.06	1.96
2.4	3.14	0.77	1.25	1.57	1.84	1.97	2.01	1.91
2.5	3.11	0.80	1.22	1.54	1.80	1.92	1.97	1.87
2.6	3.08	0.82	1.20	1.51	1.76	1.88	1.92	1.82
2.7	3.05	0.85	1.17	1.48	1.73	1.84	1.88	1.78
2.8	3.03	0.87	1.15	1.45	1.70	1.81	1.84	1.74
2.9	3.01	0.89	1.13	1.43	1.66	1.77	1.80	1.70
3.0	2.98	0.92	1.11	1.40	1.63	1.74	1.76	1.66

**Table H-106 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.16	0.45	3.02	3.73	4.32	4.62	4.79	4.67
0.8	3.94	0.48	2.77	3.44	4.00	4.28	4.44	4.32
0.9	3.76	0.52	2.58	3.22	3.75	4.01	4.16	4.03
1.0	3.62	0.56	2.42	3.03	3.54	3.79	3.92	3.79
1.1	3.50	0.59	2.29	2.88	3.36	3.60	3.72	3.59
1.2	3.41	0.63	2.18	2.75	3.21	3.44	3.55	3.41
1.3	3.33	0.67	2.09	2.63	3.08	3.30	3.39	3.25
1.4	3.26	0.70	2.01	2.53	2.96	3.17	3.26	3.11
1.5	3.20	0.74	1.94	2.44	2.86	3.05	3.13	2.99
1.6	3.14	0.77	1.87	2.36	2.76	2.95	3.02	2.87
1.7	3.10	0.81	1.81	2.29	2.67	2.85	2.92	2.77
1.8	3.05	0.85	1.76	2.22	2.59	2.77	2.82	2.67
1.9	3.02	0.88	1.71	2.16	2.52	2.68	2.73	2.58
2.0	2.98	0.92	1.67	2.10	2.45	2.60	2.65	2.49
2.1	2.95	0.95	1.63	2.05	2.38	2.53	2.57	2.41
2.2	2.93	0.99	1.59	2.00	2.32	2.46	2.49	2.33
2.3	2.90	1.03	1.55	1.95	2.26	2.39	2.42	2.26
2.4	2.88	1.06	1.52	1.90	2.20	2.33	2.35	2.19
2.5	2.86	1.10	1.49	1.86	2.15	2.26	2.28	2.12
2.6	2.84	1.14	1.46	1.82	2.10	2.20	2.22	2.05
2.7	2.82	1.17	1.43	1.78	2.05	2.15	2.16	1.99
2.8	2.80	1.21	1.40	1.74	2.00	2.09	2.10	1.93
2.9	2.79	1.24	1.38	1.71	1.95	2.04	2.04	1.87
3.0	2.77	1.28	1.35	1.67	1.91	1.98	1.99	1.81

**Table H-107 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.07	0.36	1.5%	1.0%	0.9%	1.1%	0.9%	1.0%
0.8	4.73	0.39	2.5%	1.5%	1.3%	1.6%	1.4%	1.5%
0.9	4.46	0.41	3.8%	2.2%	1.8%	2.1%	1.8%	2.0%
1.0	4.25	0.44	5.2%	3.0%	2.4%	2.7%	2.4%	2.6%
1.1	4.08	0.46	6.9%	3.9%	3.0%	3.4%	2.9%	3.2%
1.2	3.94	0.48	8.6%	4.8%	3.7%	4.0%	3.5%	3.9%
1.3	3.81	0.51	10.5%	5.8%	4.4%	4.7%	4.1%	4.6%
1.4	3.71	0.53	12.4%	6.9%	5.2%	5.4%	4.8%	5.3%
1.5	3.62	0.56	14.3%	8.0%	5.9%	6.1%	5.5%	6.1%
1.6	3.54	0.58	16.3%	9.1%	6.7%	6.8%	6.2%	6.8%
1.7	3.47	0.60	18.2%	10.2%	7.5%	7.6%	6.9%	7.5%
1.8	3.41	0.63	20.2%	11.3%	8.3%	8.3%	7.6%	8.3%
1.9	3.35	0.65	22.1%	12.5%	9.1%	9.1%	8.3%	9.0%
2.0	3.30	0.68	24.0%	13.6%	10.0%	9.9%	9.0%	9.8%
2.1	3.26	0.70	25.8%	14.7%	10.8%	10.6%	9.8%	10.6%
2.2	3.21	0.73	27.6%	15.9%	11.7%	11.4%	10.6%	11.3%
2.3	3.18	0.75	29.4%	17.0%	12.5%	12.2%	11.4%	12.2%
2.4	3.14	0.77	31.1%	18.2%	13.4%	13.0%	12.2%	13.0%
2.5	3.11	0.80	32.8%	19.3%	14.2%	13.8%	13.0%	13.8%
2.6	3.08	0.82	34.5%	20.5%	15.1%	14.6%	13.8%	14.7%
2.7	3.05	0.85	36.1%	21.6%	16.0%	15.4%	14.6%	15.6%
2.8	3.03	0.87	37.6%	22.7%	16.9%	16.2%	15.5%	16.5%
2.9	3.01	0.89	39.2%	23.9%	17.8%	17.1%	16.3%	17.4%
3.0	2.98	0.92	40.6%	25.0%	18.7%	17.9%	17.2%	18.3%

**Table H-108 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.16	0.45	0.3%	0.2%	0.2%	0.3%	0.2%	0.3%
0.8	3.94	0.48	0.5%	0.3%	0.3%	0.4%	0.3%	0.4%
0.9	3.76	0.52	0.9%	0.5%	0.4%	0.6%	0.5%	0.6%
1.0	3.62	0.56	1.3%	0.7%	0.6%	0.8%	0.6%	0.8%
1.1	3.50	0.59	1.9%	0.9%	0.8%	1.0%	0.8%	1.0%
1.2	3.41	0.63	2.5%	1.2%	1.0%	1.2%	1.1%	1.2%
1.3	3.33	0.67	3.3%	1.6%	1.2%	1.5%	1.3%	1.4%
1.4	3.26	0.70	4.1%	1.9%	1.5%	1.8%	1.6%	1.7%
1.5	3.20	0.74	4.9%	2.4%	1.8%	2.1%	1.9%	1.9%
1.6	3.14	0.77	5.9%	2.8%	2.1%	2.5%	2.2%	2.2%
1.7	3.10	0.81	6.8%	3.3%	2.5%	2.8%	2.6%	2.6%
1.8	3.05	0.85	7.9%	3.8%	2.8%	3.2%	3.0%	2.9%
1.9	3.02	0.88	8.9%	4.4%	3.2%	3.6%	3.4%	3.3%
2.0	2.98	0.92	10.0%	4.9%	3.7%	4.1%	3.8%	3.7%
2.1	2.95	0.95	11.2%	5.6%	4.1%	4.6%	4.3%	4.2%
2.2	2.93	0.99	12.3%	6.2%	4.6%	5.1%	4.9%	4.6%
2.3	2.90	1.03	13.5%	6.9%	5.1%	5.6%	5.4%	5.1%
2.4	2.88	1.06	14.7%	7.6%	5.7%	6.2%	6.0%	5.8%
2.5	2.86	1.10	16.0%	8.4%	6.3%	6.9%	6.7%	6.4%
2.6	2.84	1.14	17.2%	9.2%	6.9%	7.5%	7.4%	7.2%
2.7	2.82	1.17	18.5%	10.0%	7.6%	8.2%	8.1%	7.9%
2.8	2.80	1.21	19.8%	10.9%	8.3%	9.0%	8.9%	8.8%
2.9	2.79	1.24	21.1%	11.8%	9.1%	9.8%	9.7%	9.7%
3.0	2.77	1.28	22.4%	12.7%	9.9%	10.7%	10.6%	10.7%

**Table H-109** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.65	3.14	3.60	3.93	4.14	4.23	4.04	8.59%
0.8	1.66	3.15	3.61	3.94	4.15	4.24	4.05	8.56%
0.9	1.66	3.16	3.62	3.95	4.16	4.25	4.06	8.54%
1.0	1.67	3.17	3.63	3.97	4.17	4.26	4.07	8.51%
1.1	1.68	3.18	3.64	3.98	4.19	4.27	4.08	8.48%
1.2	1.68	3.19	3.65	3.99	4.20	4.28	4.09	8.45%
1.3	1.69	3.20	3.67	4.00	4.21	4.29	4.09	8.42%
1.4	1.70	3.21	3.68	4.02	4.22	4.30	4.10	8.40%
1.5	1.70	3.22	3.69	4.03	4.23	4.31	4.11	8.37%
1.6	1.71	3.23	3.70	4.04	4.25	4.32	4.12	8.34%
1.7	1.72	3.24	3.71	4.05	4.26	4.33	4.13	8.31%
1.8	1.72	3.25	3.72	4.06	4.27	4.34	4.14	8.29%
1.9	1.73	3.26	3.74	4.08	4.28	4.35	4.15	8.26%
2.0	1.74	3.27	3.75	4.09	4.29	4.36	4.16	8.23%
2.1	1.74	3.28	3.76	4.10	4.30	4.37	4.17	8.21%
2.2	1.75	3.29	3.77	4.11	4.31	4.38	4.18	8.18%
2.3	1.76	3.30	3.78	4.12	4.32	4.39	4.19	8.15%
2.4	1.77	3.31	3.79	4.13	4.34	4.40	4.20	8.12%
2.5	1.77	3.32	3.80	4.15	4.35	4.41	4.21	8.10%
2.6	1.78	3.33	3.82	4.16	4.36	4.42	4.22	8.07%
2.7	1.79	3.34	3.83	4.17	4.37	4.43	4.22	8.04%
2.8	1.79	3.35	3.84	4.18	4.38	4.44	4.23	8.02%
2.9	1.80	3.36	3.85	4.19	4.39	4.45	4.24	7.99%
3.0	1.81	3.37	3.86	4.20	4.40	4.46	4.25	7.97%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 22.7

**Table H-110** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.67	3.17	3.64	3.97	4.18	4.26	4.07	8.49%
0.8	1.68	3.19	3.65	3.99	4.20	4.28	4.09	8.45%
0.9	1.69	3.20	3.67	4.01	4.22	4.29	4.10	8.41%
1.0	1.70	3.22	3.69	4.03	4.23	4.31	4.11	8.37%
1.1	1.71	3.24	3.71	4.05	4.25	4.32	4.13	8.33%
1.2	1.72	3.25	3.72	4.06	4.27	4.34	4.14	8.29%
1.3	1.73	3.27	3.74	4.08	4.29	4.35	4.16	8.25%
1.4	1.74	3.28	3.76	4.10	4.30	4.37	4.17	8.21%
1.5	1.76	3.30	3.78	4.12	4.32	4.38	4.18	8.16%
1.6	1.77	3.31	3.79	4.13	4.34	4.40	4.20	8.12%
1.7	1.78	3.33	3.81	4.15	4.35	4.41	4.21	8.08%
1.8	1.79	3.34	3.83	4.17	4.37	4.43	4.22	8.04%
1.9	1.80	3.36	3.84	4.19	4.39	4.44	4.24	8.01%
2.0	1.81	3.37	3.86	4.20	4.40	4.46	4.25	7.97%
2.1	1.82	3.39	3.88	4.22	4.42	4.47	4.26	7.93%
2.2	1.83	3.40	3.89	4.24	4.43	4.49	4.28	7.89%
2.3	1.84	3.42	3.91	4.25	4.45	4.50	4.29	7.85%
2.4	1.85	3.43	3.93	4.27	4.47	4.52	4.30	7.81%
2.5	1.86	3.45	3.94	4.29	4.48	4.53	4.32	7.77%
2.6	1.87	3.46	3.96	4.30	4.50	4.54	4.33	7.73%
2.7	1.88	3.48	3.97	4.32	4.51	4.56	4.34	7.70%
2.8	1.89	3.49	3.99	4.34	4.53	4.57	4.35	7.66%
2.9	1.90	3.50	4.01	4.35	4.55	4.59	4.37	7.62%
3.0	1.91	3.52	4.02	4.37	4.56	4.60	4.38	7.58%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 15.2

**Table H-111 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	80.27	1.65	5.20	6.42	7.41	7.86	8.03	7.64
0.8	70.53	1.66	4.56	5.64	6.50	6.90	7.04	6.70
0.9	62.96	1.66	4.07	5.03	5.80	6.15	6.27	5.97
1.0	56.90	1.67	3.67	4.54	5.24	5.55	5.66	5.38
1.1	51.94	1.68	3.35	4.14	4.77	5.06	5.16	4.91
1.2	47.80	1.68	3.08	3.81	4.39	4.65	4.74	4.51
1.3	44.31	1.69	2.85	3.53	4.06	4.31	4.39	4.17
1.4	41.31	1.70	2.66	3.28	3.79	4.01	4.08	3.88
1.5	38.71	1.70	2.49	3.07	3.54	3.75	3.82	3.63
1.6	36.44	1.71	2.34	2.89	3.33	3.53	3.59	3.41
1.7	34.44	1.72	2.21	2.73	3.15	3.33	3.39	3.22
1.8	32.65	1.72	2.09	2.59	2.98	3.15	3.21	3.04
1.9	31.06	1.73	1.99	2.46	2.83	3.00	3.04	2.89
2.0	29.62	1.74	1.90	2.34	2.70	2.85	2.90	2.75
2.1	28.32	1.74	1.81	2.24	2.58	2.72	2.77	2.63
2.2	27.14	1.75	1.74	2.14	2.47	2.61	2.65	2.51
2.3	26.07	1.76	1.67	2.06	2.37	2.50	2.54	2.41
2.4	25.08	1.77	1.60	1.98	2.27	2.40	2.44	2.31
2.5	24.17	1.77	1.54	1.90	2.19	2.31	2.35	2.23
2.6	23.33	1.78	1.49	1.83	2.11	2.23	2.26	2.14
2.7	22.55	1.79	1.44	1.77	2.04	2.15	2.18	2.07
2.8	21.83	1.79	1.39	1.71	1.97	2.08	2.11	2.00
2.9	21.16	1.80	1.34	1.66	1.91	2.01	2.04	1.93
3.0	20.53	1.81	1.30	1.61	1.85	1.95	1.98	1.87

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-112 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 15.2$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	54.30	1.67	5.26	6.49	7.49	7.94	8.10	7.70
0.8	47.80	1.68	4.62	5.71	6.59	6.98	7.11	6.76
0.9	42.75	1.69	4.13	5.10	5.88	6.23	6.34	6.03
1.0	38.71	1.70	3.73	4.61	5.32	5.63	5.73	5.44
1.1	35.41	1.71	3.41	4.21	4.85	5.14	5.23	4.97
1.2	32.65	1.72	3.14	3.88	4.47	4.73	4.81	4.57
1.3	30.32	1.73	2.91	3.60	4.14	4.38	4.45	4.23
1.4	28.32	1.74	2.72	3.36	3.86	4.09	4.15	3.94
1.5	26.59	1.76	2.55	3.15	3.62	3.83	3.89	3.69
1.6	25.08	1.77	2.40	2.96	3.41	3.60	3.66	3.47
1.7	23.74	1.78	2.27	2.80	3.22	3.41	3.45	3.28
1.8	22.55	1.79	2.15	2.66	3.06	3.23	3.27	3.10
1.9	21.49	1.80	2.05	2.53	2.91	3.07	3.11	2.95
2.0	20.53	1.81	1.96	2.41	2.77	2.93	2.96	2.81
2.1	19.67	1.82	1.87	2.31	2.65	2.80	2.83	2.68
2.2	18.88	1.83	1.79	2.21	2.54	2.68	2.71	2.57
2.3	18.16	1.84	1.72	2.12	2.44	2.57	2.60	2.47
2.4	17.50	1.85	1.66	2.04	2.35	2.48	2.50	2.37
2.5	16.90	1.86	1.60	1.97	2.26	2.38	2.41	2.28
2.6	16.34	1.87	1.54	1.90	2.19	2.30	2.32	2.20
2.7	15.82	1.88	1.49	1.84	2.11	2.22	2.25	2.12
2.8	15.34	1.89	1.45	1.78	2.04	2.15	2.17	2.05
2.9	14.89	1.90	1.40	1.73	1.98	2.08	2.10	1.99
3.0	14.47	1.91	1.36	1.68	1.92	2.02	2.04	1.93

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-113 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	80.27	1.65	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	70.53	1.66	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
0.9	62.96	1.66	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1.0	56.90	1.67	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%
1.1	51.94	1.68	0.4%	0.2%	0.2%	0.3%	0.3%	0.3%
1.2	47.80	1.68	0.6%	0.4%	0.4%	0.5%	0.5%	0.4%
1.3	44.31	1.69	1.0%	0.6%	0.5%	0.7%	0.7%	0.6%
1.4	41.31	1.70	1.5%	0.9%	0.8%	1.0%	1.0%	0.8%
1.5	38.71	1.70	2.1%	1.2%	1.1%	1.4%	1.3%	1.2%
1.6	36.44	1.71	2.9%	1.7%	1.4%	1.8%	1.7%	1.5%
1.7	34.44	1.72	3.9%	2.2%	1.9%	2.2%	2.1%	2.0%
1.8	32.65	1.72	5.0%	2.9%	2.4%	2.8%	2.6%	2.5%
1.9	31.06	1.73	6.3%	3.6%	2.9%	3.4%	3.2%	3.0%
2.0	29.62	1.74	7.7%	4.4%	3.6%	4.0%	3.8%	3.6%
2.1	28.32	1.74	9.3%	5.4%	4.3%	4.7%	4.5%	4.3%
2.2	27.14	1.75	11.0%	6.4%	5.0%	5.5%	5.2%	5.1%
2.3	26.07	1.76	12.9%	7.5%	5.9%	6.3%	6.0%	5.9%
2.4	25.08	1.77	14.8%	8.7%	6.8%	7.2%	6.9%	6.8%
2.5	24.17	1.77	16.8%	9.9%	7.7%	8.1%	7.8%	7.7%
2.6	23.33	1.78	18.9%	11.3%	8.7%	9.1%	8.7%	8.7%
2.7	22.55	1.79	21.1%	12.6%	9.8%	10.1%	9.7%	9.7%
2.8	21.83	1.79	23.3%	14.1%	10.9%	11.1%	10.7%	10.8%
2.9	21.16	1.80	25.5%	15.6%	12.0%	12.2%	11.7%	11.9%
3.0	20.53	1.81	27.8%	17.1%	13.2%	13.3%	12.8%	13.1%

Note:  $SDC D_{max} S_{MT} = 1.5g$ , hypothetical values of  $R/I_e$  complying with target reliability criteria could not be determined from the collapse surface for this archetype.

**Table H-114 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 15.5$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	54.30	1.67	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	47.80	1.68	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.9	42.75	1.69	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.0	38.71	1.70	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
1.1	35.41	1.71	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1.2	32.65	1.72	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%
1.3	30.32	1.73	0.4%	0.2%	0.2%	0.4%	0.3%	0.3%
1.4	28.32	1.74	0.6%	0.4%	0.3%	0.5%	0.5%	0.4%
1.5	26.59	1.76	1.0%	0.5%	0.5%	0.7%	0.7%	0.5%
1.6	25.08	1.77	1.4%	0.8%	0.7%	1.0%	0.9%	0.8%
1.7	23.74	1.78	2.0%	1.1%	1.0%	1.3%	1.2%	1.0%
1.8	22.55	1.79	2.8%	1.5%	1.3%	1.7%	1.6%	1.3%
1.9	21.49	1.80	3.6%	2.0%	1.6%	2.1%	2.0%	1.7%
2.0	20.53	1.81	4.7%	2.5%	2.1%	2.5%	2.4%	2.1%
2.1	19.67	1.82	5.9%	3.2%	2.6%	3.1%	2.9%	2.6%
2.2	18.88	1.83	7.2%	3.9%	3.1%	3.6%	3.5%	3.2%
2.3	18.16	1.84	8.7%	4.7%	3.7%	4.3%	4.1%	3.8%
2.4	17.50	1.85	10.3%	5.6%	4.4%	5.0%	4.8%	4.4%
2.5	16.90	1.86	12.0%	6.6%	5.1%	5.7%	5.5%	5.1%
2.6	16.34	1.87	13.9%	7.6%	5.9%	6.5%	6.3%	5.9%
2.7	15.82	1.88	15.8%	8.8%	6.7%	7.3%	7.1%	6.7%
2.8	15.34	1.89	17.8%	10.0%	7.6%	8.2%	7.9%	7.6%
2.9	14.89	1.90	19.9%	11.2%	8.6%	9.1%	8.8%	8.6%
3.0	14.47	1.91	22.1%	12.6%	9.5%	10.0%	9.8%	9.5%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-115** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.62	1.65	2.01	2.32	2.56	2.86	2.83	14.42%
0.8	0.63	1.67	2.03	2.34	2.58	2.88	2.85	14.36%
0.9	0.63	1.68	2.05	2.35	2.60	2.90	2.87	14.30%
1.0	0.64	1.70	2.07	2.37	2.62	2.92	2.89	14.24%
1.1	0.65	1.71	2.08	2.39	2.64	2.93	2.90	14.18%
1.2	0.65	1.73	2.10	2.41	2.66	2.95	2.92	14.12%
1.3	0.66	1.74	2.12	2.43	2.67	2.97	2.94	14.07%
1.4	0.67	1.75	2.13	2.45	2.69	2.99	2.95	14.01%
1.5	0.67	1.77	2.15	2.47	2.71	3.01	2.97	13.95%
1.6	0.68	1.78	2.17	2.48	2.73	3.03	2.99	13.89%
1.7	0.69	1.80	2.18	2.50	2.75	3.05	3.00	13.83%
1.8	0.70	1.81	2.20	2.52	2.77	3.07	3.02	13.78%
1.9	0.70	1.83	2.22	2.54	2.79	3.08	3.04	13.72%
2.0	0.71	1.84	2.23	2.56	2.81	3.10	3.05	13.66%
2.1	0.72	1.86	2.25	2.57	2.83	3.12	3.07	13.61%
2.2	0.72	1.87	2.27	2.59	2.85	3.14	3.08	13.55%
2.3	0.73	1.88	2.28	2.61	2.86	3.16	3.10	13.50%
2.4	0.74	1.90	2.30	2.63	2.88	3.17	3.11	13.44%
2.5	0.74	1.91	2.32	2.64	2.90	3.19	3.13	13.38%
2.6	0.75	1.93	2.33	2.66	2.92	3.21	3.14	13.33%
2.7	0.76	1.94	2.35	2.68	2.94	3.23	3.16	13.27%
2.8	0.76	1.96	2.36	2.70	2.95	3.24	3.18	13.22%
2.9	0.77	1.97	2.38	2.71	2.97	3.26	3.19	13.17%
3.0	0.78	1.98	2.40	2.73	2.99	3.28	3.21	13.11%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 22.7$

**Table H-116** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.69	1.81	2.19	2.51	2.76	3.06	3.01	13.80%
0.8	0.71	1.84	2.23	2.56	2.81	3.10	3.05	13.66%
0.9	0.73	1.88	2.28	2.60	2.86	3.15	3.09	13.52%
1.0	0.74	1.91	2.32	2.65	2.90	3.19	3.13	13.38%
1.1	0.76	1.95	2.36	2.69	2.95	3.24	3.17	13.24%
1.2	0.78	1.98	2.40	2.73	2.99	3.28	3.21	13.11%
1.3	0.80	2.02	2.44	2.78	3.04	3.32	3.24	12.97%
1.4	0.81	2.05	2.48	2.82	3.08	3.36	3.28	12.84%
1.5	0.83	2.09	2.52	2.86	3.12	3.40	3.31	12.71%
1.6	0.85	2.12	2.55	2.90	3.17	3.44	3.35	12.57%
1.7	0.87	2.16	2.59	2.94	3.21	3.48	3.38	12.45%
1.8	0.88	2.19	2.63	2.98	3.25	3.52	3.42	12.32%
1.9	0.90	2.22	2.67	3.02	3.29	3.55	3.45	12.19%
2.0	0.92	2.26	2.71	3.06	3.33	3.59	3.48	12.06%
2.1	0.93	2.29	2.74	3.10	3.37	3.62	3.51	11.94%
2.2	0.95	2.32	2.78	3.14	3.41	3.66	3.54	11.82%
2.3	0.97	2.35	2.82	3.18	3.45	3.69	3.57	11.69%
2.4	0.99	2.39	2.85	3.22	3.49	3.73	3.60	11.57%
2.5	1.00	2.42	2.89	3.25	3.52	3.76	3.63	11.46%
2.6	1.02	2.45	2.92	3.29	3.56	3.79	3.66	11.34%
2.7	1.04	2.48	2.96	3.33	3.60	3.82	3.69	11.22%
2.8	1.06	2.51	2.99	3.36	3.63	3.85	3.72	11.10%
2.9	1.07	2.54	3.03	3.40	3.67	3.88	3.74	10.99%
3.0	1.09	2.57	3.06	3.43	3.70	3.91	3.77	10.88%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 9.1

**Table H-117 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	30.18	0.62	2.74	3.60	4.37	4.86	5.43	5.39
0.8	26.70	0.63	2.42	3.17	3.85	4.28	4.78	4.74
0.9	24.00	0.63	2.17	2.85	3.45	3.84	4.28	4.24
1.0	21.83	0.64	1.97	2.58	3.13	3.48	3.88	3.84
1.1	20.06	0.65	1.80	2.37	2.87	3.19	3.55	3.51
1.2	18.58	0.65	1.67	2.19	2.65	2.94	3.27	3.24
1.3	17.34	0.66	1.55	2.04	2.47	2.74	3.04	3.00
1.4	16.26	0.67	1.45	1.91	2.31	2.56	2.84	2.81
1.5	15.34	0.67	1.37	1.79	2.17	2.41	2.67	2.63
1.6	14.53	0.68	1.29	1.69	2.05	2.27	2.52	2.48
1.7	13.81	0.69	1.23	1.61	1.94	2.15	2.38	2.35
1.8	13.17	0.70	1.17	1.53	1.85	2.05	2.27	2.23
1.9	12.60	0.70	1.12	1.46	1.76	1.95	2.16	2.12
2.0	12.09	0.71	1.07	1.40	1.69	1.87	2.06	2.03
2.1	11.63	0.72	1.03	1.34	1.62	1.79	1.98	1.94
2.2	11.20	0.72	0.99	1.29	1.55	1.72	1.90	1.86
2.3	10.82	0.73	0.95	1.24	1.50	1.66	1.83	1.79
2.4	10.47	0.74	0.92	1.20	1.44	1.60	1.76	1.73
2.5	10.14	0.74	0.89	1.16	1.40	1.54	1.70	1.66
2.6	9.84	0.75	0.86	1.12	1.35	1.49	1.64	1.61
2.7	9.57	0.76	0.83	1.09	1.31	1.45	1.59	1.56
2.8	9.31	0.76	0.81	1.06	1.27	1.40	1.54	1.51
2.9	9.07	0.77	0.79	1.03	1.24	1.36	1.50	1.46
3.0	8.84	0.78	0.77	1.00	1.20	1.33	1.45	1.42

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-118 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 9.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	13.45	0.69	2.99	3.92	4.74	5.25	5.81	5.72
0.8	12.07	0.71	2.67	3.49	4.22	4.67	5.16	5.07
0.9	10.99	0.73	2.42	3.16	3.82	4.22	4.65	4.57
1.0	10.12	0.74	2.22	2.90	3.49	3.86	4.25	4.16
1.1	9.42	0.76	2.06	2.68	3.23	3.56	3.91	3.83
1.2	8.83	0.78	1.92	2.50	3.01	3.32	3.63	3.55
1.3	8.33	0.80	1.80	2.34	2.82	3.11	3.40	3.32
1.4	7.90	0.81	1.70	2.21	2.66	2.93	3.19	3.12
1.5	7.53	0.83	1.62	2.10	2.52	2.77	3.02	2.94
1.6	7.21	0.85	1.54	2.00	2.39	2.63	2.86	2.78
1.7	6.92	0.87	1.47	1.91	2.28	2.51	2.72	2.65
1.8	6.67	0.88	1.41	1.83	2.19	2.40	2.60	2.52
1.9	6.44	0.90	1.36	1.76	2.10	2.30	2.49	2.41
2.0	6.24	0.92	1.31	1.69	2.02	2.21	2.39	2.32
2.1	6.05	0.93	1.26	1.63	1.95	2.13	2.30	2.22
2.2	5.88	0.95	1.22	1.58	1.88	2.06	2.21	2.14
2.3	5.73	0.97	1.19	1.53	1.82	1.99	2.14	2.07
2.4	5.59	0.99	1.15	1.48	1.77	1.93	2.06	2.00
2.5	5.46	1.00	1.12	1.44	1.72	1.87	2.00	1.93
2.6	5.34	1.02	1.09	1.40	1.67	1.82	1.94	1.87
2.7	5.23	1.04	1.07	1.37	1.63	1.77	1.88	1.82
2.8	5.13	1.06	1.04	1.34	1.59	1.72	1.83	1.76
2.9	5.03	1.07	1.02	1.30	1.55	1.68	1.78	1.72
3.0	4.94	1.09	1.00	1.27	1.51	1.64	1.73	1.67

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-119 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	30.18	0.62	1.3%	0.5%	0.4%	0.4%	0.2%	0.3%
0.8	26.70	0.63	2.5%	1.0%	0.7%	0.8%	0.5%	0.5%
0.9	24.00	0.63	4.3%	1.8%	1.2%	1.3%	0.8%	0.8%
1.0	21.83	0.64	6.6%	2.9%	1.9%	1.9%	1.2%	1.2%
1.1	20.06	0.65	9.5%	4.2%	2.8%	2.7%	1.7%	1.8%
1.2	18.58	0.65	12.8%	5.9%	3.8%	3.6%	2.4%	2.5%
1.3	17.34	0.66	16.4%	7.8%	5.0%	4.7%	3.2%	3.3%
1.4	16.26	0.67	20.3%	9.9%	6.4%	5.9%	4.1%	4.3%
1.5	15.34	0.67	24.3%	12.2%	8.0%	7.2%	5.1%	5.3%
1.6	14.53	0.68	28.4%	14.6%	9.6%	8.6%	6.2%	6.5%
1.7	13.81	0.69	32.5%	17.2%	11.4%	10.1%	7.4%	7.7%
1.8	13.17	0.70	36.5%	19.8%	13.2%	11.6%	8.6%	9.1%
1.9	12.60	0.70	40.4%	22.5%	15.1%	13.2%	10.0%	10.5%
2.0	12.09	0.71	44.2%	25.2%	17.1%	14.9%	11.4%	11.9%
2.1	11.63	0.72	47.8%	27.9%	19.1%	16.6%	12.8%	13.4%
2.2	11.20	0.72	51.2%	30.6%	21.1%	18.3%	14.3%	15.0%
2.3	10.82	0.73	54.5%	33.3%	23.1%	20.0%	15.8%	16.5%
2.4	10.47	0.74	57.6%	35.9%	25.2%	21.8%	17.3%	18.2%
2.5	10.14	0.74	60.4%	38.5%	27.2%	23.5%	18.9%	19.8%
2.6	9.84	0.75	63.1%	41.0%	29.2%	25.2%	20.4%	21.4%
2.7	9.57	0.76	65.7%	43.4%	31.2%	26.9%	22.0%	23.0%
2.8	9.31	0.76	68.0%	45.7%	33.1%	28.6%	23.6%	24.7%
2.9	9.07	0.77	70.2%	48.0%	35.0%	30.3%	25.1%	26.3%
3.0	8.84	0.78	72.2%	50.1%	36.9%	31.9%	26.7%	27.9%

Note:  $SDC D_{max} S_{MT} = 1.5g$ , hypothetical values of  $R/I_e$  complying with target reliability criteria could not be determined from the collapse surface for this archetype.

**Table H-120 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 9.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	13.45	0.69	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%
0.8	12.07	0.71	0.7%	0.3%	0.2%	0.3%	0.1%	0.2%
0.9	10.99	0.73	1.4%	0.5%	0.4%	0.4%	0.3%	0.3%
1.0	10.12	0.74	2.3%	0.9%	0.6%	0.7%	0.4%	0.5%
1.1	9.42	0.76	3.6%	1.4%	1.0%	1.0%	0.7%	0.7%
1.2	8.83	0.78	5.2%	2.1%	1.4%	1.5%	0.9%	1.1%
1.3	8.33	0.80	7.0%	2.9%	1.9%	2.0%	1.3%	1.5%
1.4	7.90	0.81	9.2%	3.9%	2.5%	2.5%	1.7%	1.9%
1.5	7.53	0.83	11.5%	5.0%	3.2%	3.2%	2.2%	2.5%
1.6	7.21	0.85	14.1%	6.2%	4.0%	3.9%	2.8%	3.1%
1.7	6.92	0.87	16.7%	7.6%	4.9%	4.7%	3.4%	3.8%
1.8	6.67	0.88	19.5%	9.0%	5.9%	5.6%	4.1%	4.6%
1.9	6.44	0.90	22.2%	10.6%	6.9%	6.5%	4.9%	5.5%
2.0	6.24	0.92	25.1%	12.2%	8.0%	7.4%	5.7%	6.3%
2.1	6.05	0.93	27.9%	13.8%	9.1%	8.4%	6.5%	7.3%
2.2	5.88	0.95	30.6%	15.5%	10.2%	9.4%	7.4%	8.3%
2.3	5.73	0.97	33.4%	17.2%	11.5%	10.5%	8.4%	9.3%
2.4	5.59	0.99	36.1%	19.0%	12.7%	11.6%	9.4%	10.4%
2.5	5.46	1.00	38.7%	20.7%	13.9%	12.7%	10.4%	11.6%
2.6	5.34	1.02	41.2%	22.5%	15.2%	13.8%	11.4%	12.7%
2.7	5.23	1.04	43.7%	24.3%	16.5%	14.9%	12.5%	13.9%
2.8	5.13	1.06	46.0%	26.0%	17.8%	16.1%	13.6%	15.1%
2.9	5.03	1.07	48.3%	27.8%	19.1%	17.2%	14.8%	16.3%
3.0	4.94	1.09	50.5%	29.5%	20.4%	18.4%	15.9%	17.5%

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-121** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.40	1.49	1.76	1.98	2.15	2.36	2.36	15.05%
0.8	0.40	1.51	1.78	2.01	2.18	2.39	2.38	14.97%
0.9	0.41	1.52	1.80	2.03	2.21	2.41	2.41	14.90%
1.0	0.42	1.54	1.83	2.06	2.24	2.44	2.44	14.83%
1.1	0.42	1.56	1.85	2.09	2.27	2.47	2.46	14.76%
1.2	0.43	1.57	1.87	2.11	2.30	2.50	2.49	14.69%
1.3	0.44	1.59	1.89	2.14	2.32	2.52	2.52	14.62%
1.4	0.44	1.61	1.91	2.16	2.35	2.55	2.54	14.55%
1.5	0.45	1.62	1.94	2.19	2.38	2.58	2.57	14.48%
1.6	0.46	1.64	1.96	2.21	2.41	2.61	2.60	14.41%
1.7	0.47	1.66	1.98	2.24	2.43	2.63	2.62	14.34%
1.8	0.47	1.67	2.00	2.26	2.46	2.66	2.65	14.27%
1.9	0.48	1.69	2.02	2.29	2.49	2.69	2.67	14.20%
2.0	0.49	1.71	2.04	2.31	2.51	2.71	2.70	14.13%
2.1	0.49	1.72	2.07	2.34	2.54	2.74	2.72	14.06%
2.2	0.50	1.74	2.09	2.36	2.57	2.77	2.75	14.00%
2.3	0.51	1.76	2.11	2.39	2.59	2.79	2.77	13.93%
2.4	0.51	1.77	2.13	2.41	2.62	2.82	2.80	13.86%
2.5	0.52	1.79	2.15	2.44	2.65	2.84	2.82	13.79%
2.6	0.53	1.80	2.17	2.46	2.67	2.87	2.85	13.73%
2.7	0.53	1.82	2.19	2.48	2.70	2.89	2.87	13.66%
2.8	0.54	1.84	2.21	2.51	2.72	2.92	2.90	13.60%
2.9	0.55	1.85	2.23	2.53	2.75	2.94	2.92	13.53%
3.0	0.55	1.87	2.25	2.56	2.78	2.97	2.94	13.46%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 22.7$

**Table H-122** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.50	1.74	2.08	2.36	2.56	2.76	2.74	14.01%
0.8	0.52	1.79	2.15	2.43	2.64	2.84	2.82	13.80%
0.9	0.54	1.84	2.21	2.51	2.72	2.92	2.89	13.60%
1.0	0.56	1.89	2.28	2.58	2.80	2.99	2.97	13.40%
1.1	0.58	1.94	2.34	2.65	2.88	3.07	3.04	13.20%
1.2	0.60	1.99	2.40	2.73	2.96	3.14	3.11	13.00%
1.3	0.63	2.03	2.46	2.80	3.03	3.21	3.18	12.81%
1.4	0.65	2.08	2.53	2.87	3.11	3.28	3.25	12.61%
1.5	0.67	2.13	2.59	2.93	3.18	3.35	3.31	12.43%
1.6	0.69	2.18	2.65	3.00	3.25	3.42	3.38	12.24%
1.7	0.71	2.23	2.70	3.07	3.32	3.49	3.44	12.06%
1.8	0.73	2.28	2.76	3.13	3.39	3.55	3.50	11.88%
1.9	0.75	2.32	2.82	3.20	3.45	3.62	3.56	11.70%
2.0	0.78	2.37	2.88	3.26	3.52	3.68	3.62	11.53%
2.1	0.80	2.42	2.93	3.32	3.58	3.74	3.67	11.36%
2.2	0.82	2.46	2.99	3.38	3.65	3.80	3.73	11.19%
2.3	0.84	2.51	3.04	3.44	3.71	3.85	3.78	11.02%
2.4	0.86	2.56	3.10	3.50	3.77	3.91	3.83	10.86%
2.5	0.88	2.60	3.15	3.56	3.83	3.97	3.88	10.69%
2.6	0.90	2.65	3.20	3.61	3.88	4.02	3.92	10.54%
2.7	0.93	2.69	3.25	3.67	3.94	4.07	3.97	10.38%
2.8	0.95	2.74	3.30	3.72	3.99	4.12	4.01	10.22%
2.9	0.97	2.78	3.35	3.78	4.05	4.17	4.05	10.07%
3.0	0.99	2.83	3.40	3.83	4.10	4.22	4.09	9.92%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 7.3

**Table H-123 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	19.29	0.40	2.47	3.14	3.73	4.09	4.48	4.48
0.8	17.17	0.40	2.19	2.78	3.31	3.63	3.97	3.96
0.9	15.53	0.41	1.97	2.51	2.98	3.27	3.57	3.56
1.0	14.21	0.42	1.79	2.28	2.72	2.98	3.25	3.24
1.1	13.13	0.42	1.64	2.10	2.50	2.74	2.99	2.98
1.2	12.23	0.43	1.52	1.95	2.32	2.54	2.77	2.76
1.3	11.47	0.44	1.42	1.82	2.17	2.38	2.58	2.58
1.4	10.82	0.44	1.33	1.71	2.04	2.23	2.42	2.42
1.5	10.26	0.45	1.26	1.61	1.93	2.11	2.29	2.28
1.6	9.76	0.46	1.19	1.53	1.83	2.00	2.17	2.16
1.7	9.33	0.47	1.13	1.46	1.74	1.90	2.06	2.05
1.8	8.94	0.47	1.08	1.39	1.66	1.82	1.97	1.96
1.9	8.59	0.48	1.03	1.33	1.59	1.74	1.88	1.87
2.0	8.28	0.49	0.99	1.28	1.53	1.67	1.80	1.79
2.1	8.00	0.49	0.95	1.23	1.47	1.61	1.73	1.72
2.2	7.74	0.50	0.92	1.19	1.42	1.55	1.67	1.66
2.3	7.51	0.51	0.89	1.15	1.37	1.50	1.61	1.60
2.4	7.29	0.51	0.86	1.11	1.33	1.45	1.56	1.55
2.5	7.09	0.52	0.83	1.08	1.29	1.41	1.51	1.50
2.6	6.91	0.53	0.81	1.04	1.25	1.37	1.47	1.46
2.7	6.74	0.53	0.78	1.01	1.21	1.33	1.42	1.41
2.8	6.58	0.54	0.76	0.99	1.18	1.29	1.39	1.38
2.9	6.44	0.55	0.74	0.96	1.15	1.26	1.35	1.34
3.0	6.30	0.55	0.72	0.94	1.12	1.23	1.32	1.30

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-124 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 7.3$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.80	0.50	2.88	3.72	4.44	4.87	5.24	5.21
0.8	7.12	0.52	2.59	3.35	4.01	4.39	4.72	4.69
0.9	6.59	0.54	2.37	3.07	3.68	4.03	4.31	4.28
1.0	6.17	0.56	2.19	2.84	3.41	3.73	3.98	3.95
1.1	5.82	0.58	2.04	2.66	3.19	3.48	3.71	3.68
1.2	5.53	0.60	1.92	2.50	3.00	3.28	3.48	3.45
1.3	5.29	0.63	1.82	2.37	2.84	3.10	3.29	3.25
1.4	5.08	0.65	1.73	2.25	2.70	2.95	3.12	3.09
1.5	4.90	0.67	1.65	2.15	2.58	2.82	2.97	2.94
1.6	4.74	0.69	1.58	2.07	2.48	2.70	2.84	2.81
1.7	4.60	0.71	1.52	1.99	2.38	2.60	2.73	2.69
1.8	4.47	0.73	1.47	1.92	2.30	2.50	2.62	2.59
1.9	4.36	0.75	1.42	1.86	2.22	2.42	2.53	2.49
2.0	4.26	0.78	1.37	1.80	2.15	2.34	2.45	2.41
2.1	4.17	0.80	1.34	1.75	2.09	2.27	2.37	2.33
2.2	4.09	0.82	1.30	1.70	2.03	2.20	2.30	2.25
2.3	4.01	0.84	1.27	1.65	1.98	2.14	2.23	2.18
2.4	3.94	0.86	1.24	1.61	1.92	2.09	2.17	2.12
2.5	3.88	0.88	1.21	1.57	1.88	2.04	2.11	2.06
2.6	3.82	0.90	1.18	1.54	1.83	1.99	2.06	2.01
2.7	3.76	0.93	1.16	1.51	1.79	1.94	2.01	1.95
2.8	3.71	0.95	1.13	1.48	1.75	1.90	1.96	1.90
2.9	3.67	0.97	1.11	1.45	1.72	1.86	1.91	1.86
3.0	3.62	0.99	1.09	1.42	1.68	1.82	1.87	1.81

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-125 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	19.29	0.40	2.2%	1.1%	0.8%	0.9%	0.6%	0.6%
0.8	17.17	0.40	4.1%	2.0%	1.5%	1.6%	1.1%	1.1%
0.9	15.53	0.41	6.7%	3.3%	2.3%	2.4%	1.7%	1.7%
1.0	14.21	0.42	9.8%	4.9%	3.5%	3.4%	2.5%	2.5%
1.1	13.13	0.42	13.5%	6.9%	4.8%	4.6%	3.4%	3.4%
1.2	12.23	0.43	17.5%	9.1%	6.3%	6.0%	4.5%	4.5%
1.3	11.47	0.44	21.8%	11.6%	8.0%	7.5%	5.7%	5.7%
1.4	10.82	0.44	26.2%	14.2%	9.8%	9.0%	7.0%	7.1%
1.5	10.26	0.45	30.6%	16.9%	11.7%	10.7%	8.4%	8.5%
1.6	9.76	0.46	35.0%	19.8%	13.7%	12.4%	9.9%	10.0%
1.7	9.33	0.47	39.2%	22.6%	15.7%	14.2%	11.4%	11.6%
1.8	8.94	0.47	43.3%	25.5%	17.8%	16.0%	13.0%	13.2%
1.9	8.59	0.48	47.2%	28.4%	20.0%	17.8%	14.6%	14.8%
2.0	8.28	0.49	50.9%	31.2%	22.1%	19.6%	16.3%	16.5%
2.1	8.00	0.49	54.4%	34.0%	24.2%	21.4%	17.9%	18.2%
2.2	7.74	0.50	57.6%	36.7%	26.3%	23.2%	19.6%	19.9%
2.3	7.51	0.51	60.7%	39.3%	28.3%	24.9%	21.3%	21.6%
2.4	7.29	0.51	63.5%	41.8%	30.4%	26.7%	22.9%	23.2%
2.5	7.09	0.52	66.1%	44.2%	32.4%	28.4%	24.5%	24.9%
2.6	6.91	0.53	68.5%	46.6%	34.3%	30.1%	26.2%	26.5%
2.7	6.74	0.53	70.7%	48.8%	36.2%	31.7%	27.8%	28.2%
2.8	6.58	0.54	72.8%	51.0%	38.0%	33.4%	29.3%	29.8%
2.9	6.44	0.55	74.7%	53.0%	39.8%	34.9%	30.9%	31.3%
3.0	6.30	0.55	76.5%	55.0%	41.5%	36.5%	32.4%	32.9%

Note:  $SDC D_{max} S_{MT} = 1.5g$ , hypothetical values of  $R/I_e$  complying with target reliability criteria could not be determined from the collapse surface for this archetype.

**Table H-126 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 7.3$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.80	0.50	0.4%	0.2%	0.1%	0.2%	0.1%	0.1%
0.8	7.12	0.52	0.9%	0.4%	0.3%	0.4%	0.2%	0.2%
0.9	6.59	0.54	1.6%	0.6%	0.5%	0.6%	0.4%	0.4%
1.0	6.17	0.56	2.5%	1.0%	0.7%	0.8%	0.6%	0.6%
1.1	5.82	0.58	3.7%	1.5%	1.0%	1.2%	0.9%	0.9%
1.2	5.53	0.60	5.2%	2.1%	1.4%	1.5%	1.2%	1.2%
1.3	5.29	0.63	6.8%	2.8%	1.8%	2.0%	1.5%	1.6%
1.4	5.08	0.65	8.6%	3.5%	2.3%	2.5%	1.9%	2.0%
1.5	4.90	0.67	10.6%	4.4%	2.9%	3.0%	2.4%	2.5%
1.6	4.74	0.69	12.6%	5.3%	3.5%	3.5%	2.9%	3.0%
1.7	4.60	0.71	14.7%	6.3%	4.1%	4.1%	3.4%	3.6%
1.8	4.47	0.73	16.9%	7.4%	4.8%	4.8%	4.0%	4.2%
1.9	4.36	0.75	19.1%	8.5%	5.5%	5.4%	4.6%	4.8%
2.0	4.26	0.78	21.3%	9.6%	6.3%	6.1%	5.2%	5.5%
2.1	4.17	0.80	23.5%	10.8%	7.0%	6.8%	5.9%	6.2%
2.2	4.09	0.82	25.6%	12.0%	7.8%	7.5%	6.5%	7.0%
2.3	4.01	0.84	27.8%	13.2%	8.7%	8.3%	7.2%	7.8%
2.4	3.94	0.86	29.8%	14.4%	9.5%	9.0%	8.0%	8.6%
2.5	3.88	0.88	31.9%	15.6%	10.4%	9.8%	8.7%	9.4%
2.6	3.82	0.90	33.9%	16.9%	11.2%	10.6%	9.5%	10.3%
2.7	3.76	0.93	35.8%	18.1%	12.1%	11.4%	10.3%	11.2%
2.8	3.71	0.95	37.6%	19.4%	13.0%	12.2%	11.1%	12.1%
2.9	3.67	0.97	39.5%	20.6%	13.9%	13.1%	11.9%	13.0%
3.0	3.62	0.99	41.2%	21.9%	14.9%	13.9%	12.7%	13.9%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-127** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.34	1.49	1.69	1.84	1.94	2.01	2.01	13.17%
0.8	0.35	1.53	1.73	1.89	2.00	2.07	2.06	13.03%
0.9	0.36	1.56	1.78	1.94	2.05	2.12	2.12	12.89%
1.0	0.37	1.59	1.82	1.99	2.11	2.18	2.17	12.76%
1.1	0.39	1.62	1.86	2.04	2.16	2.23	2.23	12.63%
1.2	0.40	1.66	1.90	2.09	2.21	2.29	2.28	12.50%
1.3	0.41	1.69	1.94	2.14	2.27	2.34	2.33	12.37%
1.4	0.42	1.72	1.99	2.19	2.32	2.39	2.38	12.24%
1.5	0.44	1.75	2.03	2.23	2.37	2.45	2.43	12.11%
1.6	0.45	1.78	2.07	2.28	2.42	2.50	2.48	11.98%
1.7	0.46	1.81	2.11	2.33	2.47	2.55	2.53	11.86%
1.8	0.47	1.84	2.15	2.38	2.52	2.60	2.58	11.74%
1.9	0.48	1.87	2.19	2.42	2.57	2.65	2.63	11.61%
2.0	0.50	1.90	2.23	2.47	2.62	2.70	2.68	11.49%
2.1	0.51	1.94	2.27	2.51	2.67	2.75	2.72	11.37%
2.2	0.52	1.97	2.31	2.56	2.72	2.80	2.77	11.25%
2.3	0.53	2.00	2.34	2.60	2.77	2.85	2.81	11.14%
2.4	0.55	2.03	2.38	2.64	2.81	2.89	2.86	11.02%
2.5	0.56	2.06	2.42	2.69	2.86	2.94	2.90	10.91%
2.6	0.57	2.08	2.46	2.73	2.91	2.99	2.94	10.79%
2.7	0.58	2.11	2.49	2.77	2.95	3.03	2.98	10.68%
2.8	0.60	2.14	2.53	2.82	3.00	3.08	3.02	10.57%
2.9	0.61	2.17	2.57	2.86	3.04	3.12	3.06	10.46%
3.0	0.62	2.20	2.60	2.90	3.08	3.16	3.10	10.35%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 12.7$

**Table H-128** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.45	1.79	2.08	2.30	2.44	2.52	2.50	11.93%
0.8	0.48	1.87	2.18	2.41	2.56	2.64	2.62	11.64%
0.9	0.51	1.94	2.27	2.52	2.68	2.75	2.73	11.36%
1.0	0.54	2.01	2.36	2.62	2.79	2.87	2.83	11.09%
1.1	0.57	2.08	2.45	2.72	2.90	2.98	2.93	10.82%
1.2	0.60	2.15	2.54	2.82	3.00	3.08	3.03	10.56%
1.3	0.63	2.21	2.62	2.92	3.11	3.19	3.12	10.30%
1.4	0.66	2.28	2.70	3.01	3.21	3.28	3.21	10.05%
1.5	0.68	2.35	2.79	3.10	3.30	3.38	3.29	9.81%
1.6	0.71	2.41	2.87	3.19	3.40	3.47	3.37	9.57%
1.7	0.74	2.48	2.94	3.28	3.49	3.56	3.45	9.34%
1.8	0.77	2.54	3.02	3.37	3.58	3.65	3.52	9.11%
1.9	0.80	2.60	3.09	3.45	3.66	3.73	3.58	8.89%
2.0	0.83	2.66	3.17	3.53	3.74	3.81	3.65	8.68%
2.1	0.86	2.72	3.24	3.61	3.82	3.89	3.71	8.47%
2.2	0.89	2.78	3.31	3.68	3.90	3.97	3.76	8.26%
2.3	0.92	2.84	3.38	3.75	3.97	4.04	3.82	8.06%
2.4	0.94	2.89	3.44	3.83	4.05	4.10	3.87	7.87%
2.5	0.97	2.95	3.51	3.89	4.11	4.17	3.91	7.67%
2.6	1.00	3.00	3.57	3.96	4.18	4.23	3.96	7.49%
2.7	1.03	3.06	3.63	4.02	4.24	4.29	4.00	7.31%
2.8	1.06	3.11	3.69	4.08	4.30	4.35	4.04	7.13%
2.9	1.09	3.16	3.74	4.14	4.36	4.40	4.07	6.96%
3.0	1.12	3.21	3.80	4.20	4.41	4.45	4.10	6.79%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 5.4$



**Table H-129 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 12.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	9.15	0.34	2.47	3.02	3.47	3.69	3.82	3.81
0.8	8.30	0.35	2.21	2.71	3.12	3.32	3.43	3.43
0.9	7.64	0.36	2.01	2.47	2.85	3.03	3.14	3.13
1.0	7.11	0.37	1.85	2.27	2.63	2.80	2.90	2.89
1.1	6.67	0.39	1.71	2.12	2.45	2.61	2.70	2.69
1.2	6.31	0.40	1.60	1.98	2.30	2.45	2.53	2.53
1.3	6.01	0.41	1.51	1.87	2.17	2.32	2.39	2.38
1.4	5.75	0.42	1.42	1.77	2.06	2.20	2.27	2.26
1.5	5.52	0.44	1.35	1.69	1.97	2.10	2.17	2.16
1.6	5.32	0.45	1.29	1.62	1.88	2.01	2.08	2.06
1.7	5.15	0.46	1.24	1.55	1.81	1.94	2.00	1.98
1.8	4.99	0.47	1.19	1.49	1.74	1.86	1.92	1.91
1.9	4.85	0.48	1.14	1.44	1.68	1.80	1.86	1.84
2.0	4.73	0.50	1.10	1.39	1.63	1.74	1.80	1.78
2.1	4.62	0.51	1.07	1.35	1.58	1.69	1.74	1.72
2.2	4.51	0.52	1.04	1.31	1.53	1.64	1.69	1.67
2.3	4.42	0.53	1.01	1.27	1.49	1.60	1.65	1.63
2.4	4.33	0.55	0.98	1.24	1.45	1.56	1.60	1.58
2.5	4.25	0.56	0.95	1.21	1.42	1.52	1.56	1.54
2.6	4.18	0.57	0.93	1.18	1.39	1.49	1.53	1.50
2.7	4.11	0.58	0.91	1.15	1.36	1.45	1.49	1.47
2.8	4.05	0.60	0.89	1.13	1.33	1.42	1.46	1.44
2.9	3.99	0.61	0.87	1.11	1.30	1.39	1.43	1.40
3.0	3.94	0.62	0.85	1.09	1.28	1.37	1.40	1.38

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-130 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.4$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.25	0.45	2.97	3.72	4.34	4.64	4.79	4.76
0.8	4.89	0.48	2.71	3.40	3.98	4.26	4.39	4.35
0.9	4.60	0.51	2.50	3.15	3.69	3.95	4.07	4.03
1.0	4.38	0.54	2.33	2.95	3.46	3.71	3.81	3.77
1.1	4.19	0.57	2.19	2.78	3.27	3.50	3.60	3.55
1.2	4.04	0.60	2.08	2.64	3.10	3.33	3.42	3.36
1.3	3.91	0.63	1.98	2.52	2.96	3.18	3.26	3.19
1.4	3.80	0.66	1.89	2.41	2.84	3.04	3.12	3.05
1.5	3.70	0.68	1.82	2.32	2.73	2.93	3.00	2.92
1.6	3.62	0.71	1.75	2.24	2.64	2.82	2.89	2.80
1.7	3.54	0.74	1.69	2.16	2.55	2.73	2.79	2.69
1.8	3.48	0.77	1.64	2.10	2.47	2.64	2.70	2.59
1.9	3.42	0.80	1.59	2.04	2.40	2.56	2.61	2.50
2.0	3.36	0.83	1.54	1.98	2.33	2.49	2.54	2.42
2.1	3.32	0.86	1.50	1.93	2.27	2.42	2.46	2.34
2.2	3.27	0.89	1.47	1.88	2.21	2.36	2.40	2.26
2.3	3.23	0.92	1.43	1.83	2.15	2.30	2.33	2.19
2.4	3.20	0.94	1.40	1.79	2.10	2.24	2.27	2.13
2.5	3.16	0.97	1.37	1.75	2.06	2.19	2.22	2.07
2.6	3.13	1.00	1.34	1.72	2.01	2.14	2.16	2.01
2.7	3.10	1.03	1.31	1.68	1.97	2.09	2.11	1.95
2.8	3.07	1.06	1.29	1.65	1.92	2.04	2.06	1.89
2.9	3.05	1.09	1.27	1.61	1.89	2.00	2.02	1.83
3.0	3.03	1.12	1.24	1.58	1.85	1.96	1.97	1.78

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-131 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 12.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	9.15	0.34	2.2%	1.4%	1.2%	1.5%	1.3%	1.3%
0.8	8.30	0.35	3.9%	2.3%	1.9%	2.3%	2.0%	2.0%
0.9	7.64	0.36	6.1%	3.5%	2.9%	3.2%	2.8%	2.9%
1.0	7.11	0.37	8.7%	5.0%	3.9%	4.3%	3.8%	3.9%
1.1	6.67	0.39	11.6%	6.7%	5.2%	5.5%	4.9%	5.0%
1.2	6.31	0.40	14.8%	8.6%	6.5%	6.7%	6.1%	6.1%
1.3	6.01	0.41	18.2%	10.5%	7.9%	8.0%	7.3%	7.4%
1.4	5.75	0.42	21.6%	12.6%	9.4%	9.4%	8.5%	8.7%
1.5	5.52	0.44	25.1%	14.7%	10.9%	10.8%	9.8%	10.0%
1.6	5.32	0.45	28.5%	16.9%	12.5%	12.2%	11.2%	11.4%
1.7	5.15	0.46	31.8%	19.0%	14.1%	13.6%	12.5%	12.7%
1.8	4.99	0.47	35.1%	21.2%	15.7%	14.9%	13.8%	14.1%
1.9	4.85	0.48	38.2%	23.3%	17.2%	16.3%	15.1%	15.5%
2.0	4.73	0.50	41.2%	25.4%	18.8%	17.7%	16.5%	16.8%
2.1	4.62	0.51	44.1%	27.5%	20.3%	19.0%	17.8%	18.2%
2.2	4.51	0.52	46.8%	29.5%	21.8%	20.4%	19.0%	19.6%
2.3	4.42	0.53	49.4%	31.4%	23.3%	21.7%	20.3%	20.9%
2.4	4.33	0.55	51.9%	33.3%	24.8%	23.0%	21.6%	22.2%
2.5	4.25	0.56	54.2%	35.2%	26.2%	24.2%	22.8%	23.5%
2.6	4.18	0.57	56.4%	36.9%	27.6%	25.4%	24.0%	24.8%
2.7	4.11	0.58	58.5%	38.7%	29.0%	26.6%	25.2%	26.1%
2.8	4.05	0.60	60.4%	40.3%	30.3%	27.8%	26.4%	27.3%
2.9	3.99	0.61	62.3%	42.0%	31.6%	29.0%	27.5%	28.6%
3.0	3.94	0.62	64.0%	43.5%	32.9%	30.1%	28.6%	29.8%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-132 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 5.4$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.25	0.45	0.3%	0.2%	0.2%	0.3%	0.2%	0.2%
0.8	4.89	0.48	0.6%	0.3%	0.3%	0.4%	0.4%	0.4%
0.9	4.60	0.51	1.1%	0.5%	0.5%	0.6%	0.5%	0.6%
1.0	4.38	0.54	1.7%	0.8%	0.7%	0.9%	0.7%	0.8%
1.1	4.19	0.57	2.5%	1.1%	0.9%	1.1%	1.0%	1.1%
1.2	4.04	0.60	3.4%	1.5%	1.2%	1.4%	1.3%	1.4%
1.3	3.91	0.63	4.4%	2.0%	1.5%	1.8%	1.6%	1.7%
1.4	3.80	0.66	5.6%	2.5%	1.8%	2.1%	1.9%	2.1%
1.5	3.70	0.68	6.8%	3.1%	2.2%	2.5%	2.3%	2.5%
1.6	3.62	0.71	8.1%	3.7%	2.6%	3.0%	2.7%	2.9%
1.7	3.54	0.74	9.5%	4.3%	3.1%	3.4%	3.1%	3.3%
1.8	3.48	0.77	10.9%	5.0%	3.5%	3.9%	3.6%	3.7%
1.9	3.42	0.80	12.4%	5.7%	4.0%	4.4%	4.0%	4.1%
2.0	3.36	0.83	13.9%	6.5%	4.5%	4.9%	4.5%	4.6%
2.1	3.32	0.86	15.4%	7.2%	5.1%	5.4%	5.0%	5.1%
2.2	3.27	0.89	17.0%	8.0%	5.6%	5.9%	5.6%	5.6%
2.3	3.23	0.92	18.5%	8.9%	6.2%	6.5%	6.2%	6.2%
2.4	3.20	0.94	20.1%	9.7%	6.8%	7.1%	6.8%	6.8%
2.5	3.16	0.97	21.6%	10.6%	7.5%	7.7%	7.4%	7.5%
2.6	3.13	1.00	23.2%	11.5%	8.1%	8.4%	8.0%	8.1%
2.7	3.10	1.03	24.7%	12.5%	8.8%	9.0%	8.7%	9.0%
2.8	3.07	1.06	26.3%	13.4%	9.5%	9.7%	9.4%	9.9%
2.9	3.05	1.09	27.8%	14.4%	10.2%	10.4%	10.1%	10.8%
3.0	3.03	1.12	29.3%	15.4%	11.0%	11.1%	10.8%	11.8%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-133** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.31	1.46	1.62	1.74	1.83	1.90	1.87	11.70%
0.8	0.33	1.50	1.68	1.81	1.91	1.98	1.95	11.58%
0.9	0.34	1.55	1.73	1.88	1.98	2.06	2.02	11.46%
1.0	0.36	1.59	1.79	1.95	2.05	2.13	2.09	11.35%
1.1	0.38	1.63	1.85	2.01	2.13	2.21	2.16	11.24%
1.2	0.39	1.68	1.90	2.08	2.20	2.28	2.23	11.12%
1.3	0.41	1.72	1.96	2.14	2.27	2.35	2.30	11.01%
1.4	0.42	1.76	2.01	2.20	2.33	2.42	2.37	10.90%
1.5	0.44	1.80	2.07	2.27	2.40	2.49	2.43	10.79%
1.6	0.46	1.84	2.12	2.33	2.47	2.56	2.50	10.68%
1.7	0.47	1.89	2.17	2.39	2.53	2.63	2.56	10.58%
1.8	0.49	1.93	2.22	2.45	2.60	2.70	2.62	10.47%
1.9	0.51	1.97	2.27	2.51	2.66	2.76	2.68	10.36%
2.0	0.52	2.01	2.32	2.56	2.73	2.82	2.74	10.26%
2.1	0.54	2.05	2.37	2.62	2.79	2.88	2.79	10.16%
2.2	0.56	2.09	2.42	2.68	2.85	2.95	2.85	10.06%
2.3	0.57	2.13	2.47	2.73	2.91	3.01	2.90	9.95%
2.4	0.59	2.17	2.52	2.79	2.97	3.06	2.96	9.86%
2.5	0.61	2.20	2.57	2.84	3.02	3.12	3.01	9.76%
2.6	0.62	2.24	2.62	2.89	3.08	3.18	3.06	9.66%
2.7	0.64	2.28	2.66	2.95	3.13	3.23	3.11	9.56%
2.8	0.65	2.32	2.71	3.00	3.19	3.28	3.16	9.47%
2.9	0.67	2.36	2.75	3.05	3.24	3.34	3.20	9.37%
3.0	0.69	2.39	2.80	3.10	3.29	3.39	3.25	9.28%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 9.6$

**Table H-134** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.42	1.75	2.00	2.19	2.32	2.41	2.36	10.92%
0.8	0.45	1.84	2.11	2.32	2.46	2.55	2.49	10.70%
0.9	0.49	1.92	2.21	2.43	2.59	2.68	2.61	10.49%
1.0	0.52	2.00	2.31	2.55	2.71	2.81	2.72	10.28%
1.1	0.55	2.08	2.41	2.66	2.83	2.93	2.84	10.08%
1.2	0.58	2.16	2.51	2.77	2.95	3.05	2.94	9.88%
1.3	0.62	2.23	2.60	2.88	3.06	3.16	3.04	9.69%
1.4	0.65	2.31	2.69	2.98	3.17	3.27	3.14	9.50%
1.5	0.68	2.38	2.78	3.08	3.28	3.37	3.23	9.31%
1.6	0.71	2.45	2.87	3.18	3.38	3.47	3.32	9.12%
1.7	0.75	2.52	2.96	3.27	3.47	3.56	3.40	8.94%
1.8	0.78	2.59	3.04	3.36	3.56	3.65	3.48	8.77%
1.9	0.81	2.66	3.12	3.45	3.65	3.73	3.55	8.60%
2.0	0.84	2.73	3.19	3.53	3.74	3.81	3.62	8.43%
2.1	0.88	2.79	3.27	3.61	3.82	3.89	3.69	8.26%
2.2	0.91	2.86	3.34	3.69	3.89	3.96	3.75	8.10%
2.3	0.94	2.92	3.41	3.76	3.97	4.03	3.81	7.94%
2.4	0.97	2.98	3.48	3.83	4.03	4.09	3.86	7.78%
2.5	1.01	3.04	3.55	3.90	4.10	4.15	3.91	7.63%
2.6	1.04	3.10	3.61	3.96	4.16	4.20	3.96	7.48%
2.7	1.07	3.16	3.67	4.02	4.21	4.25	4.00	7.33%
2.8	1.10	3.22	3.73	4.08	4.26	4.30	4.04	7.18%
2.9	1.14	3.27	3.79	4.13	4.31	4.34	4.08	7.04%
3.0	1.17	3.33	3.84	4.18	4.35	4.38	4.12	6.90%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 4.8

**Table H-135 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.6$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	6.34	0.31	2.42	2.89	3.29	3.48	3.61	3.56
0.8	5.84	0.33	2.18	2.62	2.99	3.17	3.29	3.24
0.9	5.46	0.34	1.99	2.41	2.76	2.93	3.04	2.99
1.0	5.14	0.36	1.84	2.24	2.57	2.73	2.84	2.78
1.1	4.89	0.38	1.72	2.10	2.41	2.57	2.67	2.62
1.2	4.68	0.39	1.62	1.98	2.28	2.43	2.53	2.48
1.3	4.50	0.41	1.53	1.88	2.17	2.32	2.41	2.35
1.4	4.35	0.42	1.46	1.80	2.08	2.22	2.30	2.25
1.5	4.21	0.44	1.39	1.72	1.99	2.13	2.21	2.16
1.6	4.10	0.46	1.34	1.65	1.92	2.05	2.13	2.08
1.7	3.99	0.47	1.29	1.60	1.85	1.98	2.06	2.00
1.8	3.90	0.49	1.24	1.54	1.79	1.92	1.99	1.94
1.9	3.82	0.51	1.20	1.50	1.74	1.86	1.93	1.88
2.0	3.75	0.52	1.16	1.45	1.69	1.81	1.88	1.82
2.1	3.68	0.54	1.13	1.41	1.65	1.77	1.83	1.77
2.2	3.62	0.56	1.10	1.38	1.61	1.72	1.78	1.72
2.3	3.57	0.57	1.07	1.34	1.57	1.68	1.74	1.68
2.4	3.51	0.59	1.05	1.31	1.53	1.64	1.70	1.64
2.5	3.47	0.61	1.02	1.28	1.50	1.61	1.66	1.60
2.6	3.42	0.62	1.00	1.26	1.47	1.57	1.62	1.56
2.7	3.39	0.64	0.98	1.23	1.44	1.54	1.59	1.53
2.8	3.35	0.65	0.96	1.21	1.41	1.51	1.56	1.50
2.9	3.31	0.67	0.94	1.19	1.39	1.49	1.53	1.47
3.0	3.28	0.69	0.93	1.17	1.36	1.46	1.50	1.44

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-136 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.8$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.37	0.42	2.91	3.58	4.13	4.42	4.59	4.48
0.8	4.12	0.45	2.66	3.30	3.82	4.09	4.24	4.13
0.9	3.92	0.49	2.47	3.07	3.57	3.82	3.96	3.85
1.0	3.76	0.52	2.32	2.89	3.37	3.61	3.74	3.62
1.1	3.63	0.55	2.19	2.74	3.20	3.42	3.54	3.43
1.2	3.53	0.58	2.08	2.61	3.05	3.27	3.38	3.26
1.3	3.44	0.62	1.99	2.50	2.92	3.13	3.23	3.11
1.4	3.36	0.65	1.91	2.41	2.81	3.01	3.10	2.98
1.5	3.29	0.68	1.84	2.32	2.71	2.90	2.99	2.86
1.6	3.23	0.71	1.78	2.24	2.62	2.81	2.88	2.75
1.7	3.18	0.75	1.72	2.17	2.54	2.72	2.79	2.65
1.8	3.14	0.78	1.67	2.11	2.46	2.63	2.70	2.56
1.9	3.09	0.81	1.63	2.05	2.40	2.56	2.61	2.48
2.0	3.06	0.84	1.58	2.00	2.33	2.49	2.54	2.40
2.1	3.02	0.88	1.54	1.95	2.27	2.42	2.46	2.32
2.2	2.99	0.91	1.51	1.90	2.21	2.35	2.39	2.25
2.3	2.96	0.94	1.47	1.86	2.16	2.29	2.33	2.19
2.4	2.94	0.97	1.44	1.81	2.11	2.24	2.27	2.13
2.5	2.92	1.01	1.41	1.77	2.06	2.18	2.21	2.07
2.6	2.89	1.04	1.38	1.74	2.01	2.13	2.15	2.01
2.7	2.87	1.07	1.36	1.70	1.97	2.08	2.09	1.95
2.8	2.85	1.10	1.33	1.67	1.92	2.03	2.04	1.89
2.9	2.84	1.14	1.31	1.63	1.88	1.98	1.99	1.84
3.0	2.82	1.17	1.29	1.60	1.84	1.93	1.94	1.79

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-137 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 9.6$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	6.34	0.31	2.5%	1.7%	1.5%	1.9%	1.6%	1.7%
0.8	5.84	0.33	4.2%	2.7%	2.3%	2.7%	2.4%	2.5%
0.9	5.46	0.34	6.3%	3.9%	3.3%	3.7%	3.2%	3.4%
1.0	5.14	0.36	8.7%	5.4%	4.3%	4.7%	4.1%	4.4%
1.1	4.89	0.38	11.3%	6.9%	5.5%	5.8%	5.1%	5.4%
1.2	4.68	0.39	14.2%	8.6%	6.7%	6.9%	6.1%	6.5%
1.3	4.50	0.41	17.1%	10.3%	7.9%	8.1%	7.2%	7.7%
1.4	4.35	0.42	20.0%	12.1%	9.2%	9.2%	8.2%	8.8%
1.5	4.21	0.44	23.0%	13.9%	10.5%	10.4%	9.3%	10.0%
1.6	4.10	0.46	25.9%	15.7%	11.8%	11.5%	10.4%	11.2%
1.7	3.99	0.47	28.7%	17.5%	13.1%	12.7%	11.5%	12.4%
1.8	3.90	0.49	31.5%	19.3%	14.4%	13.8%	12.5%	13.5%
1.9	3.82	0.51	34.2%	21.0%	15.7%	15.0%	13.6%	14.7%
2.0	3.75	0.52	36.7%	22.7%	16.9%	16.1%	14.7%	15.9%
2.1	3.68	0.54	39.2%	24.4%	18.2%	17.2%	15.8%	17.1%
2.2	3.62	0.56	41.5%	26.1%	19.4%	18.3%	16.8%	18.2%
2.3	3.57	0.57	43.8%	27.7%	20.7%	19.3%	17.9%	19.3%
2.4	3.51	0.59	45.9%	29.3%	21.9%	20.4%	18.9%	20.4%
2.5	3.47	0.61	48.0%	30.8%	23.0%	21.4%	19.9%	21.5%
2.6	3.42	0.62	49.9%	32.3%	24.2%	22.5%	20.9%	22.6%
2.7	3.39	0.64	51.8%	33.8%	25.3%	23.5%	21.9%	23.6%
2.8	3.35	0.65	53.6%	35.2%	26.5%	24.5%	22.9%	24.7%
2.9	3.31	0.67	55.3%	36.6%	27.6%	25.4%	23.9%	25.7%
3.0	3.28	0.69	56.9%	37.9%	28.6%	26.4%	24.9%	26.8%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-138 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.8$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.37	0.42	0.4%	0.2%	0.2%	0.3%	0.3%	0.3%
0.8	4.12	0.45	0.7%	0.4%	0.4%	0.5%	0.4%	0.5%
0.9	3.92	0.49	1.2%	0.6%	0.5%	0.7%	0.6%	0.7%
1.0	3.76	0.52	1.8%	0.9%	0.8%	1.0%	0.8%	1.0%
1.1	3.63	0.55	2.5%	1.3%	1.0%	1.3%	1.1%	1.3%
1.2	3.53	0.58	3.3%	1.6%	1.3%	1.6%	1.3%	1.5%
1.3	3.44	0.62	4.3%	2.1%	1.6%	1.9%	1.6%	1.8%
1.4	3.36	0.65	5.3%	2.6%	1.9%	2.2%	2.0%	2.2%
1.5	3.29	0.68	6.4%	3.1%	2.3%	2.6%	2.3%	2.5%
1.6	3.23	0.71	7.5%	3.6%	2.7%	3.0%	2.7%	2.9%
1.7	3.18	0.75	8.7%	4.2%	3.1%	3.5%	3.1%	3.3%
1.8	3.14	0.78	10.0%	4.9%	3.6%	3.9%	3.6%	3.7%
1.9	3.09	0.81	11.2%	5.5%	4.0%	4.4%	4.0%	4.1%
2.0	3.06	0.84	12.6%	6.2%	4.5%	4.9%	4.5%	4.6%
2.1	3.02	0.88	13.9%	6.9%	5.1%	5.4%	5.1%	5.1%
2.2	2.99	0.91	15.2%	7.7%	5.6%	6.0%	5.6%	5.6%
2.3	2.96	0.94	16.6%	8.5%	6.2%	6.6%	6.2%	6.2%
2.4	2.94	0.97	18.0%	9.3%	6.8%	7.2%	6.8%	6.8%
2.5	2.92	1.01	19.4%	10.1%	7.4%	7.8%	7.5%	7.4%
2.6	2.89	1.04	20.8%	11.0%	8.1%	8.5%	8.2%	8.1%
2.7	2.87	1.07	22.2%	11.9%	8.8%	9.2%	9.0%	8.9%
2.8	2.85	1.10	23.6%	12.8%	9.5%	10.0%	9.7%	9.8%
2.9	2.84	1.14	25.0%	13.8%	10.3%	10.8%	10.5%	10.7%
3.0	2.82	1.17	26.4%	14.8%	11.1%	11.6%	11.4%	11.7%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-139 Summary of Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Simulated Collapse Analyses of Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

N	$V_{STR}/W$	$V_{NS}/W$ nominal	$V_{NS}/W$ actual	$V_{max}/W$ without	$V_{max}/W$ with P-	$S_{CT}$ given RS as a fraction of $V_{max}/W$					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.00	0.00	0.05	0.00						
1	0.10	0.00	0.00	0.10	0.00						
1	0.15	0.00	0.00	0.15	0.13	0.88					
1	0.20	0.00	0.00	0.20	0.18	1.10	1.05				
1	0.30	0.00	0.00	0.30	0.28	1.78	1.54	1.44			
1	0.45	0.00	0.00	0.45	0.43		3.45	2.66	1.96		
1	0.60	0.00	0.00	0.60	0.58			3.44	2.51	2.31	
1	0.80	0.00	0.00	0.80	0.78				2.81	2.60	
1	1.00	0.00	0.00	1.00	0.98				3.51	3.06	2.95
1	1.20	0.00	0.00	1.20	1.18					3.42	3.18
2	0.05	0.00	0.00	0.05	0.00						
2	0.10	0.00	0.00	0.10	0.00						
2	0.15	0.00	0.00	0.15	0.13	1.26					
2	0.20	0.00	0.00	0.20	0.18	1.72	1.55				
2	0.30	0.00	0.00	0.30	0.28	3.15	2.46	1.98			
2	0.45	0.00	0.00	0.45	0.43		4.42	3.39	2.55		
2	0.60	0.00	0.00	0.60	0.58			4.14	3.05	2.85	
2	0.80	0.00	0.00	0.80	0.78				3.67	3.21	
2	1.00	0.00	0.00	1.00	0.98				4.30	3.66	3.42
2	1.20	0.00	0.00	1.20	1.18					3.97	3.76
3	0.05	0.00	0.00	0.05	0.00						
3	0.10	0.00	0.00	0.10	0.00						
3	0.15	0.00	0.00	0.15	0.13	1.43					
3	0.20	0.00	0.00	0.20	0.18	2.03	1.82				
3	0.30	0.00	0.00	0.30	0.28	3.42	2.87	2.38			
3	0.45	0.00	0.00	0.45	0.43		4.49	3.34	2.77		
3	0.60	0.00	0.00	0.60	0.58			4.20	3.53	3.11	
3	0.80	0.00	0.00	0.80	0.78				4.26	3.79	
3	1.00	0.00	0.00	1.00	0.98				4.78	4.21	4.16
3	1.20	0.00	0.00	1.20	1.18					4.70	4.46
4	0.05	0.00	0.00	0.05	0.00						
4	0.10	0.00	0.00	0.10	0.00						
4	0.15	0.00	0.00	0.15	0.13	1.47					
4	0.20	0.00	0.00	0.20	0.18	1.72	1.68				
4	0.30	0.00	0.00	0.30	0.28	2.72	2.37	2.17			
4	0.45	0.00	0.00	0.45	0.43		4.21	3.27	2.81		
4	0.60	0.00	0.00	0.60	0.58			3.93	3.36	3.16	
4	0.80	0.00	0.00	0.80	0.78				4.10	3.88	
4	1.00	0.00	0.00	1.00	0.98				4.35	4.21	4.20
4	1.20	0.00	0.00	1.20	1.18					4.45	4.38
5	0.05	0.00	0.00	0.05	0.00						
5	0.10	0.00	0.00	0.10	0.00						
5	0.15	0.00	0.00	0.15	0.13	1.43					
5	0.20	0.00	0.00	0.20	0.18	1.74	1.65				
5	0.30	0.00	0.00	0.30	0.28	2.42	2.19	2.13			
5	0.45	0.00	0.00	0.45	0.43		3.73	3.24	2.83		
5	0.60	0.00	0.00	0.60	0.58			3.90	3.32	3.22	
5	0.80	0.00	0.00	0.80	0.78				3.86	3.72	
5	1.00	0.00	0.00	1.00	0.98				4.21	4.02	3.89
5	1.20	0.00	0.00	1.20	1.18					4.50	4.58

**Table H-140 Summary of Median Peak 1<sup>st</sup>-Story Drift Ratio (DR) Results of Simulated Collapse Analyses of Wood Light-frame Models Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

N	V <sub>STR</sub> /W	V <sub>NS</sub> /W nominal	V <sub>NS</sub> /W actual	V <sub>max</sub> /W without P-Δ	V <sub>max</sub> /W with P-Δ	DR (%) given RS as a fraction of V <sub>max</sub> /W					
						0.75	0.6	0.45	0.3	0.2	0.1
1	0.05	0.00	0.00	0.05	0.00						
1	0.10	0.00	0.00	0.10	0.00						
1	0.15	0.00	0.00	0.15	0.13	5.66					
1	0.20	0.00	0.00	0.20	0.18	8.76	5.39				
1	0.30	0.00	0.00	0.30	0.28	11.84	9.33	7.38			
1	0.45	0.00	0.00	0.45	0.43		18.22	13.86	8.23		
1	0.60	0.00	0.00	0.60	0.58			16.64	8.65	7.63	
1	0.80	0.00	0.00	0.80	0.78				8.77	7.47	
1	1.00	0.00	0.00	1.00	0.98				10.65	7.49	6.27
1	1.20	0.00	0.00	1.20	1.18					7.67	5.96
2	0.05	0.00	0.00	0.05	0.00						
2	0.10	0.00	0.00	0.10	0.00						
2	0.15	0.00	0.00	0.15	0.13	7.80					
2	0.20	0.00	0.00	0.20	0.18	10.94	9.41				
2	0.30	0.00	0.00	0.30	0.28	18.47	13.63	8.99			
2	0.45	0.00	0.00	0.45	0.43		22.62	16.43	9.62		
2	0.60	0.00	0.00	0.60	0.58			18.32	11.27	8.19	
2	0.80	0.00	0.00	0.80	0.78				11.88	7.97	
2	1.00	0.00	0.00	1.00	0.98				13.53	8.21	5.81
2	1.20	0.00	0.00	1.20	1.18					7.78	5.86
3	0.05	0.00	0.00	0.05	0.00						
3	0.10	0.00	0.00	0.10	0.00						
3	0.15	0.00	0.00	0.15	0.13	7.21					
3	0.20	0.00	0.00	0.20	0.18	11.37	8.52				
3	0.30	0.00	0.00	0.30	0.28	17.71	14.81	9.52			
3	0.45	0.00	0.00	0.45	0.43		19.22	11.87	7.35		
3	0.60	0.00	0.00	0.60	0.58			14.37	9.77	6.19	
3	0.80	0.00	0.00	0.80	0.78				9.53	6.77	
3	1.00	0.00	0.00	1.00	0.98				10.92	6.79	5.42
3	1.20	0.00	0.00	1.20	1.18					7.24	5.09
4	0.05	0.00	0.00	0.05	0.00						
4	0.10	0.00	0.00	0.10	0.00						
4	0.15	0.00	0.00	0.15	0.13	5.90					
4	0.20	0.00	0.00	0.20	0.18	7.52	5.29				
4	0.30	0.00	0.00	0.30	0.28	13.65	9.13	7.06			
4	0.45	0.00	0.00	0.45	0.43		16.20	8.93	6.45		
4	0.60	0.00	0.00	0.60	0.58			11.67	7.09	5.43	
4	0.80	0.00	0.00	0.80	0.78				8.03	6.27	
4	1.00	0.00	0.00	1.00	0.98				7.06	6.30	4.57
4	1.20	0.00	0.00	1.20	1.18					5.06	4.52
5	0.05	0.00	0.00	0.05	0.00						
5	0.10	0.00	0.00	0.10	0.00						
5	0.15	0.00	0.00	0.15	0.13	5.50					
5	0.20	0.00	0.00	0.20	0.18	7.55	5.66				
5	0.30	0.00	0.00	0.30	0.28	9.56	7.36	6.30			
5	0.45	0.00	0.00	0.45	0.43		14.07	9.59	6.67		
5	0.60	0.00	0.00	0.60	0.58			10.39	7.15	5.49	
5	0.80	0.00	0.00	0.80	0.78				6.71	5.83	
5	1.00	0.00	0.00	1.00	0.98				5.88	4.67	4.10
5	1.20	0.00	0.00	1.20	1.18					5.10	4.70

**Table H-141 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CT</sub>*) Results of Collapse Analyses of 1-Story Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

Model ID	IDA Results							Model Period <i>T</i> <sub>1</sub> (s)
	Non-Simulated Collapse <i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i> at <i>DR</i>					Simulated Collapse		
1S-	2.5%	5.0%	7.5%	10%	15%	<i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i>	<i>DR</i>	
015-015-075	0.67	0.85	0.88	0.88	0.88	0.88	5.7%	0.53
020-020-075	0.77	1.03	1.06	1.10	1.10	1.10	8.8%	0.46
020-020-060	0.78	1.03	1.05	1.05	1.05	1.05	5.4%	0.46
030-030-075	0.95	1.30	1.45	1.55	1.78	1.78	11.8%	0.38
030-030-060	0.95	1.30	1.38	1.54	1.54	1.54	9.3%	0.37
030-030-045	0.96	1.31	1.44	1.44	1.44	1.44	7.4%	0.37
045-045-060	1.16	1.66	1.96	2.17	2.63	3.45	18.2%	0.31
045-045-045	1.16	1.68	1.91	2.08	2.66	2.66	13.9%	0.31
045-045-030	1.16	1.65	1.82	1.96	1.96	1.96	8.2%	0.31
060-060-045	1.37	1.94	2.21	2.48	2.93	3.44	16.6%	0.27
060-060-030	1.38	1.94	2.15	2.51	2.51	2.51	8.7%	0.27
060-060-020	1.36	1.96	2.18	2.31	2.31	2.31	7.6%	0.27
080-080-030	1.69	2.18	2.49	2.81	2.81	2.81	8.8%	0.23
080-080-020	1.67	2.17	2.44	2.60	2.60	2.60	7.5%	0.23
100-100-030	1.94	2.43	2.89	3.10	3.51	3.51	10.7%	0.21
100-100-020	1.91	2.50	2.83	3.06	3.06	3.06	7.5%	0.21
100-100-010	1.92	2.53	2.95	2.95	2.95	2.95	6.3%	0.21
120-120-020	2.16	2.86	3.17	3.42	3.42	3.42	7.7%	0.19
120-120-010	2.17	2.85	3.18	3.18	3.18	3.18	6.0%	0.19

\* Upper limit of Code Period,  $C_u T_a = 0.16s$ ,  $V_{NS}/W = 0$ .

**Table H-142 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 2-Story Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
2S-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
015-015-075	0.82	1.06	1.15	1.26	1.26	1.26	7.8%	0.62
020-020-075	0.97	1.30	1.42	1.52	1.72	1.72	10.9%	0.54
020-020-060	0.97	1.29	1.37	1.55	1.55	1.55	9.4%	0.54
030-030-075	1.20	1.60	1.85	2.04	2.52	3.15	18.5%	0.44
030-030-060	1.22	1.58	1.78	1.99	2.46	2.46	13.6%	0.44
030-030-045	1.19	1.58	1.71	1.98	1.98	1.98	9.0%	0.44
045-045-060	1.49	2.03	2.30	2.68	3.28	4.42	22.6%	0.36
045-045-045	1.50	2.03	2.29	2.55	2.99	3.39	16.4%	0.36
045-045-030	1.50	2.06	2.28	2.55	2.55	2.55	9.6%	0.36
060-060-045	1.74	2.38	2.70	2.94	3.54	4.14	18.3%	0.31
060-060-030	1.75	2.38	2.58	2.73	3.05	3.05	11.3%	0.31
060-060-020	1.74	2.41	2.65	2.85	2.85	2.85	8.2%	0.31
080-080-030	2.06	2.73	2.98	3.15	3.67	3.67	11.9%	0.27
080-080-020	2.07	2.71	2.98	3.21	3.21	3.21	8.0%	0.27
100-100-030	2.39	3.05	3.43	3.69	4.30	4.30	13.5%	0.24
100-100-020	2.39	3.05	3.40	3.66	3.66	3.66	8.2%	0.24
100-100-010	2.38	3.07	3.42	3.42	3.42	3.42	5.8%	0.24
120-120-020	2.70	3.38	3.67	3.97	3.97	3.97	7.8%	0.22
120-120-010	2.63	3.42	3.76	3.76	3.76	3.76	5.9%	0.22

\* Upper limit of Code Period,  $C_uT_a = 0.26s$ ,  $V_{NS}/W = 0$ .

**Table H-143 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 3-Story Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
3S-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
015-015-075	1.04	1.31	1.43	1.43	1.43	1.43	7.2%	0.72
020-020-075	1.21	1.58	1.71	1.76	2.03	2.03	11.4%	0.62
020-020-060	1.22	1.58	1.66	1.82	1.82	1.82	8.5%	0.62
030-030-075	1.52	2.01	2.18	2.47	2.81	3.42	17.7%	0.51
030-030-060	1.50	1.96	2.08	2.26	2.87	2.87	14.8%	0.51
030-030-045	1.50	1.98	2.10	2.38	2.38	2.38	9.5%	0.51
045-045-060	1.93	2.45	2.64	2.86	3.45	4.49	19.2%	0.41
045-045-045	1.94	2.39	2.57	2.72	3.34	3.34	11.9%	0.41
045-045-030	1.90	2.45	2.77	2.77	2.77	2.77	7.3%	0.41
060-060-045	2.27	2.92	3.11	3.42	4.20	4.20	14.4%	0.36
060-060-030	2.25	2.86	3.09	3.53	3.53	3.53	9.8%	0.36
060-060-020	2.21	2.82	3.11	3.11	3.11	3.11	6.2%	0.36
080-080-030	2.58	3.46	3.72	4.26	4.26	4.26	9.5%	0.31
080-080-020	2.67	3.46	3.79	3.79	3.79	3.79	6.8%	0.31
100-100-030	3.06	3.87	4.12	4.35	4.78	4.78	10.9%	0.28
100-100-020	2.96	3.76	4.21	4.21	4.21	4.21	6.8%	0.28
100-100-010	2.98	3.89	4.16	4.16	4.16	4.16	5.4%	0.28
120-120-020	3.35	4.27	4.70	4.70	4.70	4.70	7.2%	0.25
120-120-010	3.37	4.16	4.46	4.46	4.46	4.46	5.1%	0.25

\* Upper limit of Code Period,  $C_uT_a = 0.36s$ ,  $V_{NS}/W = 0$ .

**Table H-144 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 4-Story Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
4S-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
015-015-075	1.14	1.41	1.47	1.47	1.47	1.47	5.90%	0.81
020-020-075	1.29	1.62	1.65	1.72	1.72	1.72	7.52%	0.70
020-020-060	1.31	1.65	1.68	1.68	1.68	1.68	5.29%	0.70
030-030-075	1.64	2.09	2.26	2.36	2.72	2.72	13.65%	0.57
030-030-060	1.61	2.02	2.12	2.37	2.37	2.37	9.13%	0.57
030-030-045	1.64	2.02	2.17	2.17	2.17	2.17	7.06%	0.57
045-045-060	2.02	2.55	2.72	2.89	3.42	4.21	16.20%	0.47
045-045-045	2.04	2.58	2.75	3.27	3.27	3.27	8.93%	0.47
045-045-030	2.06	2.59	2.81	2.81	2.81	2.81	6.45%	0.47
060-060-045	2.38	2.95	3.13	3.23	3.93	3.93	11.67%	0.40
060-060-030	2.27	2.98	3.36	3.36	3.36	3.36	7.09%	0.40
060-060-020	2.40	2.97	3.16	3.16	3.16	3.16	5.43%	0.40
080-080-030	2.84	3.54	3.73	4.10	4.10	4.10	8.03%	0.35
080-080-020	2.86	3.56	3.88	3.88	3.88	3.88	6.27%	0.35
100-100-030	3.09	3.95	4.35	4.35	4.35	4.35	7.06%	0.31
100-100-020	2.98	3.87	4.21	4.21	4.21	4.21	6.30%	0.31
100-100-010	3.19	4.20	4.20	4.20	4.20	4.20	4.57%	0.31
120-120-020	3.47	4.22	4.45	4.45	4.45	4.45	5.06%	0.29
120-120-010	3.41	4.38	4.38	4.38	4.38	4.38	4.52%	0.29

\* Upper limit of Code Period,  $C_uT_a = 0.45s$ ,  $V_{NS}/W = 0$ .



**Table H-145 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CT</sub>*) Results of Collapse Analyses of 5-Story Wood Light-frame Models with SFRS Only and without Nonstructural Wall Finishes (STR)**

Model ID	IDA Results							Model Period <i>T</i> <sub>1</sub> (s)
	Non-Simulated Collapse <i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i> at <i>DR</i>					Simulated Collapse		
5S-	2.5%	5.0%	7.5%	10%	15%	<i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i>	<i>DR</i>	
015-015-075	1.13	1.39	1.43	1.43	1.43	1.43	5.5%	0.89
020-020-075	1.33	1.66	1.69	1.74	1.74	1.74	7.6%	0.77
020-020-060	1.31	1.63	1.65	1.65	1.65	1.65	5.7%	0.77
030-030-075	1.63	2.04	2.14	2.42	2.42	2.42	9.6%	0.63
030-030-060	1.60	1.98	2.19	2.19	2.19	2.19	7.4%	0.63
030-030-045	1.62	2.03	2.13	2.13	2.13	2.13	6.3%	0.63
045-045-060	2.07	2.58	2.78	2.88	3.73	3.73	14.1%	0.51
045-045-045	2.02	2.55	2.70	3.24	3.24	3.24	9.6%	0.51
045-045-030	2.06	2.57	2.83	2.83	2.83	2.83	6.7%	0.51
060-060-045	2.42	3.05	3.20	3.33	3.90	3.90	10.4%	0.44
060-060-030	2.38	3.04	3.32	3.32	3.32	3.32	7.1%	0.44
060-060-020	2.44	3.05	3.22	3.22	3.22	3.22	5.5%	0.44
080-080-030	2.81	3.51	3.86	3.86	3.86	3.86	6.7%	0.38
080-080-020	2.81	3.44	3.72	3.72	3.72	3.72	5.8%	0.38
100-100-030	3.20	3.84	4.21	4.21	4.21	4.21	5.9%	0.34
100-100-020	3.14	4.02	4.02	4.02	4.02	4.02	4.7%	0.34
100-100-010	3.09	3.89	3.89	3.89	3.89	3.89	4.1%	0.34
120-120-020	3.42	4.24	4.50	4.50	4.50	4.50	5.1%	0.31
120-120-010	3.59	4.58	4.58	4.58	4.58	4.58	4.7%	0.31

\* Upper limit of Code Period,  $C_u T_a = 0.53s$ ,  $V_{NS}/W = 0$ .

**Table H-146** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{D}R_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{D}R_{IC}$	$\bar{D}R_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{D}R_{IC}$		
0.7	0.17	0.79	0.91	1.00	1.04	1.04	1.04	9.90%	
0.8	0.19	0.82	0.97	1.08	1.13	1.14	1.13	9.86%	
0.9	0.22	0.86	1.03	1.15	1.22	1.24	1.22	9.82%	
1.0	0.24	0.90	1.09	1.23	1.31	1.34	1.31	9.79%	
1.1	0.27	0.93	1.15	1.30	1.40	1.44	1.39	9.75%	
1.2	0.29	0.97	1.20	1.37	1.48	1.53	1.47	9.72%	
1.3	0.31	1.01	1.26	1.44	1.57	1.63	1.55	9.68%	
1.4	0.34	1.04	1.31	1.51	1.65	1.72	1.63	9.64%	
1.5	0.36	1.08	1.37	1.58	1.73	1.81	1.71	9.61%	
1.6	0.39	1.12	1.42	1.65	1.80	1.89	1.78	9.57%	
1.7	0.41	1.15	1.47	1.72	1.88	1.98	1.85	9.54%	
1.8	0.43	1.19	1.53	1.78	1.95	2.06	1.92	9.50%	
1.9	0.46	1.22	1.58	1.84	2.02	2.14	1.99	9.47%	
2.0	0.48	1.26	1.63	1.90	2.09	2.21	2.06	9.43%	
2.1	0.51	1.29	1.68	1.97	2.16	2.28	2.12	9.40%	
2.2	0.53	1.33	1.72	2.02	2.23	2.35	2.18	9.36%	
2.3	0.55	1.36	1.77	2.08	2.29	2.42	2.25	9.33%	
2.4	0.58	1.40	1.82	2.14	2.35	2.49	2.30	9.29%	
2.5	0.60	1.43	1.87	2.19	2.41	2.55	2.36	9.26%	
2.6	0.63	1.47	1.91	2.25	2.47	2.61	2.41	9.22%	
2.7	0.65	1.50	1.96	2.30	2.53	2.66	2.47	9.19%	
2.8	0.67	1.53	2.00	2.35	2.58	2.72	2.52	9.16%	
2.9	0.70	1.57	2.04	2.40	2.64	2.77	2.57	9.12%	
3.0	0.72	1.60	2.09	2.45	2.69	2.82	2.61	9.09%	

**Table H-147** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.25	0.92	1.12	1.26	1.35	1.39	1.35	9.77%	
0.8	0.29	0.97	1.20	1.37	1.48	1.53	1.47	9.72%	
0.9	0.33	1.03	1.29	1.48	1.61	1.67	1.59	9.66%	
1.0	0.36	1.08	1.37	1.58	1.73	1.81	1.71	9.61%	
1.1	0.40	1.13	1.45	1.68	1.84	1.94	1.82	9.55%	
1.2	0.43	1.19	1.53	1.78	1.95	2.06	1.92	9.50%	
1.3	0.47	1.24	1.60	1.87	2.06	2.17	2.03	9.45%	
1.4	0.51	1.29	1.68	1.97	2.16	2.28	2.12	9.40%	
1.5	0.54	1.35	1.75	2.05	2.26	2.39	2.22	9.34%	
1.6	0.58	1.40	1.82	2.14	2.35	2.49	2.30	9.29%	
1.7	0.61	1.45	1.89	2.22	2.44	2.58	2.39	9.24%	
1.8	0.65	1.50	1.96	2.30	2.53	2.66	2.47	9.19%	
1.9	0.69	1.55	2.02	2.37	2.61	2.74	2.54	9.14%	
2.0	0.72	1.60	2.09	2.45	2.69	2.82	2.61	9.09%	
2.1	0.76	1.65	2.15	2.52	2.76	2.88	2.68	9.04%	
2.2	0.80	1.70	2.21	2.58	2.83	2.95	2.74	8.99%	
2.3	0.83	1.75	2.27	2.65	2.89	3.00	2.80	8.94%	
2.4	0.87	1.80	2.32	2.71	2.95	3.06	2.86	8.89%	
2.5	0.90	1.84	2.38	2.77	3.01	3.10	2.91	8.84%	
2.6	0.94	1.89	2.43	2.82	3.06	3.14	2.96	8.79%	
2.7	0.98	1.94	2.48	2.87	3.10	3.18	3.01	8.74%	
2.8	1.01	1.98	2.53	2.92	3.15	3.21	3.05	8.69%	
2.9	1.05	2.03	2.58	2.97	3.19	3.24	3.09	8.65%	
3.0	1.08	2.07	2.63	3.01	3.22	3.27	3.12	8.60%	

**Table H-148 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story STR Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	1.30	1.63	1.88	1.97	1.98	1.97
0.8	2.35	0.19	1.19	1.52	1.77	1.88	1.90	1.88
0.9	2.35	0.22	1.11	1.43	1.69	1.81	1.84	1.80
1.0	2.35	0.24	1.04	1.36	1.62	1.74	1.78	1.74
1.1	2.35	0.27	0.99	1.30	1.56	1.69	1.74	1.68
1.2	2.35	0.29	0.94	1.25	1.51	1.64	1.70	1.63
1.3	2.35	0.31	0.90	1.21	1.47	1.60	1.66	1.59
1.4	2.35	0.34	0.87	1.17	1.43	1.56	1.63	1.55
1.5	2.35	0.36	0.84	1.14	1.39	1.53	1.60	1.51
1.6	2.35	0.39	0.81	1.11	1.36	1.50	1.57	1.48
1.7	2.35	0.41	0.79	1.08	1.33	1.47	1.55	1.45
1.8	2.35	0.43	0.77	1.06	1.31	1.44	1.52	1.42
1.9	2.35	0.46	0.75	1.04	1.28	1.42	1.49	1.39
2.0	2.35	0.48	0.73	1.02	1.26	1.39	1.47	1.37
2.1	2.35	0.51	0.71	1.00	1.24	1.37	1.45	1.34
2.2	2.35	0.53	0.70	0.98	1.21	1.35	1.42	1.32
2.3	2.35	0.55	0.69	0.96	1.19	1.33	1.40	1.30
2.4	2.35	0.58	0.68	0.95	1.18	1.30	1.38	1.27
2.5	2.35	0.60	0.66	0.93	1.16	1.28	1.35	1.25
2.6	2.35	0.63	0.65	0.92	1.14	1.26	1.33	1.23
2.7	2.35	0.65	0.64	0.91	1.12	1.25	1.31	1.21
2.8	2.35	0.67	0.64	0.89	1.11	1.23	1.29	1.19
2.9	2.35	0.70	0.63	0.88	1.09	1.21	1.27	1.17
3.0	2.35	0.72	0.62	0.87	1.08	1.19	1.25	1.16

**Table H-149 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story STR Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.52	2.00	2.38	2.57	2.64	2.56
0.8	2.35	0.29	1.41	1.88	2.27	2.47	2.55	2.45
0.9	2.35	0.33	1.32	1.79	2.17	2.37	2.47	2.35
1.0	2.35	0.36	1.25	1.71	2.09	2.30	2.40	2.27
1.1	2.35	0.40	1.20	1.64	2.02	2.23	2.34	2.20
1.2	2.35	0.43	1.15	1.59	1.96	2.16	2.28	2.13
1.3	2.35	0.47	1.11	1.54	1.90	2.11	2.22	2.07
1.4	2.35	0.51	1.07	1.50	1.85	2.05	2.17	2.01
1.5	2.35	0.54	1.04	1.46	1.81	2.00	2.12	1.96
1.6	2.35	0.58	1.01	1.42	1.76	1.96	2.07	1.91
1.7	2.35	0.61	0.99	1.39	1.72	1.91	2.02	1.86
1.8	2.35	0.65	0.97	1.36	1.69	1.87	1.97	1.82
1.9	2.35	0.69	0.95	1.33	1.65	1.83	1.92	1.77
2.0	2.35	0.72	0.93	1.30	1.62	1.79	1.87	1.73
2.1	2.35	0.76	0.91	1.28	1.58	1.75	1.83	1.69
2.2	2.35	0.80	0.90	1.25	1.55	1.71	1.78	1.65
2.3	2.35	0.83	0.88	1.23	1.52	1.67	1.74	1.62
2.4	2.35	0.87	0.87	1.21	1.49	1.64	1.69	1.58
2.5	2.35	0.90	0.86	1.19	1.46	1.60	1.65	1.54
2.6	2.35	0.94	0.84	1.17	1.43	1.56	1.61	1.51
2.7	2.35	0.98	0.83	1.15	1.40	1.53	1.57	1.48
2.8	2.35	1.01	0.82	1.13	1.38	1.49	1.53	1.44
2.9	2.35	1.05	0.81	1.11	1.35	1.46	1.49	1.41
3.0	2.35	1.08	0.80	1.09	1.32	1.43	1.45	1.38

**Table H-150 Values of the  $MCE_R$  collapse probability for the 1-Story STR wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	27.9%	16.4%	12.5%	12.8%	12.7%	12.8%
0.8	2.35	0.19	34.8%	20.2%	14.9%	14.6%	14.2%	14.6%
0.9	2.35	0.22	40.9%	23.6%	17.0%	16.2%	15.5%	16.2%
1.0	2.35	0.24	46.5%	26.9%	19.0%	17.7%	16.7%	17.7%
1.1	2.35	0.27	51.3%	29.8%	20.9%	19.1%	17.8%	19.2%
1.2	2.35	0.29	55.6%	32.6%	22.7%	20.4%	18.8%	20.5%
1.3	2.35	0.31	59.3%	35.1%	24.3%	21.6%	19.8%	21.8%
1.4	2.35	0.34	62.6%	37.5%	25.9%	22.8%	20.7%	23.0%
1.5	2.35	0.36	65.5%	39.7%	27.3%	23.9%	21.6%	24.2%
1.6	2.35	0.39	68.1%	41.7%	28.8%	25.0%	22.5%	25.4%
1.7	2.35	0.41	70.3%	43.6%	30.1%	26.0%	23.4%	26.5%
1.8	2.35	0.43	72.4%	45.4%	31.4%	27.1%	24.3%	27.6%
1.9	2.35	0.46	74.2%	47.1%	32.7%	28.1%	25.1%	28.7%
2.0	2.35	0.48	75.8%	48.7%	33.9%	29.1%	26.0%	29.8%
2.1	2.35	0.51	77.2%	50.2%	35.0%	30.0%	26.9%	30.8%
2.2	2.35	0.53	78.6%	51.6%	36.2%	31.0%	27.8%	31.9%
2.3	2.35	0.55	79.7%	53.0%	37.3%	31.9%	28.8%	32.9%
2.4	2.35	0.58	80.8%	54.3%	38.4%	32.9%	29.7%	34.0%
2.5	2.35	0.60	81.8%	55.5%	39.5%	33.8%	30.6%	35.0%
2.6	2.35	0.63	82.7%	56.7%	40.6%	34.8%	31.6%	36.1%
2.7	2.35	0.65	83.6%	57.9%	41.6%	35.7%	32.6%	37.1%
2.8	2.35	0.67	84.3%	59.0%	42.6%	36.7%	33.6%	38.1%
2.9	2.35	0.70	85.0%	60.0%	43.6%	37.6%	34.6%	39.2%
3.0	2.35	0.72	85.7%	61.1%	44.6%	38.5%	35.6%	40.2%

**Table H-151 Values of the  $MCE_R$  collapse probability for the 1-Story STR wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	14.8%	6.2%	4.1%	4.3%	3.9%	4.2%
0.8	2.35	0.29	19.6%	8.0%	5.1%	5.0%	4.4%	5.0%
0.9	2.35	0.33	24.2%	9.9%	6.1%	5.8%	5.0%	5.8%
1.0	2.35	0.36	28.6%	11.7%	7.0%	6.5%	5.5%	6.5%
1.1	2.35	0.40	32.7%	13.4%	8.0%	7.3%	6.1%	7.3%
1.2	2.35	0.43	36.5%	15.2%	8.9%	8.0%	6.7%	8.1%
1.3	2.35	0.47	39.9%	16.9%	9.9%	8.8%	7.3%	8.9%
1.4	2.35	0.51	43.1%	18.5%	10.9%	9.5%	8.0%	9.7%
1.5	2.35	0.54	46.0%	20.1%	11.8%	10.3%	8.6%	10.5%
1.6	2.35	0.58	48.7%	21.7%	12.8%	11.1%	9.4%	11.4%
1.7	2.35	0.61	51.1%	23.3%	13.8%	11.9%	10.1%	12.2%
1.8	2.35	0.65	53.4%	24.8%	14.8%	12.8%	10.9%	13.1%
1.9	2.35	0.69	55.5%	26.3%	15.8%	13.7%	11.8%	14.1%
2.0	2.35	0.72	57.4%	27.8%	16.9%	14.6%	12.7%	15.0%
2.1	2.35	0.76	59.2%	29.3%	17.9%	15.5%	13.7%	16.1%
2.2	2.35	0.80	60.9%	30.7%	19.0%	16.5%	14.7%	17.1%
2.3	2.35	0.83	62.4%	32.2%	20.1%	17.5%	15.8%	18.2%
2.4	2.35	0.87	63.9%	33.6%	21.3%	18.6%	16.9%	19.3%
2.5	2.35	0.90	65.2%	35.0%	22.4%	19.7%	18.1%	20.5%
2.6	2.35	0.94	66.5%	36.4%	23.6%	20.8%	19.4%	21.7%
2.7	2.35	0.98	67.7%	37.9%	24.9%	22.0%	20.7%	22.9%
2.8	2.35	1.01	68.8%	39.3%	26.1%	23.2%	22.1%	24.2%
2.9	2.35	1.05	69.9%	40.7%	27.4%	24.5%	23.5%	25.6%
3.0	2.35	1.08	70.9%	42.1%	28.8%	25.9%	25.0%	26.9%

**Table H-152** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.17	0.93	1.16	1.34	1.47	1.57	1.56	13.40%	
0.8	0.19	0.99	1.23	1.42	1.56	1.69	1.67	13.28%	
0.9	0.22	1.04	1.30	1.51	1.66	1.80	1.77	13.16%	
1.0	0.24	1.10	1.37	1.59	1.75	1.91	1.88	13.04%	
1.1	0.27	1.15	1.44	1.67	1.84	2.02	1.97	12.92%	
1.2	0.29	1.20	1.50	1.75	1.93	2.12	2.07	12.80%	
1.3	0.31	1.25	1.57	1.83	2.02	2.22	2.16	12.69%	
1.4	0.34	1.30	1.64	1.90	2.11	2.32	2.25	12.57%	
1.5	0.36	1.35	1.70	1.98	2.19	2.41	2.33	12.46%	
1.6	0.39	1.40	1.76	2.05	2.27	2.50	2.41	12.34%	
1.7	0.41	1.45	1.82	2.12	2.35	2.59	2.49	12.23%	
1.8	0.43	1.50	1.88	2.19	2.43	2.67	2.57	12.12%	
1.9	0.46	1.55	1.94	2.26	2.50	2.75	2.64	12.01%	
2.0	0.48	1.60	2.00	2.33	2.58	2.83	2.71	11.90%	
2.1	0.51	1.64	2.06	2.40	2.65	2.90	2.78	11.79%	
2.2	0.53	1.69	2.12	2.46	2.72	2.97	2.84	11.68%	
2.3	0.55	1.73	2.17	2.52	2.78	3.04	2.90	11.57%	
2.4	0.58	1.78	2.23	2.58	2.85	3.10	2.96	11.47%	
2.5	0.60	1.82	2.28	2.64	2.91	3.17	3.02	11.36%	
2.6	0.63	1.87	2.33	2.70	2.98	3.22	3.07	11.26%	
2.7	0.65	1.91	2.39	2.76	3.03	3.28	3.13	11.16%	
2.8	0.67	1.95	2.44	2.82	3.09	3.33	3.18	11.05%	
2.9	0.70	1.99	2.49	2.87	3.15	3.38	3.23	10.95%	
3.0	0.72	2.03	2.54	2.92	3.20	3.42	3.27	10.85%	



**Table H-153** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.25	1.12	1.40	1.63	1.80	1.96	1.92	12.98%	
0.8	0.29	1.20	1.50	1.75	1.93	2.12	2.07	12.80%	
0.9	0.33	1.28	1.60	1.86	2.06	2.27	2.20	12.63%	
1.0	0.36	1.35	1.70	1.98	2.19	2.41	2.33	12.46%	
1.1	0.40	1.43	1.79	2.09	2.31	2.54	2.45	12.29%	
1.2	0.43	1.50	1.88	2.19	2.43	2.67	2.57	12.12%	
1.3	0.47	1.57	1.97	2.30	2.54	2.79	2.67	11.95%	
1.4	0.51	1.64	2.06	2.40	2.65	2.90	2.78	11.79%	
1.5	0.54	1.71	2.15	2.49	2.75	3.01	2.87	11.63%	
1.6	0.58	1.78	2.23	2.58	2.85	3.10	2.96	11.47%	
1.7	0.61	1.84	2.31	2.67	2.94	3.19	3.05	11.31%	
1.8	0.65	1.91	2.39	2.76	3.03	3.28	3.13	11.16%	
1.9	0.69	1.97	2.46	2.84	3.12	3.35	3.20	11.00%	
2.0	0.72	2.03	2.54	2.92	3.20	3.42	3.27	10.85%	
2.1	0.76	2.09	2.61	3.00	3.28	3.48	3.34	10.70%	
2.2	0.80	2.15	2.68	3.08	3.35	3.54	3.40	10.56%	
2.3	0.83	2.21	2.74	3.15	3.42	3.59	3.45	10.41%	
2.4	0.87	2.27	2.81	3.21	3.48	3.64	3.51	10.27%	
2.5	0.90	2.32	2.87	3.28	3.54	3.68	3.55	10.13%	
2.6	0.94	2.37	2.93	3.34	3.60	3.72	3.60	9.99%	
2.7	0.98	2.43	2.99	3.40	3.65	3.75	3.64	9.86%	
2.8	1.01	2.48	3.04	3.45	3.70	3.78	3.68	9.72%	
2.9	1.05	2.53	3.10	3.50	3.74	3.81	3.71	9.59%	
3.0	1.08	2.57	3.15	3.55	3.78	3.83	3.74	9.46%	

**Table H-154 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story STR Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	1.55	2.07	2.53	2.79	2.99	2.97
0.8	2.35	0.19	1.43	1.93	2.35	2.60	2.81	2.78
0.9	2.35	0.22	1.34	1.81	2.21	2.45	2.66	2.62
1.0	2.35	0.24	1.27	1.71	2.10	2.33	2.54	2.49
1.1	2.35	0.27	1.21	1.63	2.00	2.23	2.44	2.39
1.2	2.35	0.29	1.16	1.57	1.92	2.14	2.35	2.29
1.3	2.35	0.31	1.12	1.51	1.85	2.07	2.27	2.21
1.4	2.35	0.34	1.08	1.46	1.79	2.00	2.20	2.13
1.5	2.35	0.36	1.05	1.42	1.74	1.94	2.14	2.07
1.6	2.35	0.39	1.02	1.38	1.69	1.89	2.08	2.01
1.7	2.35	0.41	0.99	1.34	1.65	1.84	2.02	1.95
1.8	2.35	0.43	0.97	1.31	1.61	1.79	1.97	1.90
1.9	2.35	0.46	0.95	1.28	1.57	1.75	1.93	1.85
2.0	2.35	0.48	0.93	1.25	1.54	1.71	1.88	1.80
2.1	2.35	0.51	0.91	1.23	1.51	1.68	1.84	1.76
2.2	2.35	0.53	0.89	1.20	1.48	1.64	1.80	1.72
2.3	2.35	0.55	0.87	1.18	1.45	1.61	1.76	1.68
2.4	2.35	0.58	0.86	1.16	1.42	1.58	1.72	1.64
2.5	2.35	0.60	0.85	1.14	1.40	1.55	1.68	1.61
2.6	2.35	0.63	0.83	1.12	1.37	1.52	1.65	1.57
2.7	2.35	0.65	0.82	1.10	1.35	1.49	1.61	1.54
2.8	2.35	0.67	0.81	1.09	1.33	1.47	1.58	1.51
2.9	2.35	0.70	0.80	1.07	1.31	1.44	1.55	1.48
3.0	2.35	0.72	0.79	1.06	1.29	1.42	1.52	1.45

**Table H-155 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story STR Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	Vmax/W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.86	2.51	3.07	3.42	3.73	3.66
0.8	2.35	0.29	1.74	2.35	2.89	3.21	3.52	3.44
0.9	2.35	0.33	1.65	2.23	2.74	3.05	3.35	3.25
1.0	2.35	0.36	1.57	2.12	2.61	2.91	3.20	3.10
1.1	2.35	0.40	1.51	2.04	2.50	2.79	3.08	2.96
1.2	2.35	0.43	1.45	1.96	2.41	2.69	2.96	2.84
1.3	2.35	0.47	1.40	1.90	2.33	2.60	2.85	2.74
1.4	2.35	0.51	1.36	1.84	2.26	2.51	2.76	2.64
1.5	2.35	0.54	1.32	1.79	2.19	2.44	2.67	2.55
1.6	2.35	0.58	1.29	1.74	2.13	2.37	2.58	2.46
1.7	2.35	0.61	1.26	1.70	2.08	2.30	2.50	2.38
1.8	2.35	0.65	1.23	1.66	2.02	2.24	2.42	2.31
1.9	2.35	0.69	1.20	1.62	1.98	2.18	2.35	2.24
2.0	2.35	0.72	1.18	1.58	1.93	2.13	2.28	2.18
2.1	2.35	0.76	1.16	1.55	1.89	2.08	2.21	2.11
2.2	2.35	0.80	1.14	1.52	1.85	2.03	2.14	2.05
2.3	2.35	0.83	1.12	1.49	1.81	1.98	2.08	2.00
2.4	2.35	0.87	1.10	1.46	1.77	1.93	2.02	1.94
2.5	2.35	0.90	1.08	1.43	1.73	1.89	1.96	1.89
2.6	2.35	0.94	1.06	1.41	1.69	1.84	1.90	1.84
2.7	2.35	0.98	1.04	1.38	1.66	1.80	1.85	1.79
2.8	2.35	1.01	1.03	1.36	1.63	1.76	1.80	1.74
2.9	2.35	1.05	1.01	1.34	1.59	1.71	1.75	1.70
3.0	2.35	1.08	1.00	1.31	1.56	1.67	1.70	1.66

**Table H-156 Values of the  $MCE_R$  collapse probability for the 2-Story STR wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	16.7%	7.2%	4.6%	4.4%	3.4%	3.5%
0.8	2.35	0.19	21.3%	9.5%	6.0%	5.6%	4.3%	4.4%
0.9	2.35	0.22	25.6%	11.8%	7.4%	6.7%	5.1%	5.4%
1.0	2.35	0.24	29.8%	14.1%	8.9%	7.9%	6.0%	6.4%
1.1	2.35	0.27	33.6%	16.3%	10.3%	9.1%	6.9%	7.4%
1.2	2.35	0.29	37.1%	18.4%	11.7%	10.2%	7.7%	8.4%
1.3	2.35	0.31	40.3%	20.5%	13.1%	11.3%	8.6%	9.3%
1.4	2.35	0.34	43.2%	22.5%	14.4%	12.4%	9.4%	10.3%
1.5	2.35	0.36	46.0%	24.3%	15.7%	13.5%	10.3%	11.3%
1.6	2.35	0.39	48.5%	26.1%	17.0%	14.5%	11.1%	12.3%
1.7	2.35	0.41	50.8%	27.9%	18.2%	15.5%	12.0%	13.3%
1.8	2.35	0.43	52.9%	29.5%	19.4%	16.5%	12.9%	14.3%
1.9	2.35	0.46	54.9%	31.1%	20.6%	17.5%	13.7%	15.3%
2.0	2.35	0.48	56.8%	32.7%	21.7%	18.5%	14.6%	16.3%
2.1	2.35	0.51	58.5%	34.2%	22.8%	19.5%	15.5%	17.3%
2.2	2.35	0.53	60.2%	35.6%	24.0%	20.4%	16.4%	18.4%
2.3	2.35	0.55	61.7%	37.0%	25.0%	21.4%	17.4%	19.4%
2.4	2.35	0.58	63.1%	38.3%	26.1%	22.3%	18.3%	20.4%
2.5	2.35	0.60	64.5%	39.6%	27.2%	23.3%	19.3%	21.5%
2.6	2.35	0.63	65.8%	40.9%	28.2%	24.2%	20.2%	22.5%
2.7	2.35	0.65	67.0%	42.1%	29.3%	25.1%	21.2%	23.6%
2.8	2.35	0.67	68.2%	43.3%	30.3%	26.1%	22.3%	24.6%
2.9	2.35	0.70	69.3%	44.5%	31.3%	27.0%	23.3%	25.7%
3.0	2.35	0.72	70.3%	45.6%	32.3%	28.0%	24.4%	26.8%

**Table H-157 Values of the  $MCE_R$  collapse probability for the 2-Story STR wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	6.1%	2.1%	1.2%	1.3%	0.8%	0.9%
0.8	2.35	0.29	8.3%	2.9%	1.7%	1.7%	1.1%	1.2%
0.9	2.35	0.33	10.6%	3.8%	2.2%	2.1%	1.4%	1.6%
1.0	2.35	0.36	13.0%	4.7%	2.7%	2.6%	1.7%	2.0%
1.1	2.35	0.40	15.3%	5.7%	3.3%	3.1%	2.1%	2.4%
1.2	2.35	0.43	17.6%	6.7%	3.9%	3.6%	2.4%	2.9%
1.3	2.35	0.47	19.9%	7.7%	4.5%	4.1%	2.8%	3.4%
1.4	2.35	0.51	22.0%	8.8%	5.2%	4.7%	3.3%	3.9%
1.5	2.35	0.54	24.2%	9.8%	5.8%	5.3%	3.7%	4.5%
1.6	2.35	0.58	26.2%	10.9%	6.5%	5.8%	4.2%	5.1%
1.7	2.35	0.61	28.2%	12.0%	7.2%	6.5%	4.8%	5.7%
1.8	2.35	0.65	30.2%	13.1%	7.9%	7.1%	5.4%	6.4%
1.9	2.35	0.69	32.1%	14.2%	8.7%	7.8%	6.0%	7.1%
2.0	2.35	0.72	34.0%	15.3%	9.4%	8.5%	6.7%	7.9%
2.1	2.35	0.76	35.8%	16.4%	10.2%	9.2%	7.5%	8.7%
2.2	2.35	0.80	37.5%	17.6%	11.0%	10.0%	8.3%	9.5%
2.3	2.35	0.83	39.3%	18.7%	11.9%	10.7%	9.2%	10.4%
2.4	2.35	0.87	41.0%	19.9%	12.7%	11.6%	10.1%	11.4%
2.5	2.35	0.90	42.6%	21.1%	13.6%	12.4%	11.1%	12.3%
2.6	2.35	0.94	44.3%	22.3%	14.6%	13.4%	12.1%	13.4%
2.7	2.35	0.98	45.9%	23.5%	15.5%	14.3%	13.2%	14.3%
2.8	2.35	1.01	47.4%	24.8%	16.5%	15.3%	14.3%	15.3%
2.9	2.35	1.05	49.0%	26.0%	17.6%	16.4%	15.5%	16.4%
3.0	2.35	1.08	50.5%	27.3%	18.6%	17.4%	16.8%	17.5%

**Table H-158** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%, 5.0\%, 7.5\%, 10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.17	1.18	1.39	1.56	1.68	1.79	1.76	12.37%	
0.8	0.19	1.25	1.48	1.66	1.80	1.92	1.87	12.22%	
0.9	0.22	1.32	1.57	1.76	1.91	2.04	1.99	12.07%	
1.0	0.24	1.39	1.66	1.86	2.02	2.16	2.10	11.92%	
1.1	0.27	1.46	1.74	1.96	2.12	2.28	2.20	11.77%	
1.2	0.29	1.53	1.82	2.06	2.23	2.39	2.31	11.63%	
1.3	0.31	1.60	1.91	2.15	2.33	2.50	2.41	11.48%	
1.4	0.34	1.66	1.99	2.24	2.43	2.61	2.51	11.34%	
1.5	0.36	1.73	2.07	2.33	2.53	2.71	2.60	11.20%	
1.6	0.39	1.79	2.14	2.42	2.63	2.81	2.69	11.06%	
1.7	0.41	1.86	2.22	2.51	2.72	2.91	2.78	10.93%	
1.8	0.43	1.92	2.30	2.60	2.81	3.00	2.86	10.79%	
1.9	0.46	1.98	2.37	2.68	2.90	3.09	2.95	10.66%	
2.0	0.48	2.04	2.45	2.76	2.99	3.18	3.03	10.53%	
2.1	0.51	2.10	2.52	2.85	3.08	3.27	3.11	10.40%	
2.2	0.53	2.16	2.59	2.92	3.16	3.35	3.18	10.27%	
2.3	0.55	2.22	2.66	3.00	3.24	3.43	3.25	10.14%	
2.4	0.58	2.28	2.73	3.08	3.32	3.50	3.33	10.02%	
2.5	0.60	2.33	2.80	3.15	3.40	3.57	3.39	9.89%	
2.6	0.63	2.39	2.86	3.23	3.48	3.64	3.46	9.77%	
2.7	0.65	2.44	2.93	3.30	3.55	3.71	3.52	9.65%	
2.8	0.67	2.50	2.99	3.37	3.62	3.78	3.59	9.53%	
2.9	0.70	2.55	3.06	3.44	3.69	3.84	3.64	9.41%	
3.0	0.72	2.60	3.12	3.51	3.76	3.90	3.70	9.30%	

**Table H-159** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.25	1.43	1.70	1.91	2.07	2.22	2.15	11.85%
0.8	0.29	1.53	1.82	2.06	2.23	2.39	2.31	11.63%
0.9	0.33	1.63	1.95	2.20	2.38	2.55	2.46	11.41%
1.0	0.36	1.73	2.07	2.33	2.53	2.71	2.60	11.20%
1.1	0.40	1.82	2.18	2.47	2.67	2.86	2.74	10.99%
1.2	0.43	1.92	2.30	2.60	2.81	3.00	2.86	10.79%
1.3	0.47	2.01	2.41	2.72	2.95	3.14	2.99	10.59%
1.4	0.51	2.10	2.52	2.85	3.08	3.27	3.11	10.40%
1.5	0.54	2.19	2.63	2.96	3.20	3.39	3.22	10.20%
1.6	0.58	2.28	2.73	3.08	3.32	3.50	3.33	10.02%
1.7	0.61	2.36	2.83	3.19	3.44	3.61	3.43	9.83%
1.8	0.65	2.44	2.93	3.30	3.55	3.71	3.52	9.65%
1.9	0.69	2.52	3.03	3.40	3.66	3.81	3.62	9.47%
2.0	0.72	2.60	3.12	3.51	3.76	3.90	3.70	9.30%
2.1	0.76	2.68	3.21	3.60	3.86	3.99	3.78	9.12%
2.2	0.80	2.75	3.30	3.70	3.95	4.07	3.86	8.96%
2.3	0.83	2.83	3.38	3.79	4.04	4.14	3.94	8.79%
2.4	0.87	2.90	3.46	3.87	4.12	4.22	4.01	8.63%
2.5	0.90	2.97	3.54	3.96	4.20	4.28	4.07	8.47%
2.6	0.94	3.03	3.62	4.04	4.28	4.35	4.13	8.31%
2.7	0.98	3.10	3.70	4.11	4.35	4.40	4.19	8.16%
2.8	1.01	3.16	3.77	4.18	4.41	4.46	4.25	8.01%
2.9	1.05	3.22	3.84	4.25	4.47	4.51	4.30	7.86%
3.0	1.08	3.28	3.90	4.32	4.53	4.56	4.34	7.71%

**Table H-160 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story STR Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	1.96	2.49	2.95	3.20	3.41	3.34
0.8	2.35	0.19	1.82	2.32	2.75	2.99	3.19	3.12
0.9	2.35	0.22	1.70	2.18	2.59	2.82	3.02	2.94
1.0	2.35	0.24	1.62	2.07	2.46	2.68	2.87	2.79
1.1	2.35	0.27	1.54	1.98	2.35	2.57	2.75	2.67
1.2	2.35	0.29	1.48	1.90	2.26	2.47	2.65	2.56
1.3	2.35	0.31	1.42	1.83	2.18	2.38	2.56	2.46
1.4	2.35	0.34	1.38	1.77	2.11	2.31	2.48	2.38
1.5	2.35	0.36	1.34	1.72	2.05	2.24	2.40	2.30
1.6	2.35	0.39	1.30	1.68	2.00	2.18	2.34	2.24
1.7	2.35	0.41	1.27	1.63	1.95	2.13	2.28	2.17
1.8	2.35	0.43	1.24	1.60	1.90	2.08	2.22	2.12
1.9	2.35	0.46	1.21	1.56	1.86	2.03	2.17	2.06
2.0	2.35	0.48	1.18	1.53	1.82	1.99	2.12	2.01
2.1	2.35	0.51	1.16	1.50	1.79	1.95	2.07	1.97
2.2	2.35	0.53	1.14	1.47	1.75	1.91	2.02	1.92
2.3	2.35	0.55	1.12	1.45	1.72	1.88	1.98	1.88
2.4	2.35	0.58	1.10	1.42	1.69	1.84	1.94	1.84
2.5	2.35	0.60	1.08	1.40	1.67	1.81	1.90	1.80
2.6	2.35	0.63	1.07	1.38	1.64	1.78	1.86	1.77
2.7	2.35	0.65	1.05	1.36	1.61	1.75	1.83	1.73
2.8	2.35	0.67	1.03	1.34	1.59	1.72	1.79	1.70
2.9	2.35	0.70	1.02	1.32	1.57	1.69	1.76	1.67
3.0	2.35	0.72	1.01	1.30	1.54	1.67	1.73	1.64



**Table H-161 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story STR Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	2.36	3.03	3.61	3.93	4.22	4.09
0.8	2.35	0.29	2.22	2.85	3.39	3.70	3.97	3.84
0.9	2.35	0.33	2.10	2.70	3.22	3.52	3.77	3.63
1.0	2.35	0.36	2.00	2.58	3.08	3.36	3.61	3.46
1.1	2.35	0.40	1.92	2.48	2.96	3.23	3.46	3.31
1.2	2.35	0.43	1.86	2.39	2.86	3.12	3.33	3.18
1.3	2.35	0.47	1.79	2.32	2.76	3.02	3.21	3.06
1.4	2.35	0.51	1.74	2.25	2.68	2.92	3.10	2.95
1.5	2.35	0.54	1.69	2.19	2.61	2.84	3.00	2.85
1.6	2.35	0.58	1.65	2.13	2.54	2.76	2.91	2.76
1.7	2.35	0.61	1.61	2.08	2.48	2.69	2.82	2.68
1.8	2.35	0.65	1.57	2.03	2.42	2.62	2.74	2.60
1.9	2.35	0.69	1.54	1.99	2.37	2.56	2.67	2.53
2.0	2.35	0.72	1.51	1.95	2.31	2.50	2.59	2.46
2.1	2.35	0.76	1.48	1.91	2.26	2.44	2.52	2.39
2.2	2.35	0.80	1.45	1.87	2.22	2.39	2.46	2.33
2.3	2.35	0.83	1.43	1.84	2.17	2.34	2.40	2.27
2.4	2.35	0.87	1.40	1.80	2.13	2.29	2.34	2.21
2.5	2.35	0.90	1.38	1.77	2.09	2.24	2.28	2.16
2.6	2.35	0.94	1.35	1.74	2.05	2.19	2.22	2.10
2.7	2.35	0.98	1.33	1.71	2.01	2.14	2.17	2.05
2.8	2.35	1.01	1.31	1.68	1.97	2.10	2.12	2.00
2.9	2.35	1.05	1.29	1.65	1.94	2.05	2.07	1.96
3.0	2.35	1.08	1.27	1.63	1.90	2.01	2.02	1.91

**Table H-162 Values of the  $MCE_R$  collapse probability for the 3-Story STR wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	6.8%	3.4%	2.5%	2.6%	2.1%	2.2%
0.8	2.35	0.19	9.3%	4.7%	3.3%	3.4%	2.7%	2.9%
0.9	2.35	0.22	11.8%	6.0%	4.2%	4.2%	3.3%	3.6%
1.0	2.35	0.24	14.3%	7.3%	5.1%	5.0%	3.9%	4.4%
1.1	2.35	0.27	16.8%	8.6%	6.0%	5.8%	4.6%	5.1%
1.2	2.35	0.29	19.2%	10.0%	6.9%	6.6%	5.2%	5.9%
1.3	2.35	0.31	21.6%	11.3%	7.8%	7.4%	5.9%	6.6%
1.4	2.35	0.34	23.8%	12.6%	8.7%	8.1%	6.5%	7.4%
1.5	2.35	0.36	26.0%	13.9%	9.5%	8.9%	7.2%	8.2%
1.6	2.35	0.39	28.0%	15.1%	10.4%	9.7%	7.9%	9.0%
1.7	2.35	0.41	30.0%	16.3%	11.2%	10.4%	8.5%	9.8%
1.8	2.35	0.43	31.8%	17.5%	12.1%	11.1%	9.2%	10.6%
1.9	2.35	0.46	33.6%	18.6%	12.9%	11.9%	9.9%	11.4%
2.0	2.35	0.48	35.4%	19.8%	13.7%	12.6%	10.6%	12.2%
2.1	2.35	0.51	37.0%	20.9%	14.5%	13.3%	11.3%	13.0%
2.2	2.35	0.53	38.6%	22.0%	15.3%	14.0%	12.0%	13.8%
2.3	2.35	0.55	40.1%	23.0%	16.1%	14.7%	12.7%	14.6%
2.4	2.35	0.58	41.6%	24.1%	16.9%	15.4%	13.5%	15.4%
2.5	2.35	0.60	43.0%	25.1%	17.7%	16.1%	14.2%	16.2%
2.6	2.35	0.63	44.4%	26.1%	18.5%	16.8%	15.0%	16.9%
2.7	2.35	0.65	45.7%	27.1%	19.2%	17.6%	15.7%	17.7%
2.8	2.35	0.67	47.0%	28.1%	20.0%	18.3%	16.5%	18.4%
2.9	2.35	0.70	48.2%	29.0%	20.8%	19.0%	17.3%	19.2%
3.0	2.35	0.72	49.4%	30.0%	21.5%	19.7%	18.1%	20.0%

**Table H-163 Values of the  $MCE_R$  collapse probability for the 3-Story STR wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.6%	0.7%	0.5%	0.6%	0.4%	0.5%
0.8	2.35	0.29	2.3%	1.0%	0.7%	0.9%	0.6%	0.7%
0.9	2.35	0.33	3.2%	1.4%	1.0%	1.1%	0.8%	1.0%
1.0	2.35	0.36	4.1%	1.7%	1.2%	1.4%	1.0%	1.2%
1.1	2.35	0.40	5.1%	2.2%	1.5%	1.6%	1.2%	1.5%
1.2	2.35	0.43	6.1%	2.6%	1.8%	1.9%	1.4%	1.8%
1.3	2.35	0.47	7.2%	3.1%	2.1%	2.2%	1.7%	2.1%
1.4	2.35	0.51	8.3%	3.6%	2.4%	2.6%	2.0%	2.5%
1.5	2.35	0.54	9.4%	4.1%	2.8%	2.9%	2.3%	2.8%
1.6	2.35	0.58	10.5%	4.6%	3.1%	3.2%	2.6%	3.2%
1.7	2.35	0.61	11.7%	5.2%	3.5%	3.6%	3.0%	3.6%
1.8	2.35	0.65	12.8%	5.7%	3.9%	4.0%	3.3%	3.9%
1.9	2.35	0.69	14.0%	6.3%	4.3%	4.4%	3.7%	4.3%
2.0	2.35	0.72	15.2%	6.9%	4.7%	4.8%	4.2%	4.7%
2.1	2.35	0.76	16.3%	7.5%	5.1%	5.2%	4.6%	5.1%
2.2	2.35	0.80	17.6%	8.1%	5.6%	5.7%	5.1%	5.5%
2.3	2.35	0.83	18.8%	8.8%	6.0%	6.1%	5.6%	6.0%
2.4	2.35	0.87	20.0%	9.5%	6.5%	6.6%	6.1%	6.4%
2.5	2.35	0.90	21.2%	10.2%	7.0%	7.2%	6.7%	7.0%
2.6	2.35	0.94	22.5%	10.9%	7.6%	7.7%	7.3%	7.5%
2.7	2.35	0.98	23.8%	11.6%	8.1%	8.3%	8.0%	8.0%
2.8	2.35	1.01	25.0%	12.4%	8.7%	8.9%	8.6%	8.6%
2.9	2.35	1.05	26.3%	13.2%	9.3%	9.6%	9.3%	9.3%
3.0	2.35	1.08	27.6%	14.0%	10.0%	10.3%	10.1%	9.9%

**Table H-164** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{DR}_{IC}$	$\bar{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{DR}_{IC}$		
0.7	0.17	1.28	1.45	1.57	1.63	1.64	1.61	9.10%	
0.8	0.19	1.35	1.55	1.68	1.75	1.77	1.73	9.01%	
0.9	0.22	1.43	1.64	1.79	1.88	1.90	1.85	8.93%	
1.0	0.24	1.50	1.73	1.90	2.00	2.03	1.96	8.84%	
1.1	0.27	1.57	1.82	2.01	2.11	2.15	2.07	8.76%	
1.2	0.29	1.64	1.91	2.11	2.23	2.27	2.18	8.67%	
1.3	0.31	1.71	2.00	2.21	2.34	2.39	2.28	8.59%	
1.4	0.34	1.77	2.09	2.31	2.45	2.50	2.38	8.51%	
1.5	0.36	1.84	2.17	2.41	2.56	2.61	2.47	8.43%	
1.6	0.39	1.91	2.25	2.50	2.66	2.72	2.57	8.35%	
1.7	0.41	1.97	2.33	2.60	2.76	2.82	2.66	8.27%	
1.8	0.43	2.03	2.41	2.69	2.86	2.92	2.75	8.19%	
1.9	0.46	2.10	2.49	2.78	2.95	3.02	2.83	8.11%	
2.0	0.48	2.16	2.57	2.86	3.05	3.12	2.91	8.03%	
2.1	0.51	2.22	2.64	2.95	3.14	3.21	2.99	7.96%	
2.2	0.53	2.28	2.72	3.03	3.22	3.30	3.07	7.88%	
2.3	0.55	2.34	2.79	3.11	3.31	3.38	3.14	7.80%	
2.4	0.58	2.40	2.86	3.19	3.39	3.46	3.21	7.73%	
2.5	0.60	2.46	2.93	3.26	3.47	3.54	3.28	7.66%	
2.6	0.63	2.51	2.99	3.34	3.54	3.61	3.34	7.58%	
2.7	0.65	2.57	3.06	3.41	3.62	3.69	3.41	7.51%	
2.8	0.67	2.62	3.12	3.48	3.69	3.75	3.47	7.44%	
2.9	0.70	2.68	3.18	3.54	3.75	3.82	3.53	7.37%	
3.0	0.72	2.73	3.24	3.61	3.82	3.88	3.58	7.30%	

**Table H-165** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.25	1.53	1.78	1.95	2.06	2.09	2.02	8.80%
0.8	0.29	1.64	1.91	2.11	2.23	2.27	2.18	8.67%
0.9	0.33	1.74	2.04	2.26	2.40	2.44	2.33	8.55%
1.0	0.36	1.84	2.17	2.41	2.56	2.61	2.47	8.43%
1.1	0.40	1.94	2.29	2.55	2.71	2.77	2.61	8.31%
1.2	0.43	2.03	2.41	2.69	2.86	2.92	2.75	8.19%
1.3	0.47	2.13	2.53	2.82	3.00	3.07	2.87	8.07%
1.4	0.51	2.22	2.64	2.95	3.14	3.21	2.99	7.96%
1.5	0.54	2.31	2.75	3.07	3.27	3.34	3.10	7.84%
1.6	0.58	2.40	2.86	3.19	3.39	3.46	3.21	7.73%
1.7	0.61	2.48	2.96	3.30	3.51	3.58	3.31	7.62%
1.8	0.65	2.57	3.06	3.41	3.62	3.69	3.41	7.51%
1.9	0.69	2.65	3.15	3.51	3.72	3.79	3.50	7.40%
2.0	0.72	2.73	3.24	3.61	3.82	3.88	3.58	7.30%
2.1	0.76	2.81	3.33	3.70	3.91	3.97	3.66	7.19%
2.2	0.80	2.88	3.42	3.79	4.00	4.05	3.74	7.09%
2.3	0.83	2.96	3.50	3.87	4.08	4.12	3.81	6.99%
2.4	0.87	3.03	3.57	3.95	4.15	4.19	3.87	6.89%
2.5	0.90	3.10	3.65	4.02	4.22	4.25	3.93	6.79%
2.6	0.94	3.17	3.72	4.09	4.28	4.31	3.99	6.69%
2.7	0.98	3.23	3.78	4.15	4.33	4.36	4.04	6.60%
2.8	1.01	3.29	3.85	4.21	4.38	4.40	4.09	6.50%
2.9	1.05	3.36	3.90	4.26	4.43	4.44	4.13	6.41%
3.0	1.08	3.41	3.96	4.31	4.46	4.47	4.17	6.32%

**Table H-166 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story STR Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	2.12	2.59	2.96	3.10	3.12	3.06
0.8	2.35	0.19	1.96	2.42	2.77	2.92	2.94	2.87
0.9	2.35	0.22	1.84	2.28	2.63	2.77	2.81	2.72
1.0	2.35	0.24	1.74	2.17	2.51	2.66	2.69	2.60
1.1	2.35	0.27	1.65	2.07	2.41	2.56	2.60	2.49
1.2	2.35	0.29	1.58	1.99	2.32	2.47	2.52	2.40
1.3	2.35	0.31	1.52	1.92	2.25	2.39	2.44	2.32
1.4	2.35	0.34	1.47	1.86	2.18	2.33	2.38	2.25
1.5	2.35	0.36	1.42	1.81	2.12	2.27	2.32	2.18
1.6	2.35	0.39	1.38	1.76	2.07	2.21	2.26	2.12
1.7	2.35	0.41	1.34	1.72	2.02	2.16	2.21	2.07
1.8	2.35	0.43	1.31	1.68	1.97	2.11	2.16	2.02
1.9	2.35	0.46	1.28	1.64	1.93	2.07	2.12	1.97
2.0	2.35	0.48	1.25	1.60	1.89	2.03	2.07	1.92
2.1	2.35	0.51	1.23	1.57	1.85	1.99	2.03	1.88
2.2	2.35	0.53	1.20	1.54	1.82	1.95	1.99	1.84
2.3	2.35	0.55	1.18	1.51	1.78	1.91	1.95	1.80
2.4	2.35	0.58	1.16	1.49	1.75	1.88	1.92	1.77
2.5	2.35	0.60	1.14	1.46	1.72	1.84	1.88	1.73
2.6	2.35	0.63	1.12	1.44	1.69	1.81	1.85	1.70
2.7	2.35	0.65	1.10	1.42	1.67	1.78	1.82	1.67
2.8	2.35	0.67	1.09	1.39	1.64	1.75	1.78	1.63
2.9	2.35	0.70	1.07	1.37	1.61	1.72	1.75	1.60
3.0	2.35	0.72	1.06	1.35	1.59	1.69	1.72	1.57

**Table H-167 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story STR Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	2.54	3.18	3.68	3.91	3.97	3.82
0.8	2.35	0.29	2.37	2.99	3.48	3.71	3.77	3.60
0.9	2.35	0.33	2.24	2.84	3.32	3.54	3.61	3.43
1.0	2.35	0.36	2.13	2.71	3.18	3.40	3.47	3.28
1.1	2.35	0.40	2.04	2.61	3.06	3.28	3.35	3.14
1.2	2.35	0.43	1.97	2.51	2.96	3.17	3.24	3.03
1.3	2.35	0.47	1.90	2.43	2.86	3.07	3.14	2.92
1.4	2.35	0.51	1.84	2.36	2.78	2.98	3.05	2.82
1.5	2.35	0.54	1.79	2.29	2.70	2.90	2.96	2.73
1.6	2.35	0.58	1.74	2.23	2.63	2.82	2.88	2.65
1.7	2.35	0.61	1.70	2.18	2.56	2.74	2.80	2.57
1.8	2.35	0.65	1.65	2.12	2.50	2.67	2.72	2.50
1.9	2.35	0.69	1.62	2.07	2.44	2.60	2.65	2.43
2.0	2.35	0.72	1.58	2.03	2.38	2.54	2.58	2.35
2.1	2.35	0.76	1.55	1.98	2.33	2.48	2.51	2.29
2.2	2.35	0.80	1.52	1.94	2.27	2.42	2.45	2.22
2.3	2.35	0.83	1.49	1.90	2.22	2.36	2.38	2.16
2.4	2.35	0.87	1.46	1.86	2.17	2.30	2.32	2.10
2.5	2.35	0.90	1.44	1.82	2.12	2.24	2.26	2.04
2.6	2.35	0.94	1.41	1.79	2.08	2.19	2.20	1.99
2.7	2.35	0.98	1.39	1.75	2.03	2.13	2.15	1.94
2.8	2.35	1.01	1.36	1.72	1.98	2.08	2.09	1.89
2.9	2.35	1.05	1.34	1.68	1.94	2.03	2.04	1.84
3.0	2.35	1.08	1.32	1.65	1.90	1.98	1.98	1.79

**Table H-168 Values of the  $MCE_R$  collapse probability for the 4-Story STR wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	4.7%	2.8%	2.4%	3.0%	2.9%	2.7%
0.8	2.35	0.19	6.7%	3.9%	3.2%	3.7%	3.6%	3.5%
0.9	2.35	0.22	8.8%	5.0%	4.0%	4.4%	4.3%	4.2%
1.0	2.35	0.24	11.0%	6.1%	4.7%	5.2%	4.9%	4.9%
1.1	2.35	0.27	13.2%	7.2%	5.5%	5.9%	5.6%	5.6%
1.2	2.35	0.29	15.4%	8.4%	6.3%	6.6%	6.2%	6.3%
1.3	2.35	0.31	17.5%	9.5%	7.1%	7.3%	6.8%	7.0%
1.4	2.35	0.34	19.6%	10.7%	7.8%	8.0%	7.5%	7.8%
1.5	2.35	0.36	21.7%	11.8%	8.6%	8.6%	8.1%	8.5%
1.6	2.35	0.39	23.6%	12.9%	9.4%	9.3%	8.7%	9.2%
1.7	2.35	0.41	25.5%	14.0%	10.1%	10.0%	9.3%	9.9%
1.8	2.35	0.43	27.4%	15.1%	10.9%	10.6%	10.0%	10.7%
1.9	2.35	0.46	29.1%	16.2%	11.6%	11.3%	10.6%	11.4%
2.0	2.35	0.48	30.9%	17.2%	12.4%	12.0%	11.2%	12.1%
2.1	2.35	0.51	32.5%	18.3%	13.1%	12.6%	11.9%	12.9%
2.2	2.35	0.53	34.1%	19.3%	13.9%	13.3%	12.5%	13.7%
2.3	2.35	0.55	35.6%	20.3%	14.6%	14.0%	13.2%	14.4%
2.4	2.35	0.58	37.1%	21.3%	15.4%	14.7%	13.9%	15.2%
2.5	2.35	0.60	38.6%	22.3%	16.1%	15.4%	14.6%	16.0%
2.6	2.35	0.63	40.0%	23.4%	16.9%	16.1%	15.3%	16.8%
2.7	2.35	0.65	41.4%	24.4%	17.7%	16.8%	16.0%	17.7%
2.8	2.35	0.67	42.7%	25.4%	18.5%	17.5%	16.8%	18.6%
2.9	2.35	0.70	44.0%	26.4%	19.3%	18.3%	17.5%	19.5%
3.0	2.35	0.72	45.2%	27.3%	20.1%	19.0%	18.3%	20.4%



**Table H-169 Values of the  $MCE_R$  collapse probability for the 4-Story STR wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.0%	0.5%	0.5%	0.7%	0.6%	0.5%
0.8	2.35	0.29	1.5%	0.7%	0.6%	0.9%	0.8%	0.7%
0.9	2.35	0.33	2.2%	1.0%	0.8%	1.1%	1.0%	0.9%
1.0	2.35	0.36	2.9%	1.3%	1.0%	1.3%	1.2%	1.1%
1.1	2.35	0.40	3.7%	1.7%	1.3%	1.5%	1.4%	1.3%
1.2	2.35	0.43	4.5%	2.0%	1.5%	1.8%	1.6%	1.6%
1.3	2.35	0.47	5.4%	2.4%	1.8%	2.1%	1.9%	1.8%
1.4	2.35	0.51	6.4%	2.8%	2.0%	2.4%	2.1%	2.1%
1.5	2.35	0.54	7.3%	3.3%	2.3%	2.7%	2.4%	2.4%
1.6	2.35	0.58	8.3%	3.7%	2.7%	3.0%	2.7%	2.7%
1.7	2.35	0.61	9.4%	4.2%	3.0%	3.3%	3.1%	3.0%
1.8	2.35	0.65	10.4%	4.7%	3.4%	3.7%	3.4%	3.4%
1.9	2.35	0.69	11.5%	5.3%	3.7%	4.1%	3.8%	3.8%
2.0	2.35	0.72	12.5%	5.8%	4.1%	4.5%	4.2%	4.2%
2.1	2.35	0.76	13.6%	6.4%	4.6%	5.0%	4.7%	4.7%
2.2	2.35	0.80	14.8%	7.0%	5.0%	5.4%	5.2%	5.2%
2.3	2.35	0.83	15.9%	7.7%	5.5%	5.9%	5.7%	5.8%
2.4	2.35	0.87	17.1%	8.4%	6.1%	6.5%	6.3%	6.4%
2.5	2.35	0.90	18.2%	9.1%	6.6%	7.1%	6.9%	7.0%
2.6	2.35	0.94	19.4%	9.9%	7.2%	7.7%	7.5%	7.8%
2.7	2.35	0.98	20.6%	10.7%	7.9%	8.4%	8.2%	8.5%
2.8	2.35	1.01	21.9%	11.5%	8.5%	9.1%	9.0%	9.3%
2.9	2.35	1.05	23.1%	12.4%	9.3%	9.9%	9.8%	10.2%
3.0	2.35	1.08	24.4%	13.3%	10.0%	10.7%	10.7%	11.1%

**Table H-170** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ).

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.17	1.28	1.47	1.59	1.64	1.64	1.61	8.22%	
0.8	0.19	1.35	1.56	1.69	1.76	1.76	1.72	8.15%	
0.9	0.22	1.42	1.65	1.80	1.87	1.88	1.82	8.07%	
1.0	0.24	1.50	1.74	1.90	1.98	1.99	1.93	7.99%	
1.1	0.27	1.57	1.83	2.00	2.09	2.11	2.03	7.92%	
1.2	0.29	1.64	1.92	2.10	2.20	2.22	2.12	7.84%	
1.3	0.31	1.71	2.00	2.20	2.31	2.32	2.22	7.77%	
1.4	0.34	1.78	2.09	2.30	2.41	2.43	2.31	7.69%	
1.5	0.36	1.85	2.17	2.39	2.51	2.53	2.40	7.62%	
1.6	0.39	1.91	2.25	2.48	2.61	2.63	2.49	7.55%	
1.7	0.41	1.98	2.33	2.57	2.70	2.73	2.57	7.48%	
1.8	0.43	2.04	2.41	2.66	2.80	2.83	2.65	7.41%	
1.9	0.46	2.11	2.49	2.75	2.89	2.92	2.73	7.34%	
2.0	0.48	2.17	2.56	2.83	2.98	3.01	2.81	7.27%	
2.1	0.51	2.23	2.64	2.91	3.06	3.10	2.89	7.20%	
2.2	0.53	2.29	2.71	2.99	3.15	3.18	2.96	7.13%	
2.3	0.55	2.35	2.78	3.07	3.23	3.26	3.03	7.06%	
2.4	0.58	2.41	2.85	3.15	3.31	3.34	3.10	7.00%	
2.5	0.60	2.47	2.92	3.22	3.39	3.42	3.17	6.93%	
2.6	0.63	2.52	2.98	3.30	3.46	3.49	3.23	6.87%	
2.7	0.65	2.58	3.05	3.37	3.53	3.56	3.29	6.80%	
2.8	0.67	2.63	3.11	3.44	3.60	3.63	3.35	6.74%	
2.9	0.70	2.69	3.17	3.50	3.67	3.70	3.41	6.67%	
3.0	0.72	2.74	3.24	3.57	3.74	3.76	3.47	6.61%	

**Table H-171** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story STR wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ).

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.25	1.53	1.79	1.95	2.04	2.05	1.98	7.95%
0.8	0.29	1.64	1.92	2.10	2.20	2.22	2.12	7.84%
0.9	0.33	1.74	2.05	2.25	2.36	2.38	2.26	7.73%
1.0	0.36	1.85	2.17	2.39	2.51	2.53	2.40	7.62%
1.1	0.40	1.95	2.29	2.53	2.66	2.68	2.53	7.51%
1.2	0.43	2.04	2.41	2.66	2.80	2.83	2.65	7.41%
1.3	0.47	2.14	2.52	2.79	2.93	2.96	2.77	7.30%
1.4	0.51	2.23	2.64	2.91	3.06	3.10	2.89	7.20%
1.5	0.54	2.32	2.74	3.03	3.19	3.22	3.00	7.10%
1.6	0.58	2.41	2.85	3.15	3.31	3.34	3.10	7.00%
1.7	0.61	2.50	2.95	3.26	3.42	3.45	3.20	6.90%
1.8	0.65	2.58	3.05	3.37	3.53	3.56	3.29	6.80%
1.9	0.69	2.66	3.14	3.47	3.64	3.66	3.38	6.70%
2.0	0.72	2.74	3.24	3.57	3.74	3.76	3.47	6.61%
2.1	0.76	2.81	3.32	3.66	3.83	3.85	3.55	6.52%
2.2	0.80	2.89	3.41	3.75	3.92	3.93	3.63	6.42%
2.3	0.83	2.96	3.49	3.84	4.00	4.01	3.70	6.33%
2.4	0.87	3.03	3.57	3.92	4.08	4.09	3.77	6.24%
2.5	0.90	3.10	3.64	3.99	4.15	4.16	3.83	6.16%
2.6	0.94	3.16	3.72	4.07	4.21	4.22	3.89	6.07%
2.7	0.98	3.22	3.78	4.14	4.28	4.28	3.95	5.98%
2.8	1.01	3.28	3.85	4.20	4.33	4.33	4.00	5.90%
2.9	1.05	3.34	3.91	4.26	4.38	4.38	4.05	5.81%
3.0	1.08	3.39	3.97	4.31	4.43	4.43	4.10	5.73%

**Table H-172 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story STR Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	2.11	2.62	2.99	3.11	3.12	3.04
0.8	2.35	0.19	1.96	2.44	2.80	2.92	2.92	2.84
0.9	2.35	0.22	1.84	2.29	2.64	2.76	2.77	2.68
1.0	2.35	0.24	1.74	2.18	2.51	2.64	2.65	2.55
1.1	2.35	0.27	1.66	2.08	2.41	2.53	2.55	2.43
1.2	2.35	0.29	1.59	2.00	2.31	2.44	2.46	2.34
1.3	2.35	0.31	1.53	1.93	2.24	2.36	2.38	2.25
1.4	2.35	0.34	1.47	1.86	2.17	2.29	2.31	2.18
1.5	2.35	0.36	1.43	1.81	2.10	2.23	2.25	2.11
1.6	2.35	0.39	1.39	1.76	2.05	2.17	2.19	2.05
1.7	2.35	0.41	1.35	1.71	2.00	2.12	2.14	2.00
1.8	2.35	0.43	1.32	1.67	1.95	2.07	2.09	1.94
1.9	2.35	0.46	1.29	1.64	1.91	2.02	2.04	1.89
2.0	2.35	0.48	1.26	1.60	1.87	1.98	2.00	1.85
2.1	2.35	0.51	1.23	1.57	1.83	1.94	1.96	1.80
2.2	2.35	0.53	1.21	1.54	1.80	1.90	1.92	1.76
2.3	2.35	0.55	1.19	1.51	1.76	1.87	1.89	1.72
2.4	2.35	0.58	1.16	1.48	1.73	1.83	1.85	1.69
2.5	2.35	0.60	1.14	1.46	1.70	1.80	1.82	1.65
2.6	2.35	0.63	1.13	1.43	1.67	1.77	1.79	1.62
2.7	2.35	0.65	1.11	1.41	1.65	1.74	1.75	1.59
2.8	2.35	0.67	1.09	1.39	1.62	1.71	1.72	1.56
2.9	2.35	0.70	1.07	1.37	1.59	1.68	1.69	1.53
3.0	2.35	0.72	1.06	1.35	1.57	1.66	1.67	1.50

**Table H-173 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story STR Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ).**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	2.54	3.19	3.69	3.87	3.89	3.73
0.8	2.35	0.29	2.38	3.00	3.47	3.66	3.68	3.51
0.9	2.35	0.33	2.25	2.84	3.30	3.49	3.51	3.32
1.0	2.35	0.36	2.14	2.71	3.16	3.34	3.37	3.17
1.1	2.35	0.40	2.05	2.60	3.03	3.21	3.24	3.03
1.2	2.35	0.43	1.98	2.51	2.93	3.10	3.13	2.91
1.3	2.35	0.47	1.91	2.43	2.83	3.00	3.03	2.80
1.4	2.35	0.51	1.85	2.35	2.75	2.91	2.94	2.70
1.5	2.35	0.54	1.80	2.29	2.67	2.83	2.86	2.61
1.6	2.35	0.58	1.75	2.23	2.60	2.75	2.78	2.53
1.7	2.35	0.61	1.70	2.17	2.53	2.68	2.70	2.45
1.8	2.35	0.65	1.66	2.12	2.47	2.61	2.63	2.38
1.9	2.35	0.69	1.62	2.07	2.41	2.55	2.56	2.31
2.0	2.35	0.72	1.59	2.02	2.35	2.48	2.50	2.25
2.1	2.35	0.76	1.55	1.98	2.30	2.43	2.44	2.18
2.2	2.35	0.80	1.52	1.94	2.25	2.37	2.38	2.13
2.3	2.35	0.83	1.49	1.90	2.20	2.31	2.32	2.07
2.4	2.35	0.87	1.46	1.86	2.15	2.26	2.26	2.02
2.5	2.35	0.90	1.44	1.82	2.11	2.21	2.21	1.96
2.6	2.35	0.94	1.41	1.79	2.06	2.16	2.16	1.92
2.7	2.35	0.98	1.38	1.75	2.02	2.11	2.11	1.87
2.8	2.35	1.01	1.36	1.72	1.98	2.06	2.06	1.82
2.9	2.35	1.05	1.34	1.69	1.94	2.01	2.01	1.78
3.0	2.35	1.08	1.31	1.65	1.90	1.96	1.96	1.73

**Table H-174 Values of the  $MCE_R$  collapse probability for the 5-Story STR wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.17	4.8%	2.7%	2.3%	2.9%	2.9%	2.4%
0.8	2.35	0.19	6.8%	3.7%	3.1%	3.7%	3.7%	3.2%
0.9	2.35	0.22	8.8%	4.8%	3.9%	4.5%	4.5%	4.0%
1.0	2.35	0.24	11.0%	6.0%	4.7%	5.3%	5.2%	4.8%
1.1	2.35	0.27	13.1%	7.2%	5.5%	6.1%	6.0%	5.6%
1.2	2.35	0.29	15.3%	8.3%	6.4%	6.9%	6.7%	6.4%
1.3	2.35	0.31	17.4%	9.5%	7.2%	7.6%	7.4%	7.2%
1.4	2.35	0.34	19.4%	10.7%	8.0%	8.4%	8.2%	8.0%
1.5	2.35	0.36	21.4%	11.8%	8.8%	9.1%	8.9%	8.8%
1.6	2.35	0.39	23.3%	12.9%	9.6%	9.9%	9.6%	9.6%
1.7	2.35	0.41	25.2%	14.1%	10.4%	10.6%	10.3%	10.4%
1.8	2.35	0.43	27.0%	15.2%	11.2%	11.3%	11.0%	11.3%
1.9	2.35	0.46	28.8%	16.3%	12.0%	12.0%	11.7%	12.2%
2.0	2.35	0.48	30.5%	17.3%	12.8%	12.7%	12.4%	13.0%
2.1	2.35	0.51	32.1%	18.4%	13.6%	13.5%	13.1%	13.9%
2.2	2.35	0.53	33.7%	19.4%	14.3%	14.2%	13.8%	14.8%
2.3	2.35	0.55	35.2%	20.5%	15.1%	14.9%	14.5%	15.7%
2.4	2.35	0.58	36.7%	21.5%	15.9%	15.6%	15.2%	16.7%
2.5	2.35	0.60	38.2%	22.5%	16.7%	16.3%	16.0%	17.6%
2.6	2.35	0.63	39.6%	23.5%	17.5%	17.0%	16.7%	18.5%
2.7	2.35	0.65	41.0%	24.5%	18.2%	17.8%	17.4%	19.5%
2.8	2.35	0.67	42.3%	25.5%	19.0%	18.5%	18.2%	20.4%
2.9	2.35	0.70	43.7%	26.5%	19.8%	19.3%	19.0%	21.4%
3.0	2.35	0.72	45.0%	27.5%	20.6%	20.0%	19.7%	22.4%

**Table H-175 Values of the  $MCE_R$  collapse probability for the 5-Story STR wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ).**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.0%	0.5%	0.5%	0.7%	0.7%	0.5%
0.8	2.35	0.29	1.5%	0.7%	0.6%	0.9%	0.9%	0.7%
0.9	2.35	0.33	2.1%	1.0%	0.8%	1.2%	1.1%	0.9%
1.0	2.35	0.36	2.8%	1.3%	1.1%	1.4%	1.4%	1.1%
1.1	2.35	0.40	3.6%	1.7%	1.3%	1.7%	1.6%	1.3%
1.2	2.35	0.43	4.4%	2.0%	1.6%	2.0%	1.9%	1.6%
1.3	2.35	0.47	5.3%	2.4%	1.9%	2.3%	2.2%	1.9%
1.4	2.35	0.51	6.2%	2.9%	2.2%	2.6%	2.5%	2.2%
1.5	2.35	0.54	7.2%	3.3%	2.5%	2.9%	2.8%	2.5%
1.6	2.35	0.58	8.2%	3.8%	2.8%	3.3%	3.2%	2.9%
1.7	2.35	0.61	9.2%	4.3%	3.2%	3.7%	3.5%	3.3%
1.8	2.35	0.65	10.2%	4.8%	3.5%	4.1%	3.9%	3.7%
1.9	2.35	0.69	11.3%	5.3%	3.9%	4.5%	4.3%	4.2%
2.0	2.35	0.72	12.4%	5.9%	4.3%	4.9%	4.8%	4.7%
2.1	2.35	0.76	13.5%	6.5%	4.8%	5.4%	5.3%	5.2%
2.2	2.35	0.80	14.7%	7.1%	5.2%	5.9%	5.8%	5.8%
2.3	2.35	0.83	15.8%	7.7%	5.7%	6.4%	6.3%	6.3%
2.4	2.35	0.87	17.0%	8.4%	6.2%	6.9%	6.9%	7.0%
2.5	2.35	0.90	18.3%	9.1%	6.8%	7.5%	7.5%	7.7%
2.6	2.35	0.94	19.5%	9.9%	7.3%	8.1%	8.1%	8.4%
2.7	2.35	0.98	20.8%	10.6%	8.0%	8.8%	8.8%	9.2%
2.8	2.35	1.01	22.1%	11.4%	8.6%	9.5%	9.5%	10.0%
2.9	2.35	1.05	23.5%	12.3%	9.3%	10.2%	10.2%	10.9%
3.0	2.35	1.08	24.8%	13.2%	10.0%	11.0%	11.0%	11.8%

**Table H-176 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.29	0.97	1.20	1.37	1.48	1.53	1.47	9.72%
0.8	0.33	1.03	1.29	1.49	1.62	1.69	1.60	9.66%
0.9	0.37	1.09	1.39	1.61	1.75	1.84	1.73	9.60%
1.0	0.41	1.15	1.48	1.72	1.88	1.98	1.86	9.53%
1.1	0.45	1.21	1.56	1.83	2.01	2.12	1.98	9.47%
1.2	0.49	1.28	1.65	1.93	2.13	2.25	2.09	9.42%
1.3	0.53	1.33	1.73	2.03	2.24	2.37	2.20	9.36%
1.4	0.58	1.39	1.81	2.13	2.35	2.48	2.30	9.30%
1.5	0.62	1.45	1.89	2.22	2.45	2.58	2.39	9.24%
1.6	0.66	1.51	1.97	2.31	2.54	2.68	2.48	9.18%
1.7	0.70	1.57	2.04	2.40	2.64	2.77	2.57	9.12%
1.8	0.74	1.62	2.11	2.48	2.72	2.85	2.65	9.06%
1.9	0.78	1.68	2.18	2.56	2.80	2.92	2.72	9.01%
2.0	0.82	1.73	2.25	2.63	2.88	2.99	2.79	8.95%
2.1	0.86	1.79	2.32	2.70	2.94	3.05	2.85	8.89%
2.2	0.90	1.84	2.38	2.77	3.01	3.10	2.91	8.84%
2.3	0.95	1.90	2.44	2.83	3.07	3.15	2.97	8.78%
2.4	0.99	1.95	2.50	2.89	3.12	3.19	3.02	8.73%
2.5	1.03	2.00	2.55	2.94	3.16	3.23	3.07	8.67%
2.6	1.07	2.05	2.61	2.99	3.21	3.26	3.11	8.62%
2.7	1.11	2.11	2.66	3.04	3.24	3.28	3.14	8.56%
2.8	1.15	2.16	2.71	3.08	3.27	3.30	3.18	8.51%
2.9	1.19	2.21	2.75	3.12	3.30	3.32	3.21	8.46%
3.0	1.23	2.26	2.80	3.15	3.31	3.33	3.23	8.40%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 3.8



**Table H-177** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.52	1.31	1.70	2.00	2.20	2.32	2.16	9.38%
0.8	0.59	1.42	1.85	2.17	2.39	2.52	2.34	9.27%
0.9	0.67	1.52	1.99	2.33	2.57	2.70	2.50	9.17%
1.0	0.74	1.63	2.12	2.48	2.72	2.85	2.65	9.06%
1.1	0.82	1.73	2.24	2.62	2.86	2.98	2.78	8.96%
1.2	0.89	1.82	2.36	2.74	2.99	3.08	2.89	8.86%
1.3	0.96	1.92	2.47	2.85	3.09	3.17	2.99	8.76%
1.4	1.04	2.02	2.57	2.95	3.18	3.23	3.08	8.66%
1.5	1.11	2.11	2.66	3.04	3.24	3.28	3.15	8.56%
1.6	1.19	2.20	2.75	3.11	3.29	3.32	3.20	8.46%
1.7	1.26	2.29	2.83	3.17	3.32	3.33	3.25	8.37%
1.8	1.33	2.38	2.90	3.22	3.34	3.34	3.28	8.27%
1.9	1.41	2.46	2.96	3.25	3.34	3.34	3.29	8.18%
2.0	1.48	2.55	3.02	3.27	3.32	3.32	3.30	8.09%
2.1	1.56	2.63	3.07	3.28	3.31	3.31	3.30	8.00%
2.2	1.63	2.71	3.11	3.28	3.28	3.28	3.28	7.90%
2.3	1.71	2.79	3.14	3.26	3.26	3.26	3.26	7.82%
2.4	1.78	2.86	3.17	3.24	3.24	3.24	3.24	7.73%
2.5	1.85	2.94	3.19	3.22	3.22	3.22	3.22	7.64%
2.6	1.93	3.01	3.20	3.21	3.21	3.21	3.21	7.55%
2.7	2.00	3.08	3.21	3.21	3.21	3.21	3.21	7.47%
2.8	2.08	3.15	3.22	3.22	3.22	3.22	3.22	7.38%
2.9	2.15	3.21	3.24	3.24	3.24	3.24	3.24	7.30%
3.0	2.22	3.28	3.28	3.28	3.28	3.28	3.28	7.22%

Note: SDC  $D_{max}$  S<sub>MT</sub> = 1.5g,  $R/I_e$  = 2.1

**Table H-178 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 3.8$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.29	1.61	2.14	2.58	2.81	2.90	2.79
0.8	2.35	0.33	1.50	2.02	2.46	2.69	2.80	2.67
0.9	2.35	0.37	1.41	1.93	2.36	2.59	2.72	2.56
1.0	2.35	0.41	1.34	1.85	2.27	2.50	2.64	2.47
1.1	2.35	0.45	1.28	1.78	2.19	2.43	2.56	2.39
1.2	2.35	0.49	1.23	1.72	2.13	2.36	2.49	2.31
1.3	2.35	0.53	1.19	1.67	2.07	2.29	2.42	2.24
1.4	2.35	0.58	1.15	1.62	2.01	2.23	2.35	2.18
1.5	2.35	0.62	1.12	1.58	1.96	2.17	2.29	2.12
1.6	2.35	0.66	1.09	1.54	1.91	2.12	2.23	2.06
1.7	2.35	0.70	1.07	1.50	1.86	2.06	2.16	2.00
1.8	2.35	0.74	1.05	1.47	1.82	2.01	2.10	1.95
1.9	2.35	0.78	1.03	1.44	1.78	1.96	2.05	1.90
2.0	2.35	0.82	1.01	1.41	1.74	1.91	1.99	1.85
2.1	2.35	0.86	0.99	1.38	1.70	1.86	1.93	1.80
2.2	2.35	0.90	0.97	1.35	1.66	1.82	1.88	1.76
2.3	2.35	0.95	0.96	1.33	1.62	1.77	1.82	1.71
2.4	2.35	0.99	0.94	1.30	1.59	1.73	1.77	1.67
2.5	2.35	1.03	0.93	1.28	1.55	1.68	1.72	1.62
2.6	2.35	1.07	0.92	1.25	1.52	1.64	1.67	1.58
2.7	2.35	1.11	0.90	1.23	1.48	1.60	1.62	1.54
2.8	2.35	1.15	0.89	1.21	1.45	1.55	1.57	1.50
2.9	2.35	1.19	0.88	1.19	1.42	1.51	1.52	1.46
3.0	2.35	1.23	0.87	1.17	1.39	1.47	1.48	1.43

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-179 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 2.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.52	2.17	3.04	3.77	4.17	4.41	4.09
0.8	2.35	0.59	2.06	2.89	3.58	3.97	4.19	3.88
0.9	2.35	0.67	1.96	2.76	3.42	3.79	3.99	3.69
1.0	2.35	0.74	1.89	2.65	3.28	3.62	3.79	3.51
1.1	2.35	0.82	1.82	2.55	3.14	3.46	3.60	3.35
1.2	2.35	0.89	1.76	2.45	3.02	3.31	3.42	3.20
1.3	2.35	0.96	1.71	2.37	2.90	3.16	3.24	3.05
1.4	2.35	1.04	1.67	2.29	2.78	3.02	3.07	2.91
1.5	2.35	1.11	1.63	2.22	2.67	2.88	2.91	2.78
1.6	2.35	1.19	1.60	2.15	2.57	2.74	2.76	2.65
1.7	2.35	1.26	1.56	2.08	2.46	2.60	2.61	2.53
1.8	2.35	1.33	1.53	2.01	2.36	2.47	2.47	2.41
1.9	2.35	1.41	1.50	1.95	2.26	2.33	2.33	2.29
2.0	2.35	1.48	1.48	1.89	2.16	2.21	2.21	2.18
2.1	2.35	1.56	1.45	1.83	2.06	2.09	2.09	2.08
2.2	2.35	1.63	1.43	1.77	1.97	1.99	1.99	1.97
2.3	2.35	1.71	1.40	1.71	1.87	1.89	1.89	1.87
2.4	2.35	1.78	1.38	1.65	1.78	1.80	1.80	1.78
2.5	2.35	1.85	1.36	1.60	1.70	1.71	1.71	1.70
2.6	2.35	1.93	1.34	1.54	1.63	1.64	1.64	1.63
2.7	2.35	2.00	1.32	1.48	1.57	1.58	1.58	1.57
2.8	2.35	2.08	1.30	1.44	1.52	1.53	1.53	1.51
2.9	2.35	2.15	1.29	1.40	1.47	1.49	1.49	1.47
3.0	2.35	2.22	1.27	1.37	1.44	1.45	1.45	1.44

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-180 Values of the  $MCE_R$  collapse probability for the 1-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 3.8$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.29	14.6%	6.4%	4.2%	4.3%	3.8%	4.2%
0.8	2.35	0.33	18.6%	8.0%	5.1%	5.0%	4.3%	4.9%
0.9	2.35	0.37	22.3%	9.5%	6.0%	5.6%	4.8%	5.6%
1.0	2.35	0.41	25.8%	11.0%	6.8%	6.3%	5.3%	6.3%
1.1	2.35	0.45	29.1%	12.5%	7.7%	7.0%	5.9%	7.0%
1.2	2.35	0.49	32.1%	13.9%	8.5%	7.7%	6.4%	7.7%
1.3	2.35	0.53	34.9%	15.4%	9.4%	8.4%	7.0%	8.5%
1.4	2.35	0.58	37.5%	16.8%	10.2%	9.1%	7.7%	9.2%
1.5	2.35	0.62	39.9%	18.1%	11.1%	9.8%	8.4%	10.0%
1.6	2.35	0.66	42.1%	19.5%	12.0%	10.6%	9.1%	10.8%
1.7	2.35	0.70	44.1%	20.8%	12.9%	11.4%	9.9%	11.7%
1.8	2.35	0.74	46.0%	22.1%	13.8%	12.2%	10.7%	12.5%
1.9	2.35	0.78	47.8%	23.4%	14.8%	13.1%	11.6%	13.5%
2.0	2.35	0.82	49.5%	24.7%	15.8%	14.0%	12.6%	14.4%
2.1	2.35	0.86	51.0%	26.0%	16.8%	15.0%	13.6%	15.4%
2.2	2.35	0.90	52.5%	27.3%	17.8%	16.0%	14.7%	16.5%
2.3	2.35	0.95	53.9%	28.7%	18.9%	17.0%	15.9%	17.6%
2.4	2.35	0.99	55.2%	30.0%	20.0%	18.1%	17.1%	18.7%
2.5	2.35	1.03	56.5%	31.3%	21.2%	19.3%	18.4%	19.9%
2.6	2.35	1.07	57.7%	32.6%	22.4%	20.5%	19.7%	21.1%
2.7	2.35	1.11	58.8%	33.9%	23.6%	21.8%	21.2%	22.4%
2.8	2.35	1.15	59.9%	35.3%	24.9%	23.1%	22.7%	23.8%
2.9	2.35	1.19	60.9%	36.6%	26.3%	24.6%	24.2%	25.2%
3.0	2.35	1.23	61.9%	38.0%	27.6%	26.1%	25.8%	26.6%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-181 Values of the  $MCE_R$  collapse probability for the 1-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 2.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse  $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.52	2.6%	0.7%	0.4%	0.5%	0.3%	0.4%
0.8	2.35	0.59	3.6%	0.9%	0.5%	0.6%	0.5%	0.6%
0.9	2.35	0.67	4.6%	1.2%	0.7%	0.8%	0.6%	0.7%
1.0	2.35	0.74	5.6%	1.5%	0.9%	1.0%	0.8%	0.9%
1.1	2.35	0.82	6.7%	1.9%	1.1%	1.2%	1.0%	1.1%
1.2	2.35	0.89	7.8%	2.3%	1.4%	1.5%	1.3%	1.4%
1.3	2.35	0.96	8.9%	2.8%	1.7%	1.8%	1.6%	1.7%
1.4	2.35	1.04	10.0%	3.3%	2.0%	2.2%	2.1%	2.1%
1.5	2.35	1.11	11.1%	3.8%	2.5%	2.7%	2.6%	2.5%
1.6	2.35	1.19	12.2%	4.5%	3.0%	3.4%	3.3%	3.0%
1.7	2.35	1.26	13.2%	5.2%	3.6%	4.1%	4.1%	3.7%
1.8	2.35	1.33	14.3%	6.0%	4.3%	5.0%	5.0%	4.4%
1.9	2.35	1.41	15.4%	6.9%	5.2%	6.2%	6.2%	5.3%
2.0	2.35	1.48	16.5%	7.9%	6.2%	7.5%	7.5%	6.4%
2.1	2.35	1.56	17.6%	9.0%	7.4%	9.0%	9.0%	7.6%
2.2	2.35	1.63	18.7%	10.3%	8.8%	10.6%	10.6%	9.1%
2.3	2.35	1.71	19.8%	11.7%	10.5%	12.4%	12.4%	10.8%
2.4	2.35	1.78	20.9%	13.3%	12.4%	14.4%	14.4%	12.6%
2.5	2.35	1.85	22.0%	15.0%	14.4%	16.4%	16.4%	14.5%
2.6	2.35	1.93	23.1%	16.9%	16.4%	18.4%	18.4%	16.5%
2.7	2.35	2.00	24.2%	19.0%	18.4%	20.3%	20.3%	18.4%
2.8	2.35	2.08	25.4%	21.1%	20.3%	22.1%	22.1%	20.3%
2.9	2.35	2.15	26.5%	22.9%	21.9%	23.6%	23.6%	21.9%
3.0	2.35	2.22	27.7%	24.4%	23.1%	24.8%	24.8%	23.2%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-182 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.18	0.96	1.20	1.39	1.53	1.64	1.63	13.33%
0.8	0.21	1.02	1.28	1.48	1.63	1.76	1.74	13.20%
0.9	0.24	1.08	1.35	1.57	1.73	1.88	1.85	13.07%
1.0	0.26	1.14	1.43	1.66	1.83	2.00	1.96	12.94%
1.1	0.29	1.20	1.50	1.74	1.93	2.11	2.06	12.81%
1.2	0.31	1.25	1.57	1.83	2.02	2.22	2.16	12.68%
1.3	0.34	1.31	1.64	1.91	2.11	2.33	2.25	12.56%
1.4	0.37	1.36	1.71	1.99	2.20	2.43	2.35	12.43%
1.5	0.39	1.42	1.78	2.07	2.29	2.52	2.43	12.31%
1.6	0.42	1.47	1.84	2.15	2.38	2.62	2.52	12.19%
1.7	0.44	1.52	1.91	2.22	2.46	2.71	2.60	12.07%
1.8	0.47	1.57	1.97	2.30	2.54	2.79	2.68	11.95%
1.9	0.50	1.62	2.04	2.37	2.62	2.87	2.75	11.83%
2.0	0.52	1.67	2.10	2.44	2.69	2.95	2.82	11.71%
2.1	0.55	1.72	2.16	2.51	2.77	3.02	2.89	11.60%
2.2	0.57	1.77	2.22	2.58	2.84	3.09	2.95	11.48%
2.3	0.60	1.82	2.28	2.64	2.91	3.16	3.02	11.37%
2.4	0.63	1.87	2.34	2.71	2.98	3.22	3.08	11.26%
2.5	0.65	1.91	2.39	2.77	3.04	3.28	3.13	11.15%
2.6	0.68	1.96	2.45	2.83	3.10	3.34	3.19	11.03%
2.7	0.71	2.00	2.50	2.89	3.16	3.39	3.24	10.93%
2.8	0.73	2.05	2.55	2.94	3.22	3.44	3.29	10.82%
2.9	0.76	2.09	2.60	3.00	3.28	3.48	3.33	10.71%
3.0	0.78	2.14	2.65	3.05	3.33	3.52	3.38	10.60%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 6.0

**Table H-183** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.35	1.33	1.66	1.94	2.14	2.36	2.28	12.52%
0.8	0.40	1.43	1.79	2.09	2.31	2.55	2.45	12.28%
0.9	0.45	1.53	1.92	2.23	2.47	2.72	2.61	12.05%
1.0	0.50	1.63	2.04	2.37	2.62	2.88	2.75	11.83%
1.1	0.55	1.72	2.16	2.51	2.77	3.02	2.89	11.60%
1.2	0.60	1.81	2.27	2.63	2.90	3.15	3.01	11.39%
1.3	0.65	1.90	2.38	2.75	3.03	3.27	3.12	11.17%
1.4	0.70	1.99	2.48	2.87	3.14	3.37	3.22	10.96%
1.5	0.75	2.07	2.58	2.98	3.25	3.46	3.31	10.76%
1.6	0.80	2.16	2.68	3.08	3.35	3.54	3.40	10.55%
1.7	0.85	2.23	2.77	3.17	3.45	3.61	3.48	10.36%
1.8	0.90	2.31	2.86	3.26	3.53	3.67	3.54	10.16%
1.9	0.95	2.38	2.94	3.35	3.61	3.72	3.61	9.97%
2.0	1.00	2.45	3.02	3.43	3.68	3.77	3.66	9.78%
2.1	1.05	2.52	3.09	3.50	3.73	3.81	3.71	9.60%
2.2	1.10	2.59	3.16	3.56	3.79	3.84	3.75	9.42%
2.3	1.14	2.65	3.23	3.62	3.83	3.86	3.79	9.24%
2.4	1.19	2.71	3.29	3.68	3.86	3.88	3.82	9.07%
2.5	1.24	2.77	3.35	3.72	3.89	3.90	3.84	8.90%
2.6	1.29	2.82	3.40	3.76	3.91	3.91	3.86	8.73%
2.7	1.34	2.87	3.45	3.80	3.92	3.92	3.88	8.57%
2.8	1.39	2.92	3.50	3.83	3.92	3.92	3.89	8.41%
2.9	1.44	2.97	3.54	3.85	3.92	3.92	3.89	8.25%
3.0	1.49	3.01	3.57	3.87	3.91	3.91	3.90	8.09%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 3.1$

**Table H-184 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 6.0$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.18	1.60	2.15	2.62	2.90	3.12	3.09
0.8	2.35	0.21	1.48	2.00	2.44	2.71	2.93	2.89
0.9	2.35	0.24	1.39	1.88	2.30	2.56	2.78	2.74
1.0	2.35	0.26	1.32	1.78	2.19	2.43	2.66	2.60
1.1	2.35	0.29	1.26	1.70	2.09	2.33	2.55	2.49
1.2	2.35	0.31	1.21	1.64	2.01	2.24	2.46	2.39
1.3	2.35	0.34	1.17	1.58	1.94	2.16	2.38	2.31
1.4	2.35	0.37	1.13	1.53	1.88	2.09	2.30	2.23
1.5	2.35	0.39	1.10	1.48	1.82	2.03	2.24	2.16
1.6	2.35	0.42	1.07	1.44	1.77	1.98	2.17	2.09
1.7	2.35	0.44	1.04	1.40	1.73	1.92	2.12	2.03
1.8	2.35	0.47	1.01	1.37	1.68	1.88	2.06	1.98
1.9	2.35	0.50	0.99	1.34	1.65	1.83	2.01	1.92
2.0	2.35	0.52	0.97	1.31	1.61	1.79	1.96	1.88
2.1	2.35	0.55	0.95	1.29	1.58	1.75	1.92	1.83
2.2	2.35	0.57	0.93	1.26	1.55	1.72	1.87	1.79
2.3	2.35	0.60	0.92	1.24	1.52	1.68	1.83	1.74
2.4	2.35	0.63	0.90	1.22	1.49	1.65	1.79	1.70
2.5	2.35	0.65	0.89	1.20	1.46	1.62	1.75	1.67
2.6	2.35	0.68	0.87	1.18	1.44	1.59	1.71	1.63
2.7	2.35	0.71	0.86	1.16	1.41	1.56	1.67	1.60
2.8	2.35	0.73	0.85	1.14	1.39	1.53	1.63	1.56
2.9	2.35	0.76	0.84	1.12	1.37	1.50	1.60	1.53
3.0	2.35	0.78	0.83	1.11	1.34	1.48	1.56	1.50

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-185 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 3.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.35	2.20	2.97	3.65	4.07	4.48	4.34
0.8	2.35	0.40	2.07	2.80	3.45	3.84	4.23	4.08
0.9	2.35	0.45	1.97	2.67	3.28	3.65	4.02	3.86
1.0	2.35	0.50	1.89	2.55	3.13	3.49	3.83	3.66
1.1	2.35	0.55	1.82	2.45	3.01	3.34	3.65	3.49
1.2	2.35	0.60	1.75	2.36	2.90	3.21	3.49	3.33
1.3	2.35	0.65	1.70	2.29	2.79	3.10	3.34	3.19
1.4	2.35	0.70	1.65	2.22	2.70	2.99	3.20	3.06
1.5	2.35	0.75	1.60	2.15	2.62	2.88	3.07	2.94
1.6	2.35	0.80	1.56	2.09	2.54	2.79	2.94	2.83
1.7	2.35	0.85	1.52	2.04	2.46	2.70	2.83	2.72
1.8	2.35	0.90	1.49	1.98	2.39	2.61	2.71	2.62
1.9	2.35	0.95	1.45	1.93	2.33	2.53	2.61	2.52
2.0	2.35	1.00	1.42	1.89	2.26	2.44	2.51	2.43
2.1	2.35	1.05	1.39	1.84	2.20	2.37	2.41	2.35
2.2	2.35	1.10	1.36	1.80	2.14	2.29	2.32	2.26
2.3	2.35	1.14	1.34	1.75	2.08	2.21	2.23	2.18
2.4	2.35	1.19	1.31	1.71	2.02	2.14	2.15	2.11
2.5	2.35	1.24	1.28	1.67	1.97	2.07	2.07	2.04
2.6	2.35	1.29	1.26	1.64	1.91	2.00	2.00	1.97
2.7	2.35	1.34	1.23	1.60	1.86	1.93	1.93	1.90
2.8	2.35	1.39	1.21	1.56	1.80	1.86	1.86	1.84
2.9	2.35	1.44	1.19	1.52	1.75	1.80	1.80	1.78
3.0	2.35	1.49	1.16	1.49	1.70	1.74	1.74	1.72

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-186 Values of the  $MCE_R$  collapse probability for the 2-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 6.0$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.18	14.8%	6.3%	4.0%	3.8%	2.9%	3.0%
0.8	2.35	0.21	19.0%	8.3%	5.2%	4.8%	3.6%	3.8%
0.9	2.35	0.24	23.0%	10.3%	6.5%	5.9%	4.4%	4.7%
1.0	2.35	0.26	26.7%	12.3%	7.7%	6.9%	5.1%	5.5%
1.1	2.35	0.29	30.3%	14.3%	9.0%	7.9%	5.9%	6.4%
1.2	2.35	0.31	33.5%	16.2%	10.2%	8.9%	6.7%	7.3%
1.3	2.35	0.34	36.6%	18.1%	11.4%	9.9%	7.4%	8.2%
1.4	2.35	0.37	39.4%	19.9%	12.6%	10.9%	8.2%	9.1%
1.5	2.35	0.39	42.0%	21.6%	13.8%	11.9%	9.0%	10.0%
1.6	2.35	0.42	44.4%	23.2%	14.9%	12.8%	9.8%	10.9%
1.7	2.35	0.44	46.7%	24.8%	16.1%	13.8%	10.6%	11.9%
1.8	2.35	0.47	48.8%	26.4%	17.2%	14.7%	11.4%	12.8%
1.9	2.35	0.50	50.7%	27.9%	18.2%	15.6%	12.2%	13.8%
2.0	2.35	0.52	52.6%	29.3%	19.3%	16.5%	13.1%	14.7%
2.1	2.35	0.55	54.3%	30.8%	20.4%	17.5%	13.9%	15.7%
2.2	2.35	0.57	56.0%	32.1%	21.4%	18.4%	14.8%	16.7%
2.3	2.35	0.60	57.5%	33.5%	22.5%	19.3%	15.7%	17.7%
2.4	2.35	0.63	59.0%	34.8%	23.5%	20.2%	16.7%	18.7%
2.5	2.35	0.65	60.4%	36.0%	24.5%	21.1%	17.6%	19.7%
2.6	2.35	0.68	61.7%	37.3%	25.5%	22.1%	18.6%	20.8%
2.7	2.35	0.71	63.0%	38.5%	26.6%	23.0%	19.6%	21.8%
2.8	2.35	0.73	64.2%	39.7%	27.6%	23.9%	20.7%	22.9%
2.9	2.35	0.76	65.4%	40.9%	28.6%	24.9%	21.8%	24.0%
3.0	2.35	0.78	66.5%	42.0%	29.6%	25.8%	22.9%	25.0%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-187 Values of the  $MCE_R$  collapse probability for the 2-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 3.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.35	2.5%	0.8%	0.5%	0.5%	0.3%	0.4%
0.8	2.35	0.40	3.4%	1.1%	0.7%	0.7%	0.4%	0.5%
0.9	2.35	0.45	4.5%	1.5%	0.9%	0.9%	0.6%	0.7%
1.0	2.35	0.50	5.6%	1.9%	1.1%	1.2%	0.7%	0.9%
1.1	2.35	0.55	6.8%	2.3%	1.4%	1.4%	0.9%	1.2%
1.2	2.35	0.60	8.0%	2.8%	1.7%	1.7%	1.1%	1.4%
1.3	2.35	0.65	9.3%	3.3%	2.0%	2.0%	1.4%	1.7%
1.4	2.35	0.70	10.6%	3.8%	2.3%	2.3%	1.7%	2.1%
1.5	2.35	0.75	11.9%	4.4%	2.7%	2.7%	2.1%	2.5%
1.6	2.35	0.80	13.2%	5.0%	3.1%	3.1%	2.5%	2.9%
1.7	2.35	0.85	14.6%	5.7%	3.6%	3.6%	2.9%	3.4%
1.8	2.35	0.90	16.0%	6.4%	4.0%	4.1%	3.5%	4.0%
1.9	2.35	0.95	17.4%	7.1%	4.6%	4.6%	4.1%	4.6%
2.0	2.35	1.00	18.9%	7.9%	5.1%	5.2%	4.7%	5.2%
2.1	2.35	1.05	20.4%	8.8%	5.8%	5.9%	5.5%	5.8%
2.2	2.35	1.10	21.9%	9.6%	6.4%	6.6%	6.3%	6.5%
2.3	2.35	1.14	23.4%	10.6%	7.2%	7.4%	7.2%	7.2%
2.4	2.35	1.19	25.0%	11.6%	8.0%	8.3%	8.2%	8.0%
2.5	2.35	1.24	26.6%	12.6%	8.8%	9.3%	9.2%	8.9%
2.6	2.35	1.29	28.3%	13.7%	9.8%	10.4%	10.4%	9.9%
2.7	2.35	1.34	29.9%	14.9%	10.8%	11.6%	11.6%	10.9%
2.8	2.35	1.39	31.6%	16.1%	11.9%	12.9%	12.9%	12.0%
2.9	2.35	1.44	33.4%	17.5%	13.1%	14.3%	14.3%	13.2%
3.0	2.35	1.49	35.2%	18.8%	14.4%	15.8%	15.8%	14.5%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-188 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.15	1.12	1.32	1.48	1.59	1.69	1.66	12.50%
0.8	0.17	1.19	1.40	1.57	1.69	1.80	1.77	12.36%
0.9	0.19	1.25	1.48	1.66	1.79	1.91	1.87	12.23%
1.0	0.21	1.31	1.56	1.75	1.89	2.02	1.97	12.09%
1.1	0.23	1.37	1.63	1.84	1.99	2.13	2.07	11.96%
1.2	0.26	1.43	1.71	1.92	2.08	2.23	2.16	11.83%
1.3	0.28	1.49	1.78	2.01	2.18	2.33	2.26	11.70%
1.4	0.30	1.55	1.85	2.09	2.27	2.43	2.35	11.57%
1.5	0.32	1.61	1.93	2.17	2.36	2.53	2.43	11.45%
1.6	0.34	1.67	2.00	2.26	2.45	2.62	2.52	11.32%
1.7	0.36	1.73	2.07	2.34	2.53	2.71	2.60	11.20%
1.8	0.38	1.79	2.14	2.41	2.62	2.80	2.68	11.08%
1.9	0.40	1.84	2.21	2.49	2.70	2.89	2.76	10.95%
2.0	0.43	1.90	2.27	2.57	2.78	2.97	2.84	10.83%
2.1	0.45	1.95	2.34	2.64	2.86	3.05	2.91	10.72%
2.2	0.47	2.01	2.41	2.72	2.94	3.13	2.98	10.60%
2.3	0.49	2.06	2.47	2.79	3.02	3.21	3.05	10.48%
2.4	0.51	2.11	2.54	2.86	3.10	3.28	3.12	10.37%
2.5	0.53	2.17	2.60	2.93	3.17	3.35	3.19	10.26%
2.6	0.55	2.22	2.66	3.00	3.24	3.42	3.25	10.14%
2.7	0.58	2.27	2.72	3.07	3.31	3.49	3.32	10.03%
2.8	0.60	2.32	2.78	3.14	3.38	3.56	3.38	9.92%
2.9	0.62	2.37	2.84	3.20	3.45	3.62	3.44	9.81%
3.0	0.64	2.42	2.90	3.26	3.52	3.68	3.49	9.71%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 7.4

**Table H-189** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.27	1.47	1.75	1.97	2.14	2.29	2.22	11.75%
0.8	0.31	1.58	1.88	2.12	2.30	2.47	2.38	11.52%
0.9	0.34	1.68	2.01	2.27	2.46	2.64	2.53	11.30%
1.0	0.38	1.79	2.14	2.41	2.62	2.80	2.68	11.08%
1.1	0.42	1.89	2.26	2.55	2.77	2.95	2.82	10.86%
1.2	0.46	1.99	2.38	2.69	2.91	3.10	2.95	10.65%
1.3	0.50	2.08	2.50	2.82	3.05	3.24	3.08	10.44%
1.4	0.54	2.18	2.61	2.94	3.18	3.37	3.20	10.24%
1.5	0.57	2.27	2.72	3.07	3.31	3.49	3.31	10.04%
1.6	0.61	2.36	2.83	3.19	3.44	3.60	3.42	9.84%
1.7	0.65	2.45	2.93	3.30	3.55	3.71	3.52	9.65%
1.8	0.69	2.53	3.03	3.41	3.67	3.82	3.62	9.46%
1.9	0.73	2.61	3.13	3.52	3.77	3.91	3.71	9.27%
2.0	0.77	2.69	3.23	3.62	3.88	4.00	3.80	9.09%
2.1	0.80	2.77	3.32	3.72	3.97	4.09	3.88	8.91%
2.2	0.84	2.85	3.41	3.81	4.07	4.17	3.96	8.74%
2.3	0.88	2.92	3.49	3.90	4.15	4.24	4.03	8.57%
2.4	0.92	2.99	3.58	3.99	4.24	4.31	4.10	8.40%
2.5	0.96	3.06	3.66	4.07	4.31	4.37	4.16	8.24%
2.6	1.00	3.13	3.74	4.15	4.38	4.43	4.22	8.07%
2.7	1.03	3.20	3.81	4.23	4.45	4.49	4.28	7.92%
2.8	1.07	3.26	3.88	4.30	4.51	4.54	4.33	7.76%
2.9	1.11	3.32	3.95	4.36	4.57	4.59	4.38	7.61%
3.0	1.15	3.38	4.01	4.43	4.62	4.63	4.42	7.46%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 4.1$

**Table H-190 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.4$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.15	1.86	2.36	2.79	3.02	3.21	3.16
0.8	2.35	0.17	1.72	2.19	2.59	2.81	3.00	2.94
0.9	2.35	0.19	1.61	2.05	2.43	2.65	2.83	2.76
1.0	2.35	0.21	1.52	1.94	2.31	2.51	2.69	2.62
1.1	2.35	0.23	1.45	1.85	2.20	2.40	2.57	2.50
1.2	2.35	0.26	1.39	1.78	2.11	2.31	2.47	2.40
1.3	2.35	0.28	1.33	1.71	2.04	2.23	2.39	2.31
1.4	2.35	0.30	1.29	1.66	1.97	2.15	2.31	2.23
1.5	2.35	0.32	1.25	1.61	1.91	2.09	2.24	2.16
1.6	2.35	0.34	1.21	1.56	1.86	2.03	2.18	2.09
1.7	2.35	0.36	1.18	1.52	1.81	1.98	2.12	2.04
1.8	2.35	0.38	1.15	1.48	1.77	1.93	2.07	1.98
1.9	2.35	0.40	1.13	1.45	1.73	1.89	2.02	1.93
2.0	2.35	0.43	1.10	1.42	1.70	1.85	1.98	1.89
2.1	2.35	0.45	1.08	1.39	1.66	1.81	1.93	1.84
2.2	2.35	0.47	1.06	1.37	1.63	1.78	1.89	1.80
2.3	2.35	0.49	1.04	1.34	1.60	1.75	1.86	1.77
2.4	2.35	0.51	1.02	1.32	1.57	1.72	1.82	1.73
2.5	2.35	0.53	1.01	1.30	1.55	1.69	1.78	1.70
2.6	2.35	0.55	0.99	1.28	1.52	1.66	1.75	1.66
2.7	2.35	0.58	0.97	1.26	1.50	1.63	1.72	1.63
2.8	2.35	0.60	0.96	1.24	1.48	1.61	1.69	1.60
2.9	2.35	0.62	0.95	1.22	1.46	1.58	1.66	1.57
3.0	2.35	0.64	0.93	1.21	1.44	1.56	1.63	1.55

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-191 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.27	2.44	3.13	3.72	4.06	4.35	4.21
0.8	2.35	0.31	2.29	2.94	3.50	3.83	4.11	3.96
0.9	2.35	0.34	2.17	2.79	3.33	3.64	3.90	3.75
1.0	2.35	0.38	2.07	2.67	3.19	3.48	3.73	3.57
1.1	2.35	0.42	1.99	2.57	3.06	3.34	3.57	3.41
1.2	2.35	0.46	1.92	2.48	2.96	3.23	3.44	3.27
1.3	2.35	0.50	1.86	2.40	2.86	3.12	3.31	3.15
1.4	2.35	0.54	1.80	2.33	2.78	3.02	3.20	3.04
1.5	2.35	0.57	1.75	2.27	2.70	2.94	3.09	2.94
1.6	2.35	0.61	1.71	2.21	2.63	2.86	3.00	2.84
1.7	2.35	0.65	1.67	2.16	2.56	2.78	2.90	2.75
1.8	2.35	0.69	1.63	2.11	2.50	2.71	2.82	2.67
1.9	2.35	0.73	1.60	2.06	2.44	2.64	2.74	2.59
2.0	2.35	0.77	1.56	2.02	2.39	2.58	2.66	2.52
2.1	2.35	0.80	1.53	1.98	2.34	2.52	2.59	2.45
2.2	2.35	0.84	1.50	1.94	2.29	2.46	2.52	2.38
2.3	2.35	0.88	1.47	1.90	2.24	2.40	2.45	2.32
2.4	2.35	0.92	1.45	1.86	2.20	2.35	2.39	2.26
2.5	2.35	0.96	1.42	1.83	2.15	2.29	2.33	2.20
2.6	2.35	1.00	1.40	1.80	2.11	2.24	2.27	2.15
2.7	2.35	1.03	1.37	1.76	2.07	2.19	2.21	2.09
2.8	2.35	1.07	1.35	1.73	2.03	2.14	2.16	2.04
2.9	2.35	1.11	1.33	1.70	1.99	2.09	2.10	1.99
3.0	2.35	1.15	1.31	1.67	1.95	2.05	2.05	1.94

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-192 Values of the  $MCE_R$  collapse probability for the 3-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.4$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.15	8.4%	4.3%	3.1%	3.3%	2.6%	2.8%
0.8	2.35	0.17	11.4%	5.9%	4.2%	4.2%	3.4%	3.6%
0.9	2.35	0.19	14.5%	7.5%	5.3%	5.2%	4.2%	4.5%
1.0	2.35	0.21	17.6%	9.2%	6.4%	6.2%	5.0%	5.4%
1.1	2.35	0.23	20.5%	10.9%	7.6%	7.2%	5.8%	6.3%
1.2	2.35	0.26	23.4%	12.5%	8.7%	8.2%	6.6%	7.3%
1.3	2.35	0.28	26.1%	14.1%	9.8%	9.1%	7.4%	8.2%
1.4	2.35	0.30	28.7%	15.7%	10.9%	10.1%	8.1%	9.1%
1.5	2.35	0.32	31.1%	17.2%	11.9%	11.0%	8.9%	10.0%
1.6	2.35	0.34	33.4%	18.7%	12.9%	11.9%	9.7%	10.9%
1.7	2.35	0.36	35.6%	20.1%	14.0%	12.7%	10.5%	11.8%
1.8	2.35	0.38	37.7%	21.5%	14.9%	13.6%	11.3%	12.7%
1.9	2.35	0.40	39.7%	22.8%	15.9%	14.4%	12.0%	13.6%
2.0	2.35	0.43	41.5%	24.1%	16.9%	15.2%	12.8%	14.5%
2.1	2.35	0.45	43.3%	25.4%	17.8%	16.0%	13.6%	15.4%
2.2	2.35	0.47	45.0%	26.6%	18.7%	16.8%	14.4%	16.3%
2.3	2.35	0.49	46.5%	27.8%	19.6%	17.6%	15.1%	17.2%
2.4	2.35	0.51	48.1%	28.9%	20.5%	18.4%	15.9%	18.0%
2.5	2.35	0.53	49.5%	30.0%	21.3%	19.2%	16.7%	18.9%
2.6	2.35	0.55	50.9%	31.1%	22.2%	20.0%	17.5%	19.8%
2.7	2.35	0.58	52.3%	32.2%	23.0%	20.7%	18.3%	20.7%
2.8	2.35	0.60	53.5%	33.3%	23.9%	21.5%	19.1%	21.5%
2.9	2.35	0.62	54.8%	34.3%	24.7%	22.2%	19.9%	22.3%
3.0	2.35	0.64	56.0%	35.3%	25.5%	23.0%	20.7%	23.1%

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-193 Values of the  $MCE_R$  collapse probability for the 3-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.27	1.3%	0.6%	0.4%	0.5%	0.4%	0.4%
0.8	2.35	0.31	1.9%	0.8%	0.6%	0.7%	0.5%	0.6%
0.9	2.35	0.34	2.6%	1.1%	0.8%	0.9%	0.7%	0.8%
1.0	2.35	0.38	3.4%	1.5%	1.0%	1.2%	0.8%	1.0%
1.1	2.35	0.42	4.3%	1.8%	1.3%	1.4%	1.0%	1.3%
1.2	2.35	0.46	5.2%	2.2%	1.5%	1.7%	1.2%	1.6%
1.3	2.35	0.50	6.1%	2.6%	1.8%	1.9%	1.5%	1.8%
1.4	2.35	0.54	7.0%	3.0%	2.1%	2.2%	1.7%	2.2%
1.5	2.35	0.57	8.0%	3.5%	2.4%	2.5%	2.0%	2.5%
1.6	2.35	0.61	9.0%	3.9%	2.7%	2.8%	2.3%	2.8%
1.7	2.35	0.65	10.0%	4.4%	3.0%	3.2%	2.6%	3.1%
1.8	2.35	0.69	11.1%	4.9%	3.3%	3.5%	3.0%	3.4%
1.9	2.35	0.73	12.1%	5.4%	3.7%	3.9%	3.4%	3.8%
2.0	2.35	0.77	13.2%	6.0%	4.1%	4.3%	3.8%	4.1%
2.1	2.35	0.80	14.3%	6.5%	4.5%	4.7%	4.2%	4.5%
2.2	2.35	0.84	15.5%	7.1%	4.9%	5.1%	4.7%	4.9%
2.3	2.35	0.88	16.6%	7.7%	5.3%	5.6%	5.1%	5.3%
2.4	2.35	0.92	17.8%	8.3%	5.8%	6.0%	5.7%	5.8%
2.5	2.35	0.96	18.9%	9.0%	6.3%	6.6%	6.2%	6.2%
2.6	2.35	1.00	20.1%	9.7%	6.8%	7.1%	6.8%	6.8%
2.7	2.35	1.03	21.4%	10.4%	7.3%	7.7%	7.4%	7.3%
2.8	2.35	1.07	22.6%	11.1%	7.9%	8.3%	8.1%	7.9%
2.9	2.35	1.11	23.9%	11.9%	8.5%	8.9%	8.8%	8.5%
3.0	2.35	1.15	25.2%	12.7%	9.1%	9.6%	9.5%	9.2%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-194** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.15	1.24	1.40	1.50	1.55	1.56	1.54	9.15%
0.8	0.18	1.31	1.48	1.61	1.67	1.68	1.65	9.07%
0.9	0.20	1.37	1.57	1.71	1.79	1.80	1.76	8.99%
1.0	0.22	1.44	1.66	1.81	1.90	1.92	1.87	8.91%
1.1	0.24	1.50	1.74	1.91	2.01	2.04	1.97	8.83%
1.2	0.27	1.57	1.82	2.01	2.11	2.15	2.07	8.76%
1.3	0.29	1.63	1.91	2.10	2.22	2.26	2.17	8.68%
1.4	0.31	1.69	1.99	2.20	2.32	2.37	2.26	8.60%
1.5	0.33	1.76	2.07	2.29	2.42	2.47	2.35	8.53%
1.6	0.35	1.82	2.14	2.38	2.52	2.58	2.44	8.45%
1.7	0.38	1.88	2.22	2.47	2.62	2.68	2.53	8.38%
1.8	0.40	1.94	2.29	2.55	2.71	2.77	2.61	8.31%
1.9	0.42	2.00	2.37	2.64	2.80	2.87	2.70	8.23%
2.0	0.44	2.06	2.44	2.72	2.89	2.96	2.77	8.16%
2.1	0.46	2.11	2.51	2.80	2.98	3.05	2.85	8.09%
2.2	0.49	2.17	2.58	2.88	3.06	3.13	2.93	8.02%
2.3	0.51	2.23	2.65	2.95	3.14	3.22	3.00	7.95%
2.4	0.53	2.28	2.72	3.03	3.22	3.30	3.07	7.88%
2.5	0.55	2.34	2.78	3.10	3.30	3.37	3.13	7.81%
2.6	0.57	2.39	2.85	3.17	3.38	3.45	3.20	7.74%
2.7	0.60	2.44	2.91	3.24	3.45	3.52	3.26	7.67%
2.8	0.62	2.49	2.97	3.31	3.52	3.59	3.32	7.61%
2.9	0.64	2.55	3.03	3.38	3.59	3.66	3.38	7.54%
3.0	0.66	2.60	3.09	3.44	3.65	3.72	3.44	7.47%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 7.1

**Table H-195** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.25	1.52	1.76	1.93	2.03	2.06	1.99	8.82%
0.8	0.28	1.62	1.89	2.08	2.20	2.24	2.15	8.69%
0.9	0.32	1.72	2.02	2.23	2.37	2.41	2.30	8.57%
1.0	0.35	1.82	2.14	2.38	2.52	2.58	2.44	8.45%
1.1	0.39	1.92	2.27	2.52	2.68	2.74	2.58	8.33%
1.2	0.42	2.01	2.38	2.65	2.82	2.89	2.71	8.22%
1.3	0.46	2.10	2.50	2.79	2.96	3.03	2.84	8.10%
1.4	0.50	2.19	2.61	2.91	3.10	3.17	2.96	7.99%
1.5	0.53	2.28	2.72	3.03	3.23	3.30	3.07	7.88%
1.6	0.57	2.37	2.82	3.15	3.35	3.42	3.18	7.77%
1.7	0.60	2.45	2.92	3.26	3.46	3.54	3.28	7.66%
1.8	0.64	2.54	3.02	3.37	3.58	3.65	3.37	7.55%
1.9	0.67	2.62	3.12	3.47	3.68	3.75	3.46	7.44%
2.0	0.71	2.70	3.21	3.57	3.78	3.84	3.55	7.34%
2.1	0.74	2.77	3.29	3.66	3.87	3.93	3.63	7.24%
2.2	0.78	2.85	3.38	3.75	3.96	4.01	3.70	7.14%
2.3	0.81	2.92	3.46	3.83	4.04	4.09	3.77	7.04%
2.4	0.85	2.99	3.54	3.91	4.11	4.16	3.84	6.94%
2.5	0.89	3.06	3.61	3.98	4.18	4.22	3.90	6.84%
2.6	0.92	3.13	3.68	4.05	4.25	4.28	3.96	6.74%
2.7	0.96	3.19	3.75	4.12	4.30	4.33	4.01	6.65%
2.8	0.99	3.26	3.81	4.18	4.36	4.38	4.06	6.56%
2.9	1.03	3.32	3.87	4.23	4.40	4.42	4.10	6.47%
3.0	1.06	3.38	3.93	4.28	4.44	4.45	4.14	6.37%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 4.4$

**Table H-196 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.15	2.05	2.49	2.83	2.95	2.97	2.92
0.8	2.35	0.18	1.89	2.32	2.65	2.78	2.80	2.74
0.9	2.35	0.20	1.77	2.18	2.51	2.64	2.67	2.60
1.0	2.35	0.22	1.67	2.07	2.39	2.52	2.56	2.48
1.1	2.35	0.24	1.59	1.98	2.29	2.43	2.46	2.37
1.2	2.35	0.27	1.52	1.90	2.21	2.34	2.38	2.29
1.3	2.35	0.29	1.46	1.83	2.13	2.27	2.31	2.21
1.4	2.35	0.31	1.40	1.77	2.07	2.21	2.25	2.14
1.5	2.35	0.33	1.36	1.72	2.01	2.15	2.19	2.08
1.6	2.35	0.35	1.32	1.67	1.96	2.10	2.14	2.02
1.7	2.35	0.38	1.28	1.63	1.91	2.05	2.09	1.97
1.8	2.35	0.40	1.25	1.59	1.87	2.00	2.05	1.92
1.9	2.35	0.42	1.22	1.56	1.83	1.96	2.01	1.88
2.0	2.35	0.44	1.19	1.52	1.79	1.92	1.97	1.83
2.1	2.35	0.46	1.17	1.49	1.76	1.89	1.93	1.80
2.2	2.35	0.49	1.14	1.47	1.73	1.85	1.89	1.76
2.3	2.35	0.51	1.12	1.44	1.70	1.82	1.86	1.72
2.4	2.35	0.53	1.10	1.41	1.67	1.79	1.83	1.69
2.5	2.35	0.55	1.08	1.39	1.64	1.76	1.79	1.66
2.6	2.35	0.57	1.07	1.37	1.61	1.73	1.76	1.63
2.7	2.35	0.60	1.05	1.35	1.59	1.70	1.73	1.60
2.8	2.35	0.62	1.03	1.33	1.56	1.67	1.71	1.57
2.9	2.35	0.64	1.02	1.31	1.54	1.64	1.68	1.54
3.0	2.35	0.66	1.00	1.29	1.51	1.62	1.65	1.51

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-197 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.4$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	2.52	3.14	3.64	3.86	3.92	3.77
0.8	2.35	0.28	2.35	2.95	3.44	3.66	3.72	3.56
0.9	2.35	0.32	2.22	2.80	3.28	3.50	3.57	3.39
1.0	2.35	0.35	2.11	2.68	3.14	3.36	3.43	3.24
1.1	2.35	0.39	2.02	2.57	3.02	3.24	3.31	3.11
1.2	2.35	0.42	1.94	2.48	2.92	3.13	3.20	2.99
1.3	2.35	0.46	1.88	2.40	2.83	3.03	3.10	2.89
1.4	2.35	0.50	1.82	2.33	2.74	2.94	3.01	2.79
1.5	2.35	0.53	1.77	2.27	2.67	2.86	2.92	2.70
1.6	2.35	0.57	1.72	2.21	2.60	2.78	2.84	2.62
1.7	2.35	0.60	1.67	2.15	2.53	2.71	2.77	2.55
1.8	2.35	0.64	1.63	2.10	2.47	2.64	2.69	2.47
1.9	2.35	0.67	1.60	2.05	2.41	2.58	2.62	2.40
2.0	2.35	0.71	1.56	2.00	2.35	2.51	2.56	2.33
2.1	2.35	0.74	1.53	1.96	2.30	2.45	2.49	2.27
2.2	2.35	0.78	1.50	1.92	2.25	2.39	2.43	2.20
2.3	2.35	0.81	1.47	1.88	2.20	2.34	2.36	2.14
2.4	2.35	0.85	1.45	1.84	2.15	2.28	2.30	2.09
2.5	2.35	0.89	1.42	1.80	2.10	2.23	2.25	2.03
2.6	2.35	0.92	1.40	1.77	2.06	2.17	2.19	1.98
2.7	2.35	0.96	1.37	1.73	2.01	2.12	2.13	1.93
2.8	2.35	0.99	1.35	1.70	1.97	2.07	2.08	1.88
2.9	2.35	1.03	1.33	1.67	1.93	2.02	2.03	1.83
3.0	2.35	1.06	1.31	1.64	1.88	1.97	1.97	1.78

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-198 Values of the  $MCE_R$  collapse probability for the 4-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.15	5.5%	3.4%	2.9%	3.6%	3.5%	3.3%
0.8	2.35	0.18	7.8%	4.6%	3.8%	4.4%	4.3%	4.1%
0.9	2.35	0.20	10.2%	5.9%	4.7%	5.3%	5.1%	5.0%
1.0	2.35	0.22	12.7%	7.3%	5.7%	6.1%	5.9%	5.8%
1.1	2.35	0.24	15.3%	8.6%	6.6%	7.0%	6.7%	6.7%
1.2	2.35	0.27	17.8%	10.0%	7.5%	7.8%	7.4%	7.5%
1.3	2.35	0.29	20.2%	11.3%	8.4%	8.6%	8.1%	8.4%
1.4	2.35	0.31	22.5%	12.6%	9.3%	9.4%	8.8%	9.2%
1.5	2.35	0.33	24.8%	13.9%	10.2%	10.1%	9.5%	10.0%
1.6	2.35	0.35	27.0%	15.1%	11.0%	10.9%	10.2%	10.8%
1.7	2.35	0.38	29.1%	16.4%	11.9%	11.6%	10.9%	11.6%
1.8	2.35	0.40	31.1%	17.6%	12.7%	12.4%	11.6%	12.4%
1.9	2.35	0.42	33.0%	18.8%	13.6%	13.1%	12.3%	13.2%
2.0	2.35	0.44	34.8%	19.9%	14.4%	13.8%	13.0%	14.1%
2.1	2.35	0.46	36.6%	21.1%	15.2%	14.5%	13.7%	14.9%
2.2	2.35	0.49	38.2%	22.2%	16.0%	15.2%	14.4%	15.7%
2.3	2.35	0.51	39.9%	23.3%	16.8%	16.0%	15.1%	16.5%
2.4	2.35	0.53	41.4%	24.4%	17.7%	16.7%	15.8%	17.4%
2.5	2.35	0.55	42.9%	25.5%	18.5%	17.4%	16.5%	18.2%
2.6	2.35	0.57	44.4%	26.5%	19.3%	18.1%	17.2%	19.1%
2.7	2.35	0.60	45.8%	27.6%	20.1%	18.9%	17.9%	19.9%
2.8	2.35	0.62	47.1%	28.6%	20.9%	19.6%	18.7%	20.8%
2.9	2.35	0.64	48.4%	29.7%	21.7%	20.3%	19.4%	21.7%
3.0	2.35	0.66	49.7%	30.7%	22.5%	21.1%	20.2%	22.6%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-199 Values of the  $MCE_R$  collapse probability for the 4-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.4$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse  $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	1.1%	0.5%	0.5%	0.7%	0.7%	0.6%
0.8	2.35	0.28	1.6%	0.8%	0.7%	0.9%	0.8%	0.8%
0.9	2.35	0.32	2.3%	1.1%	0.9%	1.1%	1.0%	1.0%
1.0	2.35	0.35	3.1%	1.4%	1.1%	1.4%	1.3%	1.2%
1.1	2.35	0.39	3.9%	1.8%	1.3%	1.6%	1.5%	1.4%
1.2	2.35	0.42	4.8%	2.2%	1.6%	1.9%	1.7%	1.7%
1.3	2.35	0.46	5.8%	2.6%	1.9%	2.2%	2.0%	1.9%
1.4	2.35	0.50	6.8%	3.0%	2.2%	2.5%	2.3%	2.2%
1.5	2.35	0.53	7.8%	3.5%	2.5%	2.8%	2.6%	2.5%
1.6	2.35	0.57	8.8%	3.9%	2.8%	3.1%	2.9%	2.8%
1.7	2.35	0.60	9.9%	4.4%	3.2%	3.5%	3.2%	3.2%
1.8	2.35	0.64	11.0%	5.0%	3.5%	3.9%	3.6%	3.5%
1.9	2.35	0.67	12.1%	5.5%	3.9%	4.3%	4.0%	3.9%
2.0	2.35	0.71	13.2%	6.1%	4.3%	4.7%	4.4%	4.4%
2.1	2.35	0.74	14.3%	6.7%	4.8%	5.1%	4.9%	4.9%
2.2	2.35	0.78	15.5%	7.4%	5.3%	5.6%	5.4%	5.4%
2.3	2.35	0.81	16.6%	8.0%	5.8%	6.1%	5.9%	6.0%
2.4	2.35	0.85	17.8%	8.7%	6.3%	6.7%	6.5%	6.6%
2.5	2.35	0.89	19.0%	9.5%	6.9%	7.3%	7.1%	7.3%
2.6	2.35	0.92	20.2%	10.3%	7.5%	7.9%	7.7%	8.0%
2.7	2.35	0.96	21.4%	11.1%	8.1%	8.6%	8.4%	8.7%
2.8	2.35	0.99	22.7%	11.9%	8.8%	9.3%	9.2%	9.6%
2.9	2.35	1.03	23.9%	12.8%	9.5%	10.1%	10.0%	10.4%
3.0	2.35	1.06	25.2%	13.7%	10.3%	10.9%	10.8%	11.4%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-200 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.16	1.24	1.42	1.54	1.58	1.58	1.56	8.26%
0.8	0.18	1.31	1.51	1.64	1.69	1.70	1.66	8.19%
0.9	0.20	1.38	1.60	1.74	1.80	1.81	1.76	8.11%
1.0	0.22	1.45	1.68	1.83	1.91	1.92	1.86	8.04%
1.1	0.25	1.52	1.77	1.93	2.01	2.02	1.95	7.97%
1.2	0.27	1.58	1.85	2.02	2.12	2.13	2.05	7.90%
1.3	0.29	1.65	1.93	2.12	2.22	2.23	2.14	7.83%
1.4	0.31	1.71	2.01	2.21	2.31	2.33	2.22	7.76%
1.5	0.34	1.78	2.09	2.30	2.41	2.43	2.31	7.69%
1.6	0.36	1.84	2.16	2.38	2.50	2.53	2.39	7.63%
1.7	0.38	1.90	2.24	2.47	2.60	2.62	2.47	7.56%
1.8	0.40	1.97	2.32	2.55	2.69	2.71	2.55	7.49%
1.9	0.43	2.03	2.39	2.64	2.77	2.80	2.63	7.43%
2.0	0.45	2.09	2.46	2.72	2.86	2.89	2.71	7.36%
2.1	0.47	2.15	2.53	2.80	2.94	2.97	2.78	7.30%
2.2	0.49	2.20	2.60	2.88	3.02	3.06	2.85	7.23%
2.3	0.52	2.26	2.67	2.95	3.10	3.14	2.92	7.17%
2.4	0.54	2.32	2.74	3.03	3.18	3.21	2.99	7.10%
2.5	0.56	2.37	2.80	3.10	3.26	3.29	3.05	7.04%
2.6	0.58	2.43	2.87	3.17	3.33	3.36	3.12	6.98%
2.7	0.61	2.48	2.93	3.24	3.40	3.43	3.18	6.92%
2.8	0.63	2.53	2.99	3.31	3.47	3.50	3.24	6.86%
2.9	0.65	2.58	3.05	3.37	3.54	3.57	3.30	6.80%
3.0	0.67	2.63	3.11	3.44	3.60	3.63	3.35	6.74%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 7.0



**Table H-201** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 5-Story STR wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.25	1.54	1.79	1.96	2.05	2.06	1.98	7.95%
0.8	0.29	1.65	1.92	2.11	2.21	2.22	2.13	7.84%
0.9	0.33	1.75	2.05	2.26	2.37	2.39	2.27	7.72%
1.0	0.36	1.85	2.18	2.40	2.52	2.54	2.41	7.61%
1.1	0.40	1.95	2.30	2.54	2.67	2.69	2.54	7.51%
1.2	0.44	2.05	2.42	2.67	2.81	2.84	2.66	7.40%
1.3	0.47	2.15	2.53	2.80	2.95	2.98	2.78	7.29%
1.4	0.51	2.24	2.65	2.92	3.08	3.11	2.90	7.19%
1.5	0.55	2.33	2.75	3.04	3.20	3.23	3.01	7.09%
1.6	0.58	2.42	2.86	3.16	3.32	3.35	3.11	6.99%
1.7	0.62	2.50	2.96	3.27	3.44	3.47	3.21	6.89%
1.8	0.65	2.59	3.06	3.38	3.55	3.57	3.30	6.79%
1.9	0.69	2.67	3.15	3.48	3.65	3.67	3.39	6.69%
2.0	0.73	2.75	3.25	3.58	3.75	3.77	3.48	6.60%
2.1	0.76	2.82	3.33	3.67	3.84	3.86	3.56	6.50%
2.2	0.80	2.90	3.42	3.76	3.93	3.94	3.64	6.41%
2.3	0.84	2.97	3.50	3.85	4.01	4.02	3.71	6.32%
2.4	0.87	3.04	3.58	3.93	4.09	4.10	3.78	6.23%
2.5	0.91	3.11	3.66	4.01	4.16	4.17	3.84	6.14%
2.6	0.95	3.17	3.73	4.08	4.22	4.23	3.90	6.05%
2.7	0.98	3.23	3.80	4.15	4.29	4.29	3.96	5.97%
2.8	1.02	3.29	3.86	4.21	4.34	4.34	4.01	5.88%
2.9	1.06	3.35	3.92	4.27	4.39	4.39	4.06	5.80%
3.0	1.09	3.40	3.98	4.32	4.43	4.43	4.10	5.72%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 4.3

**Table H-202 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.0$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.16	2.05	2.54	2.90	3.01	3.01	2.95
0.8	2.35	0.18	1.90	2.36	2.70	2.81	2.82	2.75
0.9	2.35	0.20	1.78	2.22	2.55	2.66	2.67	2.59
1.0	2.35	0.22	1.68	2.10	2.42	2.54	2.55	2.46
1.1	2.35	0.25	1.60	2.01	2.32	2.43	2.45	2.35
1.2	2.35	0.27	1.53	1.92	2.23	2.34	2.36	2.25
1.3	2.35	0.29	1.47	1.85	2.15	2.27	2.28	2.17
1.4	2.35	0.31	1.42	1.79	2.08	2.20	2.22	2.10
1.5	2.35	0.34	1.38	1.74	2.02	2.14	2.15	2.03
1.6	2.35	0.36	1.34	1.69	1.97	2.08	2.10	1.98
1.7	2.35	0.38	1.30	1.65	1.92	2.03	2.05	1.92
1.8	2.35	0.40	1.27	1.61	1.87	1.98	2.00	1.87
1.9	2.35	0.43	1.24	1.57	1.83	1.94	1.96	1.83
2.0	2.35	0.45	1.21	1.54	1.79	1.90	1.92	1.78
2.1	2.35	0.47	1.19	1.51	1.76	1.86	1.88	1.74
2.2	2.35	0.49	1.16	1.48	1.73	1.83	1.85	1.70
2.3	2.35	0.52	1.14	1.45	1.69	1.80	1.81	1.66
2.4	2.35	0.54	1.12	1.43	1.66	1.76	1.78	1.63
2.5	2.35	0.56	1.10	1.40	1.64	1.73	1.75	1.60
2.6	2.35	0.58	1.08	1.38	1.61	1.70	1.72	1.57
2.7	2.35	0.61	1.06	1.36	1.58	1.68	1.69	1.54
2.8	2.35	0.63	1.05	1.34	1.56	1.65	1.66	1.51
2.9	2.35	0.65	1.03	1.32	1.53	1.62	1.64	1.48
3.0	2.35	0.67	1.02	1.30	1.51	1.60	1.61	1.45

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-203 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story STR Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.3$			Typical Spectrum Shape Factor (SSF) at DR					
			1.16	1.25	1.32	1.33	1.33	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.25	2.55	3.20	3.70	3.89	3.91	3.74
0.8	2.35	0.29	2.39	3.01	3.48	3.67	3.70	3.52
0.9	2.35	0.33	2.26	2.85	3.31	3.50	3.53	3.33
1.0	2.35	0.36	2.15	2.72	3.17	3.35	3.38	3.18
1.1	2.35	0.40	2.06	2.61	3.04	3.22	3.26	3.05
1.2	2.35	0.44	1.98	2.52	2.94	3.11	3.14	2.92
1.3	2.35	0.47	1.92	2.44	2.84	3.01	3.04	2.81
1.4	2.35	0.51	1.86	2.36	2.76	2.92	2.95	2.71
1.5	2.35	0.55	1.80	2.29	2.68	2.84	2.87	2.62
1.6	2.35	0.58	1.75	2.23	2.61	2.76	2.79	2.54
1.7	2.35	0.62	1.71	2.18	2.54	2.69	2.71	2.46
1.8	2.35	0.65	1.67	2.12	2.48	2.62	2.64	2.39
1.9	2.35	0.69	1.63	2.08	2.42	2.55	2.57	2.32
2.0	2.35	0.73	1.59	2.03	2.36	2.49	2.51	2.25
2.1	2.35	0.76	1.56	1.99	2.31	2.43	2.44	2.19
2.2	2.35	0.80	1.53	1.94	2.26	2.38	2.38	2.13
2.3	2.35	0.84	1.50	1.90	2.21	2.32	2.33	2.07
2.4	2.35	0.87	1.47	1.86	2.16	2.27	2.27	2.02
2.5	2.35	0.91	1.44	1.83	2.12	2.21	2.22	1.97
2.6	2.35	0.95	1.41	1.79	2.07	2.16	2.16	1.92
2.7	2.35	0.98	1.39	1.76	2.03	2.11	2.11	1.87
2.8	2.35	1.02	1.36	1.72	1.98	2.06	2.06	1.83
2.9	2.35	1.06	1.34	1.69	1.94	2.01	2.01	1.78
3.0	2.35	1.09	1.32	1.66	1.90	1.97	1.97	1.74

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-204 Values of the  $MCE_R$  collapse probability for the 5-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the far-field record set.**

$R/I_e = 7.0$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse  $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	2.35	0.16	5.5%	3.1%	2.6%	3.3%	3.3%	2.8%
0.8	2.35	0.18	7.7%	4.3%	3.5%	4.2%	4.2%	3.7%
0.9	2.35	0.20	10.0%	5.6%	4.5%	5.1%	5.1%	4.6%
1.0	2.35	0.22	12.4%	6.9%	5.4%	6.0%	6.0%	5.5%
1.1	2.35	0.25	14.8%	8.2%	6.3%	6.9%	6.8%	6.4%
1.2	2.35	0.27	17.2%	9.5%	7.3%	7.8%	7.6%	7.3%
1.3	2.35	0.29	19.5%	10.8%	8.2%	8.6%	8.5%	8.2%
1.4	2.35	0.31	21.7%	12.1%	9.1%	9.5%	9.2%	9.1%
1.5	2.35	0.34	23.9%	13.4%	10.0%	10.3%	10.0%	10.0%
1.6	2.35	0.36	26.0%	14.7%	10.9%	11.1%	10.8%	10.9%
1.7	2.35	0.38	28.0%	15.9%	11.8%	11.9%	11.6%	11.8%
1.8	2.35	0.40	29.9%	17.1%	12.7%	12.7%	12.3%	12.7%
1.9	2.35	0.43	31.8%	18.3%	13.5%	13.4%	13.1%	13.6%
2.0	2.35	0.45	33.6%	19.5%	14.4%	14.2%	13.8%	14.6%
2.1	2.35	0.47	35.3%	20.6%	15.2%	15.0%	14.6%	15.5%
2.2	2.35	0.49	37.0%	21.7%	16.1%	15.7%	15.3%	16.5%
2.3	2.35	0.52	38.6%	22.8%	16.9%	16.5%	16.1%	17.4%
2.4	2.35	0.54	40.1%	23.9%	17.7%	17.2%	16.8%	18.4%
2.5	2.35	0.56	41.6%	25.0%	18.5%	18.0%	17.6%	19.3%
2.6	2.35	0.58	43.0%	26.1%	19.4%	18.7%	18.3%	20.3%
2.7	2.35	0.61	44.4%	27.1%	20.2%	19.5%	19.1%	21.3%
2.8	2.35	0.63	45.8%	28.1%	21.0%	20.2%	19.8%	22.3%
2.9	2.35	0.65	47.1%	29.1%	21.8%	21.0%	20.6%	23.3%
3.0	2.35	0.67	48.4%	30.2%	22.6%	21.7%	21.4%	24.3%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-205 Values of the  $MCE_R$  collapse probability for the 5-Story STR wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the far-field record set.**

$R/I_e = 4.3$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$
0.7	2.35	0.25	1.0%	0.5%	0.4%	0.7%	0.7%	0.5%
0.8	2.35	0.29	1.5%	0.7%	0.6%	0.9%	0.9%	0.7%
0.9	2.35	0.33	2.1%	1.0%	0.8%	1.1%	1.1%	0.8%
1.0	2.35	0.36	2.8%	1.3%	1.1%	1.4%	1.3%	1.1%
1.1	2.35	0.40	3.5%	1.6%	1.3%	1.7%	1.6%	1.3%
1.2	2.35	0.44	4.4%	2.0%	1.6%	1.9%	1.9%	1.6%
1.3	2.35	0.47	5.2%	2.4%	1.8%	2.2%	2.1%	1.9%
1.4	2.35	0.51	6.1%	2.8%	2.1%	2.6%	2.5%	2.2%
1.5	2.35	0.55	7.0%	3.2%	2.4%	2.9%	2.8%	2.5%
1.6	2.35	0.58	8.0%	3.7%	2.8%	3.2%	3.1%	2.9%
1.7	2.35	0.62	9.0%	4.2%	3.1%	3.6%	3.5%	3.3%
1.8	2.35	0.65	10.0%	4.7%	3.5%	4.0%	3.9%	3.7%
1.9	2.35	0.69	11.1%	5.2%	3.9%	4.4%	4.3%	4.1%
2.0	2.35	0.73	12.2%	5.8%	4.3%	4.8%	4.7%	4.6%
2.1	2.35	0.76	13.3%	6.4%	4.7%	5.3%	5.2%	5.1%
2.2	2.35	0.80	14.5%	7.0%	5.2%	5.8%	5.7%	5.7%
2.3	2.35	0.84	15.6%	7.6%	5.6%	6.3%	6.2%	6.3%
2.4	2.35	0.87	16.8%	8.3%	6.2%	6.9%	6.8%	6.9%
2.5	2.35	0.91	18.0%	9.0%	6.7%	7.4%	7.4%	7.6%
2.6	2.35	0.95	19.3%	9.7%	7.3%	8.1%	8.0%	8.3%
2.7	2.35	0.98	20.6%	10.5%	7.9%	8.7%	8.7%	9.1%
2.8	2.35	1.02	21.9%	11.3%	8.5%	9.4%	9.4%	9.9%
2.9	2.35	1.06	23.2%	12.2%	9.2%	10.2%	10.2%	10.8%
3.0	2.35	1.09	24.6%	13.0%	9.9%	11.0%	11.0%	11.7%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-206 Summary of Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Simulated Collapse Analyses of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

N	$V_{STR}/W$	$V_{NS}/W$ nominal	$V_{NS}/W$ actual	$V_{max}/W$ without P- $\Delta$	$V_{max}/W$ with P- $\Delta$	$S_{CT}$ given RS as a fraction of $V_{max}/W$					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.90	0.92	0.95	0.94				3.34	2.49	
1	0.10	0.90	0.93	1.00	0.99				3.33	2.63	2.17
1	0.15	0.90	0.95	1.05	1.04					2.84	2.32
1	0.20	0.90	0.97	1.10	1.09					2.92	2.44
1	0.30	0.90	1.00	1.20	1.19					3.24	2.70
1	0.45	0.90	1.03	1.35	1.34					3.53	3.10
1	0.60	0.90	1.07	1.50	1.49					3.85	3.35
1	0.80	0.90	1.12	1.70	1.69						3.75
1	1.00	0.90	1.16	1.90	1.89						4.00
1	1.20	0.90	1.19	2.10	2.08						4.38
2	0.05	0.45	0.46	0.50	0.49		2.82	2.26	1.80	1.54	
2	0.10	0.45	0.48	0.55	0.54			2.66	2.07	1.74	
2	0.15	0.45	0.49	0.60	0.59			2.94	2.30	1.96	
2	0.20	0.45	0.50	0.65	0.64			3.04	2.52	2.07	
2	0.30	0.45	0.53	0.75	0.74				2.94	2.36	
2	0.45	0.45	0.55	0.90	0.88				3.22	2.87	
2	0.60	0.45	0.58	1.05	1.03					3.18	2.91
2	0.80	0.45	0.58	1.25	1.23					3.60	3.23
2	1.00	0.45	0.58	1.45	1.43					3.97	3.50
2	1.20	0.45	0.60	1.65	1.63						3.85
3	0.05	0.30	0.31	0.35	0.33	1.81	1.58	1.35	1.18		
3	0.10	0.30	0.31	0.40	0.38	2.33	2.01	1.69	1.41		
3	0.15	0.30	0.32	0.45	0.43		2.40	2.04	1.63		
3	0.20	0.30	0.33	0.50	0.48		2.86	2.30	1.91	1.70	
3	0.30	0.30	0.35	0.60	0.58			2.75	2.29	2.00	
3	0.45	0.30	0.38	0.75	0.73				2.79	2.41	
3	0.60	0.30	0.38	0.90	0.88				3.08	2.81	
3	0.80	0.30	0.39	1.10	1.08					3.26	3.01
3	1.00	0.30	0.39	1.30	1.28					3.55	3.44
3	1.20	0.30	0.39	1.50	1.48					3.91	3.73
4	0.05	0.23	0.24	0.28	0.26	1.29	1.15	1.02			
4	0.10	0.23	0.24	0.33	0.31	1.51	1.36	1.24			
4	0.15	0.23	0.24	0.38	0.36	1.93	1.69	1.55	1.38		
4	0.20	0.23	0.25	0.43	0.41		2.31	1.94	1.62		
4	0.30	0.23	0.27	0.53	0.51			2.65	2.08	1.85	
4	0.45	0.23	0.29	0.68	0.66				2.55	2.31	
4	0.60	0.23	0.29	0.83	0.81				2.98	2.67	
4	0.80	0.23	0.30	1.03	1.01					3.08	2.87
4	1.00	0.23	0.30	1.23	1.21					3.42	3.21
4	1.20	0.23	0.30	1.43	1.41					3.76	3.62
5	0.05	0.18	0.18	0.23	0.21	1.06	0.96	0.88			
5	0.10	0.18	0.19	0.28	0.26	1.29	1.16	1.05			
5	0.15	0.18	0.19	0.33	0.31	1.55	1.39	1.28			
5	0.20	0.18	0.19	0.38	0.36	2.12	1.81	1.58	1.46		
5	0.30	0.18	0.20	0.48	0.46		2.91	2.33	1.86		
5	0.45	0.18	0.21	0.63	0.61			2.81	2.39	2.17	
5	0.60	0.18	0.23	0.78	0.76				2.80	2.58	
5	0.80	0.18	0.23	0.98	0.96				3.28	3.01	
5	1.00	0.18	0.24	1.18	1.16					3.27	3.19
5	1.20	0.18	0.24	1.38	1.36					3.75	3.45

**Table H-207 Summary of Median Peak 1<sup>st</sup>-Story Drift Ratio (DR) Results of Simulated Collapse Analyses of Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

N	V <sub>STR</sub> /W	V <sub>NS</sub> /W nominal	V <sub>NS</sub> /W actual	V <sub>max</sub> /W without P-Δ	V <sub>max</sub> /W with P-Δ	DR (%) given RS as a fraction of V <sub>max</sub> /W					
						0.75	0.60	0.45	0.30	0.20	0.10
1	0.05	0.90	0.92	0.95	0.94				19.68	11.30	
1	0.10	0.90	0.93	1.00	0.99				19.94	10.93	4.83
1	0.15	0.90	0.95	1.05	1.04					11.20	5.48
1	0.20	0.90	0.97	1.10	1.09					10.52	5.40
1	0.30	0.90	1.00	1.20	1.19					12.25	6.15
1	0.45	0.90	1.03	1.35	1.34					11.40	6.87
1	0.60	0.90	1.07	1.50	1.49					12.15	6.84
1	0.80	0.90	1.12	1.70	1.69						7.29
1	1.00	0.90	1.16	1.90	1.89						6.67
1	1.20	0.90	1.19	2.10	2.08						6.84
2	0.05	0.45	0.46	0.50	0.49		23.58	17.61	10.45	6.10	
2	0.10	0.45	0.48	0.55	0.54			18.39	12.34	7.61	
2	0.15	0.45	0.49	0.60	0.59			21.37	13.85	7.70	
2	0.20	0.45	0.50	0.65	0.64			22.55	14.47	8.46	
2	0.30	0.45	0.53	0.75	0.74				16.50	9.86	
2	0.45	0.45	0.55	0.90	0.88				15.33	10.26	
2	0.60	0.45	0.58	1.05	1.03					10.33	6.22
2	0.80	0.45	0.58	1.25	1.23					11.93	6.26
2	1.00	0.45	0.58	1.45	1.43					14.15	6.59
2	1.20	0.45	0.60	1.65	1.63						6.57
3	0.05	0.30	0.31	0.35	0.33	19.21	14.25	11.07	5.78		
3	0.10	0.30	0.31	0.40	0.38	23.19	17.73	13.58	7.27		
3	0.15	0.30	0.32	0.45	0.43		21.14	15.69	8.94		
3	0.20	0.30	0.33	0.50	0.48		22.93	17.10	10.17	6.71	
3	0.30	0.30	0.35	0.60	0.58			20.25	11.88	7.87	
3	0.45	0.30	0.38	0.75	0.73				13.40	8.11	
3	0.60	0.30	0.38	0.90	0.88				12.71	8.60	
3	0.80	0.30	0.39	1.10	1.08					8.88	5.83
3	1.00	0.30	0.39	1.30	1.28					8.82	6.35
3	1.20	0.30	0.39	1.50	1.48					9.31	6.05
4	0.05	0.23	0.24	0.28	0.26	15.68	11.50	7.16			
4	0.10	0.23	0.24	0.33	0.31	19.39	14.94	8.89			
4	0.15	0.23	0.24	0.38	0.36	21.51	15.47	10.96	6.13		
4	0.20	0.23	0.25	0.43	0.41		19.61	13.77	7.69		
4	0.30	0.23	0.27	0.53	0.51			17.74	10.65	6.58	
4	0.45	0.23	0.29	0.68	0.66				10.33	7.26	
4	0.60	0.23	0.27	0.83	0.37				11.02	7.51	
4	0.80	0.23	0.30	1.03	1.01					9.32	5.30
4	1.00	0.23	0.30	1.23	1.21					7.89	5.37
4	1.20	0.23	0.30	1.43	1.41					7.41	5.44
5	0.05	0.18	0.18	0.23	0.21	13.23	9.52	4.88			
5	0.10	0.18	0.19	0.28	0.26	16.49	12.02	6.00			
5	0.15	0.18	0.19	0.33	0.31	18.94	14.10	8.84			
5	0.20	0.18	0.19	0.38	0.36	19.73	14.93	9.86	6.10		
5	0.30	0.18	0.20	0.48	0.46		22.72	16.90	9.24		
5	0.45	0.18	0.21	0.63	0.61			17.75	10.61	7.28	
5	0.60	0.18	0.23	0.78	0.76				10.30	7.27	
5	0.80	0.18	0.23	0.98	0.96				9.61	7.72	
5	1.00	0.18	0.24	1.18	1.16					6.36	4.98
5	1.20	0.18	0.24	1.38	1.36					8.49	4.80

**Table H-208 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (*DR*) and Median Collapse Response Spectral Acceleration (*S<sub>CT</sub>*) Results of Collapse Analyses of 1-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (*NS*) evaluated using the near-field record set.**

Model ID	IDA Results							Model Period <i>T</i> <sub>1</sub> (s)
	Non-Simulated Collapse <i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i> at <i>DR</i>					Simulated Collapse		
1M-	2.5%	5.0%	7.5%	10%	15%	<i>S<sub>CT</sub></i> ( <i>C<sub>u</sub>T<sub>a</sub>)</i>	<i>DR</i>	
095-005-030	1.72	1.99	2.15	2.35	2.77	3.34	19.70%	0.20
095-005-020	1.72	1.95	2.08	2.20	2.49	2.49	11.30%	0.20
100-010-030	1.83	2.06	2.26	2.48	2.89	3.33	19.90%	0.19
100-010-020	1.81	2.06	2.21	2.36	2.64	2.63	10.90%	0.19
100-010-010	1.83	2.17	2.17	2.17	2.17	2.17	4.80%	0.19
105-015-020	1.91	2.18	2.34	2.51	2.84	2.84	11.20%	0.19
105-015-010	1.93	2.16	2.32	2.32	2.32	2.32	5.50%	0.18
110-020-020	1.99	2.26	2.42	2.55	2.92	2.92	10.50%	0.18
110-020-010	2.00	2.26	2.44	2.44	2.44	2.44	5.40%	0.18
120-030-020	2.18	2.48	2.68	2.82	3.24	3.24	12.30%	0.17
120-030-010	2.18	2.49	2.71	2.71	2.71	2.70	6.20%	0.17
135-045-020	2.43	2.79	2.95	3.14	3.53	3.53	11.40%	0.16
135-045-010	2.44	2.80	3.10	3.10	3.10	3.10	6.90%	0.16
150-060-020	2.63	3.02	3.21	3.39	3.85	3.85	12.20%	0.16
150-060-010	2.68	3.08	3.35	3.35	3.35	3.35	6.80%	0.15
170-080-010	2.98	3.43	3.75	3.75	3.75	3.75	7.30%	0.14
190-100-010	3.27	3.72	4.00	4.00	4.00	4.00	6.70%	0.14
210-120-010	3.58	4.07	4.38	4.38	4.38	4.38	6.80%	0.13

\* Upper limit of Code Period,  $C_u T_a = 0.16s$ ,  $V_{NS}/W = 0.90$



**Table H-209 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 2-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
2M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
050-005-060	1.24	1.50	1.71	1.91	2.24	2.82	23.60%	0.30
050-005-045	1.22	1.45	1.64	1.80	2.10	2.26	17.60%	0.30
050-005-030	1.22	1.44	1.54	1.67	1.80	1.80	10.50%	0.29
050-005-020	1.21	1.41	1.54	1.54	1.54	1.54	6.10%	0.29
055-010-045	1.32	1.58	1.76	1.96	2.29	2.66	18.40%	0.28
055-010-030	1.31	1.59	1.70	1.83	2.07	2.07	12.30%	0.28
055-010-020	1.33	1.55	1.66	1.74	1.74	1.74	7.60%	0.28
060-015-045	1.42	1.72	1.92	2.16	2.48	2.94	21.40%	0.27
060-015-030	1.41	1.71	1.84	2.01	2.30	2.30	13.90%	0.27
060-015-020	1.41	1.69	1.81	1.96	1.96	1.96	7.70%	0.26
065-020-045	1.51	1.85	2.05	2.23	2.67	3.04	22.60%	0.26
065-020-030	1.51	1.83	1.99	2.10	2.52	2.52	14.50%	0.26
065-020-020	1.51	1.81	1.98	2.07	2.07	2.07	8.50%	0.25
075-030-030	1.70	2.07	2.27	2.39	2.66	2.94	16.50%	0.24
075-030-020	1.69	2.05	2.22	2.36	2.36	2.36	9.90%	0.24
090-045-030	1.98	2.37	2.59	2.75	3.05	3.22	15.30%	0.22
090-045-020	2.00	2.36	2.59	2.71	2.87	2.87	10.30%	0.22
105-060-020	2.26	2.66	2.86	3.01	3.18	3.18	10.30%	0.20
105-060-010	2.28	2.66	2.91	2.91	2.91	2.91	6.20%	0.20
125-080-020	2.59	3.03	3.24	3.34	3.60	3.60	11.90%	0.19
125-080-010	2.59	3.03	3.23	3.23	3.23	3.23	6.30%	0.19
145-100-020	2.90	3.37	3.59	3.60	3.98	3.97	14.20%	0.18
145-100-010	2.92	3.38	3.50	3.50	3.50	3.50	6.60%	0.18
165-120-010	3.24	3.70	3.85	3.85	3.85	3.85	6.60%	0.17

\* Upper limit of Code Period,  $C_uT_a = 0.26s$ ,  $V_{NS}/W = 0.45$

**Table H-210 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 3-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
3M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
035-005-075	1.01	1.21	1.32	1.42	1.55	1.81	19.20%	0.42
035-005-060	1.00	1.16	1.25	1.33	1.58	1.58	14.30%	0.41
035-005-045	0.99	1.10	1.17	1.22	1.35	1.35	11.10%	0.41
035-005-030	0.98	1.09	1.18	1.18	1.18	1.18	5.80%	0.40
040-010-075	1.09	1.34	1.49	1.63	1.87	2.33	23.20%	0.39
040-010-060	1.09	1.30	1.45	1.54	1.77	2.01	17.70%	0.39
040-010-045	1.09	1.29	1.37	1.47	1.69	1.69	13.60%	0.38
040-010-030	1.08	1.25	1.41	1.41	1.41	1.41	7.30%	0.37
045-015-060	1.18	1.45	1.59	1.75	2.08	2.40	21.10%	0.36
045-015-045	1.19	1.42	1.54	1.68	1.89	2.04	15.70%	0.36
045-015-030	1.18	1.40	1.52	1.63	1.63	1.63	8.90%	0.35
050-020-060	1.30	1.59	1.75	1.98	2.37	2.86	22.90%	0.35
050-020-045	1.31	1.55	1.74	1.89	2.10	2.30	17.10%	0.34
050-020-030	1.30	1.55	1.70	1.78	1.91	1.91	10.20%	0.33
050-020-020	1.31	1.54	1.70	1.70	1.70	1.70	6.70%	0.33
060-030-045	1.49	1.78	1.99	2.18	2.48	2.75	20.30%	0.31
060-030-030	1.50	1.78	1.94	2.08	2.29	2.29	11.90%	0.31
060-030-020	1.49	1.77	1.90	2.00	2.00	2.00	7.90%	0.30
075-045-030	1.79	2.12	2.29	2.41	2.79	2.79	13.40%	0.28
075-045-020	1.80	2.12	2.29	2.41	2.41	2.41	8.10%	0.28
090-060-030	2.03	2.45	2.66	2.79	3.08	3.08	12.70%	0.26
090-060-020	2.05	2.42	2.62	2.81	2.81	2.81	8.60%	0.26
110-080-020	2.35	2.80	2.98	3.26	3.26	3.26	8.90%	0.24
110-080-010	2.35	2.80	3.01	3.01	3.01	3.01	5.80%	0.23
130-100-020	2.71	3.20	3.38	3.55	3.55	3.55	8.80%	0.22
130-100-010	2.68	3.19	3.44	3.44	3.44	3.44	6.40%	0.22
150-120-020	2.99	3.48	3.70	3.91	3.91	3.91	9.30%	0.21
150-120-010	3.01	3.48	3.73	3.73	3.73	3.73	6.10%	0.21

\* Upper limit of Code Period,  $C_uT_a = 0.36s$ ,  $V_{NS}/W = 0.30$

**Table H-211 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 4-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
4M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
028-005-075	0.89	1.04	1.09	1.11	1.19	1.29	15.70%	0.52
028-005-060	0.90	1.01	1.02	1.04	1.15	1.15	11.50%	0.52
028-005-045	0.89	0.97	1.02	1.02	1.02	1.02	7.20%	0.51
033-010-075	1.01	1.22	1.29	1.33	1.38	1.51	19.40%	0.49
033-010-060	1.02	1.17	1.22	1.26	1.36	1.36	14.90%	0.48
033-010-045	1.00	1.14	1.18	1.24	1.24	1.24	8.90%	0.47
038-015-075	1.14	1.36	1.50	1.58	1.72	1.93	21.50%	0.46
038-015-060	1.11	1.34	1.43	1.50	1.61	1.69	15.50%	0.45
038-015-045	1.11	1.30	1.38	1.44	1.55	1.55	11.00%	0.44
038-015-030	1.10	1.30	1.38	1.38	1.38	1.38	6.10%	0.43
043-020-060	1.21	1.47	1.60	1.73	2.06	2.31	19.60%	0.42
043-020-045	1.20	1.46	1.57	1.66	1.94	1.94	13.80%	0.41
043-020-030	1.20	1.45	1.54	1.62	1.62	1.62	7.70%	0.41
053-030-045	1.40	1.72	1.87	2.04	2.37	2.65	17.70%	0.38
053-030-030	1.40	1.69	1.83	1.94	2.08	2.08	10.70%	0.37
053-030-020	1.40	1.65	1.86	1.86	1.86	1.85	6.60%	0.37
068-045-030	1.70	2.03	2.19	2.32	2.55	2.55	10.30%	0.34
068-045-020	1.69	1.99	2.31	2.31	2.31	2.31	7.30%	0.33
083-060-030	1.96	2.32	2.49	2.63	2.98	2.98	11.00%	0.31
083-060-020	1.96	2.32	2.50	2.67	2.67	2.67	7.50%	0.31
103-080-020	2.27	2.69	2.84	3.08	3.08	3.08	9.30%	0.28
103-080-010	2.26	2.66	2.87	2.87	2.87	2.87	5.30%	0.28
123-100-020	2.63	3.05	3.20	3.42	3.42	3.42	7.90%	0.26
123-100-010	2.64	3.03	3.21	3.21	3.21	3.21	5.40%	0.26
143-120-020	2.88	3.40	3.76	3.76	3.76	3.76	7.40%	0.24
143-120-010	2.85	3.43	3.62	3.62	3.62	3.62	5.40%	0.24

\* Upper limit of Code Period,  $C_uT_a = 0.45s$ ,  $V_{NS}/W = 0.23$

**Table H-212 Summary of Peak 1<sup>st</sup>-Story Drift Ratio (DR) and Median Collapse Response Spectral Acceleration ( $S_{CT}$ ) Results of Collapse Analyses of 5-Story Wood Light-frame Models with MFD Nonstructural Wall Finishes (NS) evaluated using the near-field record set.**

Model ID	IDA Results							Model Period $T_1$ (s)
	Non-Simulated Collapse $S_{CT}(C_uT_a)$ at DR					Simulated Collapse		
5M-	2.5%	5.0%	7.5%	10%	15%	$S_{CT}(C_uT_a)$	DR	
023-005-075	0.80	0.92	0.95	0.97	1.07	1.06	13.20%	0.63
023-005-060	0.81	0.88	0.90	0.96	0.96	0.96	9.50%	0.62
023-005-045	0.80	0.88	0.88	0.88	0.88	0.88	4.90%	0.62
028-010-075	0.91	1.09	1.12	1.14	1.21	1.29	16.50%	0.58
028-010-060	0.92	1.05	1.07	1.09	1.16	1.16	12.00%	0.57
028-010-045	0.91	1.02	1.05	1.05	1.05	1.05	6.00%	0.56
033-015-075	1.03	1.24	1.31	1.35	1.42	1.55	18.90%	0.54
033-015-060	1.03	1.20	1.25	1.30	1.39	1.39	14.10%	0.53
033-015-045	1.04	1.18	1.23	1.28	1.28	1.28	8.80%	0.52
038-020-075	1.16	1.39	1.53	1.63	1.79	2.12	19.70%	0.51
038-020-060	1.17	1.38	1.46	1.56	1.81	1.81	14.90%	0.50
038-020-045	1.16	1.37	1.43	1.58	1.58	1.58	9.90%	0.49
038-020-030	1.17	1.36	1.46	1.46	1.46	1.46	6.10%	0.48
048-030-060	1.36	1.63	1.76	1.94	2.31	2.91	22.70%	0.45
048-030-045	1.37	1.62	1.74	1.86	2.12	2.33	16.90%	0.44
048-030-030	1.32	1.61	1.70	1.86	1.86	1.86	9.20%	0.43
063-045-045	1.63	1.99	2.13	2.28	2.57	2.81	17.80%	0.40
063-045-030	1.63	1.98	2.10	2.20	2.39	2.39	10.60%	0.39
063-045-020	1.63	1.95	2.17	2.17	2.17	2.17	7.30%	0.38
078-060-030	1.90	2.28	2.45	2.58	2.80	2.80	10.30%	0.35
078-060-020	1.87	2.32	2.58	2.58	2.58	2.58	7.30%	0.35
098-080-030	2.20	2.67	2.80	3.28	3.28	3.28	9.60%	0.32
098-080-020	2.20	2.68	2.82	3.01	3.01	3.01	7.70%	0.32
118-100-020	2.45	2.98	3.27	3.27	3.27	3.27	6.40%	0.29
118-100-010	2.54	3.02	3.19	3.19	3.19	3.19	5.00%	0.29
138-120-020	2.82	3.35	3.51	3.75	3.75	3.75	8.50%	0.27
138-120-010	2.82	3.45	3.45	3.45	3.45	3.45	4.80%	0.27

\* Upper limit of Code Period,  $C_uT_a = 0.53s$ ,  $V_{NS}/W = 0.18$

**Table H-213** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	1.77	3.13	3.49	3.75	3.90	3.94	3.72	7.08%	
0.8	1.79	3.16	3.53	3.79	3.94	3.97	3.75	6.98%	
0.9	1.82	3.20	3.57	3.83	3.98	4.01	3.78	6.88%	
1.0	1.84	3.24	3.61	3.87	4.02	4.05	3.81	6.78%	
1.1	1.87	3.27	3.65	3.91	4.06	4.08	3.84	6.68%	
1.2	1.89	3.31	3.69	3.95	4.09	4.12	3.87	6.58%	
1.3	1.91	3.35	3.73	3.99	4.13	4.15	3.90	6.48%	
1.4	1.94	3.38	3.77	4.03	4.17	4.19	3.93	6.39%	
1.5	1.96	3.42	3.81	4.07	4.21	4.23	3.96	6.29%	
1.6	1.99	3.45	3.85	4.11	4.24	4.26	3.99	6.20%	
1.7	2.01	3.49	3.88	4.15	4.28	4.29	4.02	6.11%	
1.8	2.03	3.52	3.92	4.19	4.31	4.33	4.05	6.02%	
1.9	2.06	3.56	3.96	4.22	4.35	4.36	4.07	5.93%	
2.0	2.08	3.59	4.00	4.26	4.38	4.40	4.10	5.85%	
2.1	2.11	3.62	4.03	4.30	4.42	4.43	4.13	5.76%	
2.2	2.13	3.66	4.07	4.33	4.45	4.46	4.15	5.68%	
2.3	2.15	3.69	4.10	4.37	4.49	4.49	4.18	5.59%	
2.4	2.18	3.73	4.14	4.40	4.52	4.52	4.21	5.51%	
2.5	2.20	3.76	4.18	4.44	4.55	4.56	4.23	5.43%	
2.6	2.23	3.79	4.21	4.47	4.58	4.59	4.26	5.35%	
2.7	2.25	3.83	4.24	4.51	4.62	4.62	4.28	5.27%	
2.8	2.27	3.86	4.28	4.54	4.65	4.65	4.31	5.20%	
2.9	2.30	3.89	4.31	4.58	4.68	4.68	4.33	5.12%	
3.0	2.32	3.92	4.35	4.61	4.71	4.71	4.35	5.04%	

**Table H-214** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%, 5.0\%, 7.5\%, 10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ) evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.85	3.26	3.63	3.89	4.04	4.07	3.83	6.73%
0.8	1.89	3.31	3.69	3.95	4.09	4.12	3.87	6.58%
0.9	1.93	3.36	3.75	4.01	4.15	4.17	3.92	6.44%
1.0	1.96	3.42	3.81	4.07	4.21	4.23	3.96	6.29%
1.1	2.00	3.47	3.87	4.13	4.26	4.28	4.00	6.16%
1.2	2.03	3.52	3.92	4.19	4.31	4.33	4.05	6.02%
1.3	2.07	3.57	3.98	4.24	4.37	4.38	4.09	5.89%
1.4	2.11	3.62	4.03	4.30	4.42	4.43	4.13	5.76%
1.5	2.14	3.68	4.09	4.35	4.47	4.48	4.17	5.64%
1.6	2.18	3.73	4.14	4.40	4.52	4.52	4.21	5.51%
1.7	2.21	3.78	4.19	4.46	4.57	4.57	4.24	5.39%
1.8	2.25	3.83	4.24	4.51	4.62	4.62	4.28	5.27%
1.9	2.29	3.87	4.30	4.56	4.66	4.66	4.32	5.16%
2.0	2.32	3.92	4.35	4.61	4.71	4.71	4.35	5.04%
2.1	2.36	3.97	4.40	4.66	4.75	4.75	4.39	4.93%
2.2	2.40	4.02	4.45	4.71	4.80	4.80	4.42	4.83%
2.3	2.43	4.07	4.50	4.75	4.84	4.84	4.46	4.72%
2.4	2.47	4.11	4.54	4.80	4.88	4.88	4.49	4.62%
2.5	2.50	4.16	4.59	4.84	4.92	4.92	4.52	4.52%
2.6	2.54	4.20	4.64	4.89	4.96	4.96	4.55	4.42%
2.7	2.58	4.25	4.68	4.93	5.00	5.00	4.58	4.32%
2.8	2.61	4.29	4.73	4.98	5.04	5.04	4.61	4.23%
2.9	2.65	4.34	4.77	5.02	5.08	5.08	4.64	4.13%
3.0	2.68	4.38	4.82	5.06	5.11	5.11	4.67	4.04%

**Table H-215 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	24.64	1.77	5.45	6.74	7.72	8.13	8.21	7.56
0.8	21.85	1.79	4.83	5.96	6.83	7.19	7.25	6.66
0.9	19.68	1.82	4.34	5.36	6.13	6.45	6.51	5.95
1.0	17.95	1.84	3.95	4.88	5.58	5.86	5.91	5.39
1.1	16.53	1.87	3.63	4.48	5.12	5.38	5.42	4.93
1.2	15.35	1.89	3.36	4.15	4.75	4.98	5.01	4.54
1.3	14.35	1.91	3.14	3.88	4.42	4.64	4.67	4.21
1.4	13.49	1.94	2.95	3.64	4.15	4.35	4.37	3.93
1.5	12.75	1.96	2.78	3.43	3.91	4.09	4.11	3.69
1.6	12.10	1.99	2.63	3.25	3.70	3.87	3.89	3.47
1.7	11.53	2.01	2.50	3.08	3.51	3.68	3.69	3.29
1.8	11.02	2.03	2.39	2.94	3.35	3.50	3.51	3.12
1.9	10.56	2.06	2.28	2.81	3.20	3.34	3.35	2.97
2.0	10.15	2.08	2.19	2.70	3.07	3.20	3.21	2.83
2.1	9.78	2.11	2.11	2.59	2.95	3.07	3.08	2.71
2.2	9.44	2.13	2.03	2.50	2.84	2.96	2.96	2.60
2.3	9.13	2.15	1.96	2.41	2.74	2.85	2.85	2.49
2.4	8.85	2.18	1.89	2.33	2.64	2.75	2.75	2.40
2.5	8.59	2.20	1.83	2.25	2.56	2.66	2.66	2.31
2.6	8.35	2.23	1.78	2.19	2.48	2.57	2.58	2.23
2.7	8.13	2.25	1.73	2.12	2.40	2.50	2.50	2.16
2.8	7.92	2.27	1.68	2.06	2.34	2.42	2.42	2.09
2.9	7.73	2.30	1.64	2.01	2.27	2.35	2.36	2.02
3.0	7.55	2.32	1.60	1.96	2.21	2.29	2.29	1.96

**Table H-216 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	17.21	1.85	5.67	7.01	8.01	8.42	8.48	7.72
0.8	15.35	1.89	5.05	6.23	7.12	7.47	7.52	6.81
0.9	13.91	1.93	4.56	5.63	6.42	6.73	6.77	6.10
1.0	12.75	1.96	4.17	5.14	5.86	6.14	6.17	5.53
1.1	11.80	2.00	3.85	4.74	5.41	5.66	5.68	5.07
1.2	11.02	2.03	3.58	4.41	5.02	5.25	5.27	4.68
1.3	10.35	2.07	3.35	4.13	4.70	4.90	4.92	4.35
1.4	9.78	2.11	3.16	3.89	4.42	4.61	4.62	4.06
1.5	9.28	2.14	2.99	3.68	4.18	4.35	4.36	3.81
1.6	8.85	2.18	2.84	3.49	3.96	4.12	4.13	3.60
1.7	8.47	2.21	2.71	3.33	3.78	3.92	3.93	3.41
1.8	8.13	2.25	2.59	3.18	3.61	3.74	3.75	3.23
1.9	7.82	2.29	2.49	3.05	3.46	3.58	3.58	3.08
2.0	7.55	2.32	2.39	2.93	3.32	3.44	3.44	2.94
2.1	7.30	2.36	2.31	2.83	3.19	3.30	3.30	2.81
2.2	7.08	2.40	2.23	2.73	3.08	3.18	3.18	2.70
2.3	6.87	2.43	2.16	2.64	2.98	3.07	3.07	2.59
2.4	6.68	2.47	2.09	2.56	2.88	2.97	2.97	2.49
2.5	6.51	2.50	2.03	2.48	2.79	2.87	2.87	2.40
2.6	6.35	2.54	1.97	2.41	2.71	2.79	2.79	2.31
2.7	6.20	2.58	1.92	2.34	2.63	2.70	2.70	2.23
2.8	6.06	2.61	1.87	2.28	2.56	2.63	2.63	2.16
2.9	5.94	2.65	1.83	2.22	2.49	2.56	2.56	2.09
3.0	5.82	2.68	1.78	2.17	2.43	2.49	2.49	2.03



**Table H-217 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	24.64	1.77	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	21.85	1.79	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
0.9	19.68	1.82	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%
1.0	17.95	1.84	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%
1.1	16.53	1.87	0.2%	0.1%	0.1%	0.3%	0.2%	0.1%
1.2	15.35	1.89	0.4%	0.2%	0.2%	0.4%	0.4%	0.2%
1.3	14.35	1.91	0.6%	0.3%	0.3%	0.5%	0.5%	0.3%
1.4	13.49	1.94	0.8%	0.5%	0.5%	0.7%	0.7%	0.5%
1.5	12.75	1.96	1.2%	0.7%	0.7%	0.9%	0.9%	0.7%
1.6	12.10	1.99	1.6%	0.9%	0.9%	1.2%	1.2%	0.9%
1.7	11.53	2.01	2.1%	1.2%	1.1%	1.5%	1.5%	1.1%
1.8	11.02	2.03	2.7%	1.5%	1.4%	1.8%	1.8%	1.4%
1.9	10.56	2.06	3.3%	1.9%	1.7%	2.2%	2.2%	1.8%
2.0	10.15	2.08	4.1%	2.4%	2.1%	2.6%	2.6%	2.2%
2.1	9.78	2.11	4.9%	2.8%	2.5%	3.1%	3.0%	2.7%
2.2	9.44	2.13	5.8%	3.4%	2.9%	3.5%	3.5%	3.2%
2.3	9.13	2.15	6.8%	3.9%	3.4%	4.1%	4.0%	3.7%
2.4	8.85	2.18	7.8%	4.5%	3.9%	4.6%	4.6%	4.3%
2.5	8.59	2.20	8.9%	5.2%	4.4%	5.2%	5.1%	5.0%
2.6	8.35	2.23	10.0%	5.9%	4.9%	5.8%	5.7%	5.7%
2.7	8.13	2.25	11.2%	6.6%	5.5%	6.4%	6.4%	6.4%
2.8	7.92	2.27	12.4%	7.4%	6.1%	7.0%	7.0%	7.2%
2.9	7.73	2.30	13.7%	8.2%	6.8%	7.7%	7.7%	8.1%
3.0	7.55	2.32	15.0%	9.0%	7.4%	8.4%	8.3%	8.9%

**Table H-218 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	17.21	1.85	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	15.35	1.89	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.9	13.91	1.93	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.0	12.75	1.96	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.1	11.80	2.00	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
1.2	11.02	2.03	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
1.3	10.35	2.07	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%
1.4	9.78	2.11	0.2%	0.1%	0.1%	0.3%	0.3%	0.1%
1.5	9.28	2.14	0.3%	0.2%	0.2%	0.4%	0.4%	0.2%
1.6	8.85	2.18	0.5%	0.3%	0.3%	0.5%	0.5%	0.3%
1.7	8.47	2.21	0.6%	0.4%	0.4%	0.6%	0.6%	0.4%
1.8	8.13	2.25	0.9%	0.5%	0.5%	0.8%	0.8%	0.5%
1.9	7.82	2.29	1.1%	0.7%	0.7%	1.0%	1.0%	0.7%
2.0	7.55	2.32	1.5%	0.8%	0.8%	1.2%	1.2%	0.8%
2.1	7.30	2.36	1.8%	1.0%	1.0%	1.5%	1.5%	1.1%
2.2	7.08	2.40	2.3%	1.3%	1.2%	1.8%	1.8%	1.3%
2.3	6.87	2.43	2.7%	1.6%	1.5%	2.1%	2.1%	1.6%
2.4	6.68	2.47	3.3%	1.9%	1.7%	2.4%	2.4%	2.0%
2.5	6.51	2.50	3.8%	2.2%	2.0%	2.7%	2.7%	2.4%
2.6	6.35	2.54	4.5%	2.5%	2.3%	3.1%	3.1%	2.8%
2.7	6.20	2.58	5.1%	2.9%	2.7%	3.5%	3.5%	3.3%
2.8	6.06	2.61	5.9%	3.4%	3.0%	4.0%	4.0%	3.8%
2.9	5.94	2.65	6.6%	3.8%	3.4%	4.4%	4.4%	4.4%
3.0	5.82	2.68	7.4%	4.3%	3.8%	4.9%	4.9%	5.1%

**Table H-219** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{DR}_{IC}$	$\bar{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{DR}_{IC}$		
0.7	0.74	1.71	1.99	2.21	2.37	2.51	2.48	12.83%	
0.8	0.76	1.76	2.04	2.27	2.43	2.56	2.53	12.66%	
0.9	0.79	1.81	2.10	2.32	2.48	2.61	2.58	12.49%	
1.0	0.81	1.85	2.15	2.37	2.54	2.66	2.63	12.33%	
1.1	0.84	1.90	2.20	2.43	2.59	2.71	2.67	12.17%	
1.2	0.86	1.94	2.25	2.48	2.64	2.76	2.72	12.00%	
1.3	0.88	1.99	2.30	2.53	2.70	2.81	2.77	11.85%	
1.4	0.91	2.03	2.35	2.58	2.75	2.85	2.81	11.69%	
1.5	0.93	2.08	2.39	2.63	2.80	2.90	2.86	11.53%	
1.6	0.96	2.12	2.44	2.68	2.85	2.94	2.90	11.38%	
1.7	0.98	2.17	2.49	2.73	2.89	2.99	2.94	11.23%	
1.8	1.01	2.21	2.54	2.78	2.94	3.03	2.99	11.08%	
1.9	1.03	2.26	2.58	2.83	2.99	3.07	3.03	10.94%	
2.0	1.05	2.30	2.63	2.87	3.03	3.12	3.07	10.79%	
2.1	1.08	2.34	2.67	2.92	3.08	3.16	3.11	10.65%	
2.2	1.10	2.39	2.72	2.96	3.12	3.20	3.14	10.51%	
2.3	1.13	2.43	2.76	3.01	3.16	3.24	3.18	10.37%	
2.4	1.15	2.47	2.81	3.05	3.21	3.27	3.22	10.23%	
2.5	1.17	2.52	2.85	3.09	3.25	3.31	3.25	10.10%	
2.6	1.20	2.56	2.89	3.14	3.29	3.35	3.29	9.96%	
2.7	1.22	2.60	2.93	3.18	3.33	3.38	3.32	9.83%	
2.8	1.25	2.64	2.98	3.22	3.36	3.42	3.35	9.70%	
2.9	1.27	2.68	3.02	3.26	3.40	3.45	3.38	9.57%	
3.0	1.29	2.72	3.06	3.29	3.44	3.48	3.41	9.45%	

**Table H-220** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.82	1.88	2.17	2.40	2.56	2.68	2.65	12.25%	
0.8	0.86	1.94	2.25	2.48	2.64	2.76	2.72	12.00%	
0.9	0.90	2.01	2.32	2.56	2.72	2.83	2.79	11.77%	
1.0	0.93	2.08	2.39	2.63	2.80	2.90	2.86	11.53%	
1.1	0.97	2.15	2.47	2.71	2.87	2.97	2.92	11.31%	
1.2	1.01	2.21	2.54	2.78	2.94	3.03	2.99	11.08%	
1.3	1.04	2.28	2.61	2.85	3.01	3.10	3.05	10.86%	
1.4	1.08	2.34	2.67	2.92	3.08	3.16	3.11	10.65%	
1.5	1.11	2.41	2.74	2.99	3.14	3.22	3.16	10.44%	
1.6	1.15	2.47	2.81	3.05	3.21	3.27	3.22	10.23%	
1.7	1.19	2.54	2.87	3.11	3.27	3.33	3.27	10.03%	
1.8	1.22	2.60	2.93	3.18	3.33	3.38	3.32	9.83%	
1.9	1.26	2.66	3.00	3.24	3.38	3.43	3.37	9.64%	
2.0	1.29	2.72	3.06	3.29	3.44	3.48	3.41	9.45%	
2.1	1.33	2.79	3.12	3.35	3.49	3.53	3.46	9.26%	
2.2	1.37	2.85	3.17	3.41	3.54	3.58	3.50	9.08%	
2.3	1.40	2.91	3.23	3.46	3.59	3.62	3.54	8.90%	
2.4	1.44	2.97	3.29	3.51	3.63	3.66	3.58	8.72%	
2.5	1.48	3.02	3.34	3.56	3.68	3.70	3.62	8.55%	
2.6	1.51	3.08	3.39	3.61	3.72	3.74	3.66	8.38%	
2.7	1.55	3.14	3.45	3.65	3.76	3.78	3.69	8.22%	
2.8	1.58	3.20	3.50	3.70	3.80	3.81	3.73	8.05%	
2.9	1.62	3.25	3.55	3.74	3.83	3.84	3.76	7.89%	
3.0	1.66	3.31	3.59	3.78	3.87	3.87	3.79	7.74%	

**Table H-221 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.31	0.74	2.98	3.84	4.55	4.94	5.22	5.16
0.8	9.31	0.76	2.68	3.45	4.08	4.43	4.67	4.61
0.9	8.54	0.79	2.45	3.14	3.71	4.03	4.23	4.18
1.0	7.92	0.81	2.26	2.90	3.42	3.70	3.88	3.83
1.1	7.41	0.84	2.11	2.70	3.18	3.44	3.59	3.55
1.2	6.99	0.86	1.98	2.53	2.98	3.22	3.35	3.31
1.3	6.64	0.88	1.87	2.39	2.81	3.03	3.15	3.11
1.4	6.33	0.91	1.77	2.26	2.66	2.86	2.97	2.93
1.5	6.06	0.93	1.69	2.16	2.53	2.72	2.82	2.78
1.6	5.83	0.96	1.62	2.06	2.42	2.60	2.69	2.65
1.7	5.63	0.98	1.56	1.98	2.31	2.49	2.57	2.53
1.8	5.45	1.01	1.50	1.90	2.22	2.39	2.46	2.42
1.9	5.28	1.03	1.45	1.84	2.14	2.30	2.36	2.33
2.0	5.14	1.05	1.40	1.77	2.07	2.21	2.27	2.24
2.1	5.00	1.08	1.36	1.72	2.00	2.14	2.19	2.16
2.2	4.88	1.10	1.32	1.67	1.94	2.07	2.12	2.09
2.3	4.77	1.13	1.29	1.62	1.88	2.01	2.05	2.02
2.4	4.67	1.15	1.26	1.58	1.83	1.95	1.99	1.96
2.5	4.58	1.17	1.23	1.54	1.78	1.90	1.93	1.90
2.6	4.49	1.20	1.20	1.50	1.74	1.85	1.88	1.84
2.7	4.41	1.22	1.17	1.47	1.69	1.80	1.83	1.79
2.8	4.34	1.25	1.15	1.43	1.65	1.75	1.78	1.74
2.9	4.27	1.27	1.13	1.40	1.62	1.71	1.74	1.70
3.0	4.21	1.29	1.11	1.38	1.58	1.67	1.70	1.66

**Table H-222 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.66	0.82	3.27	4.19	4.94	5.35	5.60	5.53
0.8	6.99	0.86	2.96	3.79	4.47	4.82	5.03	4.97
0.9	6.48	0.90	2.73	3.48	4.09	4.41	4.59	4.53
1.0	6.06	0.93	2.54	3.23	3.79	4.08	4.23	4.17
1.1	5.73	0.97	2.38	3.03	3.54	3.81	3.94	3.88
1.2	5.45	1.01	2.25	2.85	3.34	3.58	3.69	3.63
1.3	5.21	1.04	2.14	2.71	3.16	3.38	3.48	3.42
1.4	5.00	1.08	2.04	2.58	3.00	3.21	3.29	3.24
1.5	4.83	1.11	1.96	2.47	2.87	3.06	3.13	3.08
1.6	4.67	1.15	1.89	2.37	2.75	2.93	2.99	2.93
1.7	4.53	1.19	1.82	2.28	2.64	2.81	2.86	2.81
1.8	4.41	1.22	1.76	2.20	2.54	2.70	2.74	2.69
1.9	4.30	1.26	1.71	2.13	2.45	2.60	2.64	2.58
2.0	4.21	1.29	1.66	2.06	2.37	2.51	2.54	2.48
2.1	4.12	1.33	1.62	2.00	2.30	2.43	2.46	2.39
2.2	4.04	1.37	1.58	1.95	2.23	2.35	2.37	2.31
2.3	3.96	1.40	1.54	1.90	2.17	2.28	2.30	2.24
2.4	3.90	1.44	1.51	1.85	2.11	2.21	2.23	2.16
2.5	3.84	1.48	1.48	1.80	2.05	2.15	2.16	2.10
2.6	3.78	1.51	1.45	1.76	2.00	2.09	2.10	2.04
2.7	3.73	1.55	1.42	1.72	1.95	2.03	2.04	1.98
2.8	3.68	1.58	1.39	1.69	1.90	1.98	1.99	1.92
2.9	3.63	1.62	1.37	1.65	1.86	1.93	1.93	1.87
3.0	3.59	1.66	1.35	1.62	1.81	1.88	1.88	1.82

**Table H-223 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	10.31	0.74	0.8%	0.4%	0.3%	0.4%	0.3%	0.3%
0.8	9.31	0.76	1.4%	0.7%	0.5%	0.7%	0.5%	0.5%
0.9	8.54	0.79	2.3%	1.1%	0.9%	1.0%	0.8%	0.9%
1.0	7.92	0.81	3.5%	1.7%	1.3%	1.5%	1.2%	1.3%
1.1	7.41	0.84	4.9%	2.4%	1.8%	2.0%	1.6%	1.7%
1.2	6.99	0.86	6.5%	3.2%	2.4%	2.6%	2.2%	2.3%
1.3	6.64	0.88	8.3%	4.1%	3.0%	3.2%	2.8%	2.9%
1.4	6.33	0.91	10.2%	5.1%	3.8%	4.0%	3.5%	3.6%
1.5	6.06	0.93	12.1%	6.2%	4.6%	4.8%	4.2%	4.4%
1.6	5.83	0.96	14.2%	7.4%	5.4%	5.6%	5.0%	5.2%
1.7	5.63	0.98	16.3%	8.6%	6.4%	6.5%	5.8%	6.1%
1.8	5.45	1.01	18.4%	9.9%	7.3%	7.4%	6.7%	7.0%
1.9	5.28	1.03	20.5%	11.2%	8.3%	8.3%	7.6%	8.0%
2.0	5.14	1.05	22.6%	12.6%	9.3%	9.3%	8.5%	9.0%
2.1	5.00	1.08	24.6%	13.9%	10.4%	10.2%	9.5%	10.0%
2.2	4.88	1.10	26.6%	15.3%	11.4%	11.2%	10.5%	11.0%
2.3	4.77	1.13	28.6%	16.7%	12.5%	12.3%	11.5%	12.1%
2.4	4.67	1.15	30.6%	18.1%	13.6%	13.3%	12.5%	13.2%
2.5	4.58	1.17	32.4%	19.4%	14.7%	14.3%	13.6%	14.3%
2.6	4.49	1.20	34.3%	20.8%	15.8%	15.4%	14.6%	15.4%
2.7	4.41	1.22	36.0%	22.2%	16.9%	16.4%	15.7%	16.4%
2.8	4.34	1.25	37.7%	23.5%	18.0%	17.5%	16.8%	17.4%
2.9	4.27	1.27	39.4%	24.9%	19.1%	18.5%	17.9%	18.5%
3.0	4.21	1.29	41.0%	26.2%	20.2%	19.6%	18.9%	19.6%

**Table H-224 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.66	0.82	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
0.8	6.99	0.86	0.3%	0.2%	0.1%	0.2%	0.2%	0.2%
0.9	6.48	0.90	0.6%	0.3%	0.2%	0.3%	0.3%	0.3%
1.0	6.06	0.93	1.0%	0.5%	0.4%	0.5%	0.4%	0.5%
1.1	5.73	0.97	1.5%	0.7%	0.6%	0.8%	0.6%	0.7%
1.2	5.45	1.01	2.1%	1.0%	0.8%	1.0%	0.9%	0.9%
1.3	5.21	1.04	2.9%	1.3%	1.1%	1.3%	1.2%	1.3%
1.4	5.00	1.08	3.7%	1.8%	1.4%	1.7%	1.5%	1.6%
1.5	4.83	1.11	4.6%	2.2%	1.8%	2.1%	1.9%	2.0%
1.6	4.67	1.15	5.6%	2.8%	2.2%	2.5%	2.3%	2.5%
1.7	4.53	1.19	6.7%	3.4%	2.6%	3.0%	2.8%	3.0%
1.8	4.41	1.22	7.8%	4.0%	3.1%	3.6%	3.3%	3.5%
1.9	4.30	1.26	9.0%	4.7%	3.6%	4.1%	3.9%	4.0%
2.0	4.21	1.29	10.2%	5.4%	4.2%	4.7%	4.5%	4.6%
2.1	4.12	1.33	11.4%	6.1%	4.8%	5.4%	5.1%	5.1%
2.2	4.04	1.37	12.7%	6.9%	5.4%	6.0%	5.8%	5.7%
2.3	3.96	1.40	14.0%	7.7%	6.1%	6.7%	6.5%	6.4%
2.4	3.90	1.44	15.2%	8.6%	6.8%	7.5%	7.3%	7.1%
2.5	3.84	1.48	16.5%	9.5%	7.6%	8.2%	8.1%	7.8%
2.6	3.78	1.51	17.8%	10.4%	8.3%	9.0%	8.9%	8.5%
2.7	3.73	1.55	19.1%	11.3%	9.1%	9.9%	9.7%	9.2%
2.8	3.68	1.58	20.4%	12.3%	9.9%	10.7%	10.6%	10.0%
2.9	3.63	1.62	21.6%	13.3%	10.8%	11.6%	11.5%	10.9%
3.0	3.59	1.66	22.9%	14.3%	11.7%	12.5%	12.5%	11.7%



**Table H-225** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\bar{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\bar{DR}_{IC}$	$\bar{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\bar{DR}_{IC}$		
0.7	0.52	1.34	1.56	1.73	1.86	1.98	1.96	13.36%	
0.8	0.54	1.39	1.62	1.79	1.92	2.05	2.02	13.15%	
0.9	0.56	1.44	1.67	1.85	1.99	2.11	2.09	12.94%	
1.0	0.59	1.49	1.73	1.92	2.05	2.18	2.15	12.74%	
1.1	0.61	1.53	1.78	1.98	2.12	2.24	2.21	12.54%	
1.2	0.64	1.58	1.84	2.04	2.18	2.30	2.26	12.34%	
1.3	0.66	1.63	1.89	2.10	2.24	2.36	2.32	12.14%	
1.4	0.69	1.67	1.95	2.16	2.31	2.42	2.38	11.95%	
1.5	0.71	1.72	2.00	2.22	2.37	2.47	2.43	11.76%	
1.6	0.73	1.76	2.05	2.27	2.43	2.53	2.49	11.57%	
1.7	0.76	1.81	2.10	2.33	2.48	2.59	2.54	11.39%	
1.8	0.78	1.85	2.16	2.38	2.54	2.64	2.59	11.21%	
1.9	0.81	1.90	2.21	2.44	2.60	2.69	2.64	11.03%	
2.0	0.83	1.94	2.26	2.49	2.65	2.75	2.69	10.86%	
2.1	0.85	1.99	2.31	2.55	2.71	2.80	2.74	10.69%	
2.2	0.88	2.03	2.36	2.60	2.76	2.85	2.78	10.52%	
2.3	0.90	2.07	2.41	2.65	2.81	2.90	2.83	10.35%	
2.4	0.93	2.12	2.45	2.70	2.87	2.95	2.87	10.19%	
2.5	0.95	2.16	2.50	2.75	2.92	2.99	2.92	10.03%	
2.6	0.97	2.20	2.55	2.80	2.97	3.04	2.96	9.87%	
2.7	1.00	2.24	2.59	2.85	3.01	3.08	3.00	9.71%	
2.8	1.02	2.28	2.64	2.90	3.06	3.13	3.04	9.56%	
2.9	1.05	2.32	2.69	2.95	3.11	3.17	3.08	9.41%	
3.0	1.07	2.37	2.73	2.99	3.15	3.22	3.12	9.26%	

**Table H-226** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ) evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.60	1.51	1.76	1.95	2.09	2.21	2.18	12.64%	
0.8	0.64	1.58	1.84	2.04	2.18	2.30	2.26	12.34%	
0.9	0.67	1.65	1.92	2.13	2.28	2.39	2.35	12.05%	
1.0	0.71	1.72	2.00	2.22	2.37	2.47	2.43	11.76%	
1.1	0.75	1.79	2.08	2.30	2.45	2.56	2.51	11.48%	
1.2	0.78	1.85	2.16	2.38	2.54	2.64	2.59	11.21%	
1.3	0.82	1.92	2.23	2.47	2.63	2.72	2.67	10.95%	
1.4	0.85	1.99	2.31	2.55	2.71	2.80	2.74	10.69%	
1.5	0.89	2.05	2.38	2.63	2.79	2.87	2.81	10.43%	
1.6	0.93	2.12	2.45	2.70	2.87	2.95	2.87	10.19%	
1.7	0.96	2.18	2.52	2.78	2.94	3.02	2.94	9.95%	
1.8	1.00	2.24	2.59	2.85	3.01	3.08	3.00	9.71%	
1.9	1.03	2.30	2.66	2.92	3.09	3.15	3.06	9.48%	
2.0	1.07	2.37	2.73	2.99	3.15	3.22	3.12	9.26%	
2.1	1.11	2.43	2.80	3.06	3.22	3.28	3.17	9.04%	
2.2	1.14	2.49	2.86	3.13	3.29	3.34	3.23	8.82%	
2.3	1.18	2.55	2.92	3.19	3.35	3.40	3.28	8.61%	
2.4	1.22	2.60	2.99	3.25	3.41	3.45	3.32	8.41%	
2.5	1.25	2.66	3.05	3.32	3.47	3.51	3.37	8.21%	
2.6	1.29	2.72	3.11	3.37	3.52	3.56	3.42	8.02%	
2.7	1.32	2.77	3.16	3.43	3.58	3.61	3.46	7.83%	
2.8	1.36	2.83	3.22	3.49	3.63	3.65	3.50	7.64%	
2.9	1.40	2.88	3.28	3.54	3.68	3.70	3.54	7.46%	
3.0	1.43	2.94	3.33	3.59	3.73	3.74	3.58	7.29%	

**Table H-227 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.19	0.52	2.34	3.00	3.56	3.87	4.14	4.09
0.8	6.59	0.54	2.12	2.73	3.23	3.51	3.74	3.69
0.9	6.12	0.56	1.95	2.51	2.97	3.23	3.43	3.38
1.0	5.74	0.59	1.81	2.33	2.76	3.00	3.18	3.13
1.1	5.43	0.61	1.70	2.19	2.59	2.81	2.97	2.93
1.2	5.18	0.64	1.61	2.07	2.45	2.65	2.80	2.76
1.3	4.96	0.66	1.53	1.97	2.32	2.52	2.65	2.61
1.4	4.77	0.69	1.46	1.88	2.22	2.40	2.52	2.48
1.5	4.61	0.71	1.40	1.80	2.13	2.30	2.41	2.37
1.6	4.47	0.73	1.35	1.73	2.05	2.21	2.31	2.27
1.7	4.34	0.76	1.30	1.67	1.97	2.13	2.22	2.18
1.8	4.23	0.78	1.26	1.62	1.91	2.06	2.14	2.10
1.9	4.13	0.81	1.22	1.57	1.85	2.00	2.07	2.03
2.0	4.05	0.83	1.19	1.52	1.80	1.94	2.00	1.96
2.1	3.96	0.85	1.15	1.48	1.75	1.88	1.94	1.90
2.2	3.89	0.88	1.13	1.45	1.70	1.83	1.89	1.85
2.3	3.82	0.90	1.10	1.41	1.66	1.79	1.84	1.80
2.4	3.76	0.93	1.08	1.38	1.62	1.74	1.79	1.75
2.5	3.71	0.95	1.05	1.35	1.59	1.70	1.75	1.70
2.6	3.65	0.97	1.03	1.32	1.55	1.67	1.71	1.66
2.7	3.61	1.00	1.01	1.30	1.52	1.63	1.67	1.62
2.8	3.56	1.02	1.00	1.27	1.49	1.60	1.63	1.58
2.9	3.52	1.05	0.98	1.25	1.46	1.57	1.60	1.55
3.0	3.48	1.07	0.96	1.23	1.44	1.54	1.56	1.51

**Table H-228 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.58	0.60	2.63	3.39	4.01	4.35	4.60	4.54
0.8	5.18	0.64	2.41	3.10	3.67	3.98	4.20	4.13
0.9	4.86	0.67	2.24	2.88	3.40	3.69	3.87	3.81
1.0	4.61	0.71	2.10	2.70	3.19	3.45	3.61	3.55
1.1	4.41	0.75	1.98	2.55	3.01	3.26	3.39	3.34
1.2	4.23	0.78	1.89	2.43	2.86	3.09	3.21	3.15
1.3	4.09	0.82	1.80	2.32	2.73	2.95	3.05	2.99
1.4	3.96	0.85	1.73	2.22	2.62	2.82	2.92	2.85
1.5	3.86	0.89	1.67	2.14	2.52	2.71	2.80	2.73
1.6	3.76	0.93	1.61	2.07	2.43	2.61	2.69	2.62
1.7	3.68	0.96	1.56	2.00	2.35	2.53	2.59	2.52
1.8	3.61	1.00	1.52	1.95	2.28	2.45	2.50	2.43
1.9	3.54	1.03	1.48	1.89	2.22	2.37	2.42	2.34
2.0	3.48	1.07	1.44	1.84	2.15	2.30	2.35	2.27
2.1	3.43	1.11	1.41	1.80	2.10	2.24	2.28	2.19
2.2	3.38	1.14	1.38	1.76	2.05	2.18	2.22	2.13
2.3	3.33	1.18	1.35	1.72	2.00	2.13	2.16	2.06
2.4	3.29	1.22	1.32	1.68	1.95	2.07	2.10	2.00
2.5	3.25	1.25	1.30	1.65	1.91	2.03	2.05	1.95
2.6	3.22	1.29	1.28	1.61	1.87	1.98	2.00	1.90
2.7	3.19	1.32	1.25	1.58	1.83	1.93	1.95	1.85
2.8	3.16	1.36	1.23	1.55	1.79	1.89	1.91	1.80
2.9	3.13	1.40	1.21	1.53	1.76	1.85	1.86	1.76
3.0	3.10	1.43	1.19	1.50	1.73	1.81	1.82	1.71

**Table H-229 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	7.19	0.52	2.9%	1.4%	1.1%	1.2%	0.9%	0.9%
0.8	6.59	0.54	4.7%	2.2%	1.7%	1.8%	1.4%	1.5%
0.9	6.12	0.56	6.9%	3.3%	2.4%	2.5%	2.0%	2.1%
1.0	5.74	0.59	9.3%	4.5%	3.2%	3.4%	2.7%	2.8%
1.1	5.43	0.61	11.9%	5.9%	4.2%	4.2%	3.5%	3.7%
1.2	5.18	0.64	14.6%	7.3%	5.2%	5.2%	4.3%	4.6%
1.3	4.96	0.66	17.3%	8.8%	6.3%	6.2%	5.2%	5.5%
1.4	4.77	0.69	20.1%	10.4%	7.4%	7.2%	6.2%	6.5%
1.5	4.61	0.71	22.8%	12.0%	8.5%	8.2%	7.2%	7.5%
1.6	4.47	0.73	25.5%	13.6%	9.7%	9.3%	8.2%	8.6%
1.7	4.34	0.76	28.1%	15.2%	10.8%	10.3%	9.2%	9.7%
1.8	4.23	0.78	30.6%	16.8%	12.0%	11.4%	10.2%	10.8%
1.9	4.13	0.81	33.0%	18.4%	13.2%	12.5%	11.3%	11.9%
2.0	4.05	0.83	35.3%	20.0%	14.4%	13.5%	12.3%	13.0%
2.1	3.96	0.85	37.5%	21.5%	15.5%	14.6%	13.4%	14.2%
2.2	3.89	0.88	39.6%	23.0%	16.7%	15.6%	14.4%	15.3%
2.3	3.82	0.90	41.6%	24.5%	17.8%	16.7%	15.5%	16.5%
2.4	3.76	0.93	43.6%	26.0%	19.0%	17.7%	16.6%	17.6%
2.5	3.71	0.95	45.4%	27.4%	20.1%	18.7%	17.6%	18.7%
2.6	3.65	0.97	47.2%	28.8%	21.2%	19.8%	18.6%	19.8%
2.7	3.61	1.00	48.8%	30.1%	22.3%	20.8%	19.7%	20.8%
2.8	3.56	1.02	50.4%	31.5%	23.4%	21.8%	20.7%	21.9%
2.9	3.52	1.05	52.0%	32.8%	24.4%	22.8%	21.7%	23.0%
3.0	3.48	1.07	53.4%	34.0%	25.5%	23.7%	22.8%	24.0%

**Table H-230 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.58	0.60	0.8%	0.3%	0.3%	0.4%	0.3%	0.3%
0.8	5.18	0.64	1.4%	0.6%	0.5%	0.6%	0.5%	0.5%
0.9	4.86	0.67	2.2%	0.9%	0.7%	0.9%	0.7%	0.7%
1.0	4.61	0.71	3.2%	1.4%	1.0%	1.2%	1.0%	1.1%
1.1	4.41	0.75	4.4%	1.9%	1.4%	1.6%	1.3%	1.4%
1.2	4.23	0.78	5.6%	2.4%	1.8%	2.0%	1.7%	1.8%
1.3	4.09	0.82	7.0%	3.1%	2.2%	2.5%	2.1%	2.3%
1.4	3.96	0.85	8.5%	3.8%	2.7%	3.0%	2.6%	2.8%
1.5	3.86	0.89	10.0%	4.5%	3.2%	3.5%	3.1%	3.4%
1.6	3.76	0.93	11.6%	5.3%	3.8%	4.0%	3.6%	4.0%
1.7	3.68	0.96	13.2%	6.1%	4.3%	4.6%	4.2%	4.6%
1.8	3.61	1.00	14.8%	7.0%	5.0%	5.2%	4.8%	5.1%
1.9	3.54	1.03	16.4%	7.8%	5.6%	5.8%	5.4%	5.7%
2.0	3.48	1.07	18.0%	8.7%	6.2%	6.5%	6.0%	6.3%
2.1	3.43	1.11	19.5%	9.6%	6.9%	7.1%	6.7%	6.9%
2.2	3.38	1.14	21.1%	10.6%	7.6%	7.8%	7.4%	7.6%
2.3	3.33	1.18	22.7%	11.5%	8.3%	8.5%	8.1%	8.3%
2.4	3.29	1.22	24.2%	12.5%	9.0%	9.2%	8.9%	9.0%
2.5	3.25	1.25	25.7%	13.4%	9.8%	10.0%	9.6%	9.7%
2.6	3.22	1.29	27.2%	14.4%	10.5%	10.7%	10.4%	10.5%
2.7	3.19	1.32	28.6%	15.4%	11.3%	11.5%	11.2%	11.3%
2.8	3.16	1.36	30.0%	16.4%	12.1%	12.3%	12.1%	12.1%
2.9	3.13	1.40	31.4%	17.4%	12.9%	13.1%	12.9%	13.0%
3.0	3.10	1.43	32.8%	18.4%	13.8%	14.0%	13.8%	14.0%

**Table H-231** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\hat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ) evaluated using the near-field record set.

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\hat{DR}_{IC}$	$\hat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\hat{DR}_{IC}$		
0.7	0.42	1.18	1.35	1.47	1.56	1.62	1.61	12.34%	
0.8	0.44	1.22	1.40	1.53	1.62	1.68	1.66	12.09%	
0.9	0.47	1.26	1.44	1.58	1.68	1.73	1.72	11.85%	
1.0	0.49	1.30	1.49	1.64	1.74	1.79	1.77	11.62%	
1.1	0.52	1.34	1.54	1.69	1.79	1.85	1.83	11.39%	
1.2	0.54	1.38	1.59	1.75	1.85	1.91	1.88	11.17%	
1.3	0.56	1.42	1.64	1.80	1.91	1.97	1.93	10.95%	
1.4	0.59	1.46	1.69	1.85	1.97	2.02	1.99	10.73%	
1.5	0.61	1.50	1.73	1.91	2.02	2.08	2.04	10.52%	
1.6	0.64	1.54	1.78	1.96	2.08	2.13	2.09	10.31%	
1.7	0.66	1.58	1.83	2.01	2.13	2.19	2.14	10.11%	
1.8	0.68	1.62	1.88	2.07	2.19	2.24	2.19	9.91%	
1.9	0.71	1.66	1.93	2.12	2.24	2.30	2.23	9.71%	
2.0	0.73	1.70	1.97	2.17	2.30	2.35	2.28	9.52%	
2.1	0.76	1.74	2.02	2.23	2.35	2.40	2.33	9.34%	
2.2	0.78	1.79	2.07	2.28	2.41	2.45	2.37	9.15%	
2.3	0.80	1.83	2.12	2.33	2.46	2.51	2.42	8.97%	
2.4	0.83	1.87	2.17	2.38	2.51	2.56	2.46	8.79%	
2.5	0.85	1.91	2.22	2.43	2.56	2.61	2.50	8.62%	
2.6	0.88	1.95	2.26	2.48	2.62	2.66	2.55	8.45%	
2.7	0.90	2.00	2.31	2.54	2.67	2.71	2.59	8.28%	
2.8	0.92	2.04	2.36	2.59	2.72	2.76	2.63	8.12%	
2.9	0.95	2.08	2.41	2.64	2.77	2.81	2.67	7.96%	
3.0	0.97	2.12	2.46	2.69	2.82	2.86	2.71	7.80%	

**Table H-232** Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\widehat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.50	1.32	1.52	1.67	1.77	1.82	1.80	11.51%	
0.8	0.54	1.38	1.59	1.75	1.85	1.91	1.88	11.17%	
0.9	0.58	1.44	1.66	1.83	1.94	1.99	1.96	10.84%	
1.0	0.61	1.50	1.73	1.91	2.02	2.08	2.04	10.52%	
1.1	0.65	1.56	1.81	1.99	2.11	2.16	2.11	10.21%	
1.2	0.68	1.62	1.88	2.07	2.19	2.24	2.19	9.91%	
1.3	0.72	1.68	1.95	2.15	2.27	2.32	2.26	9.62%	
1.4	0.76	1.74	2.02	2.23	2.35	2.40	2.33	9.34%	
1.5	0.79	1.81	2.10	2.30	2.43	2.48	2.39	9.06%	
1.6	0.83	1.87	2.17	2.38	2.51	2.56	2.46	8.79%	
1.7	0.86	1.93	2.24	2.46	2.59	2.64	2.52	8.54%	
1.8	0.90	2.00	2.31	2.54	2.67	2.71	2.59	8.28%	
1.9	0.94	2.06	2.38	2.61	2.75	2.79	2.65	8.04%	
2.0	0.97	2.12	2.46	2.69	2.82	2.86	2.71	7.80%	
2.1	1.01	2.19	2.53	2.76	2.90	2.93	2.77	7.57%	
2.2	1.05	2.25	2.60	2.84	2.97	3.00	2.83	7.35%	
2.3	1.08	2.32	2.67	2.91	3.05	3.08	2.88	7.13%	
2.4	1.12	2.38	2.74	2.99	3.12	3.15	2.94	6.92%	
2.5	1.15	2.45	2.81	3.06	3.19	3.22	3.00	6.72%	
2.6	1.19	2.52	2.89	3.13	3.26	3.28	3.05	6.52%	
2.7	1.23	2.58	2.96	3.21	3.33	3.35	3.11	6.33%	
2.8	1.26	2.65	3.03	3.28	3.40	3.42	3.16	6.14%	
2.9	1.30	2.72	3.10	3.35	3.47	3.49	3.21	5.96%	
3.0	1.33	2.79	3.17	3.42	3.54	3.55	3.27	5.79%	



**Table H-233 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.83	0.42	2.06	2.60	3.03	3.25	3.37	3.35
0.8	5.40	0.44	1.86	2.36	2.75	2.96	3.06	3.03
0.9	5.06	0.47	1.71	2.17	2.53	2.72	2.81	2.79
1.0	4.79	0.49	1.59	2.02	2.36	2.53	2.62	2.59
1.1	4.57	0.52	1.49	1.89	2.22	2.38	2.46	2.43
1.2	4.38	0.54	1.40	1.79	2.10	2.25	2.32	2.29
1.3	4.23	0.56	1.33	1.70	1.99	2.14	2.21	2.17
1.4	4.09	0.59	1.27	1.63	1.91	2.05	2.11	2.07
1.5	3.98	0.61	1.22	1.56	1.83	1.97	2.02	1.98
1.6	3.87	0.64	1.17	1.50	1.77	1.90	1.95	1.90
1.7	3.78	0.66	1.13	1.45	1.71	1.83	1.88	1.84
1.8	3.70	0.68	1.10	1.41	1.65	1.77	1.82	1.77
1.9	3.63	0.71	1.07	1.37	1.61	1.72	1.76	1.71
2.0	3.57	0.73	1.04	1.33	1.56	1.68	1.71	1.66
2.1	3.51	0.76	1.01	1.30	1.53	1.64	1.67	1.61
2.2	3.46	0.78	0.99	1.27	1.49	1.60	1.63	1.57
2.3	3.41	0.80	0.97	1.24	1.46	1.56	1.59	1.52
2.4	3.37	0.83	0.95	1.22	1.43	1.53	1.56	1.49
2.5	3.33	0.85	0.93	1.20	1.40	1.50	1.52	1.45
2.6	3.29	0.88	0.92	1.18	1.38	1.47	1.49	1.42
2.7	3.25	0.90	0.90	1.16	1.35	1.44	1.47	1.39
2.8	3.22	0.92	0.89	1.14	1.33	1.42	1.44	1.36
2.9	3.19	0.95	0.88	1.12	1.31	1.40	1.41	1.33
3.0	3.16	0.97	0.86	1.10	1.29	1.37	1.39	1.30

**Table H-234 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.67	0.50	2.30	2.93	3.43	3.68	3.80	3.76
0.8	4.38	0.54	2.10	2.68	3.14	3.38	3.48	3.43
0.9	4.16	0.58	1.95	2.49	2.92	3.14	3.23	3.18
1.0	3.98	0.61	1.83	2.34	2.75	2.95	3.03	2.97
1.1	3.83	0.65	1.73	2.22	2.60	2.79	2.87	2.80
1.2	3.70	0.68	1.65	2.11	2.48	2.66	2.73	2.66
1.3	3.60	0.72	1.58	2.03	2.38	2.55	2.61	2.53
1.4	3.51	0.76	1.52	1.95	2.29	2.45	2.51	2.42
1.5	3.43	0.79	1.47	1.89	2.21	2.37	2.41	2.32
1.6	3.37	0.83	1.42	1.83	2.14	2.29	2.33	2.23
1.7	3.31	0.86	1.39	1.78	2.08	2.23	2.26	2.15
1.8	3.25	0.90	1.35	1.73	2.03	2.16	2.20	2.08
1.9	3.21	0.94	1.32	1.69	1.98	2.11	2.14	2.01
2.0	3.16	0.97	1.30	1.66	1.94	2.06	2.09	1.95
2.1	3.12	1.01	1.27	1.62	1.90	2.02	2.04	1.90
2.2	3.09	1.05	1.25	1.59	1.86	1.97	1.99	1.84
2.3	3.06	1.08	1.23	1.57	1.82	1.93	1.95	1.79
2.4	3.03	1.12	1.21	1.54	1.79	1.90	1.91	1.74
2.5	3.00	1.15	1.20	1.52	1.76	1.86	1.88	1.69
2.6	2.98	1.19	1.18	1.50	1.74	1.83	1.84	1.65
2.7	2.95	1.23	1.17	1.48	1.71	1.80	1.81	1.61
2.8	2.93	1.26	1.16	1.46	1.69	1.78	1.78	1.57
2.9	2.91	1.30	1.14	1.44	1.66	1.75	1.75	1.53
3.0	2.89	1.33	1.13	1.43	1.64	1.72	1.73	1.50

**Table H-235 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.83	0.42	5.4%	2.8%	2.2%	2.5%	2.1%	2.2%
0.8	5.40	0.44	8.3%	4.3%	3.3%	3.5%	3.1%	3.2%
0.9	5.06	0.47	11.7%	6.1%	4.5%	4.8%	4.2%	4.4%
1.0	4.79	0.49	15.3%	8.1%	5.9%	6.1%	5.4%	5.6%
1.1	4.57	0.52	19.0%	10.1%	7.4%	7.4%	6.7%	7.0%
1.2	4.38	0.54	22.6%	12.3%	8.9%	8.8%	8.0%	8.4%
1.3	4.23	0.56	26.2%	14.4%	10.5%	10.2%	9.4%	9.8%
1.4	4.09	0.59	29.7%	16.6%	12.0%	11.6%	10.7%	11.2%
1.5	3.98	0.61	33.0%	18.7%	13.5%	13.0%	12.0%	12.7%
1.6	3.87	0.64	36.1%	20.7%	15.1%	14.3%	13.4%	14.1%
1.7	3.78	0.66	39.0%	22.7%	16.6%	15.6%	14.7%	15.6%
1.8	3.70	0.68	41.8%	24.6%	18.0%	16.9%	15.9%	17.0%
1.9	3.63	0.71	44.3%	26.5%	19.4%	18.2%	17.2%	18.3%
2.0	3.57	0.73	46.7%	28.3%	20.8%	19.4%	18.4%	19.5%
2.1	3.51	0.76	48.9%	30.0%	22.1%	20.6%	19.6%	20.8%
2.2	3.46	0.78	50.9%	31.6%	23.4%	21.8%	20.8%	22.1%
2.3	3.41	0.80	52.8%	33.1%	24.6%	22.9%	21.9%	23.3%
2.4	3.37	0.83	54.6%	34.6%	25.8%	24.0%	23.0%	24.6%
2.5	3.33	0.85	56.2%	36.0%	27.0%	25.0%	24.1%	25.8%
2.6	3.29	0.88	57.7%	37.3%	28.1%	26.1%	25.2%	27.0%
2.7	3.25	0.90	59.1%	38.6%	29.2%	27.0%	26.2%	28.2%
2.8	3.22	0.92	60.4%	39.8%	30.2%	28.0%	27.2%	29.4%
2.9	3.19	0.95	61.6%	41.0%	31.2%	28.9%	28.2%	30.6%
3.0	3.16	0.97	62.8%	42.1%	32.2%	29.8%	29.1%	31.7%

**Table H-236 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.67	0.50	1.9%	0.9%	0.7%	0.9%	0.8%	0.8%
0.8	4.38	0.54	3.2%	1.4%	1.1%	1.3%	1.2%	1.2%
0.9	4.16	0.58	4.8%	2.1%	1.6%	1.9%	1.6%	1.8%
1.0	3.98	0.61	6.6%	2.9%	2.2%	2.5%	2.2%	2.4%
1.1	3.83	0.65	8.5%	3.8%	2.8%	3.1%	2.8%	3.0%
1.2	3.70	0.68	10.6%	4.8%	3.5%	3.7%	3.4%	3.7%
1.3	3.60	0.72	12.7%	5.8%	4.2%	4.4%	4.1%	4.4%
1.4	3.51	0.76	14.8%	6.9%	4.9%	5.1%	4.7%	5.0%
1.5	3.43	0.79	16.8%	7.9%	5.6%	5.9%	5.4%	5.7%
1.6	3.37	0.83	18.8%	9.0%	6.4%	6.6%	6.2%	6.4%
1.7	3.31	0.86	20.7%	10.0%	7.1%	7.3%	6.9%	7.1%
1.8	3.25	0.90	22.5%	11.1%	7.9%	8.0%	7.6%	7.8%
1.9	3.21	0.94	24.3%	12.1%	8.6%	8.7%	8.3%	8.5%
2.0	3.16	0.97	25.9%	13.1%	9.3%	9.4%	9.0%	9.3%
2.1	3.12	1.01	27.4%	14.0%	10.1%	10.1%	9.8%	10.0%
2.2	3.09	1.05	28.9%	15.0%	10.8%	10.8%	10.5%	10.9%
2.3	3.06	1.08	30.2%	15.9%	11.5%	11.5%	11.2%	11.9%
2.4	3.03	1.12	31.5%	16.8%	12.2%	12.2%	11.9%	12.9%
2.5	3.00	1.15	32.7%	17.6%	12.8%	12.9%	12.6%	13.9%
2.6	2.98	1.19	33.8%	18.4%	13.5%	13.5%	13.3%	14.9%
2.7	2.95	1.23	34.9%	19.2%	14.1%	14.2%	14.0%	15.9%
2.8	2.93	1.26	35.9%	20.0%	14.8%	14.8%	14.7%	17.0%
2.9	2.91	1.30	36.8%	20.7%	15.4%	15.5%	15.3%	18.1%
3.0	2.89	1.33	37.6%	21.4%	16.0%	16.1%	16.0%	19.2%

**Table H-237** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\hat{DR}_{IC}$ , Risk Category II ( $I_e = 1.0$ ) evaluated using the near-field record set.

$MCE_R S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\hat{DR}_{IC}$	$\hat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\hat{DR}_{IC}$		
0.7	0.36	1.13	1.27	1.38	1.45	1.51	1.49	12.27%	
0.8	0.39	1.18	1.33	1.45	1.53	1.60	1.58	12.12%	
0.9	0.41	1.23	1.39	1.52	1.62	1.68	1.66	11.97%	
1.0	0.44	1.28	1.46	1.60	1.69	1.77	1.74	11.83%	
1.1	0.46	1.32	1.52	1.67	1.77	1.85	1.82	11.68%	
1.2	0.48	1.37	1.58	1.74	1.85	1.93	1.89	11.53%	
1.3	0.51	1.42	1.64	1.81	1.92	2.01	1.97	11.39%	
1.4	0.53	1.47	1.70	1.87	2.00	2.08	2.04	11.25%	
1.5	0.56	1.51	1.76	1.94	2.07	2.16	2.11	11.11%	
1.6	0.58	1.56	1.81	2.00	2.14	2.23	2.17	10.97%	
1.7	0.60	1.61	1.87	2.07	2.21	2.30	2.24	10.84%	
1.8	0.63	1.65	1.92	2.13	2.27	2.36	2.30	10.71%	
1.9	0.65	1.70	1.98	2.19	2.34	2.43	2.36	10.57%	
2.0	0.68	1.74	2.03	2.25	2.40	2.49	2.42	10.44%	
2.1	0.70	1.79	2.09	2.31	2.46	2.56	2.48	10.31%	
2.2	0.73	1.83	2.14	2.37	2.52	2.62	2.53	10.19%	
2.3	0.75	1.88	2.19	2.43	2.58	2.67	2.59	10.06%	
2.4	0.77	1.92	2.24	2.48	2.64	2.73	2.64	9.94%	
2.5	0.80	1.96	2.29	2.54	2.70	2.78	2.69	9.81%	
2.6	0.82	2.00	2.34	2.59	2.75	2.84	2.74	9.69%	
2.7	0.85	2.05	2.39	2.64	2.80	2.89	2.78	9.57%	
2.8	0.87	2.09	2.43	2.69	2.86	2.93	2.83	9.45%	
2.9	0.89	2.13	2.48	2.74	2.91	2.98	2.87	9.34%	
3.0	0.92	2.17	2.53	2.79	2.95	3.03	2.91	9.22%	

**Table H-238** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype at discrete values of  $V_{max}/W$  and corresponding to increments of  $MCE_R S_{MT}$  from 0.70 g to 3.0 g. Values of  $\hat{S}_{CT}$  are selected at collapse drift ratios,  $DR = 2.5\%$ ,  $5.0\%$ ,  $7.5\%$ ,  $10\%$  and  $15\%$ , and at the median drift ratio of incipient collapse,  $\widehat{DR}_{IC}$ , Risk Category IV ( $I_e = 1.5$ ) evaluated using the near-field record set.

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$\widehat{DR}_{IC}$	$\widehat{DR}_{IC}$
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$		
0.7	0.45	1.30	1.49	1.63	1.73	1.81	1.78	11.75%	
0.8	0.48	1.37	1.58	1.74	1.85	1.93	1.89	11.53%	
0.9	0.52	1.44	1.67	1.84	1.96	2.05	2.00	11.32%	
1.0	0.56	1.51	1.76	1.94	2.07	2.16	2.11	11.11%	
1.1	0.59	1.58	1.84	2.04	2.17	2.26	2.21	10.91%	
1.2	0.63	1.65	1.92	2.13	2.27	2.36	2.30	10.71%	
1.3	0.67	1.72	2.01	2.22	2.37	2.46	2.39	10.51%	
1.4	0.70	1.79	2.09	2.31	2.46	2.56	2.48	10.31%	
1.5	0.74	1.85	2.16	2.40	2.55	2.64	2.56	10.12%	
1.6	0.77	1.92	2.24	2.48	2.64	2.73	2.64	9.94%	
1.7	0.81	1.98	2.31	2.56	2.72	2.81	2.71	9.75%	
1.8	0.85	2.05	2.39	2.64	2.80	2.89	2.78	9.57%	
1.9	0.88	2.11	2.46	2.72	2.88	2.96	2.85	9.39%	
2.0	0.92	2.17	2.53	2.79	2.95	3.03	2.91	9.22%	
2.1	0.95	2.23	2.59	2.86	3.02	3.09	2.97	9.05%	
2.2	0.99	2.29	2.66	2.93	3.09	3.15	3.03	8.88%	
2.3	1.03	2.35	2.72	2.99	3.15	3.21	3.08	8.72%	
2.4	1.06	2.41	2.78	3.05	3.21	3.26	3.13	8.56%	
2.5	1.10	2.46	2.84	3.11	3.27	3.31	3.18	8.40%	
2.6	1.14	2.52	2.90	3.17	3.32	3.36	3.22	8.24%	
2.7	1.17	2.57	2.96	3.22	3.37	3.40	3.27	8.09%	
2.8	1.21	2.63	3.01	3.27	3.41	3.44	3.30	7.94%	
2.9	1.24	2.68	3.06	3.32	3.45	3.47	3.34	7.80%	
3.0	1.28	2.73	3.11	3.36	3.49	3.51	3.38	7.65%	

**Table H-239 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models assuming Risk Category II ( $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.07	0.36	1.97	2.44	2.83	3.03	3.15	3.12
0.8	4.73	0.39	1.80	2.25	2.61	2.80	2.92	2.88
0.9	4.46	0.41	1.66	2.09	2.44	2.62	2.73	2.69
1.0	4.25	0.44	1.56	1.97	2.30	2.47	2.58	2.54
1.1	4.08	0.46	1.47	1.86	2.18	2.35	2.46	2.41
1.2	3.94	0.48	1.40	1.78	2.08	2.25	2.35	2.30
1.3	3.81	0.51	1.33	1.70	2.00	2.16	2.25	2.21
1.4	3.71	0.53	1.28	1.64	1.93	2.08	2.17	2.12
1.5	3.62	0.56	1.23	1.58	1.86	2.01	2.10	2.05
1.6	3.54	0.58	1.19	1.53	1.80	1.95	2.03	1.98
1.7	3.47	0.60	1.15	1.48	1.75	1.89	1.97	1.92
1.8	3.41	0.63	1.12	1.44	1.70	1.84	1.92	1.87
1.9	3.35	0.65	1.09	1.41	1.66	1.80	1.87	1.81
2.0	3.30	0.68	1.06	1.37	1.62	1.75	1.82	1.77
2.1	3.26	0.70	1.04	1.34	1.59	1.71	1.78	1.72
2.2	3.21	0.73	1.02	1.31	1.55	1.68	1.74	1.68
2.3	3.18	0.75	0.99	1.29	1.52	1.64	1.70	1.64
2.4	3.14	0.77	0.98	1.26	1.49	1.61	1.66	1.60
2.5	3.11	0.80	0.96	1.24	1.46	1.58	1.63	1.57
2.6	3.08	0.82	0.94	1.21	1.43	1.55	1.59	1.53
2.7	3.05	0.85	0.92	1.19	1.41	1.52	1.56	1.50
2.8	3.03	0.87	0.91	1.17	1.38	1.49	1.53	1.47
2.9	3.01	0.89	0.90	1.16	1.36	1.46	1.50	1.44
3.0	2.98	0.92	0.88	1.14	1.34	1.44	1.47	1.41

**Table H-240 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models assuming Risk Category IV ( $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.16	0.45	2.27	2.87	3.36	3.62	3.77	3.71
0.8	3.94	0.48	2.09	2.66	3.13	3.37	3.52	3.46
0.9	3.76	0.52	1.96	2.50	2.94	3.18	3.32	3.25
1.0	3.62	0.56	1.85	2.37	2.79	3.02	3.15	3.08
1.1	3.50	0.59	1.76	2.26	2.67	2.88	3.00	2.93
1.2	3.41	0.63	1.68	2.17	2.56	2.77	2.88	2.80
1.3	3.33	0.67	1.62	2.08	2.46	2.66	2.77	2.69
1.4	3.26	0.70	1.56	2.01	2.38	2.57	2.67	2.58
1.5	3.20	0.74	1.51	1.95	2.30	2.49	2.57	2.49
1.6	3.14	0.77	1.46	1.89	2.23	2.41	2.49	2.41
1.7	3.10	0.81	1.42	1.84	2.17	2.34	2.41	2.33
1.8	3.05	0.85	1.39	1.79	2.11	2.27	2.34	2.25
1.9	3.02	0.88	1.35	1.75	2.06	2.21	2.27	2.18
2.0	2.98	0.92	1.32	1.71	2.01	2.16	2.21	2.12
2.1	2.95	0.95	1.30	1.67	1.96	2.10	2.15	2.06
2.2	2.93	0.99	1.27	1.63	1.91	2.05	2.09	2.00
2.3	2.90	1.03	1.25	1.60	1.87	2.00	2.04	1.94
2.4	2.88	1.06	1.22	1.57	1.83	1.95	1.98	1.89
2.5	2.86	1.10	1.20	1.53	1.79	1.91	1.93	1.84
2.6	2.84	1.14	1.18	1.51	1.75	1.86	1.88	1.79
2.7	2.82	1.17	1.16	1.48	1.72	1.82	1.84	1.75
2.8	2.80	1.21	1.14	1.45	1.68	1.78	1.79	1.70
2.9	2.79	1.24	1.13	1.43	1.65	1.74	1.75	1.66
3.0	2.77	1.28	1.11	1.40	1.61	1.70	1.71	1.62



**Table H-241 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming Risk Category II seismic design (i.e.,  $R/I_e = 6.5/1.0$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at $DR$					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at $DR$					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.07	0.36	6.7%	3.7%	2.9%	3.2%	2.8%	2.9%
0.8	4.73	0.39	9.7%	5.3%	4.1%	4.3%	3.7%	3.9%
0.9	4.46	0.41	12.9%	7.0%	5.3%	5.4%	4.7%	4.9%
1.0	4.25	0.44	16.3%	8.8%	6.5%	6.6%	5.7%	6.0%
1.1	4.08	0.46	19.6%	10.7%	7.8%	7.7%	6.7%	7.1%
1.2	3.94	0.48	22.9%	12.5%	9.1%	8.8%	7.7%	8.2%
1.3	3.81	0.51	26.2%	14.4%	10.4%	10.0%	8.8%	9.3%
1.4	3.71	0.53	29.2%	16.2%	11.7%	11.1%	9.8%	10.5%
1.5	3.62	0.56	32.1%	18.0%	12.9%	12.2%	10.8%	11.6%
1.6	3.54	0.58	34.9%	19.8%	14.2%	13.3%	11.9%	12.7%
1.7	3.47	0.60	37.5%	21.5%	15.4%	14.3%	12.9%	13.8%
1.8	3.41	0.63	40.0%	23.1%	16.6%	15.4%	13.9%	14.9%
1.9	3.35	0.65	42.4%	24.8%	17.8%	16.4%	14.9%	16.0%
2.0	3.30	0.68	44.6%	26.3%	19.0%	17.5%	15.9%	17.1%
2.1	3.26	0.70	46.6%	27.9%	20.1%	18.5%	16.9%	18.2%
2.2	3.21	0.73	48.6%	29.3%	21.2%	19.5%	17.9%	19.3%
2.3	3.18	0.75	50.5%	30.8%	22.4%	20.5%	18.9%	20.4%
2.4	3.14	0.77	52.2%	32.2%	23.5%	21.5%	19.9%	21.5%
2.5	3.11	0.80	53.9%	33.5%	24.6%	22.4%	20.9%	22.5%
2.6	3.08	0.82	55.4%	34.9%	25.6%	23.4%	21.9%	23.6%
2.7	3.05	0.85	56.9%	36.2%	26.7%	24.4%	22.9%	24.6%
2.8	3.03	0.87	58.3%	37.4%	27.7%	25.3%	23.9%	25.7%
2.9	3.01	0.89	59.7%	38.7%	28.8%	26.3%	24.9%	26.7%
3.0	2.98	0.92	60.9%	39.9%	29.8%	27.3%	25.9%	27.8%

**Table H-242 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood archetype, assuming Risk Category IV seismic design (i.e.,  $R/I_e = 6.5/1.5$ ) evaluated using the near-field record set.**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.16	0.45	2.0%	1.0%	0.8%	1.0%	0.8%	0.9%
0.8	3.94	0.48	3.2%	1.5%	1.1%	1.4%	1.1%	1.2%
0.9	3.76	0.52	4.7%	2.1%	1.5%	1.8%	1.5%	1.6%
1.0	3.62	0.56	6.2%	2.8%	2.0%	2.2%	1.9%	2.1%
1.1	3.50	0.59	7.9%	3.5%	2.5%	2.7%	2.3%	2.5%
1.2	3.41	0.63	9.7%	4.3%	3.0%	3.2%	2.7%	3.1%
1.3	3.33	0.67	11.5%	5.1%	3.6%	3.8%	3.2%	3.6%
1.4	3.26	0.70	13.4%	6.0%	4.2%	4.3%	3.7%	4.2%
1.5	3.20	0.74	15.2%	6.9%	4.8%	4.9%	4.3%	4.8%
1.6	3.14	0.77	17.1%	7.8%	5.4%	5.5%	4.9%	5.5%
1.7	3.10	0.81	18.9%	8.8%	6.1%	6.1%	5.5%	6.1%
1.8	3.05	0.85	20.7%	9.8%	6.7%	6.8%	6.1%	6.7%
1.9	3.02	0.88	22.4%	10.8%	7.4%	7.4%	6.8%	7.3%
2.0	2.98	0.92	24.2%	11.8%	8.2%	8.1%	7.5%	8.0%
2.1	2.95	0.95	25.9%	12.8%	8.9%	8.8%	8.2%	8.7%
2.2	2.93	0.99	27.5%	13.8%	9.7%	9.6%	9.0%	9.5%
2.3	2.90	1.03	29.1%	14.9%	10.5%	10.4%	9.8%	10.3%
2.4	2.88	1.06	30.7%	16.0%	11.3%	11.2%	10.7%	11.1%
2.5	2.86	1.10	32.3%	17.0%	12.2%	12.0%	11.5%	11.9%
2.6	2.84	1.14	33.8%	18.2%	13.1%	12.9%	12.5%	12.8%
2.7	2.82	1.17	35.3%	19.3%	14.0%	13.8%	13.4%	13.8%
2.8	2.80	1.21	36.8%	20.4%	14.9%	14.8%	14.4%	14.8%
2.9	2.79	1.24	38.2%	21.6%	15.9%	15.7%	15.5%	15.8%
3.0	2.77	1.28	39.6%	22.7%	16.9%	16.8%	16.6%	16.8%

**Table H-243** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.65	2.94	3.29	3.54	3.69	3.74	3.55	7.63%
0.8	1.66	2.95	3.30	3.55	3.70	3.76	3.56	7.59%
0.9	1.66	2.96	3.31	3.56	3.71	3.77	3.57	7.56%
1.0	1.67	2.97	3.32	3.58	3.73	3.78	3.58	7.53%
1.1	1.68	2.98	3.34	3.59	3.74	3.79	3.59	7.50%
1.2	1.68	2.99	3.35	3.60	3.75	3.80	3.60	7.47%
1.3	1.69	3.00	3.36	3.61	3.76	3.81	3.61	7.43%
1.4	1.70	3.02	3.37	3.62	3.77	3.82	3.62	7.40%
1.5	1.70	3.03	3.38	3.64	3.79	3.83	3.63	7.37%
1.6	1.71	3.04	3.40	3.65	3.80	3.84	3.64	7.34%
1.7	1.72	3.05	3.41	3.66	3.81	3.85	3.65	7.31%
1.8	1.72	3.06	3.42	3.67	3.82	3.87	3.66	7.28%
1.9	1.73	3.07	3.43	3.69	3.83	3.88	3.66	7.25%
2.0	1.74	3.08	3.44	3.70	3.85	3.89	3.67	7.22%
2.1	1.74	3.09	3.45	3.71	3.86	3.90	3.68	7.19%
2.2	1.75	3.10	3.47	3.72	3.87	3.91	3.69	7.16%
2.3	1.76	3.11	3.48	3.73	3.88	3.92	3.70	7.13%
2.4	1.77	3.12	3.49	3.75	3.89	3.93	3.71	7.10%
2.5	1.77	3.13	3.50	3.76	3.90	3.94	3.72	7.07%
2.6	1.78	3.14	3.51	3.77	3.92	3.95	3.73	7.04%
2.7	1.79	3.15	3.52	3.78	3.93	3.96	3.74	7.01%
2.8	1.79	3.16	3.53	3.79	3.94	3.97	3.75	6.98%
2.9	1.80	3.17	3.55	3.80	3.95	3.98	3.76	6.95%
3.0	1.81	3.19	3.56	3.82	3.96	3.99	3.77	6.92%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 22.7$

**Table H-244 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 1-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	1.67	2.98	3.33	3.58	3.73	3.78	3.58	7.51%
0.8	1.68	2.99	3.35	3.60	3.75	3.80	3.60	7.47%
0.9	1.69	3.01	3.37	3.62	3.77	3.82	3.61	7.42%
1.0	1.70	3.03	3.38	3.64	3.79	3.83	3.63	7.37%
1.1	1.71	3.04	3.40	3.66	3.80	3.85	3.64	7.33%
1.2	1.72	3.06	3.42	3.67	3.82	3.87	3.66	7.28%
1.3	1.73	3.07	3.44	3.69	3.84	3.88	3.67	7.23%
1.4	1.74	3.09	3.45	3.71	3.86	3.90	3.68	7.19%
1.5	1.76	3.11	3.47	3.73	3.87	3.91	3.70	7.14%
1.6	1.77	3.12	3.49	3.75	3.89	3.93	3.71	7.10%
1.7	1.78	3.14	3.51	3.76	3.91	3.95	3.73	7.05%
1.8	1.79	3.15	3.52	3.78	3.93	3.96	3.74	7.01%
1.9	1.80	3.17	3.54	3.80	3.94	3.98	3.75	6.96%
2.0	1.81	3.19	3.56	3.82	3.96	3.99	3.77	6.92%
2.1	1.82	3.20	3.58	3.83	3.98	4.01	3.78	6.88%
2.2	1.83	3.22	3.59	3.85	3.99	4.03	3.79	6.83%
2.3	1.84	3.23	3.61	3.87	4.01	4.04	3.81	6.79%
2.4	1.85	3.25	3.63	3.89	4.03	4.06	3.82	6.75%
2.5	1.86	3.26	3.64	3.90	4.05	4.07	3.83	6.70%
2.6	1.87	3.28	3.66	3.92	4.06	4.09	3.85	6.66%
2.7	1.88	3.29	3.68	3.94	4.08	4.10	3.86	6.62%
2.8	1.89	3.31	3.69	3.96	4.09	4.12	3.87	6.58%
2.9	1.90	3.33	3.71	3.97	4.11	4.14	3.89	6.54%
3.0	1.91	3.34	3.73	3.99	4.13	4.15	3.90	6.50%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 15.2

**Table H-245 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|SMT] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	80.27	1.65	5.12	6.34	7.28	7.70	7.81	7.30
0.8	70.53	1.66	4.50	5.57	6.39	6.76	6.85	6.41
0.9	62.96	1.66	4.01	4.97	5.70	6.03	6.11	5.71
1.0	56.90	1.67	3.63	4.49	5.15	5.44	5.52	5.15
1.1	51.94	1.68	3.31	4.09	4.70	4.96	5.03	4.70
1.2	47.80	1.68	3.04	3.77	4.32	4.56	4.62	4.31
1.3	44.31	1.69	2.82	3.49	4.00	4.23	4.28	3.99
1.4	41.31	1.70	2.63	3.25	3.73	3.94	3.99	3.71
1.5	38.71	1.70	2.46	3.04	3.49	3.69	3.73	3.47
1.6	36.44	1.71	2.32	2.86	3.28	3.47	3.51	3.26
1.7	34.44	1.72	2.19	2.71	3.10	3.27	3.31	3.07
1.8	32.65	1.72	2.07	2.56	2.94	3.10	3.14	2.91
1.9	31.06	1.73	1.97	2.44	2.79	2.95	2.98	2.76
2.0	29.62	1.74	1.88	2.32	2.66	2.81	2.84	2.63
2.1	28.32	1.74	1.80	2.22	2.54	2.68	2.71	2.51
2.2	27.14	1.75	1.72	2.13	2.44	2.57	2.59	2.40
2.3	26.07	1.76	1.65	2.04	2.34	2.46	2.49	2.30
2.4	25.08	1.77	1.59	1.96	2.25	2.37	2.39	2.20
2.5	24.17	1.77	1.53	1.89	2.16	2.28	2.30	2.12
2.6	23.33	1.78	1.47	1.82	2.09	2.20	2.22	2.04
2.7	22.55	1.79	1.43	1.76	2.02	2.12	2.14	1.97
2.8	21.83	1.79	1.38	1.70	1.95	2.05	2.07	1.90
2.9	21.16	1.80	1.34	1.65	1.89	1.99	2.01	1.84
3.0	20.53	1.81	1.30	1.60	1.83	1.93	1.94	1.78

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-246 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 1-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 15.2$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	54.30	1.67	5.19	6.42	7.37	7.79	7.89	7.37
0.8	47.80	1.68	4.57	5.65	6.48	6.84	6.93	6.47
0.9	42.75	1.69	4.08	5.05	5.79	6.11	6.19	5.77
1.0	38.71	1.70	3.69	4.57	5.24	5.53	5.60	5.21
1.1	35.41	1.71	3.37	4.17	4.78	5.05	5.11	4.75
1.2	32.65	1.72	3.11	3.85	4.41	4.65	4.70	4.36
1.3	30.32	1.73	2.89	3.57	4.09	4.31	4.36	4.04
1.4	28.32	1.74	2.69	3.33	3.82	4.02	4.07	3.76
1.5	26.59	1.76	2.53	3.12	3.58	3.77	3.81	3.52
1.6	25.08	1.77	2.38	2.94	3.37	3.55	3.59	3.31
1.7	23.74	1.78	2.25	2.78	3.19	3.36	3.39	3.12
1.8	22.55	1.79	2.14	2.64	3.02	3.19	3.21	2.95
1.9	21.49	1.80	2.04	2.52	2.88	3.03	3.06	2.81
2.0	20.53	1.81	1.94	2.40	2.75	2.89	2.92	2.67
2.1	19.67	1.82	1.86	2.30	2.63	2.77	2.79	2.55
2.2	18.88	1.83	1.78	2.20	2.52	2.65	2.67	2.44
2.3	18.16	1.84	1.71	2.12	2.42	2.55	2.57	2.34
2.4	17.50	1.85	1.65	2.04	2.33	2.45	2.47	2.25
2.5	16.90	1.86	1.59	1.97	2.25	2.36	2.38	2.16
2.6	16.34	1.87	1.54	1.90	2.17	2.28	2.30	2.09
2.7	15.82	1.88	1.49	1.84	2.10	2.21	2.22	2.01
2.8	15.34	1.89	1.44	1.78	2.03	2.13	2.15	1.95
2.9	14.89	1.90	1.40	1.73	1.97	2.07	2.08	1.88
3.0	14.47	1.91	1.36	1.68	1.91	2.01	2.02	1.82

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-247 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	80.27	1.65	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	70.53	1.66	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
0.9	62.96	1.66	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
1.0	56.90	1.67	0.2%	0.1%	0.1%	0.2%	0.2%	0.1%
1.1	51.94	1.68	0.4%	0.2%	0.2%	0.4%	0.4%	0.2%
1.2	47.80	1.68	0.7%	0.4%	0.4%	0.6%	0.5%	0.4%
1.3	44.31	1.69	1.1%	0.6%	0.6%	0.8%	0.8%	0.6%
1.4	41.31	1.70	1.6%	0.9%	0.8%	1.1%	1.1%	0.8%
1.5	38.71	1.70	2.3%	1.3%	1.2%	1.5%	1.4%	1.2%
1.6	36.44	1.71	3.1%	1.8%	1.5%	1.9%	1.8%	1.5%
1.7	34.44	1.72	4.1%	2.3%	2.0%	2.4%	2.3%	2.0%
1.8	32.65	1.72	5.3%	3.0%	2.5%	3.0%	2.8%	2.5%
1.9	31.06	1.73	6.6%	3.7%	3.1%	3.6%	3.4%	3.1%
2.0	29.62	1.74	8.1%	4.6%	3.8%	4.3%	4.1%	3.8%
2.1	28.32	1.74	9.7%	5.5%	4.5%	5.0%	4.8%	4.6%
2.2	27.14	1.75	11.4%	6.6%	5.3%	5.8%	5.6%	5.4%
2.3	26.07	1.76	13.3%	7.7%	6.1%	6.6%	6.4%	6.3%
2.4	25.08	1.77	15.2%	8.9%	7.0%	7.5%	7.3%	7.2%
2.5	24.17	1.77	17.3%	10.1%	8.0%	8.5%	8.2%	8.3%
2.6	23.33	1.78	19.4%	11.5%	9.0%	9.5%	9.2%	9.3%
2.7	22.55	1.79	21.6%	12.9%	10.1%	10.5%	10.2%	10.5%
2.8	21.83	1.79	23.8%	14.3%	11.2%	11.5%	11.2%	11.7%
2.9	21.16	1.80	26.0%	15.8%	12.4%	12.6%	12.3%	12.9%
3.0	20.53	1.81	28.3%	17.3%	13.6%	13.7%	13.4%	14.2%

Note:  $SDC D_{max} S_{MT} = 1.5g$ , hypothetical values of  $R/I_e$  complying with target reliability criteria could not be determined from the collapse surface for this archetype.

**Table H-248 Values of the  $MCE_R$  collapse probability for the 1-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 15.5$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	54.30	1.67	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.8	47.80	1.68	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.9	42.75	1.69	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1.0	38.71	1.70	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%
1.1	35.41	1.71	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%
1.2	32.65	1.72	0.2%	0.1%	0.2%	0.3%	0.2%	0.1%
1.3	30.32	1.73	0.4%	0.2%	0.2%	0.4%	0.4%	0.2%
1.4	28.32	1.74	0.7%	0.4%	0.4%	0.6%	0.5%	0.4%
1.5	26.59	1.76	1.0%	0.6%	0.5%	0.8%	0.8%	0.5%
1.6	25.08	1.77	1.5%	0.8%	0.8%	1.1%	1.0%	0.8%
1.7	23.74	1.78	2.1%	1.1%	1.0%	1.4%	1.3%	1.0%
1.8	22.55	1.79	2.9%	1.5%	1.3%	1.8%	1.7%	1.4%
1.9	21.49	1.80	3.8%	2.0%	1.7%	2.2%	2.1%	1.7%
2.0	20.53	1.81	4.8%	2.6%	2.2%	2.7%	2.6%	2.2%
2.1	19.67	1.82	6.0%	3.2%	2.7%	3.2%	3.1%	2.7%
2.2	18.88	1.83	7.4%	4.0%	3.2%	3.8%	3.7%	3.3%
2.3	18.16	1.84	8.9%	4.8%	3.8%	4.5%	4.3%	4.0%
2.4	17.50	1.85	10.5%	5.7%	4.5%	5.2%	5.0%	4.7%
2.5	16.90	1.86	12.2%	6.6%	5.3%	5.9%	5.8%	5.5%
2.6	16.34	1.87	14.1%	7.7%	6.0%	6.7%	6.5%	6.4%
2.7	15.82	1.88	16.0%	8.8%	6.9%	7.5%	7.4%	7.3%
2.8	15.34	1.89	18.0%	10.0%	7.8%	8.4%	8.2%	8.3%
2.9	14.89	1.90	20.1%	11.2%	8.7%	9.3%	9.1%	9.4%
3.0	14.47	1.91	22.2%	12.5%	9.7%	10.2%	10.1%	10.5%

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-249** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.62	1.47	1.72	1.92	2.07	2.23	2.21	13.71%
0.8	0.63	1.49	1.74	1.94	2.09	2.24	2.22	13.66%
0.9	0.63	1.50	1.75	1.95	2.11	2.26	2.24	13.61%
1.0	0.64	1.52	1.77	1.97	2.12	2.28	2.25	13.56%
1.1	0.65	1.53	1.78	1.99	2.14	2.29	2.27	13.51%
1.2	0.65	1.54	1.80	2.00	2.16	2.31	2.29	13.45%
1.3	0.66	1.56	1.82	2.02	2.18	2.33	2.30	13.40%
1.4	0.67	1.57	1.83	2.04	2.19	2.34	2.32	13.35%
1.5	0.67	1.58	1.85	2.06	2.21	2.36	2.33	13.30%
1.6	0.68	1.60	1.86	2.07	2.23	2.37	2.35	13.25%
1.7	0.69	1.61	1.88	2.09	2.24	2.39	2.36	13.20%
1.8	0.70	1.62	1.89	2.10	2.26	2.41	2.38	13.15%
1.9	0.70	1.64	1.91	2.12	2.28	2.42	2.39	13.10%
2.0	0.71	1.65	1.92	2.14	2.29	2.44	2.41	13.05%
2.1	0.72	1.67	1.94	2.15	2.31	2.45	2.42	13.00%
2.2	0.72	1.68	1.95	2.17	2.33	2.47	2.44	12.95%
2.3	0.73	1.69	1.97	2.19	2.34	2.48	2.45	12.90%
2.4	0.74	1.71	1.98	2.20	2.36	2.50	2.47	12.85%
2.5	0.74	1.72	2.00	2.22	2.38	2.51	2.48	12.80%
2.6	0.75	1.73	2.01	2.23	2.39	2.53	2.50	12.76%
2.7	0.76	1.75	2.03	2.25	2.41	2.54	2.51	12.71%
2.8	0.76	1.76	2.04	2.27	2.43	2.56	2.53	12.66%
2.9	0.77	1.77	2.06	2.28	2.44	2.57	2.54	12.61%
3.0	0.78	1.79	2.07	2.30	2.46	2.59	2.56	12.56%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 22.7

**Table H-250 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 2-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.78	1.80	2.08	2.31	2.47	2.60	2.57	12.53%
0.8	0.81	1.85	2.15	2.38	2.54	2.66	2.63	12.32%
0.9	0.84	1.91	2.21	2.44	2.61	2.72	2.69	12.12%
1.0	0.87	1.97	2.27	2.51	2.67	2.78	2.75	11.92%
1.1	0.90	2.03	2.34	2.57	2.74	2.84	2.80	11.72%
1.2	0.93	2.08	2.40	2.64	2.80	2.90	2.86	11.53%
1.3	0.96	2.14	2.46	2.70	2.86	2.96	2.92	11.34%
1.4	0.99	2.19	2.52	2.76	2.92	3.01	2.97	11.15%
1.5	1.02	2.25	2.57	2.82	2.98	3.07	3.02	10.96%
1.6	1.05	2.30	2.63	2.88	3.04	3.12	3.07	10.78%
1.7	1.09	2.36	2.69	2.93	3.09	3.17	3.12	10.60%
1.8	1.12	2.41	2.74	2.99	3.15	3.22	3.16	10.43%
1.9	1.15	2.47	2.80	3.04	3.20	3.27	3.21	10.26%
2.0	1.18	2.52	2.85	3.10	3.25	3.31	3.25	10.09%
2.1	1.21	2.57	2.91	3.15	3.30	3.36	3.30	9.92%
2.2	1.24	2.62	2.96	3.20	3.35	3.40	3.34	9.76%
2.3	1.27	2.68	3.01	3.25	3.39	3.45	3.38	9.59%
2.4	1.30	2.73	3.06	3.30	3.44	3.49	3.42	9.44%
2.5	1.33	2.78	3.11	3.34	3.48	3.53	3.45	9.28%
2.6	1.36	2.83	3.16	3.39	3.53	3.57	3.49	9.13%
2.7	1.39	2.88	3.21	3.44	3.57	3.60	3.52	8.98%
2.8	1.42	2.93	3.25	3.48	3.61	3.64	3.56	8.83%
2.9	1.45	2.98	3.30	3.52	3.64	3.67	3.59	8.68%
3.0	1.48	3.03	3.35	3.56	3.68	3.70	3.62	8.54%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 5.2

**Table H-251 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 22.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	30.18	0.62	2.57	3.32	3.95	4.32	4.65	4.60
0.8	26.70	0.63	2.27	2.93	3.49	3.81	4.10	4.05
0.9	24.00	0.63	2.04	2.63	3.13	3.42	3.67	3.63
1.0	21.83	0.64	1.85	2.39	2.84	3.10	3.32	3.29
1.1	20.06	0.65	1.70	2.19	2.60	2.84	3.04	3.01
1.2	18.58	0.65	1.57	2.02	2.41	2.63	2.81	2.78
1.3	17.34	0.66	1.46	1.89	2.24	2.44	2.61	2.58
1.4	16.26	0.67	1.37	1.77	2.10	2.29	2.44	2.42
1.5	15.34	0.67	1.29	1.66	1.97	2.15	2.30	2.27
1.6	14.53	0.68	1.22	1.57	1.86	2.03	2.17	2.14
1.7	13.81	0.69	1.16	1.49	1.77	1.93	2.05	2.03
1.8	13.17	0.70	1.10	1.42	1.68	1.83	1.95	1.93
1.9	12.60	0.70	1.05	1.36	1.61	1.75	1.86	1.84
2.0	12.09	0.71	1.01	1.30	1.54	1.67	1.78	1.76
2.1	11.63	0.72	0.97	1.25	1.48	1.61	1.70	1.68
2.2	11.20	0.72	0.93	1.20	1.42	1.54	1.64	1.62
2.3	10.82	0.73	0.90	1.16	1.37	1.49	1.58	1.56
2.4	10.47	0.74	0.87	1.12	1.32	1.44	1.52	1.50
2.5	10.14	0.74	0.84	1.08	1.28	1.39	1.47	1.45
2.6	9.84	0.75	0.81	1.05	1.24	1.34	1.42	1.40
2.7	9.57	0.76	0.79	1.01	1.20	1.30	1.38	1.36
2.8	9.31	0.76	0.77	0.99	1.17	1.26	1.33	1.32
2.9	9.07	0.77	0.75	0.96	1.13	1.23	1.30	1.28
3.0	8.84	0.78	0.73	0.93	1.10	1.20	1.26	1.24

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-252 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 2-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 5.2$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.70	0.78	3.13	4.02	4.75	5.15	5.42	5.35
0.8	7.90	0.81	2.83	3.63	4.28	4.63	4.86	4.80
0.9	7.29	0.84	2.59	3.32	3.91	4.23	4.42	4.36
1.0	6.79	0.87	2.40	3.07	3.61	3.90	4.06	4.01
1.1	6.39	0.90	2.25	2.87	3.37	3.63	3.77	3.72
1.2	6.05	0.93	2.12	2.70	3.16	3.41	3.53	3.48
1.3	5.77	0.96	2.01	2.55	2.99	3.21	3.32	3.27
1.4	5.52	0.99	1.91	2.43	2.84	3.05	3.14	3.10
1.5	5.31	1.02	1.83	2.32	2.71	2.90	2.98	2.94
1.6	5.13	1.05	1.76	2.22	2.59	2.77	2.85	2.80
1.7	4.96	1.09	1.69	2.14	2.48	2.66	2.72	2.68
1.8	4.82	1.12	1.63	2.06	2.39	2.55	2.61	2.57
1.9	4.69	1.15	1.58	1.99	2.31	2.46	2.51	2.47
2.0	4.57	1.18	1.54	1.93	2.23	2.37	2.42	2.38
2.1	4.47	1.21	1.49	1.87	2.16	2.29	2.34	2.29
2.2	4.37	1.24	1.46	1.82	2.09	2.22	2.26	2.21
2.3	4.28	1.27	1.42	1.77	2.03	2.15	2.19	2.14
2.4	4.20	1.30	1.39	1.72	1.98	2.09	2.12	2.07
2.5	4.13	1.33	1.36	1.68	1.93	2.03	2.06	2.01
2.6	4.06	1.36	1.33	1.64	1.88	1.98	2.00	1.95
2.7	4.00	1.39	1.30	1.60	1.83	1.93	1.95	1.90
2.8	3.94	1.42	1.28	1.57	1.79	1.88	1.90	1.84
2.9	3.88	1.45	1.25	1.54	1.75	1.83	1.85	1.80
3.0	3.83	1.48	1.23	1.51	1.71	1.79	1.80	1.75

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-253 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 22.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	30.18	0.62	1.8%	0.8%	0.6%	0.7%	0.5%	0.5%
0.8	26.70	0.63	3.4%	1.6%	1.2%	1.3%	0.9%	1.0%
0.9	24.00	0.63	5.7%	2.7%	1.9%	2.0%	1.5%	1.6%
1.0	21.83	0.64	8.6%	4.1%	2.9%	3.0%	2.3%	2.4%
1.1	20.06	0.65	12.0%	5.9%	4.1%	4.1%	3.2%	3.3%
1.2	18.58	0.65	15.8%	7.9%	5.5%	5.4%	4.3%	4.4%
1.3	17.34	0.66	20.0%	10.2%	7.1%	6.8%	5.5%	5.7%
1.4	16.26	0.67	24.3%	12.8%	8.9%	8.4%	6.8%	7.1%
1.5	15.34	0.67	28.7%	15.5%	10.8%	10.1%	8.3%	8.6%
1.6	14.53	0.68	33.0%	18.3%	12.9%	11.9%	9.9%	10.2%
1.7	13.81	0.69	37.3%	21.2%	15.0%	13.7%	11.5%	11.9%
1.8	13.17	0.70	41.5%	24.2%	17.2%	15.6%	13.3%	13.7%
1.9	12.60	0.70	45.5%	27.1%	19.4%	17.5%	15.0%	15.5%
2.0	12.09	0.71	49.3%	30.1%	21.7%	19.5%	16.9%	17.4%
2.1	11.63	0.72	52.9%	33.0%	23.9%	21.5%	18.7%	19.2%
2.2	11.20	0.72	56.3%	35.8%	26.2%	23.4%	20.6%	21.1%
2.3	10.82	0.73	59.5%	38.6%	28.4%	25.4%	22.4%	23.0%
2.4	10.47	0.74	62.4%	41.3%	30.6%	27.3%	24.3%	24.9%
2.5	10.14	0.74	65.2%	43.9%	32.8%	29.2%	26.1%	26.8%
2.6	9.84	0.75	67.7%	46.4%	34.9%	31.1%	28.0%	28.6%
2.7	9.57	0.76	70.1%	48.8%	37.0%	33.0%	29.8%	30.5%
2.8	9.31	0.76	72.3%	51.2%	39.0%	34.8%	31.6%	32.3%
2.9	9.07	0.77	74.3%	53.4%	41.0%	36.5%	33.3%	34.1%
3.0	8.84	0.78	76.1%	55.5%	42.9%	38.3%	35.1%	35.8%

Note:  $SDC D_{max} S_{MT} = 1.5g$ , hypothetical values of  $R/I_e$  complying with target reliability criteria could not be determined from the collapse surface for this archetype.

**Table H-254 Values of the  $MCE_R$  collapse probability for the 2-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 5.2$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.70	0.78	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
0.8	7.90	0.81	0.5%	0.2%	0.2%	0.3%	0.2%	0.2%
0.9	7.29	0.84	0.9%	0.4%	0.3%	0.4%	0.3%	0.4%
1.0	6.79	0.87	1.4%	0.6%	0.5%	0.7%	0.5%	0.6%
1.1	6.39	0.90	2.2%	1.0%	0.8%	1.0%	0.8%	0.8%
1.2	6.05	0.93	3.0%	1.4%	1.1%	1.3%	1.1%	1.2%
1.3	5.77	0.96	4.1%	1.9%	1.4%	1.7%	1.5%	1.6%
1.4	5.52	0.99	5.3%	2.4%	1.8%	2.1%	1.9%	2.0%
1.5	5.31	1.02	6.6%	3.1%	2.3%	2.6%	2.3%	2.5%
1.6	5.13	1.05	8.0%	3.8%	2.9%	3.2%	2.9%	3.1%
1.7	4.96	1.09	9.4%	4.6%	3.4%	3.8%	3.4%	3.7%
1.8	4.82	1.12	11.0%	5.4%	4.1%	4.4%	4.0%	4.3%
1.9	4.69	1.15	12.5%	6.3%	4.7%	5.1%	4.7%	5.0%
2.0	4.57	1.18	14.1%	7.3%	5.4%	5.8%	5.4%	5.8%
2.1	4.47	1.21	15.8%	8.2%	6.2%	6.6%	6.1%	6.5%
2.2	4.37	1.24	17.4%	9.3%	7.0%	7.3%	6.9%	7.3%
2.3	4.28	1.27	19.1%	10.3%	7.8%	8.1%	7.7%	8.0%
2.4	4.20	1.30	20.7%	11.4%	8.6%	9.0%	8.6%	8.8%
2.5	4.13	1.33	22.3%	12.5%	9.5%	9.8%	9.4%	9.6%
2.6	4.06	1.36	23.9%	13.6%	10.4%	10.7%	10.3%	10.5%
2.7	4.00	1.39	25.5%	14.7%	11.3%	11.6%	11.3%	11.4%
2.8	3.94	1.42	27.1%	15.9%	12.2%	12.5%	12.2%	12.3%
2.9	3.88	1.45	28.6%	17.0%	13.2%	13.5%	13.2%	13.2%
3.0	3.83	1.48	30.1%	18.2%	14.2%	14.5%	14.2%	14.1%

Note:  $SDC D_{max S_{MT}} = 1.5g$

**Table H-255** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.47	1.26	1.45	1.61	1.73	1.86	1.85	13.75%
0.8	0.49	1.29	1.50	1.66	1.79	1.92	1.89	13.59%
0.9	0.51	1.33	1.54	1.71	1.84	1.97	1.94	13.43%
1.0	0.53	1.37	1.58	1.76	1.89	2.01	1.99	13.27%
1.1	0.55	1.40	1.63	1.80	1.94	2.06	2.04	13.11%
1.2	0.56	1.44	1.67	1.85	1.99	2.11	2.08	12.96%
1.3	0.58	1.47	1.71	1.90	2.03	2.16	2.13	12.80%
1.4	0.60	1.51	1.75	1.94	2.08	2.20	2.17	12.65%
1.5	0.62	1.54	1.79	1.99	2.13	2.25	2.22	12.50%
1.6	0.63	1.58	1.83	2.03	2.18	2.29	2.26	12.35%
1.7	0.65	1.61	1.87	2.08	2.22	2.34	2.30	12.21%
1.8	0.67	1.65	1.91	2.12	2.27	2.38	2.34	12.06%
1.9	0.69	1.68	1.95	2.17	2.31	2.42	2.39	11.92%
2.0	0.71	1.71	1.99	2.21	2.36	2.47	2.43	11.78%
2.1	0.72	1.75	2.03	2.25	2.40	2.51	2.47	11.64%
2.2	0.74	1.78	2.07	2.29	2.45	2.55	2.51	11.50%
2.3	0.76	1.82	2.11	2.34	2.49	2.59	2.55	11.37%
2.4	0.78	1.85	2.15	2.38	2.53	2.63	2.58	11.23%
2.5	0.80	1.88	2.19	2.42	2.58	2.67	2.62	11.10%
2.6	0.81	1.91	2.23	2.46	2.62	2.71	2.66	10.97%
2.7	0.83	1.95	2.26	2.50	2.66	2.75	2.69	10.84%
2.8	0.85	1.98	2.30	2.54	2.70	2.79	2.73	10.71%
2.9	0.87	2.01	2.34	2.58	2.74	2.83	2.77	10.59%
3.0	0.89	2.04	2.37	2.62	2.78	2.86	2.80	10.46%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 8.7

**Table H-256 Selected values of  $\widehat{S}_{CT}$  extracted from the collapse surface of the 3-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.65	1.61	1.87	2.07	2.21	2.33	2.29	12.24%
0.8	0.69	1.69	1.96	2.17	2.32	2.43	2.39	11.89%
0.9	0.74	1.77	2.06	2.28	2.43	2.53	2.49	11.56%
1.0	0.78	1.85	2.15	2.38	2.53	2.63	2.58	11.23%
1.1	0.82	1.93	2.24	2.48	2.63	2.73	2.67	10.92%
1.2	0.86	2.01	2.33	2.57	2.73	2.82	2.76	10.61%
1.3	0.91	2.08	2.42	2.66	2.83	2.91	2.84	10.31%
1.4	0.95	2.16	2.50	2.75	2.92	2.99	2.92	10.02%
1.5	0.99	2.23	2.59	2.84	3.01	3.08	2.99	9.74%
1.6	1.04	2.31	2.67	2.93	3.09	3.16	3.06	9.47%
1.7	1.08	2.38	2.75	3.01	3.17	3.23	3.13	9.20%
1.8	1.12	2.45	2.83	3.09	3.25	3.31	3.20	8.94%
1.9	1.17	2.52	2.90	3.17	3.33	3.38	3.26	8.69%
2.0	1.21	2.59	2.98	3.24	3.40	3.44	3.32	8.44%
2.1	1.25	2.66	3.05	3.32	3.47	3.51	3.37	8.21%
2.2	1.30	2.73	3.12	3.39	3.54	3.57	3.43	7.98%
2.3	1.34	2.80	3.19	3.46	3.60	3.63	3.48	7.75%
2.4	1.38	2.86	3.26	3.52	3.66	3.68	3.52	7.53%
2.5	1.42	2.93	3.32	3.58	3.72	3.73	3.57	7.32%
2.6	1.47	2.99	3.38	3.64	3.77	3.78	3.61	7.12%
2.7	1.51	3.05	3.45	3.70	3.82	3.83	3.65	6.92%
2.8	1.55	3.11	3.51	3.76	3.87	3.88	3.69	6.72%
2.9	1.60	3.18	3.56	3.81	3.91	3.92	3.73	6.53%
3.0	1.64	3.23	3.62	3.86	3.96	3.96	3.77	6.35%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 3.6



**Table H-257 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 8.7$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.86	0.47	2.19	2.80	3.32	3.62	3.89	3.85
0.8	8.04	0.49	1.97	2.53	2.99	3.26	3.50	3.46
0.9	7.41	0.51	1.80	2.31	2.73	2.98	3.19	3.15
1.0	6.90	0.53	1.67	2.14	2.53	2.75	2.94	2.90
1.1	6.49	0.55	1.55	2.00	2.36	2.57	2.74	2.70
1.2	6.15	0.56	1.46	1.88	2.22	2.42	2.57	2.53
1.3	5.85	0.58	1.38	1.78	2.10	2.28	2.42	2.39
1.4	5.60	0.60	1.31	1.69	2.00	2.17	2.30	2.27
1.5	5.39	0.62	1.25	1.61	1.91	2.07	2.19	2.16
1.6	5.20	0.63	1.20	1.55	1.83	1.99	2.09	2.06
1.7	5.03	0.65	1.16	1.49	1.76	1.91	2.01	1.98
1.8	4.88	0.67	1.12	1.44	1.70	1.84	1.93	1.90
1.9	4.75	0.69	1.08	1.39	1.64	1.78	1.86	1.83
2.0	4.63	0.71	1.05	1.35	1.59	1.72	1.80	1.77
2.1	4.52	0.72	1.02	1.31	1.54	1.67	1.74	1.72
2.2	4.42	0.74	0.99	1.27	1.50	1.62	1.69	1.66
2.3	4.33	0.76	0.96	1.24	1.46	1.58	1.65	1.62
2.4	4.25	0.78	0.94	1.21	1.43	1.54	1.60	1.57
2.5	4.17	0.80	0.92	1.18	1.39	1.50	1.56	1.53
2.6	4.10	0.81	0.90	1.16	1.36	1.47	1.52	1.49
2.7	4.04	0.83	0.88	1.13	1.33	1.44	1.49	1.46
2.8	3.98	0.85	0.86	1.11	1.31	1.41	1.45	1.42
2.9	3.92	0.87	0.85	1.09	1.28	1.38	1.42	1.39
3.0	3.87	0.89	0.83	1.07	1.26	1.35	1.39	1.36

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-258 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 3-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.6$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.06	0.65	2.80	3.60	4.26	4.62	4.86	4.79
0.8	4.72	0.69	2.57	3.31	3.91	4.24	4.44	4.37
0.9	4.46	0.74	2.40	3.09	3.64	3.94	4.11	4.04
1.0	4.25	0.78	2.26	2.90	3.42	3.70	3.84	3.77
1.1	4.07	0.82	2.14	2.75	3.24	3.50	3.62	3.55
1.2	3.93	0.86	2.04	2.62	3.09	3.32	3.43	3.36
1.3	3.81	0.91	1.96	2.51	2.95	3.17	3.27	3.19
1.4	3.71	0.95	1.88	2.41	2.83	3.04	3.12	3.04
1.5	3.61	0.99	1.82	2.33	2.73	2.93	2.99	2.91
1.6	3.54	1.04	1.76	2.25	2.64	2.82	2.88	2.79
1.7	3.47	1.08	1.71	2.18	2.55	2.72	2.78	2.68
1.8	3.40	1.12	1.66	2.12	2.47	2.64	2.68	2.58
1.9	3.35	1.17	1.62	2.06	2.40	2.56	2.59	2.49
2.0	3.30	1.21	1.58	2.01	2.34	2.48	2.51	2.40
2.1	3.25	1.25	1.55	1.96	2.27	2.41	2.44	2.32
2.2	3.21	1.30	1.51	1.91	2.22	2.35	2.37	2.25
2.3	3.17	1.34	1.48	1.87	2.16	2.28	2.30	2.18
2.4	3.14	1.38	1.46	1.83	2.11	2.23	2.24	2.11
2.5	3.11	1.42	1.43	1.79	2.06	2.17	2.18	2.05
2.6	3.08	1.47	1.40	1.76	2.02	2.12	2.13	1.98
2.7	3.05	1.51	1.38	1.72	1.97	2.07	2.07	1.92
2.8	3.03	1.55	1.36	1.69	1.93	2.02	2.02	1.86
2.9	3.00	1.60	1.34	1.66	1.89	1.97	1.97	1.81
3.0	2.98	1.64	1.32	1.63	1.85	1.93	1.93	1.76

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-259 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 8.7$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	8.86	0.47	4.1%	2.0%	1.5%	1.6%	1.2%	1.2%
0.8	8.04	0.49	6.5%	3.2%	2.3%	2.4%	1.9%	1.9%
0.9	7.41	0.51	9.5%	4.7%	3.4%	3.4%	2.7%	2.8%
1.0	6.90	0.53	12.8%	6.4%	4.6%	4.6%	3.6%	3.8%
1.1	6.49	0.55	16.3%	8.4%	5.9%	5.8%	4.7%	4.9%
1.2	6.15	0.56	20.0%	10.4%	7.3%	7.1%	5.8%	6.1%
1.3	5.85	0.58	23.6%	12.5%	8.8%	8.4%	7.0%	7.3%
1.4	5.60	0.60	27.2%	14.7%	10.4%	9.8%	8.3%	8.6%
1.5	5.39	0.62	30.7%	16.9%	12.0%	11.2%	9.6%	10.0%
1.6	5.20	0.63	34.1%	19.1%	13.6%	12.6%	10.9%	11.4%
1.7	5.03	0.65	37.3%	21.3%	15.2%	14.1%	12.3%	12.8%
1.8	4.88	0.67	40.4%	23.5%	16.8%	15.5%	13.6%	14.2%
1.9	4.75	0.69	43.3%	25.6%	18.4%	16.9%	15.0%	15.6%
2.0	4.63	0.71	46.0%	27.6%	19.9%	18.2%	16.3%	17.0%
2.1	4.52	0.72	48.6%	29.6%	21.5%	19.6%	17.7%	18.4%
2.2	4.42	0.74	51.1%	31.5%	23.0%	20.9%	19.0%	19.8%
2.3	4.33	0.76	53.3%	33.4%	24.5%	22.3%	20.3%	21.2%
2.4	4.25	0.78	55.5%	35.2%	25.9%	23.5%	21.6%	22.5%
2.5	4.17	0.80	57.5%	36.9%	27.3%	24.8%	22.9%	23.9%
2.6	4.10	0.81	59.4%	38.6%	28.7%	26.0%	24.2%	25.2%
2.7	4.04	0.83	61.2%	40.3%	30.1%	27.3%	25.4%	26.5%
2.8	3.98	0.85	62.9%	41.8%	31.4%	28.4%	26.6%	27.8%
2.9	3.92	0.87	64.4%	43.3%	32.6%	29.6%	27.8%	29.1%
3.0	3.87	0.89	65.9%	44.8%	33.9%	30.7%	29.0%	30.3%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-260 Values of the  $MCE_R$  collapse probability for the 3-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.6$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.06	0.65	0.5%	0.2%	0.2%	0.3%	0.2%	0.2%
0.8	4.72	0.69	0.9%	0.4%	0.3%	0.4%	0.3%	0.4%
0.9	4.46	0.74	1.4%	0.6%	0.5%	0.6%	0.5%	0.6%
1.0	4.25	0.78	2.1%	0.9%	0.7%	0.9%	0.7%	0.8%
1.1	4.07	0.82	2.9%	1.2%	0.9%	1.1%	1.0%	1.1%
1.2	3.93	0.86	3.7%	1.6%	1.2%	1.4%	1.2%	1.4%
1.3	3.81	0.91	4.7%	2.0%	1.5%	1.8%	1.6%	1.7%
1.4	3.71	0.95	5.7%	2.5%	1.9%	2.2%	1.9%	2.2%
1.5	3.61	0.99	6.8%	3.0%	2.2%	2.5%	2.3%	2.5%
1.6	3.54	1.04	7.9%	3.6%	2.6%	3.0%	2.7%	2.9%
1.7	3.47	1.08	9.0%	4.2%	3.1%	3.4%	3.2%	3.3%
1.8	3.40	1.12	10.2%	4.8%	3.5%	3.9%	3.6%	3.7%
1.9	3.35	1.17	11.4%	5.4%	4.0%	4.4%	4.2%	4.1%
2.0	3.30	1.21	12.6%	6.1%	4.5%	4.9%	4.7%	4.6%
2.1	3.25	1.25	13.8%	6.7%	5.0%	5.5%	5.3%	5.1%
2.2	3.21	1.30	15.0%	7.5%	5.6%	6.0%	5.9%	5.6%
2.3	3.17	1.34	16.2%	8.2%	6.1%	6.7%	6.5%	6.2%
2.4	3.14	1.38	17.4%	8.9%	6.7%	7.3%	7.1%	6.7%
2.5	3.11	1.42	18.6%	9.7%	7.4%	7.9%	7.8%	7.5%
2.6	3.08	1.47	19.8%	10.5%	8.0%	8.6%	8.5%	8.2%
2.7	3.05	1.51	21.1%	11.3%	8.7%	9.3%	9.3%	9.1%
2.8	3.03	1.55	22.3%	12.2%	9.4%	10.1%	10.0%	10.0%
2.9	3.00	1.60	23.5%	13.0%	10.1%	10.9%	10.8%	10.9%
3.0	2.98	1.64	24.7%	13.9%	10.9%	11.7%	11.7%	11.9%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-261** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.46	1.25	1.43	1.56	1.66	1.71	1.70	11.94%
0.8	0.49	1.29	1.49	1.63	1.73	1.78	1.77	11.65%
0.9	0.52	1.34	1.55	1.70	1.80	1.86	1.83	11.37%
1.0	0.55	1.39	1.61	1.76	1.87	1.93	1.90	11.10%
1.1	0.58	1.44	1.66	1.83	1.94	2.00	1.96	10.83%
1.2	0.61	1.49	1.72	1.90	2.01	2.07	2.03	10.56%
1.3	0.64	1.54	1.78	1.96	2.08	2.13	2.09	10.31%
1.4	0.67	1.59	1.84	2.03	2.15	2.20	2.15	10.06%
1.5	0.70	1.64	1.90	2.09	2.21	2.27	2.21	9.82%
1.6	0.73	1.69	1.96	2.16	2.28	2.33	2.27	9.58%
1.7	0.75	1.74	2.02	2.22	2.35	2.40	2.32	9.34%
1.8	0.78	1.79	2.08	2.29	2.42	2.46	2.38	9.12%
1.9	0.81	1.84	2.14	2.35	2.48	2.53	2.43	8.90%
2.0	0.84	1.90	2.20	2.41	2.55	2.59	2.49	8.68%
2.1	0.87	1.95	2.26	2.48	2.61	2.65	2.54	8.47%
2.2	0.90	2.00	2.32	2.54	2.67	2.72	2.59	8.27%
2.3	0.93	2.05	2.38	2.60	2.74	2.78	2.64	8.07%
2.4	0.96	2.10	2.43	2.67	2.80	2.84	2.69	7.87%
2.5	0.99	2.16	2.49	2.73	2.86	2.90	2.74	7.68%
2.6	1.02	2.21	2.55	2.79	2.93	2.96	2.79	7.49%
2.7	1.05	2.26	2.61	2.85	2.99	3.02	2.84	7.31%
2.8	1.08	2.32	2.67	2.91	3.05	3.08	2.88	7.13%
2.9	1.11	2.37	2.73	2.97	3.11	3.13	2.93	6.96%
3.0	1.14	2.43	2.79	3.04	3.17	3.19	2.98	6.79%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 5.3$

**Table H-262 Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 4-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.61	1.49	1.73	1.90	2.01	2.07	2.03	10.56%
0.8	0.66	1.58	1.83	2.01	2.13	2.18	2.13	10.12%
0.9	0.71	1.66	1.93	2.12	2.25	2.30	2.24	9.71%
1.0	0.76	1.75	2.03	2.23	2.36	2.41	2.33	9.30%
1.1	0.81	1.84	2.13	2.34	2.47	2.52	2.43	8.92%
1.2	0.86	1.93	2.23	2.45	2.59	2.63	2.52	8.55%
1.3	0.91	2.02	2.34	2.56	2.70	2.74	2.61	8.20%
1.4	0.96	2.11	2.44	2.67	2.80	2.84	2.70	7.86%
1.5	1.02	2.20	2.54	2.78	2.91	2.94	2.78	7.54%
1.6	1.07	2.29	2.64	2.88	3.02	3.05	2.86	7.23%
1.7	1.12	2.38	2.74	2.99	3.12	3.14	2.94	6.93%
1.8	1.17	2.48	2.84	3.09	3.22	3.24	3.02	6.64%
1.9	1.22	2.57	2.94	3.19	3.32	3.34	3.10	6.37%
2.0	1.27	2.67	3.04	3.30	3.42	3.43	3.17	6.10%
2.1	1.32	2.76	3.15	3.40	3.52	3.53	3.25	5.85%
2.2	1.37	2.86	3.25	3.50	3.61	3.62	3.32	5.61%
2.3	1.42	2.96	3.35	3.60	3.71	3.71	3.39	5.38%
2.4	1.47	3.06	3.45	3.69	3.80	3.80	3.47	5.16%
2.5	1.53	3.16	3.55	3.79	3.89	3.89	3.54	4.94%
2.6	1.58	3.26	3.65	3.89	3.98	3.98	3.62	4.74%
2.7	1.63	3.36	3.75	3.98	4.06	4.06	3.69	4.55%
2.8	1.68	3.46	3.85	4.08	4.15	4.15	3.77	4.36%
2.9	1.73	3.56	3.95	4.17	4.23	4.23	3.84	4.18%
3.0	1.78	3.67	4.05	4.27	4.32	4.32	3.92	4.01%

Note: SDC D<sub>max</sub> S<sub>MT</sub> = 1.5g, R/I<sub>e</sub> = 3.1

**Table H-263 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 5.3$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.18	0.46	2.17	2.75	3.22	3.45	3.57	3.54
0.8	4.82	0.49	1.97	2.51	2.94	3.15	3.26	3.22
0.9	4.55	0.52	1.82	2.32	2.72	2.92	3.01	2.97
1.0	4.33	0.55	1.70	2.17	2.54	2.73	2.81	2.77
1.1	4.15	0.58	1.60	2.04	2.40	2.57	2.65	2.61
1.2	4.00	0.61	1.51	1.94	2.28	2.44	2.51	2.47
1.3	3.87	0.64	1.45	1.85	2.17	2.33	2.40	2.35
1.4	3.76	0.67	1.39	1.78	2.09	2.24	2.30	2.24
1.5	3.67	0.70	1.33	1.71	2.01	2.16	2.21	2.15
1.6	3.59	0.73	1.29	1.65	1.94	2.08	2.13	2.06
1.7	3.51	0.75	1.25	1.60	1.88	2.02	2.06	1.99
1.8	3.45	0.78	1.21	1.56	1.83	1.96	2.00	1.92
1.9	3.39	0.81	1.18	1.52	1.78	1.91	1.94	1.86
2.0	3.34	0.84	1.16	1.48	1.74	1.86	1.89	1.80
2.1	3.29	0.87	1.13	1.45	1.70	1.82	1.85	1.75
2.2	3.25	0.90	1.11	1.42	1.66	1.78	1.80	1.70
2.3	3.21	0.93	1.09	1.39	1.63	1.74	1.76	1.66
2.4	3.17	0.96	1.07	1.37	1.60	1.70	1.73	1.62
2.5	3.14	0.99	1.05	1.35	1.57	1.67	1.69	1.58
2.6	3.11	1.02	1.04	1.33	1.55	1.64	1.66	1.55
2.7	3.08	1.05	1.02	1.31	1.52	1.61	1.63	1.51
2.8	3.06	1.08	1.01	1.29	1.50	1.59	1.60	1.47
2.9	3.03	1.11	1.00	1.27	1.48	1.56	1.58	1.44
3.0	3.01	1.14	0.99	1.25	1.46	1.54	1.55	1.40

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-264 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 4-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.1$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.00	0.61	2.60	3.33	3.91	4.19	4.31	4.23
0.8	3.79	0.66	2.40	3.08	3.62	3.89	3.99	3.89
0.9	3.63	0.71	2.25	2.89	3.40	3.64	3.73	3.62
1.0	3.50	0.76	2.14	2.74	3.22	3.45	3.52	3.39
1.1	3.40	0.81	2.04	2.62	3.07	3.28	3.35	3.20
1.2	3.31	0.86	1.96	2.51	2.94	3.15	3.20	3.04
1.3	3.24	0.91	1.89	2.43	2.84	3.03	3.07	2.90
1.4	3.17	0.96	1.84	2.35	2.75	2.92	2.96	2.78
1.5	3.12	1.02	1.79	2.28	2.67	2.83	2.87	2.67
1.6	3.07	1.07	1.75	2.23	2.59	2.75	2.78	2.56
1.7	3.03	1.12	1.71	2.18	2.53	2.68	2.70	2.46
1.8	2.99	1.17	1.68	2.13	2.47	2.61	2.63	2.36
1.9	2.96	1.22	1.65	2.09	2.42	2.55	2.57	2.28
2.0	2.93	1.27	1.63	2.06	2.37	2.50	2.51	2.20
2.1	2.90	1.32	1.61	2.02	2.33	2.44	2.45	2.13
2.2	2.87	1.37	1.59	1.99	2.29	2.40	2.40	2.07
2.3	2.85	1.42	1.57	1.96	2.25	2.35	2.36	2.01
2.4	2.83	1.47	1.55	1.94	2.22	2.31	2.31	1.96
2.5	2.81	1.53	1.54	1.92	2.18	2.27	2.27	1.91
2.6	2.79	1.58	1.53	1.89	2.15	2.23	2.23	1.86
2.7	2.78	1.63	1.52	1.87	2.13	2.20	2.20	1.81
2.8	2.76	1.68	1.51	1.86	2.10	2.16	2.16	1.77
2.9	2.75	1.73	1.50	1.84	2.07	2.13	2.13	1.73
3.0	2.73	1.78	1.49	1.82	2.05	2.10	2.10	1.70

Note:  $SDC D_{max} S_{MT} = 1.5g$



**Table H-265 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 5.3$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	5.18	0.46	4.2%	2.1%	1.7%	1.9%	1.7%	1.8%
0.8	4.82	0.49	6.5%	3.3%	2.5%	2.8%	2.5%	2.6%
0.9	4.55	0.52	9.2%	4.6%	3.5%	3.7%	3.3%	3.5%
1.0	4.33	0.55	12.0%	6.1%	4.5%	4.7%	4.2%	4.5%
1.1	4.15	0.58	14.9%	7.7%	5.6%	5.7%	5.2%	5.5%
1.2	4.00	0.61	17.8%	9.3%	6.7%	6.8%	6.2%	6.6%
1.3	3.87	0.64	20.7%	10.9%	7.9%	7.9%	7.3%	7.8%
1.4	3.76	0.67	23.4%	12.5%	9.1%	9.0%	8.3%	8.9%
1.5	3.67	0.70	26.1%	14.1%	10.2%	10.0%	9.3%	10.0%
1.6	3.59	0.73	28.6%	15.7%	11.4%	11.1%	10.4%	11.0%
1.7	3.51	0.75	31.0%	17.2%	12.5%	12.1%	11.4%	12.1%
1.8	3.45	0.78	33.3%	18.7%	13.6%	13.1%	12.4%	13.1%
1.9	3.39	0.81	35.4%	20.1%	14.7%	14.1%	13.4%	14.2%
2.0	3.34	0.84	37.3%	21.5%	15.7%	15.1%	14.4%	15.2%
2.1	3.29	0.87	39.2%	22.8%	16.7%	16.0%	15.4%	16.3%
2.2	3.25	0.90	40.9%	24.1%	17.7%	16.9%	16.3%	17.3%
2.3	3.21	0.93	42.5%	25.3%	18.7%	17.8%	17.2%	18.3%
2.4	3.17	0.96	44.0%	26.5%	19.6%	18.7%	18.1%	19.4%
2.5	3.14	0.99	45.4%	27.6%	20.5%	19.6%	19.0%	20.4%
2.6	3.11	1.02	46.7%	28.7%	21.4%	20.4%	19.9%	21.4%
2.7	3.08	1.05	48.0%	29.7%	22.3%	21.2%	20.7%	22.7%
2.8	3.06	1.08	49.1%	30.7%	23.1%	22.0%	21.6%	23.9%
2.9	3.03	1.11	50.2%	31.6%	23.9%	22.8%	22.4%	25.1%
3.0	3.01	1.14	51.2%	32.5%	24.7%	23.5%	23.2%	26.3%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-266 Values of the  $MCE_R$  collapse probability for the 4-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.1$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.00	0.61	0.8%	0.4%	0.3%	0.5%	0.4%	0.4%
0.8	3.79	0.66	1.4%	0.6%	0.5%	0.7%	0.6%	0.7%
0.9	3.63	0.71	2.1%	0.9%	0.7%	0.9%	0.8%	0.9%
1.0	3.50	0.76	2.9%	1.3%	1.0%	1.2%	1.1%	1.1%
1.1	3.40	0.81	3.7%	1.6%	1.2%	1.5%	1.4%	1.4%
1.2	3.31	0.86	4.6%	2.0%	1.5%	1.9%	1.7%	1.6%
1.3	3.24	0.91	5.5%	2.4%	1.8%	2.2%	2.1%	1.9%
1.4	3.17	0.96	6.4%	2.9%	2.2%	2.6%	2.4%	2.2%
1.5	3.12	1.02	7.3%	3.3%	2.5%	2.9%	2.8%	2.5%
1.6	3.07	1.07	8.2%	3.8%	2.8%	3.3%	3.2%	2.9%
1.7	3.03	1.12	9.0%	4.2%	3.2%	3.7%	3.5%	3.3%
1.8	2.99	1.17	9.8%	4.6%	3.5%	4.0%	3.9%	3.7%
1.9	2.96	1.22	10.5%	5.1%	3.9%	4.4%	4.3%	4.2%
2.0	2.93	1.27	11.2%	5.5%	4.2%	4.8%	4.7%	4.7%
2.1	2.90	1.32	11.8%	5.9%	4.5%	5.2%	5.1%	5.2%
2.2	2.87	1.37	12.4%	6.3%	4.9%	5.6%	5.6%	5.8%
2.3	2.85	1.42	13.0%	6.7%	5.2%	6.0%	6.0%	6.3%
2.4	2.83	1.47	13.5%	7.0%	5.6%	6.4%	6.4%	6.9%
2.5	2.81	1.53	14.0%	7.4%	5.9%	6.8%	6.8%	7.5%
2.6	2.79	1.58	14.4%	7.8%	6.2%	7.2%	7.2%	8.2%
2.7	2.78	1.63	14.9%	8.1%	6.6%	7.6%	7.6%	8.9%
2.8	2.76	1.68	15.2%	8.5%	6.9%	8.0%	8.0%	9.6%
2.9	2.75	1.73	15.6%	8.8%	7.2%	8.4%	8.4%	10.3%
3.0	2.73	1.78	15.9%	9.1%	7.6%	8.8%	8.8%	11.0%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-267** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\overline{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\overline{DR}_{IC}$	
0.7	0.38	1.17	1.32	1.43	1.52	1.58	1.56	12.16%
0.8	0.41	1.22	1.39	1.52	1.61	1.68	1.65	11.99%
0.9	0.44	1.28	1.46	1.60	1.69	1.77	1.74	11.83%
1.0	0.46	1.33	1.52	1.67	1.78	1.86	1.83	11.66%
1.1	0.49	1.38	1.59	1.75	1.86	1.95	1.91	11.50%
1.2	0.52	1.44	1.66	1.83	1.95	2.03	1.99	11.35%
1.3	0.54	1.49	1.72	1.90	2.03	2.12	2.07	11.19%
1.4	0.57	1.54	1.79	1.98	2.11	2.20	2.14	11.04%
1.5	0.60	1.59	1.85	2.05	2.18	2.27	2.22	10.88%
1.6	0.62	1.64	1.91	2.12	2.26	2.35	2.29	10.74%
1.7	0.65	1.69	1.97	2.19	2.33	2.42	2.35	10.59%
1.8	0.68	1.74	2.03	2.25	2.40	2.49	2.42	10.44%
1.9	0.70	1.79	2.09	2.32	2.47	2.56	2.48	10.30%
2.0	0.73	1.84	2.15	2.38	2.54	2.63	2.54	10.16%
2.1	0.76	1.89	2.21	2.44	2.60	2.69	2.60	10.02%
2.2	0.78	1.94	2.26	2.51	2.67	2.75	2.66	9.88%
2.3	0.81	1.99	2.32	2.56	2.73	2.81	2.71	9.75%
2.4	0.84	2.03	2.37	2.62	2.79	2.87	2.77	9.61%
2.5	0.86	2.08	2.42	2.68	2.84	2.92	2.82	9.48%
2.6	0.89	2.12	2.48	2.73	2.90	2.98	2.87	9.35%
2.7	0.92	2.17	2.53	2.79	2.95	3.03	2.91	9.22%
2.8	0.94	2.21	2.58	2.84	3.01	3.07	2.96	9.09%
2.9	0.97	2.26	2.63	2.89	3.06	3.12	3.00	8.97%
3.0	1.00	2.30	2.67	2.94	3.10	3.16	3.04	8.85%

Note:  $SDC D_{max} S_{MT} = 1.5g$ ,  $R/I_e = 5.9$

**Table H-268** Selected values of  $\hat{S}_{CT}$  extracted from the collapse surface of the 5-Story MFD wood light-frame archetype for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						$\widehat{DR}_{IC}$
		S <sub>CT</sub> (g) at DR						
		2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$	
0.7	0.54	1.48	1.71	1.89	2.01	2.10	2.06	11.22%
0.8	0.59	1.57	1.83	2.02	2.16	2.25	2.19	10.93%
0.9	0.64	1.67	1.94	2.15	2.29	2.39	2.32	10.66%
1.0	0.69	1.76	2.05	2.27	2.42	2.52	2.44	10.39%
1.1	0.74	1.85	2.16	2.39	2.55	2.64	2.55	10.13%
1.2	0.78	1.94	2.26	2.51	2.67	2.75	2.66	9.88%
1.3	0.83	2.02	2.36	2.61	2.78	2.86	2.76	9.63%
1.4	0.88	2.11	2.46	2.72	2.88	2.96	2.85	9.39%
1.5	0.93	2.19	2.55	2.81	2.98	3.05	2.93	9.16%
1.6	0.98	2.27	2.64	2.91	3.07	3.13	3.01	8.93%
1.7	1.03	2.35	2.73	2.99	3.16	3.21	3.09	8.71%
1.8	1.08	2.43	2.81	3.08	3.24	3.28	3.15	8.49%
1.9	1.13	2.51	2.89	3.16	3.31	3.35	3.21	8.28%
2.0	1.18	2.58	2.96	3.23	3.37	3.41	3.27	8.07%
2.1	1.23	2.65	3.04	3.30	3.43	3.46	3.32	7.87%
2.2	1.28	2.73	3.11	3.36	3.49	3.50	3.37	7.67%
2.3	1.32	2.80	3.17	3.42	3.53	3.54	3.41	7.48%
2.4	1.37	2.86	3.23	3.47	3.57	3.58	3.45	7.29%
2.5	1.42	2.93	3.29	3.52	3.61	3.61	3.49	7.11%
2.6	1.47	2.99	3.35	3.56	3.63	3.63	3.52	6.93%
2.7	1.52	3.06	3.40	3.60	3.66	3.66	3.55	6.76%
2.8	1.57	3.12	3.45	3.63	3.67	3.67	3.58	6.59%
2.9	1.62	3.18	3.49	3.66	3.69	3.69	3.60	6.42%
3.0	1.67	3.23	3.53	3.68	3.70	3.70	3.62	6.26%

Note:  $SDC D_{max} S_{MT} = 1.5g, R/I_e = 3.2$

**Table H-269 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 5.9$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.80	0.38	2.03	2.54	2.95	3.16	3.29	3.25
0.8	4.49	0.41	1.86	2.34	2.73	2.93	3.06	3.01
0.9	4.25	0.44	1.73	2.18	2.55	2.75	2.87	2.82
1.0	4.06	0.46	1.62	2.06	2.41	2.60	2.71	2.67
1.1	3.91	0.49	1.53	1.95	2.29	2.48	2.58	2.53
1.2	3.78	0.52	1.46	1.87	2.19	2.37	2.47	2.42
1.3	3.67	0.54	1.40	1.79	2.11	2.28	2.38	2.32
1.4	3.57	0.57	1.34	1.72	2.03	2.20	2.29	2.24
1.5	3.49	0.60	1.29	1.67	1.97	2.12	2.21	2.16
1.6	3.42	0.62	1.25	1.61	1.91	2.06	2.14	2.09
1.7	3.36	0.65	1.22	1.57	1.85	2.00	2.08	2.02
1.8	3.30	0.68	1.18	1.52	1.80	1.95	2.02	1.96
1.9	3.25	0.70	1.15	1.49	1.76	1.90	1.97	1.91
2.0	3.21	0.73	1.12	1.45	1.72	1.85	1.92	1.86
2.1	3.17	0.76	1.10	1.42	1.68	1.81	1.87	1.81
2.2	3.13	0.78	1.07	1.39	1.64	1.77	1.83	1.76
2.3	3.09	0.81	1.05	1.36	1.61	1.73	1.79	1.72
2.4	3.06	0.84	1.03	1.33	1.57	1.70	1.75	1.68
2.5	3.03	0.86	1.01	1.31	1.54	1.66	1.71	1.64
2.6	3.01	0.89	1.00	1.29	1.51	1.63	1.67	1.60
2.7	2.98	0.92	0.98	1.26	1.49	1.60	1.64	1.57
2.8	2.96	0.94	0.96	1.24	1.46	1.57	1.60	1.53
2.9	2.94	0.97	0.95	1.22	1.44	1.54	1.57	1.50
3.0	2.92	1.00	0.94	1.20	1.41	1.51	1.54	1.47

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-270 Summary of Adjusted Collapse Margin Ratio (ACMR) calculated from the Values of  $S_{CT}$  Obtained from the Collapse Surface of the 5-story MFD Models for a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.2$			Typical Spectrum Shape Factor (SSF) at DR					
			1.22	1.35	1.44	1.46	1.46	varies
$MCE_R$ $S_{MT} (g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.68	0.54	2.58	3.30	3.89	4.20	4.38	4.29
0.8	3.52	0.59	2.40	3.09	3.64	3.94	4.10	4.00
0.9	3.39	0.64	2.26	2.91	3.44	3.72	3.87	3.77
1.0	3.28	0.69	2.15	2.77	3.28	3.54	3.67	3.57
1.1	3.20	0.74	2.05	2.65	3.13	3.38	3.50	3.39
1.2	3.13	0.78	1.97	2.55	3.01	3.24	3.35	3.23
1.3	3.07	0.83	1.90	2.45	2.89	3.12	3.21	3.09
1.4	3.02	0.88	1.84	2.37	2.79	3.01	3.09	2.96
1.5	2.97	0.93	1.78	2.30	2.70	2.90	2.97	2.84
1.6	2.93	0.98	1.73	2.23	2.62	2.80	2.86	2.73
1.7	2.90	1.03	1.69	2.17	2.54	2.71	2.76	2.63
1.8	2.87	1.08	1.65	2.11	2.46	2.62	2.66	2.54
1.9	2.84	1.13	1.61	2.05	2.39	2.54	2.57	2.45
2.0	2.82	1.18	1.58	2.00	2.32	2.46	2.49	2.36
2.1	2.79	1.23	1.54	1.95	2.26	2.39	2.40	2.28
2.2	2.77	1.28	1.51	1.91	2.20	2.31	2.32	2.21
2.3	2.76	1.32	1.48	1.86	2.14	2.24	2.25	2.14
2.4	2.74	1.37	1.46	1.82	2.08	2.17	2.18	2.06
2.5	2.72	1.42	1.43	1.78	2.03	2.11	2.11	1.99
2.6	2.71	1.47	1.40	1.74	1.97	2.04	2.04	1.92
2.7	2.70	1.52	1.38	1.70	1.92	1.98	1.98	1.86
2.8	2.68	1.57	1.36	1.66	1.87	1.92	1.92	1.80
2.9	2.67	1.62	1.34	1.62	1.82	1.86	1.86	1.74
3.0	2.66	1.67	1.31	1.59	1.77	1.80	1.80	1.69

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-271 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 10\%$  at  $S_{MT} = SDC D_{max}$  for RC II Structures, evaluated using the near-field record set.**

$R/I_e = 5.9$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.45	0.50	0.55	0.60	0.60	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	4.80	0.38	5.7%	3.1%	2.5%	2.7%	2.3%	2.5%
0.8	4.49	0.41	8.4%	4.4%	3.4%	3.7%	3.1%	3.3%
0.9	4.25	0.44	11.2%	5.9%	4.4%	4.6%	4.0%	4.2%
1.0	4.06	0.46	14.1%	7.4%	5.5%	5.6%	4.8%	5.1%
1.1	3.91	0.49	17.1%	9.0%	6.6%	6.5%	5.7%	6.1%
1.2	3.78	0.52	20.0%	10.6%	7.7%	7.5%	6.6%	7.0%
1.3	3.67	0.54	22.9%	12.2%	8.8%	8.5%	7.5%	8.0%
1.4	3.57	0.57	25.6%	13.8%	9.9%	9.5%	8.4%	9.0%
1.5	3.49	0.60	28.3%	15.4%	11.0%	10.5%	9.3%	10.0%
1.6	3.42	0.62	30.8%	16.9%	12.1%	11.4%	10.2%	11.0%
1.7	3.36	0.65	33.2%	18.5%	13.1%	12.4%	11.1%	12.0%
1.8	3.30	0.68	35.5%	19.9%	14.2%	13.3%	12.0%	13.0%
1.9	3.25	0.70	37.7%	21.4%	15.3%	14.3%	12.9%	14.1%
2.0	3.21	0.73	39.8%	22.8%	16.3%	15.2%	13.9%	15.1%
2.1	3.17	0.76	41.8%	24.2%	17.4%	16.1%	14.8%	16.1%
2.2	3.13	0.78	43.6%	25.6%	18.4%	17.1%	15.8%	17.1%
2.3	3.09	0.81	45.4%	26.9%	19.5%	18.0%	16.7%	18.1%
2.4	3.06	0.84	47.1%	28.2%	20.5%	18.9%	17.7%	19.1%
2.5	3.03	0.86	48.7%	29.5%	21.5%	19.9%	18.6%	20.1%
2.6	3.01	0.89	50.3%	30.8%	22.5%	20.8%	19.6%	21.1%
2.7	2.98	0.92	51.8%	32.0%	23.5%	21.8%	20.6%	22.1%
2.8	2.96	0.94	53.2%	33.2%	24.5%	22.7%	21.6%	23.1%
2.9	2.94	0.97	54.5%	34.4%	25.6%	23.7%	22.6%	24.1%
3.0	2.92	1.00	55.8%	35.6%	26.6%	24.6%	23.6%	25.2%

Note:  $SDC D_{max} S_{MT} = 1.5g$

**Table H-272 Values of the  $MCE_R$  collapse probability for the 5-Story MFD wood light-frame archetype, assuming a hypothetical value of  $R/I_e$  to achieve the target reliability of  $P[C|S_{MT}] = 2.5\%$  at  $S_{MT} = SDC D_{max}$  for RC IV Structures, evaluated using the near-field record set.**

$R/I_e = 3.2$			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.40	0.45	0.50	0.55	0.55	varies
$MCE_R$ $S_{MT}$ (g)	Strength Property		P[Collapse   $S_{MT}$ ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$\widehat{DR}_{IC}$
0.7	3.68	0.54	0.9%	0.4%	0.3%	0.5%	0.4%	0.4%
0.8	3.52	0.59	1.4%	0.6%	0.5%	0.6%	0.5%	0.6%
0.9	3.39	0.64	2.1%	0.9%	0.7%	0.8%	0.7%	0.8%
1.0	3.28	0.69	2.8%	1.2%	0.9%	1.1%	0.9%	1.0%
1.1	3.20	0.74	3.6%	1.5%	1.1%	1.3%	1.1%	1.3%
1.2	3.13	0.78	4.5%	1.9%	1.4%	1.6%	1.4%	1.6%
1.3	3.07	0.83	5.4%	2.3%	1.7%	1.9%	1.7%	1.9%
1.4	3.02	0.88	6.4%	2.8%	2.0%	2.3%	2.0%	2.2%
1.5	2.97	0.93	7.4%	3.2%	2.3%	2.6%	2.4%	2.5%
1.6	2.93	0.98	8.4%	3.7%	2.7%	3.0%	2.8%	2.9%
1.7	2.90	1.03	9.5%	4.3%	3.1%	3.5%	3.3%	3.2%
1.8	2.87	1.08	10.6%	4.9%	3.6%	4.0%	3.7%	3.7%
1.9	2.84	1.13	11.7%	5.5%	4.1%	4.5%	4.3%	4.1%
2.0	2.82	1.18	12.8%	6.2%	4.6%	5.1%	4.9%	4.6%
2.1	2.79	1.23	13.9%	6.9%	5.1%	5.7%	5.5%	5.2%
2.2	2.77	1.28	15.1%	7.6%	5.8%	6.4%	6.3%	5.8%
2.3	2.76	1.32	16.2%	8.4%	6.4%	7.1%	7.0%	6.4%
2.4	2.74	1.37	17.4%	9.2%	7.1%	7.9%	7.9%	7.2%
2.5	2.72	1.42	18.6%	10.1%	7.9%	8.8%	8.8%	8.1%
2.6	2.71	1.47	19.8%	11.0%	8.7%	9.7%	9.7%	9.0%
2.7	2.70	1.52	21.0%	12.0%	9.6%	10.8%	10.8%	10.1%
2.8	2.68	1.57	22.2%	13.0%	10.6%	11.9%	11.9%	11.2%
2.9	2.67	1.62	23.4%	14.0%	11.6%	13.0%	13.0%	12.3%
3.0	2.66	1.67	24.7%	15.2%	12.8%	14.3%	14.3%	13.6%

Note:  $SDC D_{max} S_{MT} = 1.5g$



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# Appendix I: BRBF eSDOF Collapse Analysis Results

The following tables show results from each of the BRBF archetype collapse analyses. For each of the families, a table is provided for median spectral acceleration at the ASCE/SEI 7 period, adjusted collapse margin ratio (*ACMR*), and probability of collapse given  $MCE_R$  shaking. Results are shown for a range of strengths at a series of story drift ratios. The  $V_{max}/W$  values are calculated from the  $S_{MT}$  value using Eq. 3-8 and the specified value of  $R/l_e$  and the associated  $\Omega$  listed in the *ACMR* table. The  $DR_{IC}$  value, calculated as a linear function of  $V_{max}/W$ , is shown in the  $\hat{S}_{CT}$  table, where all  $DR_{IC}$  values are median  $DR_{IC}$ .

**Table I-1** Values of  $\hat{S}_{CT}$  from the BRBF-4A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.02	0.58	1.12	1.46	1.62	1.62	1.61	9.72
0.20	0.04	0.62	1.18	1.54	1.71	1.71	1.70	9.72
0.30	0.06	0.66	1.24	1.62	1.81	1.81	1.80	9.72
0.40	0.08	0.69	1.29	1.70	1.90	1.90	1.89	9.71
0.50	0.10	0.72	1.35	1.77	2.00	2.00	1.98	9.71
0.60	0.13	0.76	1.40	1.84	2.09	2.09	2.07	9.71
0.70	0.15	0.79	1.45	1.91	2.17	2.17	2.15	9.70
0.80	0.17	0.82	1.51	1.98	2.26	2.26	2.24	9.70
0.90	0.19	0.85	1.56	2.05	2.34	2.34	2.32	9.70
1.00	0.21	0.89	1.61	2.12	2.42	2.42	2.40	9.69
1.10	0.23	0.92	1.66	2.19	2.50	2.50	2.47	9.69
1.20	0.25	0.95	1.70	2.25	2.58	2.58	2.55	9.69
1.30	0.27	0.98	1.75	2.31	2.65	2.65	2.62	9.68
1.40	0.29	1.01	1.80	2.37	2.73	2.73	2.69	9.68
1.50	0.31	1.03	1.84	2.43	2.80	2.80	2.76	9.68
1.60	0.33	1.06	1.89	2.49	2.87	2.87	2.83	9.67
1.70	0.35	1.09	1.93	2.55	2.93	2.93	2.89	9.67
1.80	0.38	1.12	1.98	2.60	3.00	3.00	2.96	9.67
1.90	0.40	1.14	2.02	2.66	3.06	3.06	3.02	9.66
2.00	0.42	1.17	2.06	2.71	3.12	3.12	3.07	9.66
2.10	0.44	1.20	2.10	2.76	3.17	3.17	3.13	9.66
2.20	0.46	1.22	2.14	2.81	3.23	3.23	3.18	9.65
2.30	0.48	1.25	2.18	2.86	3.28	3.28	3.24	9.65
2.40	0.50	1.27	2.22	2.90	3.33	3.33	3.29	9.65
2.50	0.52	1.29	2.25	2.95	3.38	3.38	3.33	9.65

**Table I-2 Values of  $\hat{S}_{CT}$  from the BRBF-4A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$DR_{IC}$ [%]
		2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$	
0.10	0.03	0.60	1.15	1.50	1.66	1.66	1.66	9.72
0.20	0.06	0.66	1.24	1.62	1.81	1.81	1.80	9.72
0.30	0.09	0.71	1.32	1.73	1.95	1.95	1.93	9.71
0.40	0.13	0.76	1.40	1.84	2.09	2.09	2.07	9.71
0.50	0.16	0.81	1.48	1.95	2.22	2.22	2.20	9.70
0.60	0.19	0.85	1.56	2.05	2.34	2.34	2.32	9.70
0.70	0.22	0.90	1.63	2.15	2.46	2.46	2.44	9.69
0.80	0.25	0.95	1.70	2.25	2.58	2.58	2.55	9.69
0.90	0.28	0.99	1.78	2.34	2.69	2.69	2.66	9.68
1.00	0.31	1.03	1.84	2.43	2.80	2.80	2.76	9.68
1.10	0.34	1.08	1.91	2.52	2.90	2.90	2.86	9.67
1.20	0.38	1.12	1.98	2.60	3.00	3.00	2.96	9.67
1.30	0.41	1.16	2.04	2.68	3.09	3.09	3.05	9.66
1.40	0.44	1.20	2.10	2.76	3.17	3.17	3.13	9.66
1.50	0.47	1.23	2.16	2.83	3.26	3.26	3.21	9.65
1.60	0.50	1.27	2.22	2.90	3.33	3.33	3.29	9.65
1.70	0.53	1.30	2.27	2.97	3.40	3.40	3.36	9.64
1.80	0.56	1.34	2.32	3.03	3.47	3.47	3.42	9.64
1.90	0.59	1.37	2.37	3.10	3.53	3.53	3.49	9.63
2.00	0.63	1.40	2.42	3.15	3.59	3.59	3.54	9.63
2.10	0.66	1.43	2.47	3.21	3.64	3.64	3.59	9.62
2.20	0.69	1.46	2.51	3.26	3.69	3.69	3.64	9.62
2.30	0.72	1.49	2.56	3.30	3.73	3.73	3.69	9.61
2.40	0.75	1.52	2.60	3.35	3.77	3.77	3.72	9.61
2.50	0.78	1.54	2.63	3.38	3.80	3.80	3.75	9.61

**Table I-3 BRBF-4A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	8.37	16.05	20.96	23.12	23.12	23.01
0.20	2.50	0.04	4.44	8.44	11.04	12.27	12.27	12.20
0.30	2.50	0.06	3.13	5.89	7.73	8.64	8.64	8.58
0.40	2.50	0.08	2.47	4.62	6.07	6.82	6.82	6.76
0.50	2.50	0.10	2.07	3.85	5.07	5.72	5.72	5.67
0.60	2.50	0.13	1.81	3.34	4.40	4.98	4.98	4.93
0.70	2.50	0.15	1.62	2.97	3.91	4.45	4.45	4.40
0.80	2.50	0.17	1.47	2.69	3.55	4.04	4.04	4.00
0.90	2.50	0.19	1.36	2.48	3.26	3.73	3.73	3.69
1.00	2.50	0.21	1.27	2.30	3.03	3.47	3.47	3.43
1.10	2.50	0.23	1.19	2.16	2.84	3.26	3.26	3.22
1.20	2.50	0.25	1.13	2.03	2.68	3.08	3.08	3.04
1.30	2.50	0.27	1.08	1.93	2.55	2.92	2.92	2.89
1.40	2.50	0.29	1.03	1.84	2.43	2.79	2.79	2.75
1.50	2.50	0.31	0.99	1.76	2.32	2.67	2.67	2.64
1.60	2.50	0.33	0.95	1.69	2.23	2.56	2.56	2.53
1.70	2.50	0.35	0.92	1.63	2.15	2.47	2.47	2.44
1.80	2.50	0.38	0.89	1.57	2.07	2.38	2.38	2.35
1.90	2.50	0.40	0.86	1.52	2.00	2.30	2.30	2.27
2.00	2.50	0.42	0.84	1.47	1.94	2.23	2.23	2.20
2.10	2.50	0.44	0.82	1.43	1.88	2.16	2.16	2.13
2.20	2.50	0.46	0.79	1.39	1.83	2.10	2.10	2.07
2.30	2.50	0.48	0.78	1.36	1.78	2.04	2.04	2.01
2.40	2.50	0.50	0.76	1.32	1.73	1.99	1.99	1.96
2.50	2.50	0.52	0.74	1.29	1.69	1.94	1.94	1.91

**Table I-4 BRBF-4A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	8.62	16.46	21.53	23.83	23.83	23.71
0.20	2.50	0.06	4.69	8.84	11.60	12.96	12.96	12.87
0.30	2.50	0.09	3.37	6.29	8.27	9.31	9.31	9.23
0.40	2.50	0.13	2.71	5.01	6.60	7.47	7.47	7.40
0.50	2.50	0.16	2.31	4.23	5.58	6.35	6.35	6.28
0.60	2.50	0.19	2.04	3.71	4.90	5.59	5.59	5.53
0.70	2.50	0.22	1.84	3.34	4.40	5.04	5.04	4.98
0.80	2.50	0.25	1.69	3.05	4.02	4.62	4.62	4.56
0.90	2.50	0.28	1.58	2.82	3.73	4.28	4.28	4.23
1.00	2.50	0.31	1.48	2.64	3.48	4.00	4.00	3.95
1.10	2.50	0.34	1.40	2.49	3.28	3.77	3.77	3.72
1.20	2.50	0.38	1.33	2.36	3.10	3.57	3.57	3.53
1.30	2.50	0.41	1.27	2.25	2.95	3.40	3.40	3.35
1.40	2.50	0.44	1.22	2.15	2.82	3.24	3.24	3.20
1.50	2.50	0.47	1.18	2.06	2.70	3.11	3.11	3.06
1.60	2.50	0.50	1.14	1.98	2.60	2.98	2.98	2.94
1.70	2.50	0.53	1.10	1.91	2.50	2.87	2.87	2.83
1.80	2.50	0.56	1.06	1.85	2.41	2.76	2.76	2.72
1.90	2.50	0.59	1.03	1.79	2.33	2.66	2.66	2.63
2.00	2.50	0.63	1.00	1.73	2.26	2.57	2.57	2.54
2.10	2.50	0.66	0.98	1.68	2.19	2.48	2.48	2.45
2.20	2.50	0.69	0.95	1.64	2.12	2.40	2.40	2.37
2.30	2.50	0.72	0.93	1.59	2.06	2.32	2.32	2.29
2.40	2.50	0.75	0.90	1.55	2.00	2.25	2.25	2.22
2.50	2.50	0.78	0.88	1.51	1.94	2.17	2.17	2.15

**Table I-5 BRBF-4A ACMR Values Assuming  $R/I_e = 29$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{Ic}$
0.10	2.50	0.01	8.00	15.44	20.14	22.08	22.08	22.00
0.20	2.50	0.01	4.07	7.84	10.23	11.24	11.24	11.19
0.30	2.50	0.02	2.76	5.30	6.92	7.62	7.62	7.59
0.40	2.50	0.02	2.11	4.03	5.27	5.82	5.82	5.79
0.50	2.50	0.03	1.71	3.27	4.28	4.73	4.73	4.71
0.60	2.50	0.03	1.45	2.76	3.62	4.01	4.01	3.99
0.70	2.50	0.04	1.26	2.40	3.14	3.49	3.49	3.47
0.80	2.50	0.05	1.12	2.13	2.79	3.10	3.10	3.08
0.90	2.50	0.05	1.01	1.92	2.51	2.80	2.80	2.78
1.00	2.50	0.06	0.93	1.75	2.29	2.56	2.56	2.54
1.10	2.50	0.06	0.85	1.61	2.11	2.36	2.36	2.34
1.20	2.50	0.07	0.79	1.49	1.96	2.19	2.19	2.18
1.30	2.50	0.07	0.74	1.40	1.83	2.05	2.05	2.04
1.40	2.50	0.08	0.70	1.31	1.72	1.93	1.93	1.92
1.50	2.50	0.09	0.66	1.24	1.63	1.83	1.83	1.82
1.60	2.50	0.09	0.63	1.18	1.54	1.74	1.74	1.72
1.70	2.50	0.10	0.60	1.12	1.47	1.66	1.66	1.64
1.80	2.50	0.10	0.57	1.07	1.41	1.59	1.59	1.57
1.90	2.50	0.11	0.55	1.02	1.35	1.52	1.52	1.51
2.00	2.50	0.11	0.53	0.98	1.29	1.46	1.46	1.45
2.10	2.50	0.12	0.51	0.95	1.25	1.41	1.41	1.40
2.20	2.50	0.13	0.49	0.91	1.20	1.36	1.36	1.35
2.30	2.50	0.13	0.48	0.88	1.16	1.32	1.32	1.31
2.40	2.50	0.14	0.46	0.85	1.13	1.28	1.28	1.26
2.50	2.50	0.14	0.45	0.83	1.09	1.24	1.24	1.23

**Table I-6 BRBF-4A ACMR Values Assuming  $R/l_e = 6.6$  for Target Reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{Ic}$
0.10	2.50	0.03	8.48	16.22	21.20	23.42	23.42	23.31
0.20	2.50	0.05	4.55	8.61	11.28	12.56	12.56	12.49
0.30	2.50	0.08	3.23	6.06	7.96	8.93	8.93	8.86
0.40	2.50	0.10	2.57	4.79	6.29	7.10	7.10	7.04
0.50	2.50	0.13	2.17	4.02	5.29	5.99	5.99	5.93
0.60	2.50	0.15	1.91	3.50	4.61	5.24	5.24	5.19
0.70	2.50	0.18	1.71	3.13	4.13	4.70	4.70	4.65
0.80	2.50	0.20	1.57	2.85	3.76	4.29	4.29	4.25
0.90	2.50	0.23	1.45	2.63	3.47	3.97	3.97	3.92
1.00	2.50	0.25	1.36	2.45	3.23	3.71	3.71	3.66
1.10	2.50	0.28	1.28	2.30	3.03	3.49	3.49	3.44
1.20	2.50	0.30	1.22	2.18	2.87	3.30	3.30	3.26
1.30	2.50	0.33	1.16	2.07	2.73	3.14	3.14	3.10
1.40	2.50	0.35	1.11	1.98	2.60	3.00	3.00	2.96
1.50	2.50	0.38	1.07	1.89	2.49	2.87	2.87	2.83
1.60	2.50	0.40	1.03	1.82	2.40	2.76	2.76	2.72
1.70	2.50	0.43	1.00	1.76	2.31	2.65	2.65	2.62
1.80	2.50	0.45	0.97	1.70	2.23	2.56	2.56	2.53
1.90	2.50	0.48	0.94	1.64	2.15	2.47	2.47	2.44
2.00	2.50	0.51	0.91	1.59	2.09	2.39	2.39	2.36
2.10	2.50	0.53	0.89	1.55	2.02	2.32	2.32	2.29
2.20	2.50	0.56	0.87	1.50	1.97	2.25	2.25	2.22
2.30	2.50	0.58	0.84	1.46	1.91	2.18	2.18	2.15
2.40	2.50	0.61	0.83	1.43	1.86	2.12	2.12	2.09
2.50	2.50	0.63	0.81	1.39	1.81	2.06	2.06	2.03

**Table I-7 BRBF-4A MCE<sub>R</sub> collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.06	1.9%	0.2%	0.1%	0.1%	0.1%	0.1%
0.40	2.50	0.08	5.0%	0.5%	0.3%	0.3%	0.3%	0.3%
0.50	2.50	0.10	9.3%	1.2%	0.6%	0.6%	0.6%	0.6%
0.60	2.50	0.13	14.1%	2.2%	1.1%	1.1%	1.1%	1.1%
0.70	2.50	0.15	19.2%	3.5%	1.8%	1.7%	1.7%	1.6%
0.80	2.50	0.17	24.1%	4.9%	2.6%	2.3%	2.3%	2.3%
0.90	2.50	0.19	28.9%	6.6%	3.4%	3.0%	3.0%	3.0%
1.00	2.50	0.21	33.3%	8.3%	4.4%	3.8%	3.8%	3.8%
1.10	2.50	0.23	37.4%	10.0%	5.4%	4.6%	4.6%	4.6%
1.20	2.50	0.25	41.2%	11.9%	6.5%	5.4%	5.4%	5.5%
1.30	2.50	0.27	44.7%	13.7%	7.5%	6.3%	6.3%	6.3%
1.40	2.50	0.29	48.0%	15.5%	8.6%	7.1%	7.1%	7.2%
1.50	2.50	0.31	50.9%	17.3%	9.8%	8.0%	8.0%	8.1%
1.60	2.50	0.33	53.7%	19.1%	10.9%	8.9%	8.9%	9.0%
1.70	2.50	0.35	56.2%	20.8%	12.0%	9.8%	9.8%	10.0%
1.80	2.50	0.38	58.5%	22.6%	13.2%	10.8%	10.8%	10.9%
1.90	2.50	0.40	60.6%	24.2%	14.3%	11.7%	11.7%	11.8%
2.00	2.50	0.42	62.6%	25.9%	15.4%	12.6%	12.6%	12.8%
2.10	2.50	0.44	64.5%	27.5%	16.6%	13.5%	13.5%	13.7%
2.20	2.50	0.46	66.2%	29.1%	17.7%	14.5%	14.5%	14.7%
2.30	2.50	0.48	67.8%	30.6%	18.8%	15.4%	15.4%	15.6%
2.40	2.50	0.50	69.4%	32.1%	19.9%	16.3%	16.3%	16.6%
2.50	2.50	0.52	70.8%	33.6%	21.0%	17.3%	17.3%	17.5%



**Table I-8 BRBF-4A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.09	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.13	2.3%	0.2%	0.1%	0.1%	0.1%	0.1%
0.50	2.50	0.16	4.7%	0.4%	0.2%	0.2%	0.2%	0.2%
0.60	2.50	0.19	7.7%	0.9%	0.4%	0.4%	0.4%	0.4%
0.70	2.50	0.22	11.1%	1.4%	0.7%	0.6%	0.6%	0.6%
0.80	2.50	0.25	14.6%	2.1%	1.0%	0.9%	0.9%	0.9%
0.90	2.50	0.28	18.1%	3.0%	1.4%	1.3%	1.3%	1.3%
1.00	2.50	0.31	21.6%	3.9%	1.9%	1.6%	1.6%	1.6%
1.10	2.50	0.34	25.0%	4.9%	2.4%	2.1%	2.1%	2.1%
1.20	2.50	0.38	28.3%	5.9%	3.0%	2.5%	2.5%	2.5%
1.30	2.50	0.41	31.4%	7.1%	3.6%	3.0%	3.0%	3.0%
1.40	2.50	0.44	34.4%	8.2%	4.2%	3.5%	3.5%	3.5%
1.50	2.50	0.47	37.2%	9.4%	4.9%	4.1%	4.1%	4.1%
1.60	2.50	0.50	40.0%	10.7%	5.6%	4.7%	4.7%	4.7%
1.70	2.50	0.53	42.6%	11.9%	6.3%	5.3%	5.3%	5.3%
1.80	2.50	0.56	45.1%	13.2%	7.1%	5.9%	5.9%	6.0%
1.90	2.50	0.59	47.4%	14.5%	7.9%	6.6%	6.6%	6.7%
2.00	2.50	0.63	49.7%	15.8%	8.8%	7.3%	7.3%	7.4%
2.10	2.50	0.66	51.9%	17.2%	9.6%	8.1%	8.1%	8.2%
2.20	2.50	0.69	54.0%	18.5%	10.5%	8.9%	8.9%	9.0%
2.30	2.50	0.72	56.0%	19.9%	11.5%	9.7%	9.7%	9.8%
2.40	2.50	0.75	58.0%	21.3%	12.5%	10.6%	10.6%	10.7%
2.50	2.50	0.78	60.1%	22.9%	13.5%	11.6%	11.6%	11.7%

**Table I-9 BRBF-4A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 29$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.01	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.01	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.02	3.3%	0.3%	0.2%	0.2%	0.2%	0.2%
0.40	2.50	0.02	8.8%	1.0%	0.5%	0.6%	0.6%	0.6%
0.50	2.50	0.03	16.4%	2.4%	1.3%	1.3%	1.3%	1.3%
0.60	2.50	0.03	24.9%	4.5%	2.4%	2.4%	2.4%	2.3%
0.70	2.50	0.04	33.5%	7.2%	3.9%	3.7%	3.7%	3.7%
0.80	2.50	0.05	41.7%	10.4%	5.7%	5.3%	5.3%	5.2%
0.90	2.50	0.05	49.0%	13.9%	7.8%	7.1%	7.1%	7.0%
1.00	2.50	0.06	55.6%	17.6%	10.1%	9.0%	9.0%	9.0%
1.10	2.50	0.06	61.3%	21.4%	12.5%	11.0%	11.0%	11.0%
1.20	2.50	0.07	66.2%	25.2%	15.0%	13.1%	13.1%	13.1%
1.30	2.50	0.07	70.5%	28.9%	17.6%	15.2%	15.2%	15.2%
1.40	2.50	0.08	74.1%	32.5%	20.1%	17.3%	17.3%	17.4%
1.50	2.50	0.09	77.3%	36.0%	22.7%	19.4%	19.4%	19.5%
1.60	2.50	0.09	80.0%	39.4%	25.2%	21.5%	21.5%	21.6%
1.70	2.50	0.10	82.3%	42.6%	27.6%	23.5%	23.5%	23.7%
1.80	2.50	0.10	84.3%	45.6%	30.0%	25.5%	25.5%	25.7%
1.90	2.50	0.11	86.0%	48.4%	32.3%	27.5%	27.5%	27.7%
2.00	2.50	0.11	87.6%	51.1%	34.6%	29.4%	29.4%	29.6%
2.10	2.50	0.12	88.9%	53.6%	36.8%	31.2%	31.2%	31.5%
2.20	2.50	0.13	90.0%	56.0%	38.8%	33.0%	33.0%	33.3%
2.30	2.50	0.13	91.0%	58.2%	40.8%	34.7%	34.7%	35.1%
2.40	2.50	0.14	91.9%	60.3%	42.8%	36.3%	36.3%	36.8%
2.50	2.50	0.14	92.6%	62.3%	44.6%	37.9%	37.9%	38.4%

**Table I-10 BRBF-4A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 6.6$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.05	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.08	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.10	2.9%	0.2%	0.1%	0.1%	0.1%	0.1%
0.50	2.50	0.13	6.0%	0.6%	0.3%	0.3%	0.3%	0.3%
0.60	2.50	0.15	9.8%	1.1%	0.5%	0.5%	0.5%	0.5%
0.70	2.50	0.18	14.1%	1.9%	0.9%	0.9%	0.9%	0.9%
0.80	2.50	0.20	18.4%	2.9%	1.4%	1.3%	1.3%	1.2%
0.90	2.50	0.23	22.7%	4.0%	1.9%	1.7%	1.7%	1.7%
1.00	2.50	0.25	26.9%	5.2%	2.5%	2.2%	2.2%	2.2%
1.10	2.50	0.28	30.9%	6.5%	3.2%	2.7%	2.7%	2.7%
1.20	2.50	0.30	34.6%	7.9%	4.0%	3.3%	3.3%	3.3%
1.30	2.50	0.33	38.1%	9.3%	4.7%	3.9%	3.9%	4.0%
1.40	2.50	0.35	41.4%	10.8%	5.5%	4.6%	4.6%	4.6%
1.50	2.50	0.38	44.5%	12.3%	6.4%	5.2%	5.2%	5.3%
1.60	2.50	0.40	47.4%	13.8%	7.3%	5.9%	5.9%	6.0%
1.70	2.50	0.43	50.1%	15.3%	8.2%	6.7%	6.7%	6.7%
1.80	2.50	0.45	52.6%	16.8%	9.1%	7.4%	7.4%	7.5%
1.90	2.50	0.48	55.0%	18.4%	10.1%	8.2%	8.2%	8.3%
2.00	2.50	0.51	57.3%	19.9%	11.0%	9.0%	9.0%	9.1%
2.10	2.50	0.53	59.4%	21.4%	12.0%	9.8%	9.8%	9.9%
2.20	2.50	0.56	61.3%	22.9%	13.0%	10.6%	10.6%	10.8%
2.30	2.50	0.58	63.2%	24.4%	14.0%	11.5%	11.5%	11.6%
2.40	2.50	0.61	65.0%	25.9%	15.1%	12.4%	12.4%	12.5%
2.50	2.50	0.63	66.7%	27.4%	16.1%	13.3%	13.3%	13.5%

**Table I-11 BRBF-4B  $\hat{S}_{CT}$  Values from the Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$DR_{IC}$ [%]
		2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$	
0.10	0.02	0.72	1.29	1.65	1.79	1.79	1.79	10.04
0.20	0.04	0.76	1.36	1.74	1.91	1.91	1.91	10.04
0.30	0.06	0.80	1.43	1.84	2.04	2.04	2.04	10.04
0.40	0.08	0.84	1.49	1.93	2.16	2.16	2.16	10.04
0.50	0.10	0.88	1.56	2.02	2.27	2.27	2.27	10.04
0.60	0.13	0.91	1.62	2.11	2.39	2.39	2.39	10.03
0.70	0.15	0.95	1.68	2.20	2.50	2.50	2.50	10.03
0.80	0.17	0.99	1.74	2.28	2.61	2.61	2.61	10.03
0.90	0.19	1.02	1.80	2.37	2.71	2.71	2.71	10.03
1.00	0.21	1.06	1.86	2.45	2.82	2.82	2.82	10.03
1.10	0.23	1.09	1.92	2.52	2.91	2.91	2.91	10.03
1.20	0.25	1.13	1.97	2.60	3.01	3.01	3.01	10.03
1.30	0.27	1.16	2.03	2.68	3.10	3.10	3.10	10.03
1.40	0.29	1.19	2.08	2.75	3.19	3.19	3.19	10.03
1.50	0.31	1.23	2.13	2.82	3.28	3.28	3.28	10.03
1.60	0.33	1.26	2.19	2.89	3.36	3.36	3.36	10.02
1.70	0.35	1.29	2.24	2.95	3.45	3.45	3.45	10.02
1.80	0.38	1.32	2.28	3.02	3.52	3.52	3.52	10.02
1.90	0.40	1.35	2.33	3.08	3.60	3.60	3.60	10.02
2.00	0.42	1.38	2.38	3.14	3.67	3.67	3.67	10.02
2.10	0.44	1.41	2.42	3.20	3.74	3.74	3.74	10.02
2.20	0.46	1.43	2.47	3.26	3.81	3.81	3.81	10.02
2.30	0.48	1.46	2.51	3.31	3.87	3.87	3.87	10.02
2.40	0.50	1.49	2.55	3.36	3.93	3.93	3.93	10.02
2.50	0.52	1.52	2.59	3.41	3.99	3.99	3.99	10.01

**Table I-12 BRBF-4B  $\hat{S}_{CT}$  Values from the Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.03	0.74	1.33	1.70	1.85	1.85	1.85	10.04
0.20	0.06	0.80	1.43	1.84	2.04	2.04	2.04	10.04
0.30	0.09	0.86	1.52	1.98	2.22	2.22	2.22	10.04
0.40	0.13	0.91	1.62	2.11	2.39	2.39	2.39	10.03
0.50	0.16	0.97	1.71	2.24	2.55	2.55	2.55	10.03
0.60	0.19	1.02	1.80	2.37	2.71	2.71	2.71	10.03
0.70	0.22	1.08	1.89	2.49	2.87	2.87	2.87	10.03
0.80	0.25	1.13	1.97	2.60	3.01	3.01	3.01	10.03
0.90	0.28	1.18	2.06	2.71	3.15	3.15	3.15	10.03
1.00	0.31	1.23	2.13	2.82	3.28	3.28	3.28	10.03
1.10	0.34	1.27	2.21	2.92	3.41	3.41	3.41	10.02
1.20	0.38	1.32	2.28	3.02	3.52	3.52	3.52	10.02
1.30	0.41	1.36	2.35	3.11	3.64	3.64	3.64	10.02
1.40	0.44	1.41	2.42	3.20	3.74	3.74	3.74	10.02
1.50	0.47	1.45	2.49	3.28	3.84	3.84	3.84	10.02
1.60	0.50	1.49	2.55	3.36	3.93	3.93	3.93	10.02
1.70	0.53	1.53	2.61	3.44	4.01	4.01	4.01	10.01
1.80	0.56	1.57	2.67	3.51	4.09	4.09	4.09	10.01
1.90	0.59	1.60	2.72	3.57	4.16	4.16	4.16	10.01
2.00	0.63	1.64	2.77	3.63	4.22	4.22	4.22	10.01
2.10	0.66	1.67	2.82	3.69	4.28	4.28	4.28	10.01
2.20	0.69	1.70	2.86	3.74	4.33	4.33	4.33	10.01
2.30	0.72	1.73	2.91	3.79	4.37	4.37	4.37	10.00
2.40	0.75	1.76	2.95	3.83	4.41	4.41	4.41	10.00
2.50	0.78	1.79	2.98	3.87	4.44	4.44	4.44	10.00

**Table I-13 BRBF-4B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{Ic}$
0.10	2.50	0.02	10.28	18.48	23.57	25.57	25.57	25.57
0.20	2.50	0.04	5.43	9.73	12.48	13.69	13.69	13.69
0.30	2.50	0.06	3.81	6.81	8.77	9.72	9.72	9.72
0.40	2.50	0.08	3.00	5.34	6.91	7.72	7.72	7.72
0.50	2.50	0.10	2.51	4.46	5.79	6.51	6.51	6.51
0.60	2.50	0.13	2.18	3.86	5.04	5.70	5.70	5.70
0.70	2.50	0.15	1.94	3.44	4.50	5.11	5.11	5.11
0.80	2.50	0.17	1.77	3.12	4.09	4.67	4.67	4.67
0.90	2.50	0.19	1.63	2.87	3.76	4.31	4.31	4.31
1.00	2.50	0.21	1.51	2.66	3.50	4.03	4.03	4.03
1.10	2.50	0.23	1.42	2.50	3.29	3.79	3.79	3.79
1.20	2.50	0.25	1.34	2.35	3.10	3.59	3.59	3.59
1.30	2.50	0.27	1.28	2.23	2.95	3.42	3.42	3.42
1.40	2.50	0.29	1.22	2.13	2.81	3.27	3.27	3.27
1.50	2.50	0.31	1.17	2.04	2.69	3.13	3.13	3.13
1.60	2.50	0.33	1.12	1.95	2.58	3.01	3.01	3.01
1.70	2.50	0.35	1.08	1.88	2.49	2.90	2.90	2.90
1.80	2.50	0.38	1.05	1.82	2.40	2.80	2.80	2.80
1.90	2.50	0.40	1.02	1.76	2.32	2.71	2.71	2.71
2.00	2.50	0.42	0.99	1.70	2.25	2.63	2.63	2.63
2.10	2.50	0.44	0.96	1.65	2.18	2.55	2.55	2.55
2.20	2.50	0.46	0.93	1.60	2.12	2.48	2.48	2.48
2.30	2.50	0.48	0.91	1.56	2.06	2.41	2.41	2.41
2.40	2.50	0.50	0.89	1.52	2.01	2.34	2.34	2.34
2.50	2.50	0.52	0.87	1.48	1.95	2.28	2.28	2.28

**Table I-14 BRBF-4B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.03	10.57	18.97	24.27	26.48	26.48	26.48
0.20	2.50	0.06	5.71	10.21	13.16	14.57	14.57	14.57
0.30	2.50	0.09	4.09	7.27	9.44	10.57	10.57	10.57
0.40	2.50	0.13	3.27	5.80	7.56	8.55	8.55	8.55
0.50	2.50	0.16	2.77	4.90	6.42	7.31	7.31	7.31
0.60	2.50	0.19	2.44	4.30	5.64	6.47	6.47	6.47
0.70	2.50	0.22	2.20	3.86	5.08	5.86	5.86	5.86
0.80	2.50	0.25	2.02	3.53	4.66	5.39	5.39	5.39
0.90	2.50	0.28	1.87	3.27	4.32	5.01	5.01	5.01
1.00	2.50	0.31	1.75	3.06	4.04	4.70	4.70	4.70
1.10	2.50	0.34	1.66	2.88	3.80	4.43	4.43	4.43
1.20	2.50	0.38	1.57	2.72	3.60	4.20	4.20	4.20
1.30	2.50	0.41	1.50	2.59	3.43	4.00	4.00	4.00
1.40	2.50	0.44	1.44	2.48	3.27	3.82	3.82	3.82
1.50	2.50	0.47	1.38	2.37	3.13	3.66	3.66	3.66
1.60	2.50	0.50	1.33	2.28	3.01	3.51	3.51	3.51
1.70	2.50	0.53	1.29	2.20	2.89	3.38	3.38	3.38
1.80	2.50	0.56	1.25	2.12	2.79	3.25	3.25	3.25
1.90	2.50	0.59	1.21	2.05	2.69	3.13	3.13	3.13
2.00	2.50	0.63	1.17	1.98	2.60	3.02	3.02	3.02
2.10	2.50	0.66	1.14	1.92	2.51	2.92	2.92	2.92
2.20	2.50	0.69	1.11	1.86	2.43	2.82	2.82	2.82
2.30	2.50	0.72	1.08	1.81	2.36	2.72	2.72	2.72
2.40	2.50	0.75	1.05	1.76	2.28	2.63	2.63	2.63
2.50	2.50	0.78	1.03	1.71	2.21	2.54	2.54	2.54

**Table I-15 BRBF-4A ACMR Values Assuming  $R/l_e = 74$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.00	9.76	17.59	22.31	23.91	23.91	23.91
0.20	2.50	0.00	4.91	8.85	11.23	12.06	12.06	12.06
0.30	2.50	0.01	3.30	5.94	7.54	8.11	8.11	8.11
0.40	2.50	0.01	2.49	4.48	5.69	6.13	6.13	6.13
0.50	2.50	0.01	2.00	3.61	4.59	4.94	4.94	4.94
0.60	2.50	0.01	1.68	3.02	3.85	4.15	4.15	4.15
0.70	2.50	0.02	1.45	2.61	3.32	3.59	3.59	3.59
0.80	2.50	0.02	1.28	2.29	2.92	3.16	3.16	3.16
0.90	2.50	0.02	1.14	2.05	2.62	2.84	2.84	2.84
1.00	2.50	0.02	1.03	1.86	2.37	2.57	2.57	2.57
1.10	2.50	0.02	0.94	1.70	2.17	2.36	2.36	2.36
1.20	2.50	0.03	0.87	1.56	2.00	2.18	2.18	2.18
1.30	2.50	0.03	0.81	1.45	1.86	2.02	2.02	2.02
1.40	2.50	0.03	0.76	1.36	1.74	1.89	1.89	1.89
1.50	2.50	0.03	0.71	1.27	1.63	1.78	1.78	1.78
1.60	2.50	0.04	0.67	1.20	1.54	1.68	1.68	1.68
1.70	2.50	0.04	0.63	1.14	1.46	1.59	1.59	1.59
1.80	2.50	0.04	0.60	1.08	1.38	1.52	1.52	1.52
1.90	2.50	0.04	0.57	1.03	1.32	1.45	1.45	1.45
2.00	2.50	0.05	0.55	0.98	1.26	1.38	1.38	1.38
2.10	2.50	0.05	0.52	0.94	1.21	1.33	1.33	1.33
2.20	2.50	0.05	0.50	0.90	1.16	1.28	1.28	1.28
2.30	2.50	0.05	0.48	0.87	1.11	1.23	1.23	1.23
2.40	2.50	0.05	0.47	0.83	1.07	1.18	1.18	1.18
2.45	2.50	0.06	0.45	0.81	1.04	1.15	1.15	1.15



**Table I-16 BRBF-4A ACMR Values Assuming  $R/l_e = 10.2$  for Target reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.02	10.16	18.27	23.27	25.17	25.17	25.17
0.20	2.50	0.03	5.30	9.52	12.18	13.30	13.30	13.30
0.30	2.50	0.05	3.69	6.60	8.48	9.34	9.34	9.34
0.40	2.50	0.07	2.88	5.14	6.63	7.35	7.35	7.35
0.50	2.50	0.08	2.39	4.26	5.51	6.15	6.15	6.15
0.60	2.50	0.10	2.06	3.67	4.76	5.34	5.34	5.34
0.70	2.50	0.11	1.83	3.25	4.23	4.76	4.76	4.76
0.80	2.50	0.13	1.65	2.93	3.82	4.33	4.33	4.33
0.90	2.50	0.15	1.51	2.68	3.50	3.99	3.99	3.99
1.00	2.50	0.16	1.40	2.48	3.25	3.71	3.71	3.71
1.10	2.50	0.18	1.31	2.32	3.04	3.48	3.48	3.48
1.20	2.50	0.20	1.24	2.18	2.86	3.29	3.29	3.29
1.30	2.50	0.21	1.17	2.06	2.71	3.12	3.12	3.12
1.40	2.50	0.23	1.12	1.96	2.58	2.98	2.98	2.98
1.50	2.50	0.25	1.07	1.87	2.47	2.85	2.85	2.85
1.60	2.50	0.26	1.02	1.79	2.36	2.74	2.74	2.74
1.70	2.50	0.28	0.99	1.72	2.27	2.64	2.64	2.64
1.80	2.50	0.29	0.95	1.66	2.19	2.55	2.55	2.55
1.90	2.50	0.31	0.92	1.60	2.12	2.47	2.47	2.47
2.00	2.50	0.33	0.89	1.55	2.05	2.39	2.39	2.39
2.10	2.50	0.34	0.87	1.51	1.99	2.32	2.32	2.32
2.20	2.50	0.36	0.84	1.46	1.93	2.26	2.26	2.26
2.30	2.50	0.38	0.82	1.42	1.88	2.19	2.19	2.19
2.40	2.50	0.39	0.80	1.39	1.83	2.14	2.14	2.14
2.45	2.50	0.41	0.78	1.35	1.79	2.09	2.09	2.09

**Table I-17 BRBF-4A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.06	0.8%	0.1%	0.0%	0.1%	0.1%	0.1%
0.40	2.50	0.08	2.3%	0.3%	0.2%	0.2%	0.2%	0.2%
0.50	2.50	0.10	4.7%	0.6%	0.3%	0.4%	0.4%	0.4%
0.60	2.50	0.13	7.8%	1.2%	0.6%	0.7%	0.7%	0.7%
0.70	2.50	0.15	11.4%	2.0%	1.0%	1.0%	1.0%	1.0%
0.80	2.50	0.17	15.1%	2.9%	1.5%	1.4%	1.4%	1.4%
0.90	2.50	0.19	18.8%	4.0%	2.1%	1.8%	1.8%	1.8%
1.00	2.50	0.21	22.5%	5.1%	2.7%	2.3%	2.3%	2.3%
1.10	2.50	0.23	26.1%	6.4%	3.4%	2.9%	2.9%	2.9%
1.20	2.50	0.25	29.5%	7.7%	4.1%	3.4%	3.4%	3.4%
1.30	2.50	0.27	32.8%	9.0%	4.8%	4.0%	4.0%	4.0%
1.40	2.50	0.29	35.9%	10.4%	5.6%	4.6%	4.6%	4.6%
1.50	2.50	0.31	38.8%	11.8%	6.4%	5.2%	5.2%	5.2%
1.60	2.50	0.33	41.5%	13.2%	7.2%	5.8%	5.8%	5.8%
1.70	2.50	0.35	44.1%	14.6%	8.0%	6.4%	6.4%	6.4%
1.80	2.50	0.38	46.6%	16.0%	8.9%	7.1%	7.1%	7.1%
1.90	2.50	0.40	48.8%	17.4%	9.8%	7.7%	7.7%	7.7%
2.00	2.50	0.42	51.0%	18.8%	10.6%	8.4%	8.4%	8.4%
2.10	2.50	0.44	53.1%	20.2%	11.5%	9.1%	9.1%	9.1%
2.20	2.50	0.46	55.0%	21.5%	12.4%	9.8%	9.8%	9.8%
2.30	2.50	0.48	56.8%	22.9%	13.3%	10.5%	10.5%	10.5%
2.40	2.50	0.50	58.5%	24.3%	14.2%	11.2%	11.2%	11.2%
2.50	2.50	0.52	60.2%	25.6%	15.1%	11.9%	11.9%	11.9%

**Table I-18 BRBF-4A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.09	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.13	0.9%	0.1%	0.0%	0.1%	0.1%	0.1%
0.50	2.50	0.16	2.1%	0.2%	0.1%	0.1%	0.1%	0.1%
0.60	2.50	0.19	3.7%	0.4%	0.2%	0.2%	0.2%	0.2%
0.70	2.50	0.22	5.8%	0.7%	0.3%	0.3%	0.3%	0.3%
0.80	2.50	0.25	8.0%	1.1%	0.5%	0.5%	0.5%	0.5%
0.90	2.50	0.28	10.5%	1.6%	0.7%	0.7%	0.7%	0.7%
1.00	2.50	0.31	13.1%	2.1%	1.0%	0.9%	0.9%	0.9%
1.10	2.50	0.34	15.6%	2.7%	1.3%	1.1%	1.1%	1.1%
1.20	2.50	0.38	18.3%	3.4%	1.6%	1.4%	1.4%	1.4%
1.30	2.50	0.41	20.8%	4.2%	2.0%	1.6%	1.6%	1.6%
1.40	2.50	0.44	23.4%	5.0%	2.4%	2.0%	2.0%	2.0%
1.50	2.50	0.47	25.9%	5.8%	2.9%	2.3%	2.3%	2.3%
1.60	2.50	0.50	28.3%	6.7%	3.3%	2.7%	2.7%	2.7%
1.70	2.50	0.53	30.7%	7.6%	3.8%	3.1%	3.1%	3.1%
1.80	2.50	0.56	33.0%	8.6%	4.4%	3.5%	3.5%	3.5%
1.90	2.50	0.59	35.3%	9.6%	5.0%	3.9%	3.9%	3.9%
2.00	2.50	0.63	37.6%	10.7%	5.6%	4.4%	4.4%	4.4%
2.10	2.50	0.66	39.7%	11.8%	6.2%	5.0%	5.0%	5.0%
2.20	2.50	0.69	41.9%	12.9%	6.9%	5.6%	5.6%	5.6%
2.30	2.50	0.72	43.9%	14.1%	7.7%	6.2%	6.2%	6.2%
2.40	2.50	0.75	46.0%	15.3%	8.4%	6.8%	6.8%	6.8%
2.50	2.50	0.78	48.0%	16.5%	9.3%	7.6%	7.6%	7.6%

**Table I-19 BRBF-4B MCE<sub>R</sub> Collapse Probability Assuming R/I<sub>e</sub> = 74 for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.00	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.00	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.01	1.5%	0.2%	0.1%	0.1%	0.1%	0.1%
0.40	2.50	0.01	4.9%	0.6%	0.4%	0.5%	0.5%	0.5%
0.50	2.50	0.01	10.3%	1.6%	1.0%	1.1%	1.1%	1.1%
0.60	2.50	0.01	17.3%	3.3%	1.9%	2.1%	2.1%	2.1%
0.70	2.50	0.02	25.0%	5.5%	3.3%	3.4%	3.4%	3.4%
0.80	2.50	0.02	32.9%	8.3%	4.9%	5.0%	5.0%	5.0%
0.90	2.50	0.02	40.5%	11.6%	7.0%	6.8%	6.8%	6.8%
1.00	2.50	0.02	47.7%	15.1%	9.2%	8.9%	8.9%	8.9%
1.10	2.50	0.02	54.1%	18.9%	11.7%	11.1%	11.1%	11.1%
1.20	2.50	0.03	59.9%	22.8%	14.3%	13.3%	13.3%	13.3%
1.30	2.50	0.03	65.0%	26.7%	17.1%	15.7%	15.7%	15.7%
1.40	2.50	0.03	69.5%	30.6%	19.8%	18.1%	18.1%	18.1%
1.50	2.50	0.03	73.4%	34.4%	22.6%	20.5%	20.5%	20.5%
1.60	2.50	0.04	76.8%	38.1%	25.4%	22.9%	22.9%	22.9%
1.70	2.50	0.04	79.7%	41.6%	28.2%	25.3%	25.3%	25.3%
1.80	2.50	0.04	82.2%	45.0%	30.9%	27.6%	27.6%	27.6%
1.90	2.50	0.04	84.4%	48.2%	33.6%	29.9%	29.9%	29.9%
2.00	2.50	0.05	86.3%	51.3%	36.1%	32.2%	32.2%	32.2%
2.10	2.50	0.05	88.0%	54.2%	38.6%	34.3%	34.3%	34.3%
2.20	2.50	0.05	89.4%	56.9%	41.1%	36.4%	36.4%	36.4%
2.30	2.50	0.05	90.6%	59.5%	43.4%	38.5%	38.5%	38.5%
2.40	2.50	0.05	91.7%	61.8%	45.6%	40.4%	40.4%	40.4%
2.45	2.50	0.06	92.7%	64.1%	47.8%	42.3%	42.3%	42.3%

**Table I-20 BRBF-4B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 10.2$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.05	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.07	1.7%	0.2%	0.1%	0.1%	0.1%	0.1%
0.50	2.50	0.08	4.1%	0.4%	0.2%	0.3%	0.3%	0.3%
0.60	2.50	0.10	7.4%	0.9%	0.5%	0.5%	0.5%	0.5%
0.70	2.50	0.11	11.4%	1.6%	0.8%	0.8%	0.8%	0.8%
0.80	2.50	0.13	15.8%	2.5%	1.3%	1.2%	1.2%	1.2%
0.90	2.50	0.15	20.3%	3.7%	1.8%	1.7%	1.7%	1.7%
1.00	2.50	0.16	24.9%	4.9%	2.5%	2.2%	2.2%	2.2%
1.10	2.50	0.18	29.3%	6.3%	3.2%	2.8%	2.8%	2.8%
1.20	2.50	0.20	33.5%	7.8%	4.0%	3.4%	3.4%	3.4%
1.30	2.50	0.21	37.5%	9.4%	4.8%	4.0%	4.0%	4.0%
1.40	2.50	0.23	41.3%	11.1%	5.7%	4.7%	4.7%	4.7%
1.50	2.50	0.25	44.8%	12.7%	6.6%	5.4%	5.4%	5.4%
1.60	2.50	0.26	48.1%	14.4%	7.6%	6.1%	6.1%	6.1%
1.70	2.50	0.28	51.1%	16.1%	8.6%	6.8%	6.8%	6.8%
1.80	2.50	0.29	53.9%	17.8%	9.5%	7.5%	7.5%	7.5%
1.90	2.50	0.31	56.5%	19.5%	10.5%	8.3%	8.3%	8.3%
2.00	2.50	0.33	59.0%	21.2%	11.6%	9.0%	9.0%	9.0%
2.10	2.50	0.34	61.2%	22.9%	12.6%	9.8%	9.8%	9.8%
2.20	2.50	0.36	63.3%	24.5%	13.6%	10.5%	10.5%	10.5%
2.30	2.50	0.38	65.3%	26.1%	14.6%	11.3%	11.3%	11.3%
2.40	2.50	0.39	67.1%	27.7%	15.7%	12.1%	12.1%	12.1%
2.45	2.50	0.41	68.8%	29.2%	16.7%	12.9%	12.9%	12.9%

**Table I-21 Values of  $\hat{S}_{CT}$  from the BRBF-9A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$DR_{IC}$ [%]
		2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$	
0.10	0.02	0.47	0.86	1.21	1.53	1.53	1.49	9.68
0.20	0.04	0.49	0.90	1.26	1.58	1.58	1.54	9.68
0.30	0.06	0.51	0.94	1.32	1.63	1.63	1.59	9.67
0.40	0.08	0.53	0.98	1.37	1.67	1.67	1.64	9.67
0.50	0.10	0.55	1.02	1.42	1.72	1.72	1.69	9.66
0.60	0.13	0.56	1.06	1.46	1.77	1.77	1.73	9.66
0.70	0.15	0.58	1.10	1.51	1.82	1.82	1.78	9.65
0.80	0.17	0.60	1.14	1.56	1.86	1.86	1.83	9.65
0.90	0.19	0.62	1.17	1.60	1.91	1.91	1.87	9.64
1.00	0.21	0.63	1.21	1.65	1.95	1.95	1.92	9.64
1.10	0.23	0.65	1.24	1.69	2.00	2.00	1.96	9.63
1.20	0.25	0.67	1.27	1.73	2.04	2.04	2.00	9.63
1.30	0.27	0.68	1.30	1.77	2.08	2.08	2.04	9.62
1.40	0.29	0.70	1.33	1.81	2.12	2.12	2.09	9.62
1.50	0.31	0.72	1.36	1.85	2.17	2.17	2.13	9.61
1.60	0.33	0.73	1.39	1.88	2.21	2.21	2.17	9.61
1.70	0.35	0.75	1.42	1.92	2.25	2.25	2.20	9.60
1.80	0.38	0.76	1.44	1.95	2.28	2.28	2.24	9.60
1.90	0.40	0.78	1.47	1.98	2.32	2.32	2.28	9.59
2.00	0.42	0.79	1.49	2.01	2.36	2.36	2.32	9.59
2.10	0.44	0.81	1.51	2.04	2.40	2.40	2.35	9.58
2.20	0.46	0.82	1.54	2.07	2.43	2.43	2.39	9.58
2.30	0.48	0.84	1.56	2.10	2.47	2.47	2.42	9.57
2.40	0.50	0.85	1.58	2.13	2.50	2.50	2.45	9.57
2.50	0.52	0.87	1.59	2.15	2.54	2.54	2.48	9.56

**Table I-22 Values of  $\hat{S}_{CT}$  from the BRBF-9A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.03	0.48	0.88	1.24	1.55	1.55	1.51	9.68
0.20	0.06	0.51	0.94	1.32	1.63	1.63	1.59	9.67
0.30	0.09	0.54	1.00	1.39	1.70	1.70	1.66	9.67
0.40	0.13	0.56	1.06	1.46	1.77	1.77	1.73	9.66
0.50	0.16	0.59	1.12	1.53	1.84	1.84	1.80	9.65
0.60	0.19	0.62	1.17	1.60	1.91	1.91	1.87	9.64
0.70	0.22	0.64	1.22	1.67	1.97	1.97	1.94	9.64
0.80	0.25	0.67	1.27	1.73	2.04	2.04	2.00	9.63
0.90	0.28	0.69	1.32	1.79	2.10	2.10	2.07	9.62
1.00	0.31	0.72	1.36	1.85	2.17	2.17	2.13	9.61
1.10	0.34	0.74	1.40	1.90	2.23	2.23	2.18	9.61
1.20	0.38	0.76	1.44	1.95	2.28	2.28	2.24	9.60
1.30	0.41	0.79	1.48	2.00	2.34	2.34	2.30	9.59
1.40	0.44	0.81	1.51	2.04	2.40	2.40	2.35	9.58
1.50	0.47	0.83	1.55	2.09	2.45	2.45	2.40	9.58
1.60	0.50	0.85	1.58	2.13	2.50	2.50	2.45	9.57
1.70	0.53	0.87	1.60	2.16	2.56	2.56	2.50	9.56
1.80	0.56	0.90	1.63	2.20	2.61	2.61	2.54	9.55
1.90	0.59	0.92	1.65	2.23	2.65	2.65	2.59	9.55
2.00	0.63	0.94	1.67	2.26	2.70	2.70	2.63	9.54
2.10	0.66	0.96	1.69	2.29	2.75	2.75	2.67	9.53
2.20	0.69	0.96	1.69	2.29	2.75	2.75	2.67	9.52
2.30	0.72	0.96	1.69	2.29	2.75	2.75	2.67	9.52
2.40	0.75	0.96	1.69	2.29	2.75	2.75	2.67	9.51
2.50	0.78	0.96	1.69	2.29	2.75	2.75	2.67	9.50

**Table I-23 BRBF-9A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.61	1.61	1.61	1.61	1.61	1.61
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.02	7.64	13.83	19.48	24.57	24.57	23.96
0.20	2.50	0.04	3.97	7.26	10.17	12.69	12.69	12.39
0.30	2.50	0.06	2.74	5.06	7.06	8.73	8.73	8.53
0.40	2.50	0.08	2.13	3.96	5.50	6.74	6.74	6.59
0.50	2.50	0.10	1.76	3.30	4.56	5.55	5.55	5.43
0.60	2.50	0.13	1.52	2.85	3.93	4.75	4.75	4.65
0.70	2.50	0.15	1.34	2.53	3.48	4.18	4.18	4.09
0.80	2.50	0.17	1.21	2.29	3.13	3.75	3.75	3.68
0.90	2.50	0.19	1.10	2.10	2.87	3.41	3.41	3.35
1.00	2.50	0.21	1.02	1.94	2.65	3.14	3.14	3.08
1.10	2.50	0.23	0.95	1.81	2.47	2.92	2.92	2.87
1.20	2.50	0.25	0.90	1.71	2.32	2.74	2.74	2.69
1.30	2.50	0.27	0.85	1.61	2.19	2.58	2.58	2.53
1.40	2.50	0.29	0.80	1.53	2.08	2.44	2.44	2.40
1.50	2.50	0.31	0.77	1.46	1.98	2.32	2.32	2.28
1.60	2.50	0.33	0.74	1.40	1.89	2.22	2.22	2.18
1.70	2.50	0.35	0.71	1.34	1.81	2.13	2.13	2.09
1.80	2.50	0.38	0.68	1.29	1.74	2.04	2.04	2.01
1.90	2.50	0.40	0.66	1.24	1.68	1.97	1.97	1.93
2.00	2.50	0.42	0.64	1.20	1.62	1.90	1.90	1.86
2.10	2.50	0.44	0.62	1.16	1.57	1.84	1.84	1.80
2.20	2.50	0.46	0.60	1.12	1.52	1.78	1.78	1.75
2.30	2.50	0.48	0.59	1.09	1.47	1.73	1.73	1.69
2.40	2.50	0.50	0.57	1.06	1.43	1.68	1.68	1.64
2.50	2.50	0.52	0.56	1.03	1.39	1.64	1.64	1.60



**Table I-24 BRBF-9A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.61	1.61	1.61	1.61	1.61	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	7.79	14.18	19.91	24.98	24.98	24.37
0.20	2.50	0.06	4.12	7.60	10.59	13.09	13.09	12.79
0.30	2.50	0.09	2.89	5.39	7.47	9.12	9.12	8.92
0.40	2.50	0.13	2.27	4.28	5.89	7.12	7.12	6.98
0.50	2.50	0.16	1.90	3.60	4.94	5.92	5.92	5.81
0.60	2.50	0.19	1.65	3.14	4.30	5.12	5.12	5.02
0.70	2.50	0.22	1.48	2.81	3.83	4.54	4.54	4.46
0.80	2.50	0.25	1.34	2.56	3.48	4.10	4.10	4.03
0.90	2.50	0.28	1.24	2.36	3.20	3.76	3.76	3.69
1.00	2.50	0.31	1.15	2.19	2.97	3.49	3.49	3.42
1.10	2.50	0.34	1.08	2.05	2.78	3.26	3.26	3.20
1.20	2.50	0.38	1.02	1.94	2.62	3.07	3.07	3.01
1.30	2.50	0.41	0.97	1.83	2.47	2.90	2.90	2.85
1.40	2.50	0.44	0.93	1.74	2.35	2.76	2.76	2.70
1.50	2.50	0.47	0.89	1.66	2.24	2.63	2.63	2.58
1.60	2.50	0.50	0.86	1.59	2.14	2.52	2.52	2.47
1.70	2.50	0.53	0.83	1.52	2.05	2.42	2.42	2.37
1.80	2.50	0.56	0.80	1.46	1.97	2.33	2.33	2.28
1.90	2.50	0.59	0.78	1.40	1.89	2.25	2.25	2.19
2.00	2.50	0.63	0.75	1.35	1.82	2.17	2.17	2.12
2.10	2.50	0.66	0.73	1.30	1.75	2.10	2.10	2.05
2.20	2.50	0.69	0.70	1.24	1.67	2.01	2.01	1.95
2.30	2.50	0.72	0.67	1.18	1.60	1.92	1.92	1.87
2.40	2.50	0.75	0.64	1.13	1.53	1.84	1.84	1.79
2.50	2.50	0.78	0.62	1.09	1.47	1.77	1.77	1.72

**Table I-25 BRBF-9A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.06	3.3%	0.3%	0.1%	0.1%	0.1%	0.1%
0.40	2.50	0.08	8.5%	1.1%	0.4%	0.3%	0.3%	0.3%
0.50	2.50	0.10	15.2%	2.3%	1.0%	0.7%	0.7%	0.7%
0.60	2.50	0.13	22.5%	4.0%	1.8%	1.3%	1.3%	1.3%
0.70	2.50	0.15	29.8%	6.1%	2.8%	2.1%	2.1%	2.1%
0.80	2.50	0.17	36.6%	8.4%	3.9%	3.0%	3.0%	3.0%
0.90	2.50	0.19	42.9%	10.9%	5.3%	4.0%	4.0%	4.1%
1.00	2.50	0.21	48.6%	13.4%	6.7%	5.1%	5.1%	5.2%
1.10	2.50	0.23	53.6%	16.1%	8.2%	6.3%	6.3%	6.4%
1.20	2.50	0.25	58.0%	18.7%	9.8%	7.5%	7.5%	7.7%
1.30	2.50	0.27	61.9%	21.3%	11.4%	8.8%	8.8%	9.0%
1.40	2.50	0.29	65.4%	23.8%	13.0%	10.1%	10.1%	10.3%
1.50	2.50	0.31	68.4%	26.3%	14.7%	11.4%	11.4%	11.7%
1.60	2.50	0.33	71.1%	28.8%	16.3%	12.7%	12.7%	13.0%
1.70	2.50	0.35	73.5%	31.2%	18.0%	14.1%	14.1%	14.4%
1.80	2.50	0.38	75.6%	33.5%	19.6%	15.4%	15.4%	15.7%
1.90	2.50	0.40	77.5%	35.8%	21.2%	16.7%	16.7%	17.1%
2.00	2.50	0.42	79.2%	38.0%	22.9%	18.0%	18.0%	18.4%
2.10	2.50	0.44	80.8%	40.2%	24.5%	19.2%	19.2%	19.7%
2.20	2.50	0.46	82.1%	42.3%	26.1%	20.5%	20.5%	21.0%
2.30	2.50	0.48	83.4%	44.3%	27.7%	21.7%	21.7%	22.3%
2.40	2.50	0.50	84.5%	46.3%	29.2%	22.9%	22.9%	23.6%
2.50	2.50	0.52	85.5%	48.2%	30.8%	24.1%	24.1%	24.9%

**Table I-26 BRBF-9A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.09	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.13	5.0%	0.4%	0.2%	0.1%	0.1%	0.1%
0.50	2.50	0.16	9.9%	1.0%	0.4%	0.3%	0.3%	0.3%
0.60	2.50	0.19	15.7%	1.9%	0.8%	0.6%	0.6%	0.6%
0.70	2.50	0.22	21.8%	3.0%	1.3%	1.0%	1.0%	1.0%
0.80	2.50	0.25	27.8%	4.4%	1.9%	1.5%	1.5%	1.5%
0.90	2.50	0.28	33.5%	5.9%	2.6%	2.1%	2.1%	2.1%
1.00	2.50	0.31	38.8%	7.7%	3.5%	2.7%	2.7%	2.8%
1.10	2.50	0.34	43.7%	9.5%	4.4%	3.5%	3.5%	3.5%
1.20	2.50	0.38	48.1%	11.5%	5.5%	4.2%	4.2%	4.3%
1.30	2.50	0.41	52.1%	13.5%	6.6%	5.1%	5.1%	5.2%
1.40	2.50	0.44	55.8%	15.7%	7.7%	5.9%	5.9%	6.1%
1.50	2.50	0.47	59.1%	17.8%	9.0%	6.8%	6.8%	7.0%
1.60	2.50	0.50	62.0%	20.1%	10.2%	7.8%	7.8%	8.0%
1.70	2.50	0.53	64.7%	22.4%	11.6%	8.7%	8.7%	9.0%
1.80	2.50	0.56	67.2%	24.7%	13.0%	9.7%	9.7%	10.0%
1.90	2.50	0.59	69.4%	27.1%	14.4%	10.6%	10.6%	11.0%
2.00	2.50	0.63	71.4%	29.5%	15.9%	11.6%	11.6%	12.1%
2.10	2.50	0.66	73.3%	31.9%	17.5%	12.6%	12.6%	13.2%
2.20	2.50	0.69	76.2%	34.9%	19.5%	14.1%	14.1%	14.8%
2.30	2.50	0.72	78.9%	38.0%	21.6%	15.7%	15.7%	16.5%
2.40	2.50	0.75	81.2%	41.0%	23.8%	17.3%	17.3%	18.2%
2.50	2.50	0.78	83.4%	43.9%	25.9%	19.0%	19.0%	19.9%

**Table I-27 Values of  $\hat{S}_{CT}$  from the BRBF-9B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.02	0.52	0.92	1.31	1.69	1.69	1.67	9.85
0.20	0.04	0.54	0.97	1.37	1.74	1.74	1.72	9.85
0.30	0.06	0.56	1.01	1.42	1.79	1.79	1.77	9.84
0.40	0.08	0.58	1.06	1.48	1.83	1.83	1.81	9.83
0.50	0.10	0.60	1.10	1.53	1.88	1.88	1.86	9.83
0.60	0.13	0.61	1.14	1.58	1.93	1.93	1.91	9.82
0.70	0.15	0.63	1.18	1.63	1.97	1.97	1.95	9.82
0.80	0.17	0.65	1.22	1.68	2.02	2.02	2.00	9.81
0.90	0.19	0.67	1.26	1.73	2.06	2.06	2.04	9.81
1.00	0.21	0.69	1.30	1.77	2.11	2.11	2.09	9.80
1.10	0.23	0.70	1.34	1.82	2.15	2.15	2.13	9.79
1.20	0.25	0.72	1.37	1.86	2.20	2.20	2.18	9.79
1.30	0.27	0.74	1.40	1.91	2.24	2.24	2.22	9.78
1.40	0.29	0.76	1.44	1.95	2.29	2.29	2.26	9.78
1.50	0.31	0.77	1.47	1.99	2.33	2.33	2.31	9.77
1.60	0.33	0.79	1.50	2.03	2.37	2.37	2.35	9.77
1.70	0.35	0.81	1.53	2.06	2.42	2.42	2.39	9.76
1.80	0.38	0.82	1.56	2.10	2.46	2.46	2.43	9.75
1.90	0.40	0.84	1.58	2.14	2.50	2.50	2.47	9.75
2.00	0.42	0.85	1.61	2.17	2.55	2.55	2.51	9.74
2.10	0.44	0.87	1.63	2.20	2.59	2.59	2.55	9.74
2.20	0.46	0.89	1.65	2.23	2.63	2.63	2.59	9.73
2.30	0.48	0.90	1.68	2.27	2.67	2.67	2.63	9.73
2.40	0.50	0.92	1.70	2.29	2.71	2.71	2.67	9.72
2.50	0.52	0.93	1.71	2.32	2.75	2.75	2.71	9.71

**Table I-28 Values of  $\hat{S}_{CT}$  from the BRBF-9BA Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.03	0.53	0.94	1.34	1.72	1.72	1.69	9.85
0.20	0.06	0.56	1.01	1.42	1.79	1.79	1.77	9.84
0.30	0.09	0.59	1.08	1.50	1.86	1.86	1.84	9.83
0.40	0.13	0.61	1.14	1.58	1.93	1.93	1.91	9.82
0.50	0.16	0.64	1.20	1.66	2.00	2.00	1.97	9.81
0.60	0.19	0.67	1.26	1.73	2.06	2.06	2.04	9.81
0.70	0.22	0.70	1.32	1.80	2.13	2.13	2.11	9.80
0.80	0.25	0.72	1.37	1.86	2.20	2.20	2.18	9.79
0.90	0.28	0.75	1.42	1.93	2.27	2.27	2.24	9.78
1.00	0.31	0.77	1.47	1.99	2.33	2.33	2.31	9.77
1.10	0.34	0.80	1.51	2.05	2.40	2.40	2.37	9.76
1.20	0.38	0.82	1.56	2.10	2.46	2.46	2.43	9.75
1.30	0.41	0.85	1.59	2.15	2.52	2.52	2.49	9.75
1.40	0.44	0.87	1.63	2.20	2.59	2.59	2.55	9.74
1.50	0.47	0.89	1.66	2.25	2.65	2.65	2.61	9.73
1.60	0.50	0.92	1.70	2.29	2.71	2.71	2.67	9.72
1.70	0.53	0.94	1.72	2.34	2.77	2.77	2.73	9.71
1.80	0.56	0.96	1.75	2.37	2.83	2.83	2.79	9.70
1.90	0.59	0.98	1.77	2.41	2.89	2.89	2.84	9.69
2.00	0.63	1.00	1.79	2.44	2.95	2.95	2.89	9.68
2.10	0.66	1.02	1.81	2.47	3.01	3.01	2.95	9.68
2.20	0.69	1.03	1.82	2.49	3.04	3.04	2.97	9.67
2.30	0.72	1.03	1.82	2.49	3.04	3.04	2.97	9.66
2.40	0.75	1.03	1.82	2.49	3.04	3.04	2.97	9.65
2.50	0.78	1.03	1.82	2.49	3.04	3.04	2.97	9.64

**Table I-29 BRBF-9B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.61	1.61	1.61	1.61	1.61	1.61
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.02	8.36	14.79	21.09	27.25	27.25	26.89
0.20	2.50	0.04	4.34	7.78	11.00	14.01	14.01	13.83
0.30	2.50	0.06	2.99	5.43	7.63	9.59	9.59	9.47
0.40	2.50	0.08	2.32	4.25	5.94	7.38	7.38	7.30
0.50	2.50	0.10	1.92	3.54	4.92	6.06	6.06	5.99
0.60	2.50	0.13	1.65	3.07	4.24	5.17	5.17	5.11
0.70	2.50	0.15	1.46	2.72	3.75	4.54	4.54	4.49
0.80	2.50	0.17	1.31	2.46	3.38	4.06	4.06	4.02
0.90	2.50	0.19	1.20	2.26	3.09	3.69	3.69	3.65
1.00	2.50	0.21	1.11	2.09	2.86	3.40	3.40	3.36
1.10	2.50	0.23	1.03	1.96	2.66	3.15	3.15	3.12
1.20	2.50	0.25	0.97	1.84	2.50	2.95	2.95	2.92
1.30	2.50	0.27	0.92	1.74	2.36	2.78	2.78	2.75
1.40	2.50	0.29	0.87	1.65	2.24	2.63	2.63	2.60
1.50	2.50	0.31	0.83	1.58	2.13	2.50	2.50	2.48
1.60	2.50	0.33	0.79	1.51	2.04	2.39	2.39	2.36
1.70	2.50	0.35	0.76	1.45	1.96	2.29	2.29	2.26
1.80	2.50	0.38	0.74	1.39	1.88	2.20	2.20	2.18
1.90	2.50	0.40	0.71	1.34	1.81	2.12	2.12	2.10
2.00	2.50	0.42	0.69	1.29	1.75	2.05	2.05	2.02
2.10	2.50	0.44	0.67	1.25	1.69	1.98	1.98	1.96
2.20	2.50	0.46	0.65	1.21	1.64	1.92	1.92	1.90
2.30	2.50	0.48	0.63	1.17	1.59	1.87	1.87	1.84
2.40	2.50	0.50	0.61	1.14	1.54	1.82	1.82	1.79
2.50	2.50	0.52	0.60	1.10	1.50	1.77	1.77	1.75

**Table I-30 BRBF-9B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.61	1.61	1.61	1.61	1.61	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	8.51	15.18	21.55	27.63	27.63	27.27
0.20	2.50	0.06	4.49	8.15	11.45	14.39	14.39	14.21
0.30	2.50	0.09	3.15	5.79	8.06	9.97	9.97	9.85
0.40	2.50	0.13	2.47	4.60	6.36	7.76	7.76	7.67
0.50	2.50	0.16	2.07	3.88	5.33	6.43	6.43	6.36
0.60	2.50	0.19	1.80	3.39	4.63	5.54	5.54	5.48
0.70	2.50	0.22	1.60	3.03	4.13	4.90	4.90	4.85
0.80	2.50	0.25	1.45	2.76	3.75	4.43	4.43	4.38
0.90	2.50	0.28	1.34	2.54	3.45	4.05	4.05	4.01
1.00	2.50	0.31	1.25	2.36	3.20	3.75	3.75	3.71
1.10	2.50	0.34	1.17	2.21	2.99	3.51	3.51	3.47
1.20	2.50	0.38	1.10	2.09	2.82	3.30	3.30	3.26
1.30	2.50	0.41	1.05	1.97	2.67	3.13	3.13	3.09
1.40	2.50	0.44	1.00	1.88	2.53	2.98	2.98	2.94
1.50	2.50	0.47	0.96	1.79	2.42	2.84	2.84	2.81
1.60	2.50	0.50	0.92	1.71	2.31	2.73	2.73	2.69
1.70	2.50	0.53	0.89	1.63	2.21	2.63	2.63	2.59
1.80	2.50	0.56	0.86	1.56	2.12	2.53	2.53	2.49
1.90	2.50	0.59	0.83	1.50	2.04	2.45	2.45	2.41
2.00	2.50	0.63	0.81	1.44	1.97	2.38	2.38	2.33
2.10	2.50	0.66	0.78	1.39	1.90	2.31	2.31	2.26
2.20	2.50	0.69	0.76	1.33	1.82	2.22	2.22	2.18
2.30	2.50	0.72	0.72	1.27	1.74	2.13	2.13	2.08
2.40	2.50	0.75	0.69	1.22	1.67	2.04	2.04	1.99
2.50	2.50	0.78	0.66	1.17	1.60	1.96	1.96	1.91

**Table I-31 BRBF-9B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.06	2.3%	0.2%	0.1%	0.1%	0.1%	0.1%
0.40	2.50	0.08	6.3%	0.8%	0.3%	0.2%	0.2%	0.2%
0.50	2.50	0.10	11.8%	1.8%	0.7%	0.5%	0.5%	0.5%
0.60	2.50	0.13	18.2%	3.1%	1.3%	1.0%	1.0%	1.0%
0.70	2.50	0.15	24.7%	4.8%	2.1%	1.5%	1.5%	1.6%
0.80	2.50	0.17	31.2%	6.7%	3.1%	2.3%	2.3%	2.3%
0.90	2.50	0.19	37.2%	8.7%	4.1%	3.1%	3.1%	3.1%
1.00	2.50	0.21	42.7%	10.9%	5.3%	4.0%	4.0%	4.1%
1.10	2.50	0.23	47.8%	13.2%	6.6%	5.0%	5.0%	5.1%
1.20	2.50	0.25	52.3%	15.5%	7.9%	6.1%	6.1%	6.2%
1.30	2.50	0.27	56.4%	17.8%	9.3%	7.2%	7.2%	7.3%
1.40	2.50	0.29	60.0%	20.1%	10.7%	8.4%	8.4%	8.5%
1.50	2.50	0.31	63.3%	22.4%	12.2%	9.5%	9.5%	9.6%
1.60	2.50	0.33	66.2%	24.7%	13.6%	10.7%	10.7%	10.8%
1.70	2.50	0.35	68.8%	26.9%	15.1%	11.8%	11.8%	12.0%
1.80	2.50	0.38	71.2%	29.1%	16.6%	13.0%	13.0%	13.2%
1.90	2.50	0.40	73.3%	31.3%	18.1%	14.1%	14.1%	14.3%
2.00	2.50	0.42	75.2%	33.4%	19.5%	15.3%	15.3%	15.5%
2.10	2.50	0.44	76.9%	35.5%	21.0%	16.4%	16.4%	16.7%
2.20	2.50	0.46	78.5%	37.5%	22.5%	17.5%	17.5%	17.8%
2.30	2.50	0.48	79.9%	39.5%	23.9%	18.6%	18.6%	18.9%
2.40	2.50	0.50	81.2%	41.5%	25.4%	19.6%	19.6%	20.0%
2.50	2.50	0.52	82.4%	43.4%	26.8%	20.7%	20.7%	21.1%



**Table I-32 BRBF-9B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.09	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%
0.40	2.50	0.13	3.5%	0.3%	0.1%	0.1%	0.1%	0.1%
0.50	2.50	0.16	7.3%	0.7%	0.3%	0.2%	0.2%	0.2%
0.60	2.50	0.19	12.1%	1.3%	0.5%	0.4%	0.4%	0.4%
0.70	2.50	0.22	17.3%	2.2%	0.9%	0.7%	0.7%	0.7%
0.80	2.50	0.25	22.7%	3.3%	1.4%	1.1%	1.1%	1.1%
0.90	2.50	0.28	28.0%	4.5%	2.0%	1.6%	1.6%	1.6%
1.00	2.50	0.31	33.1%	5.9%	2.6%	2.1%	2.1%	2.1%
1.10	2.50	0.34	37.8%	7.4%	3.4%	2.7%	2.7%	2.7%
1.20	2.50	0.38	42.2%	9.1%	4.2%	3.3%	3.3%	3.3%
1.30	2.50	0.41	46.2%	10.8%	5.1%	4.0%	4.0%	4.0%
1.40	2.50	0.44	50.0%	12.7%	6.1%	4.7%	4.7%	4.7%
1.50	2.50	0.47	53.4%	14.6%	7.1%	5.4%	5.4%	5.5%
1.60	2.50	0.50	56.5%	16.6%	8.2%	6.1%	6.1%	6.2%
1.70	2.50	0.53	59.4%	18.6%	9.3%	6.9%	6.9%	7.0%
1.80	2.50	0.56	62.0%	20.8%	10.5%	7.6%	7.6%	7.8%
1.90	2.50	0.59	64.4%	23.0%	11.7%	8.4%	8.4%	8.6%
2.00	2.50	0.63	66.7%	25.3%	13.0%	9.2%	9.2%	9.4%
2.10	2.50	0.66	68.7%	27.6%	14.3%	9.9%	9.9%	10.3%
2.20	2.50	0.69	71.3%	30.2%	15.9%	10.9%	10.9%	11.4%
2.30	2.50	0.72	74.2%	33.1%	17.8%	12.3%	12.3%	12.8%
2.40	2.50	0.75	76.9%	36.0%	19.7%	13.7%	13.7%	14.2%
2.50	2.50	0.78	79.3%	38.8%	21.6%	15.1%	15.1%	15.7%

**Table I-33 Values of  $\hat{S}_{CT}$  from the BRBF-18A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

$MCE_R$ $S_{MT}$ (g)	$V_{max}/W$	Median Collapse Acceleration, $S_{CT}$ (g) at $DR$						$DR_{IC}$	$DR_{IC}$ [%]
		2.5%	5.0%	7.5%	10%	15%			
0.10	0.02	0.28	0.56	0.84	1.12	1.12	1.09	9.75	
0.20	0.04	0.30	0.59	0.88	1.15	1.15	1.12	9.74	
0.30	0.06	0.32	0.63	0.91	1.18	1.18	1.15	9.73	
0.40	0.08	0.33	0.66	0.95	1.21	1.21	1.18	9.72	
0.50	0.10	0.34	0.69	0.99	1.24	1.24	1.21	9.72	
0.60	0.13	0.36	0.72	1.02	1.27	1.27	1.24	9.71	
0.70	0.15	0.37	0.75	1.06	1.29	1.29	1.27	9.70	
0.80	0.17	0.38	0.78	1.09	1.32	1.32	1.30	9.69	
0.90	0.19	0.40	0.80	1.12	1.35	1.35	1.33	9.68	
1.00	0.21	0.41	0.83	1.15	1.38	1.38	1.36	9.67	
1.10	0.23	0.42	0.86	1.18	1.41	1.41	1.38	9.66	
1.20	0.25	0.43	0.88	1.21	1.44	1.44	1.41	9.65	
1.30	0.27	0.44	0.90	1.24	1.46	1.46	1.44	9.64	
1.40	0.29	0.45	0.92	1.27	1.49	1.49	1.47	9.64	
1.50	0.31	0.46	0.94	1.30	1.52	1.52	1.49	9.63	
1.60	0.33	0.47	0.96	1.32	1.54	1.54	1.52	9.62	
1.70	0.35	0.47	0.98	1.35	1.57	1.57	1.54	9.61	
1.80	0.38	0.48	1.00	1.37	1.60	1.60	1.57	9.60	
1.90	0.40	0.49	1.02	1.39	1.62	1.62	1.59	9.59	
2.00	0.42	0.49	1.03	1.42	1.65	1.65	1.62	9.58	
2.10	0.44	0.50	1.05	1.44	1.67	1.67	1.64	9.57	
2.20	0.46	0.50	1.06	1.46	1.70	1.70	1.67	9.56	
2.30	0.48	0.51	1.07	1.48	1.72	1.72	1.69	9.56	
2.40	0.50	0.51	1.08	1.49	1.75	1.75	1.71	9.55	
2.50	0.52	0.51	1.09	1.51	1.77	1.77	1.74	9.54	

**Table I-34 Values of  $\hat{S}_{CT}$  from the BRBF-18A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.03	0.29	0.58	0.86	1.13	1.13	1.10	9.75
0.20	0.06	0.32	0.63	0.91	1.18	1.18	1.15	9.73
0.30	0.09	0.34	0.67	0.97	1.22	1.22	1.20	9.72
0.40	0.13	0.36	0.72	1.02	1.27	1.27	1.24	9.71
0.50	0.16	0.38	0.76	1.07	1.31	1.31	1.28	9.69
0.60	0.19	0.40	0.80	1.12	1.35	1.35	1.33	9.68
0.70	0.22	0.41	0.84	1.17	1.39	1.39	1.37	9.67
0.80	0.25	0.43	0.88	1.21	1.44	1.44	1.41	9.65
0.90	0.28	0.44	0.91	1.26	1.48	1.48	1.45	9.64
1.00	0.31	0.46	0.94	1.30	1.52	1.52	1.49	9.63
1.10	0.34	0.47	0.97	1.34	1.56	1.56	1.53	9.61
1.20	0.38	0.48	1.00	1.37	1.60	1.60	1.57	9.60
1.30	0.41	0.49	1.02	1.41	1.63	1.63	1.61	9.59
1.40	0.44	0.50	1.05	1.44	1.67	1.67	1.64	9.57
1.50	0.47	0.50	1.06	1.47	1.71	1.71	1.68	9.56
1.60	0.50	0.51	1.08	1.49	1.75	1.75	1.71	9.55
1.70	0.53	0.51	1.10	1.52	1.78	1.78	1.75	9.53
1.80	0.56	0.52	1.11	1.54	1.82	1.82	1.78	9.52
1.90	0.59	0.52	1.12	1.56	1.85	1.85	1.81	9.51
2.00	0.63	0.52	1.12	1.58	1.89	1.89	1.84	9.49
2.10	0.66	0.52	1.13	1.59	1.91	1.91	1.86	9.48
2.20	0.69	0.52	1.13	1.59	1.91	1.91	1.86	9.47
2.30	0.72	0.52	1.13	1.59	1.91	1.91	1.85	9.45
2.40	0.75	0.52	1.13	1.59	1.91	1.91	1.85	9.44
2.50	0.78	0.52	1.13	1.59	1.91	1.91	1.85	9.43

**Table I-35 BRBF-18A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.55	1.55	1.55	1.55	1.55	1.55
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.02	4.41	8.69	13.02	17.40	17.40	16.96
0.20	2.50	0.04	2.33	4.61	6.81	8.93	8.93	8.72
0.30	2.50	0.06	1.64	3.25	4.74	6.11	6.11	5.97
0.40	2.50	0.08	1.28	2.56	3.70	4.70	4.70	4.59
0.50	2.50	0.10	1.07	2.15	3.07	3.85	3.85	3.77
0.60	2.50	0.13	0.93	1.87	2.65	3.28	3.28	3.22
0.70	2.50	0.15	0.83	1.66	2.35	2.88	2.88	2.82
0.80	2.50	0.17	0.75	1.51	2.12	2.57	2.57	2.52
0.90	2.50	0.19	0.69	1.39	1.94	2.34	2.34	2.29
1.00	2.50	0.21	0.63	1.29	1.79	2.15	2.15	2.11
1.10	2.50	0.23	0.59	1.21	1.67	1.99	1.99	1.96
1.20	2.50	0.25	0.56	1.14	1.57	1.86	1.86	1.83
1.30	2.50	0.27	0.53	1.08	1.49	1.75	1.75	1.72
1.40	2.50	0.29	0.50	1.02	1.41	1.65	1.65	1.63
1.50	2.50	0.31	0.47	0.98	1.34	1.57	1.57	1.55
1.60	2.50	0.33	0.45	0.94	1.28	1.50	1.50	1.47
1.70	2.50	0.35	0.43	0.90	1.23	1.43	1.43	1.41
1.80	2.50	0.38	0.41	0.86	1.18	1.38	1.38	1.35
1.90	2.50	0.40	0.40	0.83	1.14	1.32	1.32	1.30
2.00	2.50	0.42	0.38	0.80	1.10	1.28	1.28	1.26
2.10	2.50	0.44	0.37	0.77	1.06	1.24	1.24	1.21
2.20	2.50	0.46	0.35	0.75	1.03	1.20	1.20	1.18
2.30	2.50	0.48	0.34	0.72	0.99	1.16	1.16	1.14
2.40	2.50	0.50	0.33	0.70	0.96	1.13	1.13	1.11
2.50	2.50	0.52	0.32	0.68	0.94	1.10	1.10	1.08

**Table I-36 BRBF-18A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.55	1.55	1.55	1.55	1.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	4.54	8.96	13.32	17.63	17.63	17.20
0.20	2.50	0.06	2.45	4.87	7.11	9.17	9.17	8.96
0.30	2.50	0.09	1.75	3.50	5.03	6.34	6.34	6.20
0.40	2.50	0.13	1.39	2.80	3.98	4.92	4.92	4.82
0.50	2.50	0.16	1.18	2.37	3.34	4.07	4.07	3.99
0.60	2.50	0.19	1.03	2.08	2.91	3.50	3.50	3.44
0.70	2.50	0.22	0.92	1.87	2.60	3.10	3.10	3.04
0.80	2.50	0.25	0.83	1.71	2.36	2.79	2.79	2.74
0.90	2.50	0.28	0.77	1.58	2.17	2.55	2.55	2.51
1.00	2.50	0.31	0.71	1.47	2.01	2.36	2.36	2.32
1.10	2.50	0.34	0.66	1.37	1.88	2.20	2.20	2.16
1.20	2.50	0.38	0.62	1.29	1.77	2.06	2.06	2.03
1.30	2.50	0.41	0.58	1.22	1.68	1.95	1.95	1.92
1.40	2.50	0.44	0.55	1.16	1.59	1.85	1.85	1.82
1.50	2.50	0.47	0.52	1.10	1.52	1.77	1.77	1.74
1.60	2.50	0.50	0.49	1.05	1.45	1.69	1.69	1.66
1.70	2.50	0.53	0.47	1.00	1.38	1.63	1.63	1.59
1.80	2.50	0.56	0.45	0.95	1.33	1.57	1.57	1.53
1.90	2.50	0.59	0.42	0.91	1.27	1.51	1.51	1.47
2.00	2.50	0.63	0.40	0.87	1.22	1.46	1.46	1.42
2.10	2.50	0.66	0.38	0.83	1.17	1.41	1.41	1.37
2.20	2.50	0.69	0.37	0.79	1.12	1.35	1.35	1.31
2.30	2.50	0.72	0.35	0.76	1.07	1.29	1.29	1.25
2.40	2.50	0.75	0.34	0.73	1.03	1.23	1.23	1.19
2.50	2.50	0.78	0.32	0.70	0.98	1.18	1.18	1.15

**Table I-37 BRBF-18A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	6.2%	0.5%	0.2%	0.1%	0.1%	0.1%
0.30	2.50	0.06	18.6%	2.5%	0.8%	0.5%	0.5%	0.5%
0.40	2.50	0.08	32.5%	5.9%	2.2%	1.4%	1.4%	1.4%
0.50	2.50	0.10	45.0%	10.2%	4.2%	2.7%	2.7%	2.8%
0.60	2.50	0.13	55.3%	14.9%	6.7%	4.5%	4.5%	4.6%
0.70	2.50	0.15	63.6%	19.8%	9.5%	6.6%	6.6%	6.8%
0.80	2.50	0.17	70.2%	24.6%	12.4%	8.9%	8.9%	9.1%
0.90	2.50	0.19	75.4%	29.2%	15.4%	11.3%	11.3%	11.6%
1.00	2.50	0.21	79.6%	33.5%	18.4%	13.8%	13.8%	14.1%
1.10	2.50	0.23	83.0%	37.6%	21.4%	16.3%	16.3%	16.7%
1.20	2.50	0.25	85.7%	41.5%	24.3%	18.8%	18.8%	19.2%
1.30	2.50	0.27	87.9%	45.1%	27.1%	21.2%	21.2%	21.7%
1.40	2.50	0.29	89.8%	48.4%	29.9%	23.6%	23.6%	24.1%
1.50	2.50	0.31	91.3%	51.5%	32.5%	25.9%	25.9%	26.5%
1.60	2.50	0.33	92.6%	54.5%	35.0%	28.2%	28.2%	28.8%
1.70	2.50	0.35	93.6%	57.2%	37.5%	30.3%	30.3%	31.0%
1.80	2.50	0.38	94.6%	59.8%	39.8%	32.4%	32.4%	33.1%
1.90	2.50	0.40	95.3%	62.2%	42.1%	34.4%	34.4%	35.1%
2.00	2.50	0.42	96.0%	64.5%	44.3%	36.3%	36.3%	37.1%
2.10	2.50	0.44	96.6%	66.7%	46.4%	38.1%	38.1%	39.0%
2.20	2.50	0.46	97.0%	68.8%	48.4%	39.9%	39.9%	40.8%
2.30	2.50	0.48	97.5%	70.7%	50.3%	41.5%	41.5%	42.5%
2.40	2.50	0.50	97.8%	72.5%	52.2%	43.1%	43.1%	44.2%
2.50	2.50	0.52	98.1%	74.3%	54.0%	44.7%	44.7%	45.8%

**Table I-38 BRBF-18A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	3.6%	0.2%	0.1%	0.0%	0.0%	0.0%
0.30	2.50	0.09	13.2%	1.1%	0.4%	0.2%	0.2%	0.2%
0.40	2.50	0.13	25.3%	3.1%	1.1%	0.7%	0.7%	0.7%
0.50	2.50	0.16	37.3%	5.8%	2.2%	1.5%	1.5%	1.6%
0.60	2.50	0.19	47.8%	9.1%	3.8%	2.7%	2.7%	2.8%
0.70	2.50	0.22	56.8%	12.7%	5.6%	4.1%	4.1%	4.2%
0.80	2.50	0.25	64.1%	16.5%	7.6%	5.7%	5.7%	5.8%
0.90	2.50	0.28	70.2%	20.4%	9.8%	7.5%	7.5%	7.6%
1.00	2.50	0.31	75.3%	24.3%	12.2%	9.4%	9.4%	9.5%
1.10	2.50	0.34	79.5%	28.2%	14.5%	11.3%	11.3%	11.5%
1.20	2.50	0.38	83.0%	32.1%	17.0%	13.2%	13.2%	13.5%
1.30	2.50	0.41	85.9%	35.8%	19.4%	15.2%	15.2%	15.5%
1.40	2.50	0.44	88.3%	39.5%	21.9%	17.1%	17.1%	17.5%
1.50	2.50	0.47	90.3%	43.1%	24.4%	19.0%	19.0%	19.5%
1.60	2.50	0.50	92.1%	46.7%	26.9%	20.9%	20.9%	21.5%
1.70	2.50	0.53	93.5%	50.1%	29.4%	22.7%	22.7%	23.4%
1.80	2.50	0.56	94.7%	53.5%	31.9%	24.5%	24.5%	25.3%
1.90	2.50	0.59	95.7%	56.8%	34.4%	26.3%	26.3%	27.2%
2.00	2.50	0.63	96.6%	60.0%	36.8%	27.9%	27.9%	29.1%
2.10	2.50	0.66	97.2%	63.2%	39.5%	29.9%	29.9%	31.2%
2.20	2.50	0.69	97.8%	66.3%	42.5%	32.4%	32.4%	33.8%
2.30	2.50	0.72	98.2%	69.2%	45.5%	34.9%	34.9%	36.5%
2.40	2.50	0.75	98.6%	71.9%	48.3%	37.4%	37.4%	39.1%
2.50	2.50	0.78	98.8%	74.4%	51.0%	39.8%	39.8%	41.6%

**Table I-39 Values of  $\hat{S}_{CT}$  from the BRBF-18B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.02	0.32	0.62	0.96	1.32	1.32	1.28	9.71
0.20	0.04	0.34	0.66	1.00	1.34	1.34	1.30	9.71
0.30	0.06	0.35	0.70	1.04	1.37	1.37	1.33	9.70
0.40	0.08	0.37	0.73	1.07	1.39	1.39	1.35	9.69
0.50	0.10	0.39	0.77	1.11	1.42	1.42	1.38	9.68
0.60	0.13	0.41	0.80	1.15	1.44	1.44	1.40	9.68
0.70	0.15	0.42	0.83	1.18	1.46	1.46	1.43	9.67
0.80	0.17	0.44	0.86	1.21	1.49	1.49	1.46	9.66
0.90	0.19	0.45	0.89	1.25	1.51	1.51	1.48	9.65
1.00	0.21	0.47	0.92	1.28	1.54	1.54	1.51	9.64
1.10	0.23	0.48	0.95	1.31	1.56	1.56	1.53	9.64
1.20	0.25	0.49	0.97	1.34	1.59	1.59	1.56	9.63
1.30	0.27	0.50	1.00	1.37	1.61	1.61	1.59	9.62
1.40	0.29	0.51	1.02	1.40	1.64	1.64	1.61	9.61
1.50	0.31	0.52	1.05	1.43	1.67	1.67	1.64	9.61
1.60	0.33	0.53	1.07	1.45	1.69	1.69	1.66	9.60
1.70	0.35	0.54	1.09	1.48	1.72	1.72	1.69	9.59
1.80	0.38	0.55	1.11	1.51	1.74	1.74	1.72	9.58
1.90	0.40	0.56	1.13	1.53	1.77	1.77	1.74	9.57
2.00	0.42	0.57	1.15	1.56	1.80	1.80	1.77	9.57
2.10	0.44	0.57	1.16	1.58	1.82	1.82	1.79	9.56
2.20	0.46	0.58	1.18	1.60	1.85	1.85	1.82	9.55
2.30	0.48	0.58	1.19	1.62	1.88	1.88	1.85	9.54
2.40	0.50	0.59	1.20	1.64	1.91	1.91	1.87	9.54
2.50	0.52	0.59	1.22	1.66	1.93	1.93	1.90	9.53



**Table I-40 Values of  $\hat{S}_{CT}$  from the BRBF-18B Collapse Surface assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>	
0.10	0.03	0.33	0.64	0.98	1.33	1.33	1.29	9.71
0.20	0.06	0.35	0.70	1.04	1.37	1.37	1.33	9.70
0.30	0.09	0.38	0.75	1.09	1.40	1.40	1.37	9.69
0.40	0.13	0.41	0.80	1.15	1.44	1.44	1.40	9.68
0.50	0.16	0.43	0.85	1.20	1.48	1.48	1.44	9.66
0.60	0.19	0.45	0.89	1.25	1.51	1.51	1.48	9.65
0.70	0.22	0.47	0.93	1.29	1.55	1.55	1.52	9.64
0.80	0.25	0.49	0.97	1.34	1.59	1.59	1.56	9.63
0.90	0.28	0.51	1.01	1.39	1.63	1.63	1.60	9.62
1.00	0.31	0.52	1.05	1.43	1.67	1.67	1.64	9.61
1.10	0.34	0.54	1.08	1.47	1.71	1.71	1.68	9.59
1.20	0.38	0.55	1.11	1.51	1.74	1.74	1.72	9.58
1.30	0.41	0.56	1.14	1.54	1.78	1.78	1.75	9.57
1.40	0.44	0.57	1.16	1.58	1.82	1.82	1.79	9.56
1.50	0.47	0.58	1.18	1.61	1.87	1.87	1.83	9.55
1.60	0.50	0.59	1.20	1.64	1.91	1.91	1.87	9.54
1.70	0.53	0.59	1.22	1.67	1.95	1.95	1.91	9.52
1.80	0.56	0.60	1.24	1.70	1.99	1.99	1.95	9.51
1.90	0.59	0.60	1.25	1.73	2.03	2.03	1.98	9.50
2.00	0.63	0.60	1.26	1.75	2.07	2.07	2.02	9.49
2.10	0.66	0.60	1.27	1.77	2.11	2.11	2.05	9.48
2.20	0.69	0.60	1.27	1.77	2.11	2.11	2.05	9.47
2.30	0.72	0.60	1.27	1.77	2.11	2.11	2.05	9.45
2.40	0.75	0.60	1.27	1.77	2.11	2.11	2.05	9.44
2.50	0.78	0.60	1.27	1.77	2.11	2.11	2.05	9.43

**Table I-41 BRBF-18B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.55	1.55	1.55	1.55	1.55	1.55
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	$DR_{IC}$
0.10	2.50	0.02	5.07	10.00	15.35	21.13	21.13	20.45
0.20	2.50	0.04	2.69	5.30	7.98	10.75	10.75	10.42
0.30	2.50	0.06	1.89	3.72	5.52	7.29	7.29	7.08
0.40	2.50	0.08	1.49	2.93	4.29	5.56	5.56	5.41
0.50	2.50	0.10	1.25	2.45	3.55	4.53	4.53	4.41
0.60	2.50	0.13	1.08	2.13	3.05	3.84	3.84	3.74
0.70	2.50	0.15	0.96	1.90	2.69	3.34	3.34	3.26
0.80	2.50	0.17	0.87	1.72	2.42	2.97	2.97	2.91
0.90	2.50	0.19	0.80	1.58	2.21	2.69	2.69	2.63
1.00	2.50	0.21	0.74	1.47	2.04	2.46	2.46	2.41
1.10	2.50	0.23	0.70	1.38	1.90	2.27	2.27	2.23
1.20	2.50	0.25	0.65	1.30	1.78	2.11	2.11	2.07
1.30	2.50	0.27	0.62	1.23	1.68	1.98	1.98	1.95
1.40	2.50	0.29	0.59	1.17	1.60	1.87	1.87	1.84
1.50	2.50	0.31	0.56	1.11	1.52	1.77	1.77	1.74
1.60	2.50	0.33	0.53	1.07	1.45	1.69	1.69	1.66
1.70	2.50	0.35	0.51	1.02	1.39	1.61	1.61	1.59
1.80	2.50	0.38	0.49	0.98	1.33	1.55	1.55	1.52
1.90	2.50	0.40	0.47	0.95	1.29	1.49	1.49	1.46
2.00	2.50	0.42	0.45	0.91	1.24	1.43	1.43	1.41
2.10	2.50	0.44	0.43	0.88	1.20	1.38	1.38	1.36
2.20	2.50	0.46	0.42	0.85	1.16	1.34	1.34	1.32
2.30	2.50	0.48	0.40	0.82	1.12	1.30	1.30	1.28
2.40	2.50	0.50	0.39	0.80	1.09	1.27	1.27	1.24
2.50	2.50	0.52	0.38	0.77	1.06	1.23	1.23	1.21

**Table I-42 BRBF-18B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.59	1.59	1.59	1.59	1.59	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	5.23	10.30	15.66	21.32	21.32	20.65
0.20	2.50	0.06	2.84	5.58	8.29	10.94	10.94	10.62
0.30	2.50	0.09	2.03	4.00	5.82	7.48	7.48	7.28
0.40	2.50	0.13	1.62	3.20	4.58	5.76	5.76	5.61
0.50	2.50	0.16	1.37	2.71	3.82	4.72	4.72	4.61
0.60	2.50	0.19	1.20	2.38	3.32	4.03	4.03	3.94
0.70	2.50	0.22	1.08	2.13	2.95	3.54	3.54	3.47
0.80	2.50	0.25	0.98	1.94	2.68	3.17	3.17	3.11
0.90	2.50	0.28	0.90	1.79	2.46	2.89	2.89	2.83
1.00	2.50	0.31	0.84	1.67	2.28	2.66	2.66	2.61
1.10	2.50	0.34	0.78	1.57	2.13	2.47	2.47	2.43
1.20	2.50	0.38	0.73	1.47	2.00	2.32	2.32	2.28
1.30	2.50	0.41	0.69	1.39	1.89	2.19	2.19	2.15
1.40	2.50	0.44	0.65	1.32	1.80	2.08	2.08	2.04
1.50	2.50	0.47	0.62	1.26	1.71	1.98	1.98	1.95
1.60	2.50	0.50	0.58	1.20	1.64	1.90	1.90	1.86
1.70	2.50	0.53	0.56	1.14	1.57	1.82	1.82	1.79
1.80	2.50	0.56	0.53	1.09	1.50	1.76	1.76	1.72
1.90	2.50	0.59	0.50	1.05	1.45	1.70	1.70	1.66
2.00	2.50	0.63	0.48	1.00	1.39	1.65	1.65	1.61
2.10	2.50	0.66	0.45	0.96	1.34	1.60	1.60	1.56
2.20	2.50	0.69	0.43	0.91	1.28	1.53	1.53	1.48
2.30	2.50	0.72	0.41	0.87	1.22	1.46	1.46	1.42
2.40	2.50	0.75	0.40	0.84	1.17	1.40	1.40	1.36
2.50	2.50	0.78	0.38	0.80	1.12	1.34	1.34	1.30

**Table I-43 BRBF-18B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.02	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.04	3.6%	0.3%	0.1%	0.0%	0.0%	0.0%
0.30	2.50	0.06	12.3%	1.4%	0.4%	0.2%	0.2%	0.2%
0.40	2.50	0.08	23.4%	3.7%	1.3%	0.7%	0.7%	0.8%
0.50	2.50	0.10	34.4%	6.7%	2.6%	1.6%	1.6%	1.6%
0.60	2.50	0.13	44.3%	10.4%	4.3%	2.7%	2.7%	2.9%
0.70	2.50	0.15	52.7%	14.2%	6.4%	4.2%	4.2%	4.4%
0.80	2.50	0.17	59.7%	18.2%	8.7%	6.0%	6.0%	6.2%
0.90	2.50	0.19	65.6%	22.2%	11.1%	7.9%	7.9%	8.2%
1.00	2.50	0.21	70.5%	26.0%	13.6%	10.0%	10.0%	10.2%
1.10	2.50	0.23	74.6%	29.7%	16.1%	12.1%	12.1%	12.4%
1.20	2.50	0.25	78.0%	33.3%	18.7%	14.2%	14.2%	14.6%
1.30	2.50	0.27	81.0%	36.6%	21.2%	16.4%	16.4%	16.8%
1.40	2.50	0.29	83.4%	39.8%	23.6%	18.6%	18.6%	19.0%
1.50	2.50	0.31	85.6%	42.9%	26.0%	20.7%	20.7%	21.1%
1.60	2.50	0.33	87.4%	45.8%	28.4%	22.8%	22.8%	23.2%
1.70	2.50	0.35	89.0%	48.6%	30.6%	24.8%	24.8%	25.3%
1.80	2.50	0.38	90.4%	51.2%	32.8%	26.7%	26.7%	27.3%
1.90	2.50	0.40	91.6%	53.7%	35.0%	28.6%	28.6%	29.2%
2.00	2.50	0.42	92.6%	56.1%	37.0%	30.4%	30.4%	31.0%
2.10	2.50	0.44	93.5%	58.3%	39.1%	32.1%	32.1%	32.8%
2.20	2.50	0.46	94.3%	60.5%	41.0%	33.8%	33.8%	34.5%
2.30	2.50	0.48	95.0%	62.6%	42.9%	35.3%	35.3%	36.1%
2.40	2.50	0.50	95.7%	64.6%	44.7%	36.9%	36.9%	37.7%
2.50	2.50	0.52	96.2%	66.5%	46.5%	38.3%	38.3%	39.2%

**Table I-44 BRBF-18B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.55	0.60	0.65	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	5.0%	7.5%	10%	15%	DR <sub>IC</sub>
0.10	2.50	0.03	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
0.20	2.50	0.06	1.9%	0.1%	0.0%	0.0%	0.0%	0.0%
0.30	2.50	0.09	7.8%	0.6%	0.2%	0.1%	0.1%	0.1%
0.40	2.50	0.13	16.6%	1.7%	0.6%	0.4%	0.4%	0.4%
0.50	2.50	0.16	26.3%	3.5%	1.3%	0.9%	0.9%	0.9%
0.60	2.50	0.19	35.6%	5.8%	2.3%	1.6%	1.6%	1.6%
0.70	2.50	0.22	44.1%	8.4%	3.6%	2.6%	2.6%	2.7%
0.80	2.50	0.25	51.6%	11.3%	5.1%	3.8%	3.8%	3.9%
0.90	2.50	0.28	58.2%	14.4%	6.7%	5.2%	5.2%	5.2%
1.00	2.50	0.31	63.9%	17.5%	8.5%	6.6%	6.6%	6.7%
1.10	2.50	0.34	68.9%	20.8%	10.4%	8.2%	8.2%	8.3%
1.20	2.50	0.38	73.3%	24.0%	12.4%	9.8%	9.8%	10.0%
1.30	2.50	0.41	77.1%	27.3%	14.4%	11.4%	11.4%	11.6%
1.40	2.50	0.44	80.4%	30.6%	16.4%	13.0%	13.0%	13.3%
1.50	2.50	0.47	83.3%	33.9%	18.5%	14.7%	14.7%	15.0%
1.60	2.50	0.50	85.8%	37.1%	20.6%	16.2%	16.2%	16.6%
1.70	2.50	0.53	88.1%	40.4%	22.7%	17.8%	17.8%	18.2%
1.80	2.50	0.56	90.0%	43.6%	24.8%	19.2%	19.2%	19.8%
1.90	2.50	0.59	91.7%	46.8%	26.9%	20.7%	20.7%	21.4%
2.00	2.50	0.63	93.1%	49.9%	29.1%	22.1%	22.1%	22.9%
2.10	2.50	0.66	94.3%	53.1%	31.3%	23.5%	23.5%	24.5%
2.20	2.50	0.69	95.3%	56.4%	34.1%	25.8%	25.8%	26.9%
2.30	2.50	0.72	96.1%	59.6%	36.8%	28.0%	28.0%	29.3%
2.40	2.50	0.75	96.8%	62.6%	39.6%	30.3%	30.3%	31.6%
2.50	2.50	0.78	97.3%	65.4%	42.2%	32.5%	32.5%	34.0%



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# Appendix J: SMF eSDOF Collapse Analysis Results

The following tables show results from each of the SMF eSDOF archetype collapse analyses (the exception being the results of the SMF eSDOF archetypes that were developed from the detailed SMF MDOF models of Section 5.8—those eSDOF results can be found in Appendix F). For each of the families, a table is provided for median spectral acceleration at the ASCE/SEI 7 period, adjusted collapse margin ratio (*ACMR*), and probability of collapse given  $MCE_R$  shaking. Results are shown for a range of strengths at a series of story drift ratios. The  $V_{max}/W$  values are calculated from the  $S_{MT}$  value using Eq. 3-8 and the specified value of  $R/l_e$  and the associated  $\Omega$  listed in the *ACMR* table. The  $DR_{ic}$  value, calculated as a linear function of  $V_{max}/W$ , is shown in the  $\hat{S}_{CT}$  table, where all  $DR_{ic}$  values are median  $DR_{ic}$ .

**Table J-1 Values of  $\hat{S}_{CT}$  from the SMF-3A collapse surface assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>	
0.4	0.08	0.66	0.82	1.08	1.27	1.48	1.48	7.60
0.5	0.11	0.69	0.85	1.12	1.32	1.54	1.54	7.60
0.6	0.13	0.72	0.88	1.16	1.36	1.61	1.61	7.60
0.7	0.15	0.75	0.92	1.20	1.41	1.67	1.67	7.60
0.8	0.18	0.79	0.95	1.24	1.46	1.73	1.74	7.60
0.9	0.20	0.82	0.99	1.28	1.51	1.80	1.80	7.60
1.0	0.23	0.85	1.02	1.32	1.55	1.86	1.86	7.60
1.1	0.25	0.88	1.06	1.36	1.60	1.92	1.92	7.60
1.2	0.28	0.91	1.09	1.40	1.65	1.97	1.98	7.60
1.3	0.31	0.94	1.13	1.45	1.70	2.04	2.04	7.60
1.4	0.33	0.98	1.16	1.49	1.75	2.10	2.10	7.60
1.5	0.36	1.01	1.20	1.53	1.80	2.16	2.16	7.60
1.6	0.39	1.05	1.24	1.58	1.85	2.22	2.22	7.60
1.7	0.43	1.08	1.28	1.63	1.90	2.28	2.29	7.60
1.8	0.46	1.12	1.32	1.68	1.96	2.34	2.35	7.60
1.9	0.49	1.16	1.37	1.73	2.01	2.40	2.41	7.60
2.0	0.52	1.19	1.41	1.77	2.06	2.46	2.46	7.60
2.1	0.55	1.23	1.44	1.81	2.11	2.51	2.51	7.60
2.2	0.58	1.26	1.48	1.86	2.16	2.56	2.56	7.60
2.3	0.61	1.30	1.52	1.90	2.20	2.60	2.61	7.60
2.4	0.65	1.33	1.56	1.95	2.26	2.65	2.66	7.60
2.5	0.68	1.37	1.60	2.00	2.31	2.70	2.71	7.60
2.6	0.72	1.41	1.64	2.05	2.36	2.75	2.75	7.60
2.7	0.75	1.44	1.68	2.09	2.40	2.78	2.79	7.60



**Table J-2 Values of  $\hat{S}_{CT}$  from the SMF-3A collapse surface assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>	
0.4	0.13	0.72	0.88	1.15	1.35	1.59	1.59	7.60
0.5	0.16	0.76	0.92	1.21	1.42	1.68	1.68	7.60
0.6	0.20	0.80	0.97	1.26	1.49	1.77	1.77	7.60
0.7	0.23	0.85	1.03	1.32	1.56	1.86	1.87	7.60
0.8	0.27	0.90	1.08	1.39	1.63	1.95	1.96	7.60
0.9	0.31	0.94	1.13	1.44	1.70	2.03	2.04	7.60
1.0	0.34	0.99	1.18	1.50	1.76	2.12	2.12	7.60
1.1	0.38	1.03	1.23	1.56	1.83	2.19	2.20	7.60
1.2	0.42	1.08	1.28	1.62	1.89	2.27	2.28	7.60
1.3	0.46	1.13	1.33	1.68	1.96	2.35	2.35	7.60
1.4	0.50	1.17	1.38	1.74	2.03	2.42	2.43	7.60
1.5	0.54	1.22	1.43	1.80	2.10	2.49	2.50	7.60
1.6	0.59	1.27	1.49	1.87	2.17	2.57	2.57	7.60
1.7	0.64	1.32	1.55	1.94	2.24	2.64	2.64	7.60
1.8	0.69	1.37	1.61	2.00	2.31	2.71	2.71	7.60
1.9	0.74	1.43	1.66	2.07	2.38	2.77	2.77	7.60
2.0	0.78	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.1	0.83	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.2	0.87	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.3	0.92	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.4	0.97	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.5	1.02	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.6	1.08	1.44	1.68	2.09	2.40	2.78	2.79	7.60
2.7	1.13	1.44	1.68	2.09	2.40	2.78	2.79	7.60

**Table J-3 SMF-3A ACMR values assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.36	1.36	1.36	1.36	1.36	1.36
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	5.0%	7.5%	$DR_{IC}$
0.4	2.5	0.08	2.24	2.77	3.65	4.32	5.03	5.03
0.5	2.6	0.11	1.88	2.31	3.03	3.58	4.19	4.19
0.6	2.6	0.13	1.63	2.00	2.62	3.09	3.64	3.64
0.7	2.7	0.15	1.46	1.78	2.32	2.74	3.24	3.24
0.8	2.7	0.18	1.33	1.62	2.10	2.48	2.95	2.95
0.9	2.7	0.20	1.23	1.49	1.93	2.28	2.71	2.71
1.0	2.8	0.23	1.15	1.39	1.79	2.11	2.52	2.52
1.1	2.8	0.25	1.09	1.30	1.68	1.98	2.37	2.37
1.2	2.8	0.28	1.03	1.24	1.59	1.87	2.24	2.24
1.3	2.8	0.31	0.99	1.18	1.51	1.77	2.13	2.13
1.4	2.9	0.33	0.95	1.13	1.44	1.69	2.03	2.04
1.5	2.9	0.36	0.92	1.09	1.39	1.63	1.95	1.96
1.6	3.0	0.39	0.89	1.05	1.34	1.57	1.88	1.89
1.7	3.0	0.43	0.87	1.03	1.30	1.52	1.82	1.83
1.8	3.1	0.46	0.85	1.00	1.27	1.48	1.77	1.77
1.9	3.1	0.49	0.83	0.98	1.23	1.44	1.72	1.72
2.0	3.1	0.52	0.81	0.95	1.20	1.40	1.67	1.67
2.1	3.2	0.55	0.79	0.93	1.17	1.36	1.62	1.62
2.2	3.2	0.58	0.78	0.91	1.15	1.33	1.58	1.58
2.3	3.2	0.61	0.77	0.90	1.12	1.30	1.54	1.54
2.4	3.2	0.65	0.75	0.88	1.10	1.28	1.50	1.50
2.5	3.3	0.68	0.74	0.87	1.09	1.25	1.47	1.47
2.6	3.3	0.72	0.74	0.86	1.07	1.23	1.44	1.44
2.7	3.4	0.75	0.72	0.84	1.05	1.21	1.40	1.40

**Table J-4 SMF-3A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.36	1.36	1.36	1.36	1.36	1.36
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>
0.4	2.5	0.13	2.43	2.97	3.90	4.60	5.41	5.41
0.5	2.55	0.16	2.06	2.51	3.27	3.86	4.57	4.57
0.6	2.6	0.20	1.82	2.21	2.86	3.37	4.01	4.02
0.7	2.65	0.23	1.65	1.99	2.57	3.03	3.61	3.62
0.8	2.7	0.27	1.53	1.83	2.35	2.77	3.31	3.32
0.9	2.725	0.31	1.42	1.70	2.18	2.56	3.07	3.08
1.0	2.75	0.34	1.34	1.60	2.04	2.39	2.87	2.88
1.1	2.775	0.38	1.28	1.51	1.93	2.26	2.71	2.72
1.2	2.8	0.42	1.22	1.45	1.83	2.14	2.57	2.58
1.3	2.8333	0.46	1.18	1.39	1.76	2.05	2.45	2.46
1.4	2.8667	0.50	1.14	1.34	1.69	1.97	2.35	2.36
1.5	2.9	0.54	1.10	1.30	1.63	1.90	2.26	2.26
1.6	2.95	0.59	1.08	1.27	1.59	1.84	2.18	2.18
1.7	3	0.64	1.06	1.24	1.55	1.79	2.11	2.11
1.8	3.05	0.69	1.04	1.21	1.51	1.75	2.04	2.05
1.9	3.1	0.74	1.02	1.19	1.48	1.70	1.98	1.98
2.0	3.125	0.78	0.98	1.14	1.42	1.63	1.89	1.89
2.1	3.15	0.83	0.93	1.09	1.35	1.55	1.80	1.80
2.2	3.175	0.87	0.89	1.04	1.29	1.48	1.72	1.72
2.3	3.2	0.92	0.85	0.99	1.23	1.42	1.64	1.65
2.4	3.2375	0.97	0.81	0.95	1.18	1.36	1.58	1.58
2.5	3.275	1.02	0.78	0.91	1.13	1.30	1.51	1.51
2.6	3.3125	1.08	0.75	0.88	1.09	1.25	1.45	1.46
2.7	3.35	1.13	0.72	0.84	1.05	1.21	1.40	1.40

**Table J-5 SMF-3A ACMR Values Assuming  $R/I_e = 7.3$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.36	1.36	1.36	1.36	1.36	1.36
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	5.0%	7.5%	$DR_{IC}$
0.4	2.5	0.09	2.28	2.81	3.70	4.38	5.10	5.10
0.5	2.6	0.12	1.91	2.34	3.08	3.64	4.26	4.27
0.6	2.6	0.14	1.67	2.04	2.66	3.14	3.71	3.71
0.7	2.7	0.17	1.50	1.82	2.37	2.80	3.31	3.32
0.8	2.7	0.20	1.37	1.66	2.15	2.54	3.02	3.02
0.9	2.7	0.22	1.27	1.53	1.98	2.33	2.78	2.79
1.0	2.8	0.25	1.19	1.43	1.84	2.17	2.59	2.60
1.1	2.8	0.28	1.12	1.35	1.73	2.03	2.44	2.44
1.2	2.8	0.31	1.07	1.28	1.64	1.92	2.30	2.31
1.3	2.8	0.34	1.02	1.22	1.56	1.83	2.19	2.20
1.4	2.9	0.37	0.99	1.17	1.49	1.75	2.10	2.10
1.5	2.9	0.40	0.95	1.13	1.44	1.68	2.02	2.02
1.6	3.0	0.43	0.93	1.10	1.39	1.62	1.95	1.95
1.7	3.0	0.47	0.90	1.07	1.35	1.57	1.88	1.89
1.8	3.1	0.50	0.88	1.04	1.31	1.53	1.83	1.83
1.9	3.1	0.54	0.87	1.02	1.28	1.49	1.78	1.78
2.0	3.1	0.57	0.85	1.00	1.25	1.45	1.72	1.73
2.1	3.2	0.60	0.83	0.98	1.22	1.42	1.68	1.68
2.2	3.2	0.64	0.82	0.96	1.20	1.38	1.63	1.63
2.3	3.2	0.67	0.80	0.94	1.17	1.35	1.59	1.59
2.4	3.2	0.71	0.79	0.92	1.15	1.33	1.55	1.55
2.5	3.3	0.75	0.78	0.91	1.13	1.30	1.51	1.51
2.6	3.3	0.79	0.75	0.88	1.09	1.25	1.45	1.46
2.7	3.4	0.83	0.72	0.84	1.05	1.21	1.40	1.40

**Table J-6 SMF-3A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.60	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>
0.4	2.5	0.08	7.1%	3.5%	1.3%	0.7%	0.7%	0.7%
0.5	2.6	0.11	12.6%	6.8%	2.8%	1.7%	1.4%	1.4%
0.6	2.6	0.13	18.6%	10.8%	4.9%	3.0%	2.4%	2.4%
0.7	2.7	0.15	24.5%	15.2%	7.3%	4.6%	3.5%	3.6%
0.8	2.7	0.18	30.0%	19.5%	10.0%	6.5%	4.8%	4.9%
0.9	2.7	0.20	35.2%	23.8%	12.8%	8.5%	6.3%	6.3%
1.0	2.8	0.23	39.9%	27.9%	15.7%	10.6%	7.8%	7.8%
1.1	2.8	0.25	44.1%	31.8%	18.5%	12.8%	9.3%	9.3%
1.2	2.8	0.28	47.8%	35.3%	21.3%	14.9%	10.8%	10.8%
1.3	2.8	0.31	51.0%	38.5%	23.9%	17.0%	12.3%	12.3%
1.4	2.9	0.33	53.9%	41.4%	26.3%	19.0%	13.8%	13.8%
1.5	2.9	0.36	56.4%	44.0%	28.6%	20.9%	15.2%	15.2%
1.6	3.0	0.39	58.5%	46.2%	30.6%	22.6%	16.5%	16.5%
1.7	3.0	0.43	60.3%	48.2%	32.5%	24.3%	17.8%	17.8%
1.8	3.1	0.46	61.9%	50.0%	34.2%	25.8%	19.0%	19.0%
1.9	3.1	0.49	63.3%	51.6%	35.8%	27.2%	20.3%	20.2%
2.0	3.1	0.52	64.8%	53.3%	37.5%	28.8%	21.6%	21.5%
2.1	3.2	0.55	66.2%	54.9%	39.1%	30.2%	22.9%	22.8%
2.2	3.2	0.58	67.5%	56.4%	40.6%	31.7%	24.1%	24.1%
2.3	3.2	0.61	68.6%	57.7%	42.0%	33.0%	25.4%	25.4%
2.4	3.2	0.65	69.6%	58.8%	43.3%	34.2%	26.6%	26.6%
2.5	3.3	0.68	70.4%	59.8%	44.4%	35.3%	27.7%	27.7%
2.6	3.3	0.72	71.2%	60.8%	45.5%	36.4%	28.9%	28.9%
2.7	3.4	0.75	72.1%	61.9%	46.7%	37.7%	30.2%	30.2%

**Table J-7 SMF-3A MCE<sub>R</sub> collapse probability assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.52	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>
0.4	2.5	0.13	3.8%	1.6%	0.5%	0.3%	0.3%	0.3%
0.5	2.6	0.16	7.4%	3.6%	1.3%	0.7%	0.6%	0.6%
0.6	2.6	0.20	11.5%	6.1%	2.4%	1.4%	1.0%	1.0%
0.7	2.7	0.23	15.8%	8.9%	3.7%	2.2%	1.6%	1.6%
0.8	2.7	0.27	19.9%	11.8%	5.3%	3.2%	2.3%	2.3%
0.9	2.7	0.31	24.0%	14.9%	7.1%	4.4%	3.1%	3.1%
1.0	2.8	0.34	27.8%	17.9%	8.9%	5.6%	3.9%	3.9%
1.1	2.8	0.38	31.3%	20.8%	10.8%	6.9%	4.8%	4.9%
1.2	2.8	0.42	34.5%	23.5%	12.6%	8.3%	5.8%	5.8%
1.3	2.8	0.46	37.3%	26.0%	14.4%	9.6%	6.7%	6.8%
1.4	2.9	0.50	39.8%	28.3%	16.1%	10.9%	7.7%	7.7%
1.5	2.9	0.54	42.1%	30.4%	17.7%	12.2%	8.7%	8.7%
1.6	3.0	0.59	44.0%	32.2%	19.2%	13.4%	9.7%	9.7%
1.7	3.0	0.64	45.6%	33.8%	20.5%	14.5%	10.7%	10.7%
1.8	3.1	0.69	47.1%	35.3%	21.8%	15.6%	11.7%	11.7%
1.9	3.1	0.74	48.4%	36.7%	23.0%	16.6%	12.7%	12.8%
2.0	3.1	0.78	51.8%	39.9%	25.6%	18.7%	14.4%	14.5%
2.1	3.2	0.83	55.7%	43.6%	28.6%	21.2%	16.3%	16.4%
2.2	3.2	0.87	59.3%	47.2%	31.7%	23.7%	18.3%	18.4%
2.3	3.2	0.92	62.7%	50.7%	34.7%	26.3%	20.4%	20.4%
2.4	3.2	0.97	65.9%	54.0%	37.7%	28.9%	22.4%	22.5%
2.5	3.3	1.02	68.9%	57.2%	40.7%	31.5%	24.5%	24.5%
2.6	3.3	1.08	71.6%	60.2%	43.6%	34.0%	26.6%	26.6%
2.7	3.4	1.13	74.1%	63.0%	46.4%	36.6%	28.7%	28.7%

**Table J-8 SMF-3A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 7.3$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.60	0.65	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	5.0%	7.5%	DR <sub>IC</sub>
0.4	2.5	0.09	6.7%	3.3%	1.2%	0.7%	0.6%	0.6%
0.5	2.6	0.12	11.9%	6.4%	2.6%	1.6%	1.3%	1.3%
0.6	2.6	0.14	17.6%	10.2%	4.6%	2.8%	2.2%	2.2%
0.7	2.7	0.17	23.1%	14.2%	6.8%	4.3%	3.3%	3.3%
0.8	2.7	0.20	28.3%	18.3%	9.3%	6.0%	4.5%	4.5%
0.9	2.7	0.22	33.2%	22.4%	11.9%	7.9%	5.8%	5.8%
1.0	2.8	0.25	37.7%	26.2%	14.6%	9.9%	7.2%	7.2%
1.1	2.8	0.28	41.7%	29.8%	17.2%	11.9%	8.6%	8.6%
1.2	2.8	0.31	45.3%	33.2%	19.8%	13.8%	10.0%	10.0%
1.3	2.8	0.34	48.4%	36.2%	22.2%	15.7%	11.3%	11.3%
1.4	2.9	0.37	51.1%	38.9%	24.5%	17.6%	12.7%	12.7%
1.5	2.9	0.40	53.5%	41.4%	26.6%	19.4%	14.0%	14.0%
1.6	3.0	0.43	55.5%	43.5%	28.5%	21.0%	15.3%	15.3%
1.7	3.0	0.47	57.3%	45.4%	30.3%	22.5%	16.5%	16.5%
1.8	3.1	0.50	58.8%	47.1%	31.9%	23.9%	17.7%	17.7%
1.9	3.1	0.54	60.2%	48.6%	33.4%	25.2%	18.8%	18.8%
2.0	3.1	0.57	61.7%	50.3%	35.0%	26.7%	20.1%	20.1%
2.1	3.2	0.60	63.1%	51.8%	36.5%	28.1%	21.4%	21.4%
2.2	3.2	0.64	64.3%	53.2%	37.9%	29.4%	22.6%	22.6%
2.3	3.2	0.67	65.5%	54.5%	39.2%	30.7%	23.9%	23.9%
2.4	3.2	0.71	66.4%	55.6%	40.4%	31.8%	25.0%	25.0%
2.5	3.3	0.75	67.3%	56.6%	41.5%	32.9%	26.2%	26.2%
2.6	3.3	0.79	69.8%	59.3%	44.1%	35.3%	28.2%	28.2%
2.7	3.4	0.83	72.1%	61.9%	46.7%	37.7%	30.2%	30.2%

**Table J-9 Values of  $\hat{S}_{CT}$  from the SMF-3B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.4	0.21	0.88	1.06	1.34	1.45	1.55	1.68	5.99
0.5	0.24	0.92	1.10	1.39	1.51	1.61	1.74	5.99
0.6	0.26	0.95	1.13	1.43	1.55	1.64	1.77	5.99
0.7	0.29	0.98	1.17	1.47	1.59	1.69	1.82	5.99
0.8	0.31	1.01	1.20	1.51	1.63	1.73	1.86	5.99
0.9	0.34	1.05	1.24	1.56	1.69	1.79	1.92	5.99
1.0	0.36	1.08	1.28	1.61	1.74	1.84	1.97	5.99
1.1	0.39	1.11	1.32	1.65	1.78	1.88	2.02	5.99
1.2	0.41	1.14	1.35	1.69	1.82	1.92	2.06	5.99
1.3	0.44	1.17	1.39	1.73	1.87	1.97	2.11	5.99
1.4	0.46	1.21	1.42	1.77	1.91	2.02	2.15	5.99
1.5	0.49	1.24	1.46	1.81	1.95	2.06	2.19	5.99
1.6	0.52	1.27	1.50	1.86	2.00	2.11	2.24	5.99
1.7	0.55	1.30	1.53	1.90	2.04	2.16	2.29	5.99
1.8	0.57	1.34	1.57	1.95	2.09	2.20	2.34	5.99
1.9	0.60	1.37	1.61	1.99	2.13	2.25	2.38	5.99
2.0	0.63	1.41	1.65	2.03	2.18	2.29	2.43	5.99
2.1	0.67	1.44	1.68	2.08	2.22	2.34	2.48	5.99
2.2	0.70	1.48	1.72	2.12	2.27	2.39	2.53	5.99
2.3	0.73	1.51	1.76	2.16	2.31	2.43	2.57	5.99
2.4	0.76	1.55	1.80	2.20	2.36	2.48	2.62	5.99
2.5	0.80	1.58	1.84	2.25	2.40	2.52	2.67	5.99
2.6	0.83	1.62	1.88	2.29	2.45	2.57	2.71	5.99
2.7	0.87	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.8	0.90	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.9	0.94	1.64	1.90	2.31	2.47	2.59	2.74	5.99
3.0	0.97	1.64	1.90	2.31	2.47	2.59	2.74	5.99



**Table J-10 Values of  $\hat{S}_{CT}$  from the SMF-3B Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.4	0.32	1.03	1.22	1.53	1.66	1.76	1.89	5.99
0.5	0.36	1.08	1.28	1.61	1.74	1.84	1.97	5.99
0.6	0.39	1.12	1.32	1.65	1.78	1.89	2.02	5.99
0.7	0.43	1.16	1.38	1.72	1.85	1.96	2.09	5.99
0.8	0.46	1.20	1.42	1.77	1.90	2.01	2.15	5.99
0.9	0.50	1.26	1.48	1.84	1.98	2.09	2.22	5.99
1.0	0.54	1.30	1.53	1.90	2.04	2.15	2.29	5.99
1.1	0.58	1.35	1.58	1.96	2.10	2.21	2.35	5.99
1.2	0.62	1.39	1.62	2.01	2.15	2.27	2.40	5.99
1.3	0.66	1.43	1.67	2.06	2.21	2.33	2.46	5.99
1.4	0.69	1.47	1.72	2.12	2.27	2.38	2.52	5.99
1.5	0.73	1.52	1.76	2.16	2.32	2.44	2.58	5.99
1.6	0.78	1.56	1.81	2.22	2.37	2.50	2.64	5.99
1.7	0.82	1.61	1.86	2.27	2.43	2.55	2.70	5.99
1.8	0.86	1.64	1.90	2.31	2.47	2.59	2.74	5.99
1.9	0.90	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.0	0.95	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.1	1.00	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.2	1.05	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.3	1.09	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.4	1.14	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.5	1.20	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.6	1.25	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.7	1.30	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.8	1.35	1.64	1.90	2.31	2.47	2.59	2.74	5.99
2.9	1.40	1.64	1.90	2.31	2.47	2.59	2.74	5.99
3.0	1.46	1.64	1.90	2.31	2.47	2.59	2.74	5.99

**Table J-11 SMF-3A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5%	DR <sub>IC</sub>
0.40	6.40	0.21	2.96	3.53	4.48	4.86	5.18	5.62
0.50	5.80	0.24	2.47	2.94	3.72	4.04	4.29	4.64
0.60	5.20	0.26	2.11	2.51	3.18	3.44	3.66	3.95
0.70	4.90	0.29	1.87	2.23	2.81	3.04	3.23	3.48
0.80	4.60	0.31	1.69	2.00	2.52	2.73	2.90	3.12
0.90	4.48	0.34	1.55	1.84	2.32	2.51	2.66	2.85
1.00	4.35	0.36	1.44	1.71	2.15	2.32	2.46	2.63
1.10	4.23	0.39	1.35	1.60	2.01	2.16	2.29	2.45
1.20	4.10	0.41	1.27	1.50	1.88	2.03	2.14	2.29
1.30	4.03	0.44	1.21	1.43	1.78	1.92	2.03	2.16
1.40	3.97	0.46	1.15	1.36	1.69	1.82	1.93	2.05
1.50	3.90	0.49	1.10	1.30	1.62	1.74	1.84	1.95
1.60	3.88	0.52	1.06	1.25	1.55	1.67	1.76	1.87
1.70	3.85	0.55	1.03	1.21	1.50	1.61	1.70	1.80
1.80	3.83	0.57	0.99	1.17	1.44	1.55	1.63	1.74
1.90	3.80	0.60	0.96	1.13	1.40	1.50	1.58	1.68
2.00	3.80	0.63	0.94	1.10	1.36	1.46	1.53	1.62
2.10	3.80	0.67	0.92	1.07	1.32	1.42	1.49	1.58
2.20	3.80	0.70	0.90	1.05	1.29	1.38	1.45	1.54
2.30	3.80	0.73	0.88	1.02	1.26	1.34	1.41	1.50
2.40	3.81	0.76	0.86	1.00	1.23	1.31	1.38	1.46
2.50	3.83	0.80	0.85	0.98	1.20	1.28	1.35	1.43
2.60	3.84	0.83	0.83	0.97	1.18	1.26	1.32	1.40
2.70	3.85	0.87	0.81	0.94	1.14	1.22	1.28	1.36
2.80	3.86	0.90	0.78	0.91	1.10	1.18	1.24	1.31
2.90	3.88	0.94	0.76	0.87	1.07	1.14	1.20	1.26
3.00	3.89	0.97	0.73	0.85	1.03	1.10	1.16	1.22

**Table J-12 SMF-3B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.40	6.40	0.32	3.43	4.07	5.13	5.54	5.88	6.32
0.50	5.80	0.36	2.89	3.42	4.30	4.64	4.91	5.27
0.60	5.20	0.39	2.49	2.94	3.69	3.98	4.21	4.50
0.70	4.90	0.43	2.22	2.63	3.28	3.54	3.74	3.99
0.80	4.60	0.46	2.01	2.37	2.96	3.18	3.36	3.59
0.90	4.48	0.50	1.86	2.20	2.73	2.94	3.10	3.30
1.00	4.35	0.54	1.74	2.05	2.54	2.73	2.88	3.06
1.10	4.23	0.58	1.64	1.92	2.38	2.55	2.69	2.85
1.20	4.10	0.62	1.54	1.81	2.23	2.40	2.52	2.68
1.30	4.03	0.66	1.47	1.72	2.12	2.27	2.39	2.53
1.40	3.97	0.69	1.41	1.64	2.02	2.16	2.28	2.41
1.50	3.90	0.73	1.35	1.57	1.93	2.06	2.17	2.30
1.60	3.88	0.78	1.31	1.52	1.86	1.98	2.09	2.20
1.70	3.85	0.82	1.26	1.46	1.79	1.91	2.01	2.12
1.80	3.83	0.86	1.22	1.41	1.72	1.83	1.93	2.03
1.90	3.80	0.90	1.15	1.33	1.63	1.74	1.82	1.93
2.00	3.80	0.95	1.10	1.27	1.55	1.65	1.73	1.83
2.10	3.80	1.00	1.04	1.21	1.47	1.57	1.65	1.74
2.20	3.80	1.05	1.00	1.15	1.40	1.50	1.58	1.66
2.30	3.80	1.09	0.95	1.10	1.34	1.43	1.51	1.59
2.40	3.81	1.14	0.91	1.06	1.29	1.38	1.44	1.53
2.50	3.83	1.20	0.88	1.01	1.24	1.32	1.39	1.46
2.60	3.84	1.25	0.84	0.98	1.19	1.27	1.33	1.41
2.70	3.85	1.30	0.81	0.94	1.14	1.22	1.28	1.36
2.80	3.86	1.35	0.78	0.91	1.10	1.18	1.24	1.31
2.90	3.88	1.40	0.76	0.87	1.07	1.14	1.20	1.26
3.00	3.89	1.46	0.73	0.85	1.03	1.10	1.16	1.22

**Table J-13 SMF-3B ACMR Values Assuming  $R/I_e = 8.8$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5%	$DR_{IC}$
0.40	6.40	0.19	2.87	3.43	4.36	4.73	5.04	5.48
0.50	5.80	0.22	2.39	2.85	3.62	3.92	4.18	4.53
0.60	5.20	0.24	2.04	2.43	3.08	3.34	3.55	3.85
0.70	4.90	0.26	1.81	2.15	2.72	2.95	3.14	3.39
0.80	4.60	0.28	1.62	1.93	2.44	2.64	2.81	3.03
0.90	4.48	0.31	1.49	1.78	2.24	2.42	2.57	2.76
1.00	4.35	0.33	1.39	1.65	2.07	2.24	2.38	2.55
1.10	4.23	0.35	1.30	1.54	1.93	2.09	2.21	2.37
1.20	4.10	0.37	1.22	1.44	1.81	1.95	2.07	2.22
1.30	4.03	0.40	1.16	1.37	1.71	1.85	1.96	2.09
1.40	3.97	0.42	1.10	1.30	1.63	1.76	1.86	1.98
1.50	3.90	0.44	1.05	1.24	1.55	1.67	1.77	1.89
1.60	3.88	0.47	1.01	1.20	1.49	1.61	1.70	1.81
1.70	3.85	0.50	0.98	1.15	1.44	1.54	1.63	1.74
1.80	3.83	0.52	0.95	1.12	1.39	1.49	1.57	1.67
1.90	3.80	0.55	0.92	1.08	1.34	1.44	1.52	1.61
2.00	3.80	0.58	0.90	1.05	1.30	1.40	1.47	1.56
2.10	3.80	0.60	0.87	1.02	1.27	1.36	1.43	1.52
2.20	3.80	0.63	0.85	1.00	1.23	1.32	1.39	1.48
2.30	3.80	0.66	0.84	0.98	1.20	1.29	1.36	1.44
2.40	3.81	0.69	0.82	0.96	1.18	1.26	1.33	1.40
2.50	3.83	0.72	0.81	0.94	1.15	1.23	1.30	1.37
2.60	3.84	0.76	0.79	0.92	1.13	1.21	1.27	1.34
2.70	3.85	0.79	0.78	0.91	1.11	1.18	1.24	1.31
2.80	3.86	0.82	0.77	0.89	1.09	1.16	1.22	1.29
2.90	3.88	0.85	0.76	0.87	1.07	1.14	1.20	1.26
3.00	3.89	0.88	0.73	0.85	1.03	1.10	1.16	1.22

**Table J-14 SMF-3B ACMR Values Assuming  $R/I_e = 1$  for Target Reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	$DR_{IC}$
0.40	6.40	1.71	5.48	6.34	7.73	8.25	8.66	9.15
0.50	5.80	1.93	4.38	5.07	6.18	6.60	6.93	7.32
0.60	5.20	2.08	3.65	4.23	5.15	5.50	5.78	6.10
0.70	4.90	2.29	3.13	3.62	4.41	4.71	4.95	5.23
0.80	4.60	2.45	2.74	3.17	3.86	4.13	4.33	4.58
0.90	4.48	2.69	2.44	2.82	3.43	3.67	3.85	4.07
1.00	4.35	2.90	2.19	2.54	3.09	3.30	3.47	3.66
1.10	4.23	3.10	1.99	2.31	2.81	3.00	3.15	3.33
1.20	4.10	3.28	1.83	2.11	2.58	2.75	2.89	3.05
1.30	4.03	3.50	1.69	1.95	2.38	2.54	2.67	2.82
1.40	3.97	3.70	1.57	1.81	2.21	2.36	2.48	2.62
1.50	3.90	3.90	1.46	1.69	2.06	2.20	2.31	2.44
1.60	3.88	4.13	1.37	1.59	1.93	2.06	2.17	2.29
1.70	3.85	4.36	1.29	1.49	1.82	1.94	2.04	2.15
1.80	3.83	4.59	1.22	1.41	1.72	1.83	1.93	2.03
1.90	3.80	4.81	1.15	1.33	1.63	1.74	1.82	1.93
2.00	3.80	5.07	1.10	1.27	1.55	1.65	1.73	1.83
2.10	3.80	5.32	1.04	1.21	1.47	1.57	1.65	1.74
2.20	3.80	5.57	1.00	1.15	1.40	1.50	1.58	1.66
2.30	3.80	5.83	0.95	1.10	1.34	1.43	1.51	1.59
2.40	3.81	6.10	0.91	1.06	1.29	1.38	1.44	1.53
2.50	3.83	6.38	0.88	1.01	1.24	1.32	1.39	1.46
2.60	3.84	6.65	0.84	0.98	1.19	1.27	1.33	1.41
2.70	3.85	6.93	0.81	0.94	1.14	1.22	1.28	1.36
2.80	3.86	7.21	0.78	0.91	1.10	1.18	1.24	1.31
2.90	3.88	7.49	0.76	0.87	1.07	1.14	1.20	1.26
3.00	3.89	7.78	0.73	0.85	1.03	1.10	1.16	1.22

**Table J-15 SMF-3B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.4	6.4	0.21	2.4%	1.2%	0.5%	0.4%	0.3%	0.3%
0.5	5.8	0.24	5.0%	2.7%	1.2%	0.9%	0.8%	0.7%
0.6	5.2	0.26	8.7%	5.0%	2.3%	1.8%	1.5%	1.3%
0.7	4.9	0.29	12.7%	7.6%	3.7%	3.0%	2.5%	2.2%
0.8	4.6	0.31	17.1%	10.8%	5.5%	4.4%	3.8%	3.3%
0.9	4.5	0.34	21.2%	13.7%	7.3%	6.0%	5.2%	4.6%
1.0	4.4	0.36	25.2%	16.9%	9.4%	7.7%	6.7%	5.9%
1.1	4.2	0.39	29.2%	20.1%	11.5%	9.6%	8.4%	7.4%
1.2	4.1	0.41	33.2%	23.4%	13.8%	11.6%	10.2%	9.1%
1.3	4.0	0.44	36.6%	26.3%	16.0%	13.5%	11.9%	10.6%
1.4	4.0	0.46	39.9%	29.2%	18.2%	15.4%	13.7%	12.3%
1.5	3.9	0.49	43.0%	32.1%	20.4%	17.4%	15.6%	14.0%
1.6	3.9	0.52	45.7%	34.5%	22.4%	19.3%	17.3%	15.6%
1.7	3.9	0.55	48.1%	36.9%	24.4%	21.1%	19.0%	17.1%
1.8	3.8	0.57	50.5%	39.2%	26.3%	22.9%	20.6%	18.7%
1.9	3.8	0.60	52.6%	41.4%	28.2%	24.6%	22.3%	20.3%
2.0	3.8	0.63	54.5%	43.2%	29.9%	26.2%	23.8%	21.7%
2.1	3.8	0.67	56.2%	45.0%	31.6%	27.8%	25.3%	23.1%
2.2	3.8	0.70	57.8%	46.7%	33.2%	29.3%	26.8%	24.5%
2.3	3.8	0.73	59.3%	48.4%	34.7%	30.8%	28.2%	25.8%
2.4	3.8	0.76	60.6%	49.8%	36.2%	32.2%	29.5%	27.1%
2.5	3.8	0.80	61.8%	51.2%	37.6%	33.6%	30.9%	28.3%
2.6	3.8	0.83	63.0%	52.5%	38.9%	34.9%	32.1%	29.5%
2.7	3.9	0.87	64.8%	54.5%	40.8%	36.7%	33.9%	31.2%
2.8	3.9	0.90	67.2%	57.0%	43.3%	39.0%	36.1%	33.3%
2.9	3.9	0.94	69.5%	59.5%	45.6%	41.3%	38.3%	35.3%
3.0	3.9	0.97	71.6%	61.8%	48.0%	43.6%	40.5%	37.4%

**Table J-16 SMF-3B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>ic</sub>
0.4	6.4	0.32	0.7%	0.3%	0.1%	0.1%	0.1%	0.1%
0.5	5.8	0.36	1.7%	0.8%	0.3%	0.2%	0.2%	0.2%
0.6	5.2	0.39	3.4%	1.7%	0.7%	0.5%	0.5%	0.4%
0.7	4.9	0.43	5.5%	2.9%	1.2%	1.0%	0.8%	0.8%
0.8	4.6	0.46	8.2%	4.5%	2.0%	1.6%	1.4%	1.3%
0.9	4.5	0.50	10.7%	6.2%	2.9%	2.3%	2.0%	1.8%
1.0	4.4	0.54	13.4%	8.0%	3.9%	3.2%	2.7%	2.5%
1.1	4.2	0.58	16.2%	10.1%	5.1%	4.1%	3.6%	3.3%
1.2	4.1	0.62	19.3%	12.3%	6.5%	5.3%	4.6%	4.2%
1.3	4.0	0.66	22.0%	14.4%	7.8%	6.4%	5.6%	5.1%
1.4	4.0	0.69	24.7%	16.5%	9.2%	7.7%	6.7%	6.1%
1.5	3.9	0.73	27.4%	18.8%	10.8%	9.0%	7.9%	7.2%
1.6	3.9	0.78	29.7%	20.7%	12.2%	10.2%	9.1%	8.3%
1.7	3.9	0.82	32.0%	22.7%	13.7%	11.5%	10.3%	9.4%
1.8	3.8	0.86	34.7%	25.1%	15.4%	13.1%	11.7%	10.6%
1.9	3.8	0.90	38.7%	28.6%	17.9%	15.3%	13.7%	12.5%
2.0	3.8	0.95	42.7%	32.1%	20.6%	17.7%	15.9%	14.4%
2.1	3.8	1.00	46.6%	35.6%	23.3%	20.1%	18.1%	16.5%
2.2	3.8	1.05	50.3%	39.0%	26.1%	22.6%	20.4%	18.6%
2.3	3.8	1.09	53.8%	42.4%	28.9%	25.2%	22.8%	20.7%
2.4	3.8	1.14	57.2%	45.7%	31.7%	27.8%	25.2%	22.9%
2.5	3.8	1.20	60.4%	48.9%	34.5%	30.4%	27.6%	25.2%
2.6	3.8	1.25	63.4%	52.0%	37.2%	32.9%	30.1%	27.4%
2.7	3.9	1.30	66.2%	54.9%	40.0%	35.5%	32.5%	29.6%
2.8	3.9	1.35	68.8%	57.7%	42.6%	38.0%	34.9%	31.9%
2.9	3.9	1.40	71.2%	60.4%	45.2%	40.5%	37.3%	34.1%
3.0	3.9	1.46	73.5%	62.9%	47.8%	43.0%	39.7%	36.3%

**Table J-17 SMF-3B MCE<sub>R</sub> Collapse Probability Assuming R/I<sub>e</sub> = 8.8 for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.4	6.4	0.19	2.8%	1.4%	0.6%	0.4%	0.4%	0.3%
0.5	5.8	0.22	5.7%	3.1%	1.3%	1.0%	0.9%	0.7%
0.6	5.2	0.24	9.8%	5.6%	2.6%	2.1%	1.7%	1.5%
0.7	4.9	0.26	14.1%	8.5%	4.2%	3.3%	2.8%	2.5%
0.8	4.6	0.28	18.9%	12.0%	6.2%	5.0%	4.3%	3.7%
0.9	4.5	0.31	23.2%	15.2%	8.2%	6.7%	5.8%	5.0%
1.0	4.4	0.33	27.6%	18.6%	10.4%	8.6%	7.5%	6.5%
1.1	4.2	0.35	31.8%	22.1%	12.8%	10.6%	9.3%	8.2%
1.2	4.1	0.37	36.0%	25.6%	15.3%	12.8%	11.3%	10.0%
1.3	4.0	0.40	39.6%	28.8%	17.6%	14.9%	13.2%	11.7%
1.4	4.0	0.42	43.0%	31.9%	20.0%	17.0%	15.1%	13.5%
1.5	3.9	0.44	46.3%	34.9%	22.4%	19.2%	17.1%	15.3%
1.6	3.9	0.47	49.0%	37.4%	24.5%	21.1%	18.9%	17.0%
1.7	3.9	0.50	51.5%	39.9%	26.6%	23.1%	20.8%	18.7%
1.8	3.8	0.52	53.9%	42.3%	28.7%	25.0%	22.5%	20.4%
1.9	3.8	0.55	56.1%	44.5%	30.7%	26.8%	24.3%	22.0%
2.0	3.8	0.58	57.9%	46.4%	32.4%	28.5%	25.9%	23.5%
2.1	3.8	0.60	59.6%	48.3%	34.2%	30.2%	27.5%	25.0%
2.2	3.8	0.63	61.2%	50.0%	35.8%	31.7%	29.0%	26.5%
2.3	3.8	0.66	62.7%	51.6%	37.4%	33.3%	30.5%	27.9%
2.4	3.8	0.69	64.0%	53.1%	38.9%	34.7%	31.9%	29.2%
2.5	3.8	0.72	65.2%	54.5%	40.3%	36.1%	33.2%	30.5%
2.6	3.8	0.76	66.4%	55.8%	41.7%	37.4%	34.5%	31.7%
2.7	3.9	0.79	67.4%	57.1%	43.0%	38.8%	35.8%	32.9%
2.8	3.9	0.82	68.5%	58.3%	44.3%	40.0%	37.1%	34.1%
2.9	3.9	0.85	69.5%	59.5%	45.6%	41.3%	38.3%	35.3%
3.0	3.9	0.88	71.6%	61.8%	48.0%	43.6%	40.5%	37.4%



**Table J-18 SMF-3B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 1$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.4	6.4	1.71	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.5	5.8	1.93	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
0.6	5.2	2.08	0.5%	0.2%	0.1%	0.1%	0.1%	0.1%
0.7	4.9	2.29	1.1%	0.6%	0.3%	0.2%	0.2%	0.2%
0.8	4.6	2.45	2.2%	1.2%	0.5%	0.4%	0.4%	0.4%
0.9	4.5	2.69	3.8%	2.1%	1.0%	0.8%	0.7%	0.7%
1.0	4.4	2.90	5.8%	3.4%	1.7%	1.4%	1.2%	1.1%
1.1	4.2	3.10	8.4%	5.1%	2.6%	2.1%	1.9%	1.7%
1.2	4.1	3.28	11.4%	7.1%	3.7%	3.1%	2.7%	2.5%
1.3	4.0	3.50	14.8%	9.5%	5.1%	4.2%	3.7%	3.5%
1.4	4.0	3.70	18.5%	12.2%	6.8%	5.6%	5.0%	4.6%
1.5	3.9	3.90	22.4%	15.2%	8.6%	7.2%	6.4%	5.9%
1.6	3.9	4.13	26.5%	18.3%	10.7%	9.0%	8.0%	7.3%
1.7	3.9	4.36	30.6%	21.7%	13.0%	11.0%	9.8%	8.9%
1.8	3.8	4.59	34.7%	25.1%	15.4%	13.1%	11.7%	10.6%
1.9	3.8	4.81	38.7%	28.6%	17.9%	15.3%	13.7%	12.5%
2.0	3.8	5.07	42.7%	32.1%	20.6%	17.7%	15.9%	14.4%
2.1	3.8	5.32	46.6%	35.6%	23.3%	20.1%	18.1%	16.5%
2.2	3.8	5.57	50.3%	39.0%	26.1%	22.6%	20.4%	18.6%
2.3	3.8	5.83	53.8%	42.4%	28.9%	25.2%	22.8%	20.7%
2.4	3.8	6.10	57.2%	45.7%	31.7%	27.8%	25.2%	22.9%
2.5	3.8	6.38	60.4%	48.9%	34.5%	30.4%	27.6%	25.2%
2.6	3.8	6.65	63.4%	52.0%	37.2%	32.9%	30.1%	27.4%
2.7	3.9	6.93	66.2%	54.9%	40.0%	35.5%	32.5%	29.6%
2.8	3.9	7.21	68.8%	57.7%	42.6%	38.0%	34.9%	31.9%
2.9	3.9	7.49	71.2%	60.4%	45.2%	40.5%	37.3%	34.1%
3.0	3.9	7.78	73.5%	62.9%	47.8%	43.0%	39.7%	36.3%

**Table J-19 Values of  $\hat{S}_{CT}$  from the SMF-9A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.2	0.04	0.36	0.42	0.52	0.55	0.57	0.58	6.00
0.3	0.07	0.39	0.46	0.56	0.59	0.61	0.62	6.00
0.4	0.09	0.41	0.49	0.60	0.63	0.65	0.66	6.00
0.5	0.12	0.44	0.52	0.63	0.67	0.69	0.70	6.00
0.6	0.15	0.46	0.55	0.67	0.71	0.73	0.73	6.00
0.7	0.18	0.48	0.58	0.71	0.75	0.77	0.77	6.00
0.8	0.21	0.51	0.61	0.74	0.78	0.80	0.80	6.00
0.9	0.24	0.53	0.63	0.77	0.81	0.83	0.83	6.00
1.0	0.27	0.55	0.65	0.80	0.84	0.85	0.85	6.00
1.1	0.30	0.57	0.67	0.82	0.86	0.88	0.88	6.00
1.2	0.34	0.58	0.69	0.84	0.88	0.90	0.90	6.00
1.3	0.38	0.60	0.71	0.86	0.89	0.91	0.91	6.00
1.4	0.42	0.61	0.72	0.86	0.90	0.92	0.92	6.00
1.5	0.45	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.6	0.49	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.7	0.54	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.8	0.58	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.9	0.63	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.0	0.68	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.1	0.72	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.2	0.77	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.3	0.83	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.4	0.88	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.5	0.93	0.61	0.72	0.87	0.90	0.92	0.92	6.00

**Table J-20 Values of  $\hat{S}_{CT}$  from the SMF-9A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.2	0.06	0.38	0.45	0.55	0.58	0.61	0.61	6.00
0.3	0.10	0.42	0.50	0.61	0.65	0.67	0.67	6.00
0.4	0.14	0.45	0.54	0.66	0.70	0.72	0.72	6.00
0.5	0.18	0.48	0.58	0.71	0.75	0.77	0.77	6.00
0.6	0.22	0.51	0.61	0.75	0.79	0.81	0.81	6.00
0.7	0.26	0.54	0.65	0.79	0.83	0.85	0.85	6.00
0.8	0.31	0.57	0.68	0.82	0.86	0.88	0.88	6.00
0.9	0.35	0.59	0.70	0.85	0.89	0.90	0.90	6.00
1.0	0.40	0.60	0.71	0.86	0.90	0.92	0.92	6.00
1.1	0.45	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.2	0.51	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.3	0.57	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.4	0.62	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.5	0.68	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.6	0.74	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.7	0.80	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.8	0.87	0.61	0.72	0.87	0.90	0.92	0.92	6.00
1.9	0.94	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.0	1.01	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.1	1.09	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.2	1.16	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.3	1.24	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.4	1.32	0.61	0.72	0.87	0.90	0.92	0.92	6.00
2.5	1.40	0.61	0.72	0.87	0.90	0.92	0.92	6.00

**Table J-21 SMF-9A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor ( <i>SSF</i> ) at <i>DR</i>					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at <i>DR</i>					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5%	$DR_{IC}$
0.20	2.50	0.04	2.59	3.03	3.70	3.93	4.09	4.19
0.30	2.70	0.07	1.86	2.18	2.67	2.83	2.94	2.98
0.40	2.75	0.09	1.48	1.75	2.14	2.26	2.34	2.37
0.50	2.80	0.12	1.25	1.48	1.82	1.92	1.98	1.99
0.60	2.90	0.15	1.10	1.31	1.60	1.69	1.74	1.75
0.70	3.00	0.18	0.99	1.18	1.45	1.53	1.57	1.57
0.80	3.10	0.21	0.91	1.08	1.33	1.40	1.43	1.44
0.90	3.15	0.24	0.84	1.00	1.23	1.29	1.32	1.32
1.00	3.20	0.27	0.78	0.93	1.14	1.20	1.22	1.23
1.10	3.30	0.30	0.74	0.88	1.07	1.12	1.14	1.15
1.20	3.40	0.34	0.70	0.83	1.00	1.05	1.07	1.07
1.30	3.50	0.38	0.66	0.78	0.94	0.99	1.00	1.01
1.40	3.57	0.42	0.62	0.73	0.88	0.92	0.94	0.94
1.50	3.63	0.45	0.58	0.69	0.83	0.86	0.88	0.88
1.60	3.70	0.49	0.55	0.64	0.78	0.81	0.82	0.82
1.70	3.79	0.54	0.52	0.61	0.73	0.76	0.78	0.78
1.80	3.88	0.58	0.49	0.57	0.69	0.72	0.73	0.73
1.90	3.96	0.63	0.46	0.54	0.65	0.68	0.69	0.69
2.00	4.05	0.68	0.44	0.52	0.62	0.65	0.66	0.66
2.10	4.14	0.72	0.42	0.49	0.59	0.62	0.63	0.63
2.20	4.23	0.77	0.40	0.47	0.56	0.59	0.60	0.60
2.30	4.31	0.83	0.38	0.45	0.54	0.56	0.57	0.57
2.40	4.40	0.88	0.37	0.43	0.52	0.54	0.55	0.55
2.50	4.47	0.93	0.35	0.41	0.50	0.52	0.53	0.53

**Table J-22 SMF-9A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.V$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.20	2.50	0.06	2.75	3.23	3.95	4.19	4.34	4.41
0.30	2.70	0.10	2.01	2.38	2.92	3.09	3.19	3.22
0.40	2.75	0.14	1.63	1.93	2.37	2.50	2.58	2.59
0.50	2.80	0.18	1.39	1.65	2.03	2.14	2.19	2.20
0.60	2.90	0.22	1.23	1.47	1.80	1.89	1.94	1.94
0.70	3.00	0.26	1.11	1.33	1.62	1.70	1.74	1.74
0.80	3.10	0.31	1.02	1.21	1.48	1.55	1.58	1.58
0.90	3.15	0.35	0.94	1.11	1.35	1.41	1.44	1.44
1.00	3.20	0.40	0.87	1.02	1.23	1.29	1.31	1.31
1.10	3.30	0.45	0.80	0.94	1.13	1.18	1.20	1.20
1.20	3.40	0.51	0.73	0.86	1.03	1.08	1.10	1.10
1.30	3.50	0.57	0.67	0.79	0.95	1.00	1.01	1.01
1.40	3.57	0.62	0.63	0.74	0.89	0.93	0.94	0.94
1.50	3.63	0.68	0.58	0.69	0.83	0.86	0.88	0.88
1.60	3.70	0.74	0.55	0.64	0.78	0.81	0.82	0.82
1.70	3.79	0.80	0.52	0.61	0.73	0.76	0.78	0.78
1.80	3.88	0.87	0.49	0.57	0.69	0.72	0.73	0.73
1.90	3.96	0.94	0.46	0.54	0.65	0.68	0.69	0.69
2.00	4.05	1.01	0.44	0.52	0.62	0.65	0.66	0.66
2.10	4.14	1.09	0.42	0.49	0.59	0.62	0.63	0.63
2.20	4.23	1.16	0.40	0.47	0.56	0.59	0.60	0.60
2.30	4.31	1.24	0.38	0.45	0.54	0.56	0.57	0.57
2.40	4.40	1.32	0.37	0.43	0.52	0.54	0.55	0.55
2.50	4.47	1.40	0.35	0.41	0.50	0.52	0.53	0.53

**Table J-23 SMF-9A ACMR Values Assuming  $R/I_e = 5.3$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	$DR_{IC}$
0.20	2.50	0.06	2.75	3.24	3.96	4.20	4.36	4.42
0.30	2.70	0.10	2.02	2.39	2.93	3.10	3.20	3.23
0.40	2.75	0.14	1.63	1.94	2.38	2.51	2.59	2.60
0.50	2.80	0.18	1.39	1.66	2.04	2.15	2.20	2.21
0.60	2.90	0.22	1.24	1.47	1.81	1.90	1.95	1.95
0.70	3.00	0.27	1.12	1.33	1.63	1.71	1.75	1.75
0.80	3.10	0.31	1.02	1.22	1.48	1.55	1.59	1.59
0.90	3.15	0.36	0.94	1.11	1.35	1.42	1.44	1.44
1.00	3.20	0.41	0.87	1.02	1.24	1.29	1.31	1.31
1.10	3.30	0.46	0.80	0.94	1.13	1.18	1.20	1.20
1.20	3.40	0.52	0.73	0.86	1.03	1.08	1.10	1.10
1.30	3.50	0.58	0.67	0.79	0.95	1.00	1.01	1.01
1.40	3.57	0.63	0.63	0.74	0.89	0.93	0.94	0.94
1.50	3.63	0.69	0.58	0.69	0.83	0.86	0.88	0.88
1.60	3.70	0.75	0.55	0.64	0.78	0.81	0.82	0.82
1.70	3.79	0.82	0.52	0.61	0.73	0.76	0.78	0.78
1.80	3.88	0.89	0.49	0.57	0.69	0.72	0.73	0.73
1.90	3.96	0.96	0.46	0.54	0.65	0.68	0.69	0.69
2.00	4.05	1.03	0.44	0.52	0.62	0.65	0.66	0.66
2.10	4.14	1.10	0.42	0.49	0.59	0.62	0.63	0.63
2.20	4.23	1.18	0.40	0.47	0.56	0.59	0.60	0.60
2.30	4.31	1.26	0.38	0.45	0.54	0.56	0.57	0.57
2.40	4.40	1.34	0.37	0.43	0.52	0.54	0.55	0.55
2.50	4.47	1.42	0.35	0.41	0.50	0.52	0.53	0.53

**Table J-24 SMF-9A MCE<sub>R</sub> collapse Probability assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	2.5	0.04	4.2%	2.4%	1.2%	1.0%	1.0%	1.1%
0.3	2.7	0.07	13.1%	8.1%	4.5%	3.9%	3.6%	3.9%
0.4	2.8	0.09	23.9%	16.0%	9.5%	8.3%	7.8%	8.2%
0.5	2.8	0.12	34.4%	24.2%	15.2%	13.5%	12.8%	13.3%
0.6	2.9	0.15	43.2%	31.7%	20.8%	18.7%	17.8%	18.3%
0.7	3.0	0.18	50.6%	38.3%	26.1%	23.7%	22.7%	23.2%
0.8	3.1	0.21	56.9%	44.3%	31.2%	28.5%	27.4%	27.9%
0.9	3.2	0.24	62.4%	49.9%	36.2%	33.3%	32.2%	32.6%
1.0	3.2	0.27	67.2%	55.0%	41.1%	38.0%	36.8%	37.1%
1.1	3.3	0.30	71.1%	59.3%	45.4%	42.3%	41.1%	41.3%
1.2	3.4	0.34	74.5%	63.4%	49.7%	46.6%	45.4%	45.5%
1.3	3.5	0.38	77.6%	67.2%	54.0%	50.9%	49.7%	49.7%
1.4	3.6	0.42	80.6%	71.0%	58.4%	55.3%	54.1%	54.0%
1.5	3.6	0.45	83.6%	74.8%	62.8%	59.8%	58.6%	58.3%
1.6	3.7	0.49	86.3%	78.4%	67.0%	64.0%	62.7%	62.3%
1.7	3.8	0.54	88.6%	81.4%	70.7%	67.7%	66.5%	65.9%
1.8	3.9	0.58	90.5%	84.0%	74.0%	71.1%	69.9%	69.2%
1.9	4.0	0.63	92.0%	86.3%	76.9%	74.2%	72.9%	72.2%
2.0	4.1	0.68	93.3%	88.2%	79.5%	76.9%	75.7%	74.9%
2.1	4.1	0.72	94.4%	89.8%	81.8%	79.4%	78.1%	77.4%
2.2	4.2	0.77	95.3%	91.2%	83.8%	81.5%	80.4%	79.6%
2.3	4.3	0.83	96.0%	92.4%	85.7%	83.5%	82.4%	81.5%
2.4	4.4	0.88	96.7%	93.4%	87.2%	85.2%	84.1%	83.3%
2.5	4.5	0.93	97.2%	94.3%	88.7%	86.7%	85.7%	84.9%

**Table J-25 SMF-9A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	2.5	0.06	2.2%	1.1%	0.5%	0.4%	0.4%	0.5%
0.3	2.7	0.10	8.1%	4.4%	2.2%	1.8%	1.8%	2.0%
0.4	2.8	0.14	16.6%	9.8%	5.2%	4.5%	4.3%	4.7%
0.5	2.8	0.18	25.6%	16.2%	9.1%	8.0%	7.7%	8.3%
0.6	2.9	0.22	33.9%	22.6%	13.4%	11.9%	11.5%	12.2%
0.7	3.0	0.26	41.5%	29.0%	18.1%	16.2%	15.7%	16.4%
0.8	3.1	0.31	48.5%	35.3%	23.1%	20.9%	20.2%	21.0%
0.9	3.2	0.35	55.2%	41.8%	28.6%	26.1%	25.4%	26.1%
1.0	3.2	0.40	61.4%	48.3%	34.6%	31.9%	31.0%	31.6%
1.1	3.3	0.45	67.5%	55.1%	41.0%	38.1%	37.1%	37.6%
1.2	3.4	0.51	73.5%	61.7%	47.5%	44.4%	43.3%	43.5%
1.3	3.5	0.57	78.5%	67.5%	53.5%	50.3%	49.0%	49.0%
1.4	3.6	0.62	82.5%	72.6%	59.0%	55.7%	54.4%	54.2%
1.5	3.6	0.68	85.9%	76.9%	64.0%	60.7%	59.3%	59.0%
1.6	3.7	0.74	88.6%	80.6%	68.5%	65.2%	63.8%	63.3%
1.7	3.8	0.80	90.7%	83.7%	72.4%	69.3%	67.9%	67.2%
1.8	3.9	0.87	92.5%	86.3%	75.9%	72.9%	71.5%	70.8%
1.9	4.0	0.94	93.9%	88.5%	79.0%	76.1%	74.7%	74.0%
2.0	4.1	1.01	95.1%	90.3%	81.6%	78.9%	77.6%	76.8%
2.1	4.1	1.09	96.0%	91.9%	84.0%	81.5%	80.2%	79.3%
2.2	4.2	1.16	96.7%	93.1%	86.0%	83.7%	82.4%	81.6%
2.3	4.3	1.24	97.3%	94.2%	87.8%	85.6%	84.5%	83.6%
2.4	4.4	1.32	97.8%	95.1%	89.4%	87.3%	86.2%	85.4%
2.5	4.5	1.40	98.2%	95.9%	90.7%	88.8%	87.8%	86.9%



**Table J-26 SMF-9A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 5.3$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	2.5	0.06	3.3%	1.8%	0.9%	0.8%	0.7%	0.8%
0.3	2.7	0.10	10.1%	6.0%	3.2%	2.8%	2.6%	2.9%
0.4	2.8	0.14	18.7%	11.8%	6.7%	5.9%	5.7%	6.2%
0.5	2.8	0.18	27.3%	18.3%	11.0%	9.8%	9.4%	10.0%
0.6	2.9	0.22	35.0%	24.4%	15.4%	13.8%	13.4%	14.1%
0.7	3.0	0.27	42.0%	30.4%	20.0%	18.2%	17.6%	18.3%
0.8	3.1	0.31	48.3%	36.3%	24.9%	22.7%	22.1%	22.8%
0.9	3.2	0.36	54.5%	42.3%	30.2%	27.8%	27.1%	27.7%
1.0	3.2	0.41	60.2%	48.3%	35.8%	33.2%	32.4%	32.9%
1.1	3.3	0.46	66.0%	54.6%	41.8%	39.1%	38.2%	38.5%
1.2	3.4	0.52	71.6%	60.7%	47.7%	44.8%	43.8%	44.0%
1.3	3.5	0.58	76.3%	66.1%	53.2%	50.2%	49.1%	49.1%
1.4	3.6	0.63	80.3%	70.8%	58.3%	55.2%	54.0%	53.9%
1.5	3.6	0.69	83.6%	74.8%	62.8%	59.8%	58.6%	58.3%
1.6	3.7	0.75	86.3%	78.4%	67.0%	64.0%	62.7%	62.3%
1.7	3.8	0.82	88.6%	81.4%	70.7%	67.7%	66.5%	65.9%
1.8	3.9	0.89	90.5%	84.0%	74.0%	71.1%	69.9%	69.2%
1.9	4.0	0.96	92.0%	86.3%	76.9%	74.2%	72.9%	72.2%
2.0	4.1	1.03	93.3%	88.2%	79.5%	76.9%	75.7%	74.9%
2.1	4.1	1.10	94.4%	89.8%	81.8%	79.4%	78.1%	77.4%
2.2	4.2	1.18	95.3%	91.2%	83.8%	81.5%	80.4%	79.6%
2.3	4.3	1.26	96.0%	92.4%	85.7%	83.5%	82.4%	81.5%
2.4	4.4	1.34	96.7%	93.4%	87.2%	85.2%	84.1%	83.3%
2.5	4.5	1.42	97.2%	94.3%	88.7%	86.7%	85.7%	84.9%

**Table J-27 Values of  $\hat{S}_{CT}$  from the SMF-9B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.2	0.07	0.45	0.51	0.57	0.57	0.56	0.57	4.59
0.3	0.10	0.49	0.55	0.62	0.62	0.62	0.62	4.59
0.4	0.13	0.52	0.59	0.66	0.67	0.67	0.67	4.59
0.5	0.15	0.55	0.62	0.70	0.70	0.70	0.70	4.59
0.6	0.18	0.58	0.66	0.73	0.74	0.74	0.74	4.59
0.7	0.21	0.62	0.69	0.77	0.78	0.78	0.78	4.59
0.8	0.24	0.64	0.72	0.80	0.81	0.81	0.81	4.59
0.9	0.27	0.67	0.75	0.83	0.84	0.84	0.84	4.59
1.0	0.31	0.69	0.77	0.86	0.86	0.86	0.86	4.59
1.1	0.34	0.71	0.79	0.88	0.88	0.88	0.88	4.59
1.2	0.38	0.72	0.81	0.89	0.90	0.90	0.90	4.59
1.3	0.41	0.74	0.82	0.90	0.91	0.91	0.91	4.59
1.4	0.45	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.5	0.49	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.6	0.53	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.7	0.58	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.8	0.62	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.9	0.67	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.0	0.72	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.1	0.77	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.2	0.82	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.3	0.87	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.4	0.92	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.5	0.97	0.74	0.83	0.91	0.91	0.91	0.91	4.59

**Table J-28** Values of  $\hat{S}_{CT}$  from the SMF-9B Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>	
0.2	0.11	0.50	0.56	0.63	0.64	0.64	0.64	4.59
0.3	0.15	0.55	0.62	0.70	0.70	0.70	0.70	4.59
0.4	0.20	0.60	0.67	0.75	0.76	0.76	0.76	4.59
0.5	0.23	0.63	0.71	0.79	0.80	0.80	0.80	4.59
0.6	0.27	0.67	0.75	0.83	0.84	0.84	0.84	4.59
0.7	0.32	0.70	0.78	0.87	0.87	0.87	0.87	4.59
0.8	0.36	0.72	0.80	0.89	0.89	0.89	0.89	4.59
0.9	0.41	0.73	0.82	0.90	0.91	0.91	0.91	4.59
1.0	0.46	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.1	0.51	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.2	0.56	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.3	0.62	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.4	0.68	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.5	0.74	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.6	0.80	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.7	0.87	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.8	0.93	0.74	0.83	0.91	0.91	0.91	0.91	4.59
1.9	1.00	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.0	1.08	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.1	1.15	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.2	1.22	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.3	1.30	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.4	1.38	0.74	0.83	0.91	0.91	0.91	0.91	4.59
2.5	1.46	0.74	0.83	0.91	0.91	0.91	0.91	4.59

**Table J-29 SMF-9B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5%	DR <sub>IC</sub>
0.20	4.40	0.07	3.20	3.61	4.06	4.09	4.00	4.08
0.30	4.10	0.10	2.33	2.63	2.94	2.97	2.97	2.97
0.40	3.90	0.13	1.88	2.11	2.36	2.38	2.38	2.38
0.50	3.70	0.15	1.58	1.78	1.99	2.01	2.01	2.01
0.60	3.64	0.18	1.39	1.57	1.75	1.76	1.76	1.76
0.70	3.64	0.21	1.26	1.41	1.57	1.58	1.58	1.58
0.80	3.63	0.24	1.15	1.29	1.43	1.44	1.44	1.44
0.90	3.65	0.27	1.06	1.19	1.32	1.33	1.33	1.33
1.00	3.67	0.31	0.98	1.10	1.22	1.23	1.23	1.23
1.10	3.72	0.34	0.92	1.03	1.14	1.15	1.15	1.15
1.20	3.76	0.38	0.86	0.96	1.06	1.07	1.07	1.07
1.30	3.81	0.41	0.81	0.90	0.99	1.00	1.00	1.00
1.40	3.87	0.45	0.76	0.84	0.93	0.93	0.93	0.93
1.50	3.94	0.49	0.71	0.79	0.86	0.87	0.87	0.87
1.60	4.00	0.53	0.66	0.74	0.81	0.81	0.81	0.81
1.70	4.08	0.58	0.62	0.69	0.76	0.77	0.77	0.77
1.80	4.15	0.62	0.59	0.66	0.72	0.72	0.72	0.72
1.90	4.23	0.67	0.56	0.62	0.68	0.68	0.68	0.68
2.00	4.30	0.72	0.53	0.59	0.65	0.65	0.65	0.65
2.10	4.38	0.77	0.51	0.56	0.62	0.62	0.62	0.62
2.20	4.45	0.82	0.48	0.54	0.59	0.59	0.59	0.59
2.30	4.53	0.87	0.46	0.51	0.56	0.57	0.57	0.57
2.40	4.60	0.92	0.44	0.49	0.54	0.54	0.54	0.54
2.50	4.67	0.97	0.42	0.47	0.52	0.52	0.52	0.52

**Table J-30 SMF-9B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.20	4.40	0.11	3.57	4.02	4.50	4.54	4.54	4.54
0.30	4.10	0.15	2.64	2.97	3.32	3.34	3.34	3.34
0.40	3.90	0.20	2.14	2.41	2.68	2.70	2.70	2.70
0.50	3.70	0.23	1.81	2.03	2.26	2.28	2.28	2.28
0.60	3.64	0.27	1.59	1.78	1.98	1.99	1.99	1.99
0.70	3.64	0.32	1.42	1.59	1.77	1.77	1.77	1.77
0.80	3.63	0.36	1.28	1.44	1.59	1.59	1.59	1.59
0.90	3.65	0.41	1.17	1.30	1.43	1.44	1.44	1.44
1.00	3.67	0.46	1.06	1.18	1.30	1.30	1.30	1.30
1.10	3.72	0.51	0.97	1.07	1.18	1.18	1.18	1.18
1.20	3.76	0.56	0.88	0.98	1.08	1.08	1.08	1.08
1.30	3.81	0.62	0.82	0.91	1.00	1.00	1.00	1.00
1.40	3.87	0.68	0.76	0.84	0.93	0.93	0.93	0.93
1.50	3.94	0.74	0.71	0.79	0.86	0.87	0.87	0.87
1.60	4.00	0.80	0.66	0.74	0.81	0.81	0.81	0.81
1.70	4.08	0.87	0.62	0.69	0.76	0.77	0.77	0.77
1.80	4.15	0.93	0.59	0.66	0.72	0.72	0.72	0.72
1.90	4.23	1.00	0.56	0.62	0.68	0.68	0.68	0.68
2.00	4.30	1.08	0.53	0.59	0.65	0.65	0.65	0.65
2.10	4.38	1.15	0.51	0.56	0.62	0.62	0.62	0.62
2.20	4.45	1.22	0.48	0.54	0.59	0.59	0.59	0.59
2.30	4.53	1.30	0.46	0.51	0.56	0.57	0.57	0.57
2.40	4.60	1.38	0.44	0.49	0.54	0.54	0.54	0.54
2.50	4.67	1.46	0.42	0.47	0.52	0.52	0.52	0.52

**Table J-31 SMF-9B ACMR Values Assuming  $R/I_e = 6.6$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.43	1.43	1.43	1.43	1.43	1.43
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	$DR_{IC}$
0.20	4.40	0.09	3.36	3.79	4.25	4.29	4.29	4.29
0.30	4.10	0.12	2.47	2.78	3.11	3.13	3.13	3.13
0.40	3.90	0.16	1.99	2.24	2.51	2.53	2.53	2.53
0.50	3.70	0.19	1.69	1.90	2.12	2.13	2.13	2.13
0.60	3.64	0.22	1.48	1.67	1.86	1.87	1.87	1.87
0.70	3.64	0.26	1.34	1.50	1.67	1.68	1.68	1.68
0.80	3.63	0.29	1.22	1.36	1.51	1.52	1.52	1.52
0.90	3.65	0.33	1.12	1.25	1.39	1.39	1.39	1.39
1.00	3.67	0.37	1.03	1.15	1.27	1.28	1.28	1.28
1.10	3.72	0.41	0.96	1.07	1.17	1.18	1.18	1.18
1.20	3.76	0.46	0.88	0.98	1.08	1.08	1.08	1.08
1.30	3.81	0.50	0.82	0.91	1.00	1.00	1.00	1.00
1.40	3.87	0.55	0.76	0.84	0.93	0.93	0.93	0.93
1.50	3.94	0.60	0.71	0.79	0.86	0.87	0.87	0.87
1.60	4.00	0.65	0.66	0.74	0.81	0.81	0.81	0.81
1.70	4.08	0.70	0.62	0.69	0.76	0.77	0.77	0.77
1.80	4.15	0.75	0.59	0.66	0.72	0.72	0.72	0.72
1.90	4.23	0.81	0.56	0.62	0.68	0.68	0.68	0.68
2.00	4.30	0.87	0.53	0.59	0.65	0.65	0.65	0.65
2.10	4.38	0.93	0.51	0.56	0.62	0.62	0.62	0.62
2.20	4.45	0.99	0.48	0.54	0.59	0.59	0.59	0.59
2.30	4.53	1.05	0.46	0.51	0.56	0.57	0.57	0.57
2.40	4.60	1.12	0.44	0.49	0.54	0.54	0.54	0.54
2.50	4.67	1.18	0.42	0.47	0.52	0.52	0.52	0.52

**Table J-32 SMF-9B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	4.4	0.07	1.7%	1.1%	0.8%	0.9%	1.0%	0.9%
0.3	4.1	0.10	6.2%	4.2%	3.1%	3.3%	3.5%	3.3%
0.4	3.9	0.13	12.7%	9.1%	6.9%	7.1%	7.4%	7.1%
0.5	3.7	0.15	20.2%	15.1%	11.7%	11.9%	12.3%	12.0%
0.6	3.6	0.18	27.3%	21.1%	16.7%	16.9%	17.3%	17.0%
0.7	3.6	0.21	33.9%	26.9%	21.7%	21.8%	22.2%	21.9%
0.8	3.6	0.24	40.1%	32.5%	26.7%	26.7%	27.1%	26.8%
0.9	3.7	0.27	45.8%	37.8%	31.5%	31.5%	31.8%	31.6%
1.0	3.7	0.31	51.1%	43.0%	36.4%	36.3%	36.5%	36.3%
1.1	3.7	0.34	56.0%	47.9%	41.0%	40.9%	41.0%	40.9%
1.2	3.8	0.38	60.6%	52.6%	45.7%	45.5%	45.6%	45.5%
1.3	3.8	0.41	65.1%	57.4%	50.4%	50.2%	50.2%	50.2%
1.4	3.9	0.45	69.4%	62.0%	55.2%	54.9%	54.9%	54.9%
1.5	3.9	0.49	73.5%	66.6%	59.9%	59.5%	59.4%	59.5%
1.6	4.0	0.53	77.2%	70.6%	64.1%	63.7%	63.5%	63.7%
1.7	4.1	0.58	80.4%	74.3%	68.0%	67.5%	67.2%	67.4%
1.8	4.2	0.62	83.1%	77.4%	71.4%	70.9%	70.6%	70.8%
1.9	4.2	0.67	85.5%	80.2%	74.5%	74.0%	73.6%	73.9%
2.0	4.3	0.72	87.5%	82.7%	77.2%	76.7%	76.3%	76.6%
2.1	4.4	0.77	89.3%	84.8%	79.7%	79.1%	78.8%	79.1%
2.2	4.5	0.82	90.7%	86.7%	81.9%	81.3%	80.9%	81.3%
2.3	4.5	0.87	92.0%	88.3%	83.8%	83.3%	82.9%	83.2%
2.4	4.6	0.92	93.1%	89.7%	85.6%	85.0%	84.6%	85.0%
2.5	4.7	0.97	94.0%	91.0%	87.1%	86.6%	86.2%	86.5%

**Table J-33 SMF-9B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	4.4	0.11	0.6%	0.3%	0.2%	0.3%	0.3%	0.3%
0.3	4.1	0.15	2.6%	1.6%	1.2%	1.3%	1.4%	1.3%
0.4	3.9	0.20	6.4%	4.3%	3.1%	3.3%	3.6%	3.3%
0.5	3.7	0.23	11.8%	8.2%	6.2%	6.4%	6.7%	6.5%
0.6	3.6	0.27	17.7%	12.9%	9.9%	10.1%	10.5%	10.2%
0.7	3.6	0.32	24.1%	18.1%	14.2%	14.4%	14.9%	14.5%
0.8	3.6	0.36	30.9%	23.9%	19.2%	19.4%	19.8%	19.5%
0.9	3.7	0.41	37.9%	30.3%	24.8%	25.0%	25.4%	25.1%
1.0	3.7	0.46	45.3%	37.3%	31.2%	31.3%	31.6%	31.4%
1.1	3.7	0.51	52.8%	44.5%	37.8%	37.8%	38.0%	37.8%
1.2	3.8	0.56	59.7%	51.3%	44.2%	44.0%	44.2%	44.1%
1.3	3.8	0.62	65.7%	57.5%	50.2%	49.9%	49.9%	49.9%
1.4	3.9	0.68	71.0%	63.1%	55.7%	55.4%	55.3%	55.4%
1.5	3.9	0.74	75.5%	68.1%	60.8%	60.4%	60.2%	60.4%
1.6	4.0	0.80	79.4%	72.4%	65.4%	64.9%	64.7%	64.9%
1.7	4.1	0.87	82.7%	76.3%	69.5%	69.0%	68.7%	68.9%
1.8	4.2	0.93	85.5%	79.6%	73.2%	72.6%	72.2%	72.5%
1.9	4.2	1.00	87.8%	82.5%	76.4%	75.8%	75.4%	75.8%
2.0	4.3	1.08	89.7%	84.9%	79.3%	78.7%	78.3%	78.6%
2.1	4.4	1.15	91.4%	87.1%	81.8%	81.2%	80.8%	81.2%
2.2	4.5	1.22	92.8%	88.9%	84.1%	83.5%	83.0%	83.4%
2.3	4.5	1.30	93.9%	90.5%	86.0%	85.4%	85.0%	85.3%
2.4	4.6	1.38	94.9%	91.8%	87.7%	87.2%	86.7%	87.1%
2.5	4.7	1.46	95.7%	92.9%	89.2%	88.7%	88.3%	88.6%



**Table J-34 SMF-9B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 6.6$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	3.0%	4.0%	4.5%	5.0%	DR <sub>IC</sub>
0.2	4.4	0.09	1.4%	0.9%	0.6%	0.7%	0.8%	0.7%
0.3	4.1	0.12	5.0%	3.4%	2.5%	2.6%	2.9%	2.7%
0.4	3.9	0.16	10.5%	7.4%	5.6%	5.8%	6.1%	5.9%
0.5	3.7	0.19	17.1%	12.6%	9.8%	10.0%	10.4%	10.1%
0.6	3.6	0.22	23.6%	18.0%	14.2%	14.4%	14.8%	14.5%
0.7	3.6	0.26	29.9%	23.4%	18.9%	19.0%	19.4%	19.1%
0.8	3.6	0.29	36.1%	28.9%	23.7%	23.8%	24.2%	23.9%
0.9	3.7	0.33	42.0%	34.4%	28.7%	28.7%	29.1%	28.8%
1.0	3.7	0.37	47.8%	40.0%	33.8%	33.8%	34.1%	33.9%
1.1	3.7	0.41	53.3%	45.5%	39.1%	39.0%	39.2%	39.1%
1.2	3.8	0.46	58.9%	51.2%	44.7%	44.5%	44.6%	44.6%
1.3	3.8	0.50	64.4%	56.8%	50.2%	49.9%	49.9%	49.9%
1.4	3.9	0.55	69.3%	62.0%	55.2%	54.9%	54.9%	54.9%
1.5	3.9	0.60	73.5%	66.6%	59.9%	59.5%	59.4%	59.5%
1.6	4.0	0.65	77.2%	70.6%	64.1%	63.7%	63.5%	63.7%
1.7	4.1	0.70	80.4%	74.3%	68.0%	67.5%	67.2%	67.4%
1.8	4.2	0.75	83.1%	77.4%	71.4%	70.9%	70.6%	70.8%
1.9	4.2	0.81	85.5%	80.2%	74.5%	74.0%	73.6%	73.9%
2.0	4.3	0.87	87.5%	82.7%	77.2%	76.7%	76.3%	76.6%
2.1	4.4	0.93	89.3%	84.8%	79.7%	79.1%	78.8%	79.1%
2.2	4.5	0.99	90.7%	86.7%	81.9%	81.3%	80.9%	81.3%
2.3	4.5	1.05	92.0%	88.3%	83.8%	83.3%	82.9%	83.2%
2.4	4.6	1.12	93.1%	89.7%	85.6%	85.0%	84.6%	85.0%
2.5	4.7	1.18	94.0%	91.0%	87.1%	86.6%	86.2%	86.5%



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# Appendix K: DCW eSDOF Collapse Analysis Results

The following tables show results from each of the DCW archetype collapse analyses. For each of the families, a Table Ks provided for median spectral acceleration at the ASCE/SEI 7 period, adjusted collapse margin ratio (*ACMR*), and probability of collapse given  $MCE_R$  shaking. Results are shown for a range of strengths at a series of story drift ratios. The  $V_{max}/W$  values are calculated from the  $S_{MT}$  value using Eq. 3-8 and the specified value of  $R/l_e$  and the associated  $\Omega$  listed in the *ACMR* table. The  $DR_{IC}$  value, calculated as a linear function of  $V_{max}/W$ , is shown in the  $\hat{S}_{CT}$  table, where all  $DR_{IC}$  values are median  $DR_{IC}$ .

**Table K-1 Values of  $\hat{S}_{CT}$  from the DCW-8A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>	
0.4	0.06	1.15	1.32	1.42	1.50	1.54	1.55	4.83
0.5	0.07	1.18	1.36	1.46	1.55	1.59	1.59	4.83
0.6	0.09	1.21	1.39	1.49	1.59	1.63	1.64	4.83
0.7	0.10	1.24	1.43	1.53	1.63	1.67	1.68	4.83
0.8	0.11	1.27	1.46	1.57	1.67	1.71	1.72	4.83
0.9	0.13	1.30	1.49	1.60	1.71	1.75	1.76	4.83
1.0	0.14	1.32	1.52	1.64	1.74	1.79	1.80	4.83
1.1	0.16	1.35	1.56	1.67	1.78	1.83	1.84	4.83
1.2	0.17	1.38	1.59	1.71	1.82	1.87	1.88	4.83
1.3	0.18	1.41	1.62	1.74	1.85	1.90	1.91	4.83
1.4	0.20	1.43	1.65	1.77	1.89	1.94	1.95	4.83
1.5	0.21	1.46	1.68	1.81	1.92	1.97	1.98	4.83
1.6	0.23	1.48	1.71	1.84	1.95	2.01	2.02	4.83
1.7	0.24	1.51	1.73	1.87	1.99	2.04	2.05	4.83
1.8	0.26	1.53	1.76	1.90	2.02	2.07	2.08	4.83
1.9	0.27	1.56	1.79	1.92	2.05	2.10	2.11	4.83
2.0	0.28	1.58	1.81	1.95	2.08	2.13	2.14	4.83
2.1	0.30	1.60	1.84	1.98	2.10	2.16	2.17	4.83
2.2	0.31	1.63	1.87	2.01	2.13	2.19	2.20	4.83
2.3	0.33	1.65	1.89	2.03	2.16	2.22	2.22	4.83
2.4	0.34	1.67	1.91	2.06	2.18	2.24	2.25	4.83
2.5	0.35	1.69	1.94	2.08	2.21	2.27	2.28	4.83
2.6	0.37	1.71	1.96	2.10	2.23	2.29	2.30	4.83
2.7	0.38	1.73	1.98	2.13	2.26	2.31	2.32	4.83
2.8	0.40	1.75	2.00	2.15	2.28	2.33	2.34	4.83
2.9	0.41	1.77	2.03	2.17	2.30	2.36	2.37	4.83
3.0	0.43	1.79	2.05	2.19	2.32	2.38	2.39	4.83

**Table K-2 Values of  $\hat{S}_{CT}$  from the DCW-8A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>	
0.4	0.09	1.21	1.39	1.49	1.59	1.63	1.64	4.83
0.5	0.11	1.25	1.44	1.55	1.65	1.69	1.70	4.83
0.6	0.13	1.30	1.49	1.60	1.71	1.75	1.76	4.83
0.7	0.15	1.34	1.54	1.66	1.76	1.81	1.82	4.83
0.8	0.17	1.38	1.59	1.71	1.82	1.87	1.88	4.83
0.9	0.19	1.42	1.63	1.76	1.87	1.92	1.93	4.83
1.0	0.21	1.46	1.68	1.81	1.92	1.97	1.98	4.83
1.1	0.23	1.49	1.72	1.85	1.97	2.02	2.03	4.83
1.2	0.26	1.53	1.76	1.90	2.02	2.07	2.08	4.83
1.3	0.28	1.57	1.80	1.94	2.06	2.12	2.13	4.83
1.4	0.30	1.60	1.84	1.98	2.10	2.16	2.17	4.83
1.5	0.32	1.64	1.88	2.02	2.14	2.20	2.21	4.83
1.6	0.34	1.67	1.91	2.06	2.18	2.24	2.25	4.83
1.7	0.36	1.70	1.95	2.09	2.22	2.28	2.29	4.83
1.8	0.38	1.73	1.98	2.13	2.26	2.31	2.32	4.83
1.9	0.40	1.76	2.01	2.16	2.29	2.35	2.35	4.83
2.0	0.43	1.79	2.05	2.19	2.32	2.38	2.39	4.83
2.1	0.45	1.82	2.08	2.22	2.35	2.40	2.41	4.83
2.2	0.47	1.85	2.10	2.25	2.37	2.43	2.44	4.83
2.3	0.49	1.88	2.13	2.27	2.40	2.45	2.46	4.83
2.4	0.51	1.90	2.16	2.30	2.42	2.48	2.49	4.83
2.5	0.53	1.93	2.18	2.32	2.44	2.50	2.50	4.83
2.6	0.55	1.95	2.20	2.34	2.46	2.51	2.52	4.83
2.7	0.57	1.97	2.22	2.36	2.48	2.53	2.54	4.83
2.8	0.60	1.99	2.24	2.38	2.49	2.54	2.55	4.83
2.9	0.62	2.02	2.26	2.40	2.51	2.55	2.56	4.83
3.0	0.64	2.04	2.28	2.41	2.52	2.56	2.57	4.83

**Table K-3 DCW-8A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.3	1.3	1.3	1.3	1.3	1.3
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	1.70	0.06	3.77	4.32	4.64	4.92	5.04	5.06
0.50	1.70	0.07	3.09	3.55	3.81	4.04	4.15	4.17
0.60	1.70	0.09	2.64	3.03	3.26	3.46	3.55	3.56
0.70	1.70	0.10	2.31	2.66	2.86	3.04	3.12	3.13
0.80	1.70	0.11	2.07	2.38	2.56	2.72	2.80	2.81
0.90	1.70	0.13	1.88	2.16	2.33	2.48	2.54	2.55
1.00	1.70	0.14	1.73	1.99	2.14	2.28	2.34	2.35
1.10	1.70	0.16	1.60	1.85	1.99	2.11	2.17	2.18
1.20	1.70	0.17	1.50	1.72	1.86	1.98	2.03	2.04
1.30	1.70	0.18	1.41	1.62	1.75	1.86	1.91	1.92
1.40	1.70	0.20	1.33	1.53	1.65	1.76	1.80	1.81
1.50	1.70	0.21	1.27	1.46	1.57	1.67	1.71	1.72
1.60	1.70	0.23	1.21	1.39	1.49	1.59	1.63	1.64
1.70	1.70	0.24	1.15	1.33	1.43	1.52	1.56	1.57
1.80	1.70	0.26	1.11	1.27	1.37	1.46	1.50	1.50
1.90	1.70	0.27	1.06	1.22	1.32	1.40	1.44	1.45
2.00	1.70	0.28	1.03	1.18	1.27	1.35	1.39	1.39
2.10	1.70	0.30	0.99	1.14	1.22	1.30	1.34	1.34
2.20	1.70	0.31	0.96	1.10	1.18	1.26	1.29	1.30
2.30	1.70	0.33	0.93	1.07	1.15	1.22	1.25	1.26
2.40	1.70	0.34	0.90	1.04	1.11	1.18	1.21	1.22
2.50	1.70	0.35	0.88	1.01	1.08	1.15	1.18	1.18
2.60	1.70	0.37	0.85	0.98	1.05	1.11	1.14	1.15
2.70	1.70	0.38	0.83	0.95	1.02	1.08	1.11	1.11
2.80	1.70	0.40	0.81	0.93	0.99	1.05	1.08	1.08
2.90	1.70	0.41	0.79	0.90	0.97	1.03	1.05	1.06
3.00	1.70	0.43	0.77	0.88	0.95	1.00	1.03	1.03

**Table K-4 DCW-8A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.29	1.29	1.29	1.29	1.29	1.29
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	1.70	0.09	3.96	4.55	4.89	5.19	5.32	5.35
0.50	1.70	0.11	3.28	3.77	4.05	4.31	4.42	4.44
0.60	1.70	0.13	2.82	3.25	3.49	3.71	3.81	3.83
0.70	1.70	0.15	2.49	2.87	3.09	3.29	3.38	3.39
0.80	1.70	0.17	2.25	2.59	2.79	2.96	3.04	3.06
0.90	1.70	0.19	2.05	2.36	2.55	2.71	2.78	2.80
1.00	1.70	0.21	1.90	2.18	2.35	2.50	2.57	2.58
1.10	1.70	0.23	1.77	2.04	2.19	2.33	2.40	2.41
1.20	1.70	0.26	1.66	1.91	2.06	2.19	2.25	2.26
1.30	1.70	0.28	1.57	1.80	1.94	2.06	2.12	2.13
1.40	1.70	0.30	1.49	1.71	1.84	1.95	2.01	2.01
1.50	1.70	0.32	1.42	1.63	1.75	1.86	1.91	1.91
1.60	1.70	0.34	1.35	1.55	1.67	1.77	1.82	1.83
1.70	1.70	0.36	1.30	1.49	1.60	1.69	1.74	1.75
1.80	1.70	0.38	1.25	1.43	1.53	1.62	1.67	1.67
1.90	1.70	0.40	1.20	1.37	1.47	1.56	1.60	1.61
2.00	1.70	0.43	1.16	1.32	1.42	1.50	1.54	1.54
2.10	1.70	0.45	1.12	1.28	1.37	1.45	1.48	1.49
2.20	1.70	0.47	1.09	1.24	1.32	1.40	1.43	1.43
2.30	1.70	0.49	1.05	1.20	1.28	1.35	1.38	1.38
2.40	1.70	0.51	1.02	1.16	1.24	1.30	1.33	1.34
2.50	1.70	0.53	0.99	1.13	1.20	1.26	1.29	1.29
2.60	1.70	0.55	0.97	1.09	1.16	1.22	1.25	1.25
2.70	1.70	0.57	0.94	1.06	1.13	1.18	1.21	1.21
2.80	1.70	0.60	0.92	1.03	1.09	1.15	1.17	1.17
2.90	1.70	0.62	0.89	1.00	1.06	1.11	1.13	1.14
3.00	1.70	0.64	0.87	0.98	1.03	1.08	1.10	1.10

**Table K-5 DCW-8A ACMR Values Assuming  $R/I_e = 6.05$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.3	1.3	1.3	1.3	1.3	1.3
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	$DR_{IC}$
0.40	1.70	0.07	3.89	4.47	4.80	5.09	5.23	5.25
0.50	1.70	0.09	3.21	3.69	3.97	4.22	4.33	4.34
0.60	1.70	0.11	2.76	3.17	3.41	3.63	3.72	3.74
0.70	1.70	0.13	2.43	2.80	3.01	3.20	3.29	3.30
0.80	1.70	0.15	2.19	2.52	2.71	2.88	2.96	2.97
0.90	1.70	0.17	1.99	2.30	2.47	2.63	2.70	2.71
1.00	1.70	0.19	1.84	2.12	2.28	2.43	2.49	2.50
1.10	1.70	0.21	1.71	1.97	2.12	2.26	2.32	2.33
1.20	1.70	0.22	1.60	1.85	1.99	2.12	2.17	2.18
1.30	1.70	0.24	1.51	1.74	1.87	1.99	2.05	2.06
1.40	1.70	0.26	1.43	1.65	1.77	1.89	1.94	1.95
1.50	1.70	0.28	1.37	1.57	1.69	1.79	1.84	1.85
1.60	1.70	0.30	1.30	1.50	1.61	1.71	1.76	1.77
1.70	1.70	0.32	1.25	1.43	1.54	1.64	1.68	1.69
1.80	1.70	0.34	1.20	1.38	1.48	1.57	1.61	1.62
1.90	1.70	0.36	1.16	1.32	1.42	1.51	1.55	1.56
2.00	1.70	0.37	1.12	1.28	1.37	1.45	1.49	1.50
2.10	1.70	0.39	1.08	1.23	1.32	1.40	1.44	1.44
2.20	1.70	0.41	1.04	1.19	1.28	1.35	1.39	1.39
2.30	1.70	0.43	1.01	1.16	1.24	1.31	1.34	1.35
2.40	1.70	0.45	0.98	1.12	1.20	1.27	1.30	1.30
2.50	1.70	0.47	0.96	1.09	1.16	1.23	1.26	1.26
2.60	1.70	0.49	0.93	1.06	1.13	1.19	1.22	1.22
2.70	1.70	0.51	0.91	1.03	1.10	1.16	1.18	1.19
2.80	1.70	0.52	0.88	1.00	1.07	1.12	1.15	1.15
2.90	1.70	0.54	0.86	0.98	1.04	1.09	1.11	1.12
3.00	1.70	0.56	0.84	0.95	1.01	1.06	1.08	1.09



**Table K-6 DCW-8A MCE<sub>R</sub> Collapse Probability Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.56	0.58	0.58	0.59	0.6	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	1.70	0.06	0.9%	0.6%	0.4%	0.4%	0.3%	0.4%
0.50	1.70	0.07	2.3%	1.4%	1.1%	0.9%	0.9%	1.0%
0.60	1.70	0.09	4.3%	2.7%	2.2%	1.8%	1.7%	1.9%
0.70	1.70	0.10	6.8%	4.5%	3.6%	3.0%	2.8%	3.1%
0.80	1.70	0.11	9.8%	6.6%	5.4%	4.5%	4.2%	4.6%
0.90	1.70	0.13	13.1%	9.0%	7.4%	6.3%	5.9%	6.2%
1.00	1.70	0.14	16.6%	11.6%	9.6%	8.2%	7.7%	8.1%
1.10	1.70	0.16	20.1%	14.4%	12.0%	10.3%	9.7%	10.1%
1.20	1.70	0.17	23.7%	17.2%	14.5%	12.5%	11.8%	12.2%
1.30	1.70	0.18	27.2%	20.1%	17.0%	14.8%	13.9%	14.3%
1.40	1.70	0.20	30.6%	22.9%	19.5%	17.1%	16.1%	16.4%
1.50	1.70	0.21	33.8%	25.7%	22.1%	19.4%	18.3%	18.6%
1.60	1.70	0.23	37.0%	28.5%	24.6%	21.7%	20.5%	20.8%
1.70	1.70	0.24	40.0%	31.2%	27.1%	24.0%	22.7%	23.0%
1.80	1.70	0.26	42.9%	33.8%	29.5%	26.2%	24.9%	25.1%
1.90	1.70	0.27	45.6%	36.3%	31.9%	28.5%	27.1%	27.2%
2.00	1.70	0.28	48.2%	38.7%	34.2%	30.7%	29.2%	29.3%
2.10	1.70	0.30	50.6%	41.1%	36.4%	32.8%	31.3%	31.4%
2.20	1.70	0.31	52.9%	43.4%	38.6%	34.9%	33.4%	33.4%
2.30	1.70	0.33	55.1%	45.5%	40.7%	37.0%	35.4%	35.4%
2.40	1.70	0.34	57.2%	47.6%	42.8%	39.0%	37.4%	37.3%
2.50	1.70	0.35	59.2%	49.6%	44.8%	40.9%	39.3%	39.2%
2.60	1.70	0.37	61.0%	51.6%	46.7%	42.8%	41.2%	41.1%
2.70	1.70	0.38	62.8%	53.4%	48.6%	44.7%	43.0%	42.9%
2.80	1.70	0.40	64.5%	55.2%	50.4%	46.5%	44.9%	44.7%
2.90	1.70	0.41	66.0%	56.9%	52.2%	48.2%	46.6%	46.4%
3.00	1.70	0.43	67.6%	58.6%	53.9%	50.0%	48.3%	48.1%

**Table K-7 DCW-8A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.51	0.53	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	1.70	0.09	0.4%	0.2%	0.2%	0.1%	0.1%	0.1%
0.50	1.70	0.11	1.1%	0.6%	0.4%	0.4%	0.3%	0.4%
0.60	1.70	0.13	2.2%	1.3%	1.0%	0.8%	0.7%	0.8%
0.70	1.70	0.15	3.8%	2.3%	1.7%	1.4%	1.3%	1.5%
0.80	1.70	0.17	5.8%	3.5%	2.8%	2.3%	2.1%	2.3%
0.90	1.70	0.19	8.1%	5.1%	4.0%	3.3%	3.0%	3.3%
1.00	1.70	0.21	10.6%	6.9%	5.5%	4.5%	4.2%	4.5%
1.10	1.70	0.23	13.4%	8.8%	7.1%	5.9%	5.5%	5.8%
1.20	1.70	0.26	16.2%	10.9%	8.9%	7.5%	6.9%	7.3%
1.30	1.70	0.28	19.1%	13.2%	10.8%	9.1%	8.5%	8.8%
1.40	1.70	0.30	22.0%	15.4%	12.7%	10.8%	10.1%	10.5%
1.50	1.70	0.32	24.9%	17.8%	14.8%	12.7%	11.9%	12.2%
1.60	1.70	0.34	27.8%	20.2%	16.9%	14.6%	13.7%	14.0%
1.70	1.70	0.36	30.6%	22.5%	19.1%	16.5%	15.6%	15.8%
1.80	1.70	0.38	33.3%	24.9%	21.3%	18.6%	17.5%	17.7%
1.90	1.70	0.40	36.0%	27.3%	23.5%	20.6%	19.5%	19.7%
2.00	1.70	0.43	38.6%	29.7%	25.7%	22.7%	21.5%	21.7%
2.10	1.70	0.45	41.1%	32.0%	27.9%	24.8%	23.6%	23.7%
2.20	1.70	0.47	43.6%	34.4%	30.1%	26.9%	25.7%	25.8%
2.30	1.70	0.49	46.0%	36.7%	32.3%	29.1%	27.8%	27.8%
2.40	1.70	0.51	48.3%	38.9%	34.6%	31.3%	30.0%	30.0%
2.50	1.70	0.53	50.5%	41.1%	36.8%	33.4%	32.1%	32.1%
2.60	1.70	0.55	52.6%	43.3%	38.9%	35.6%	34.3%	34.2%
2.70	1.70	0.57	54.7%	45.5%	41.1%	37.8%	36.5%	36.4%
2.80	1.70	0.60	56.7%	47.6%	43.3%	40.0%	38.7%	38.6%
2.90	1.70	0.62	58.6%	49.7%	45.4%	42.2%	40.9%	40.8%
3.00	1.70	0.64	60.4%	51.7%	47.5%	44.4%	43.2%	43.0%

**Table K-8 DCW-8A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 6.05$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.56	0.58	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	1.70	0.07	0.8%	0.5%	0.4%	0.3%	0.3%	0.3%
0.50	1.70	0.09	1.9%	1.2%	0.9%	0.8%	0.7%	0.8%
0.60	1.70	0.11	3.6%	2.3%	1.8%	1.5%	1.4%	1.6%
0.70	1.70	0.13	5.8%	3.7%	3.0%	2.5%	2.3%	2.5%
0.80	1.70	0.15	8.3%	5.5%	4.4%	3.7%	3.4%	3.7%
0.90	1.70	0.17	11.1%	7.5%	6.1%	5.1%	4.8%	5.1%
1.00	1.70	0.19	14.0%	9.6%	7.9%	6.7%	6.3%	6.6%
1.10	1.70	0.21	17.0%	12.0%	9.9%	8.5%	7.9%	8.3%
1.20	1.70	0.22	20.1%	14.4%	12.0%	10.3%	9.6%	10.0%
1.30	1.70	0.24	23.1%	16.8%	14.1%	12.2%	11.5%	11.8%
1.40	1.70	0.26	26.1%	19.3%	16.3%	14.2%	13.3%	13.6%
1.50	1.70	0.28	29.1%	21.7%	18.5%	16.2%	15.2%	15.5%
1.60	1.70	0.30	31.9%	24.2%	20.7%	18.2%	17.2%	17.5%
1.70	1.70	0.32	34.6%	26.6%	22.9%	20.2%	19.2%	19.4%
1.80	1.70	0.34	37.3%	29.0%	25.1%	22.3%	21.2%	21.3%
1.90	1.70	0.36	39.8%	31.3%	27.3%	24.3%	23.2%	23.3%
2.00	1.70	0.37	42.3%	33.6%	29.5%	26.4%	25.1%	25.3%
2.10	1.70	0.39	44.6%	35.8%	31.6%	28.4%	27.1%	27.2%
2.20	1.70	0.41	46.9%	38.0%	33.7%	30.4%	29.1%	29.2%
2.30	1.70	0.43	49.1%	40.1%	35.8%	32.4%	31.1%	31.1%
2.40	1.70	0.45	51.1%	42.2%	37.8%	34.4%	33.1%	33.1%
2.50	1.70	0.47	53.1%	44.2%	39.8%	36.4%	35.0%	35.0%
2.60	1.70	0.49	55.0%	46.1%	41.8%	38.4%	37.0%	36.9%
2.70	1.70	0.51	56.9%	48.1%	43.7%	40.3%	38.9%	38.8%
2.80	1.70	0.52	58.6%	49.9%	45.6%	42.2%	40.9%	40.7%
2.90	1.70	0.54	60.3%	51.7%	47.5%	44.1%	42.8%	42.6%
3.00	1.70	0.56	62.0%	53.5%	49.3%	46.0%	44.7%	44.5%

**Table K-9 Values of  $\hat{S}_{CT}$  from the DCW-8B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>	
0.4	0.10	1.23	1.42	1.53	1.62	1.66	1.67	4.83
0.5	0.11	1.27	1.46	1.57	1.67	1.72	1.72	4.83
0.6	0.13	1.30	1.50	1.61	1.71	1.76	1.77	4.83
0.7	0.14	1.33	1.53	1.64	1.75	1.80	1.80	4.83
0.8	0.15	1.35	1.55	1.67	1.78	1.82	1.83	4.83
0.9	0.17	1.38	1.58	1.71	1.81	1.86	1.87	4.83
1.0	0.18	1.40	1.62	1.74	1.85	1.90	1.91	4.83
1.1	0.20	1.43	1.64	1.77	1.88	1.94	1.94	4.83
1.2	0.21	1.45	1.67	1.80	1.92	1.97	1.98	4.83
1.3	0.22	1.48	1.70	1.83	1.95	2.00	2.01	4.83
1.4	0.24	1.50	1.73	1.86	1.98	2.04	2.04	4.83
1.5	0.25	1.53	1.76	1.89	2.01	2.07	2.08	4.83
1.6	0.27	1.55	1.78	1.92	2.04	2.10	2.11	4.83
1.7	0.28	1.58	1.81	1.95	2.07	2.13	2.14	4.83
1.8	0.30	1.60	1.84	1.98	2.10	2.16	2.17	4.83
1.9	0.31	1.62	1.86	2.00	2.13	2.18	2.19	4.83
2.0	0.32	1.64	1.89	2.03	2.15	2.21	2.22	4.83
2.1	0.34	1.67	1.91	2.05	2.18	2.24	2.25	4.83
2.2	0.35	1.69	1.93	2.08	2.20	2.26	2.27	4.83
2.3	0.37	1.71	1.96	2.10	2.23	2.29	2.30	4.83
2.4	0.38	1.73	1.98	2.12	2.25	2.31	2.32	4.83
2.5	0.39	1.75	2.00	2.15	2.27	2.33	2.34	4.83
2.6	0.41	1.77	2.02	2.17	2.30	2.35	2.36	4.83
2.7	0.42	1.79	2.04	2.19	2.32	2.37	2.38	4.83
2.8	0.44	1.81	2.06	2.21	2.34	2.39	2.40	4.83
2.9	0.45	1.83	2.08	2.23	2.35	2.41	2.42	4.83
3.0	0.47	1.85	2.10	2.25	2.37	2.43	2.44	4.83

**Table K-10 Values of  $\hat{S}_{CT}$  from the DCW-8B Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>	
0.4	0.15	1.33	1.53	1.65	1.75	1.80	1.81	4.83
0.5	0.17	1.38	1.59	1.71	1.82	1.87	1.88	4.83
0.6	0.20	1.42	1.64	1.77	1.88	1.93	1.94	4.83
0.7	0.21	1.46	1.68	1.81	1.93	1.98	1.99	4.83
0.8	0.23	1.49	1.71	1.84	1.96	2.01	2.02	4.83
0.9	0.25	1.53	1.76	1.89	2.01	2.07	2.08	4.83
1.0	0.28	1.57	1.80	1.94	2.06	2.11	2.12	4.83
1.1	0.30	1.60	1.84	1.98	2.10	2.16	2.17	4.83
1.2	0.32	1.63	1.87	2.01	2.14	2.19	2.20	4.83
1.3	0.34	1.67	1.91	2.05	2.18	2.24	2.25	4.83
1.4	0.36	1.70	1.94	2.09	2.22	2.27	2.28	4.83
1.5	0.38	1.73	1.98	2.12	2.25	2.31	2.32	4.83
1.6	0.40	1.76	2.01	2.15	2.28	2.34	2.35	4.83
1.7	0.42	1.79	2.04	2.19	2.31	2.37	2.38	4.83
1.8	0.44	1.82	2.07	2.22	2.34	2.40	2.41	4.83
1.9	0.46	1.84	2.10	2.24	2.37	2.43	2.44	4.83
2.0	0.49	1.87	2.13	2.27	2.40	2.45	2.46	4.83
2.1	0.51	1.90	2.15	2.29	2.42	2.47	2.48	4.83
2.2	0.53	1.92	2.18	2.32	2.44	2.49	2.50	4.83
2.3	0.55	1.95	2.20	2.34	2.46	2.51	2.52	4.83
2.4	0.57	1.97	2.22	2.36	2.48	2.53	2.54	4.83
2.5	0.59	1.99	2.24	2.38	2.49	2.54	2.55	4.83
2.6	0.61	2.01	2.26	2.39	2.51	2.55	2.56	4.83
2.7	0.63	2.03	2.28	2.41	2.52	2.56	2.57	4.83
2.8	0.66	2.05	2.29	2.42	2.53	2.57	2.58	4.83
2.9	0.68	2.05	2.29	2.42	2.53	2.57	2.58	4.83
3.0	0.70	2.05	2.29	2.42	2.53	2.57	2.58	4.83

**Table K-11 DCW-8B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.3	1.3	1.3	1.3	1.3	1.3
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	2.90	0.10	4.03	4.64	4.99	5.30	5.44	5.46
0.50	2.75	0.11	3.32	3.82	4.11	4.37	4.48	4.50
0.60	2.60	0.13	2.83	3.26	3.51	3.73	3.83	3.85
0.70	2.45	0.14	2.47	2.85	3.06	3.26	3.35	3.36
0.80	2.30	0.15	2.20	2.53	2.72	2.90	2.97	2.99
0.90	2.25	0.17	1.99	2.30	2.47	2.63	2.70	2.71
1.00	2.20	0.18	1.83	2.11	2.27	2.41	2.48	2.49
1.10	2.15	0.20	1.69	1.95	2.10	2.23	2.29	2.30
1.20	2.10	0.21	1.58	1.81	1.95	2.08	2.14	2.15
1.30	2.08	0.22	1.48	1.70	1.84	1.95	2.01	2.02
1.40	2.05	0.24	1.40	1.61	1.73	1.84	1.89	1.90
1.50	2.03	0.25	1.33	1.52	1.64	1.75	1.79	1.80
1.60	2.00	0.27	1.26	1.45	1.56	1.66	1.70	1.71
1.70	1.99	0.28	1.20	1.38	1.49	1.58	1.63	1.63
1.80	1.97	0.30	1.15	1.33	1.43	1.52	1.56	1.56
1.90	1.96	0.31	1.11	1.27	1.37	1.45	1.49	1.50
2.00	1.94	0.32	1.07	1.22	1.32	1.40	1.44	1.44
2.10	1.93	0.34	1.03	1.18	1.27	1.35	1.38	1.39
2.20	1.92	0.35	1.00	1.14	1.22	1.30	1.33	1.34
2.30	1.91	0.37	0.96	1.10	1.18	1.26	1.29	1.29
2.40	1.90	0.38	0.93	1.07	1.15	1.22	1.25	1.25
2.50	1.89	0.39	0.91	1.04	1.11	1.18	1.21	1.21
2.60	1.89	0.41	0.88	1.01	1.08	1.14	1.17	1.18
2.70	1.88	0.42	0.86	0.98	1.05	1.11	1.14	1.14
2.80	1.88	0.44	0.84	0.95	1.02	1.08	1.11	1.11
2.90	1.87	0.45	0.82	0.93	0.99	1.05	1.08	1.08
3.00	1.86	0.47	0.80	0.91	0.97	1.02	1.05	1.05

**Table K-12 DCW-8B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.29	1.29	1.29	1.29	1.29	1.29
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	2.90	0.15	4.34	5.00	5.38	5.72	5.88	5.90
0.50	2.75	0.17	3.60	4.15	4.47	4.75	4.88	4.91
0.60	2.60	0.20	3.10	3.56	3.84	4.08	4.19	4.21
0.70	2.45	0.21	2.72	3.13	3.37	3.58	3.68	3.70
0.80	2.30	0.23	2.42	2.79	3.00	3.19	3.28	3.29
0.90	2.25	0.25	2.21	2.54	2.73	2.91	2.99	3.00
1.00	2.20	0.28	2.04	2.34	2.52	2.68	2.75	2.76
1.10	2.15	0.30	1.89	2.17	2.33	2.48	2.55	2.56
1.20	2.10	0.32	1.76	2.03	2.18	2.31	2.38	2.39
1.30	2.08	0.34	1.66	1.91	2.05	2.17	2.23	2.24
1.40	2.05	0.36	1.57	1.80	1.93	2.05	2.11	2.12
1.50	2.03	0.38	1.49	1.71	1.83	1.94	1.99	2.00
1.60	2.00	0.40	1.42	1.63	1.74	1.85	1.89	1.90
1.70	1.99	0.42	1.36	1.55	1.66	1.76	1.81	1.81
1.80	1.97	0.44	1.31	1.49	1.59	1.68	1.73	1.73
1.90	1.96	0.46	1.26	1.43	1.53	1.61	1.65	1.66
2.00	1.94	0.49	1.21	1.37	1.47	1.55	1.58	1.59
2.10	1.93	0.51	1.17	1.32	1.41	1.49	1.52	1.53
2.20	1.92	0.53	1.13	1.28	1.36	1.43	1.46	1.47
2.30	1.91	0.55	1.09	1.23	1.31	1.38	1.41	1.41
2.40	1.90	0.57	1.06	1.19	1.27	1.33	1.36	1.36
2.50	1.89	0.59	1.03	1.15	1.22	1.28	1.31	1.31
2.60	1.89	0.61	1.00	1.12	1.19	1.24	1.26	1.27
2.70	1.88	0.63	0.97	1.09	1.15	1.20	1.22	1.22
2.80	1.88	0.66	0.94	1.05	1.11	1.16	1.18	1.18
2.90	1.87	0.68	0.91	1.02	1.07	1.12	1.14	1.14
3.00	1.86	0.70	0.88	0.98	1.04	1.08	1.10	1.10

**Table K-13 DCW-8B ACMR Values Assuming  $R/I_e = 7.45$  for Target Reliability of 10% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.3	1.3	1.3	1.3	1.3	1.3
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	$DR_{IC}$
0.40	2.90	0.10	4.08	4.69	5.05	5.36	5.50	5.53
0.50	2.75	0.12	3.36	3.87	4.16	4.43	4.54	4.56
0.60	2.60	0.14	2.87	3.31	3.56	3.78	3.89	3.90
0.70	2.45	0.15	2.51	2.89	3.11	3.31	3.40	3.41
0.80	2.30	0.16	2.23	2.57	2.77	2.94	3.02	3.04
0.90	2.25	0.18	2.03	2.33	2.51	2.67	2.75	2.76
1.00	2.20	0.20	1.86	2.14	2.31	2.46	2.52	2.53
1.10	2.15	0.21	1.72	1.98	2.14	2.27	2.33	2.35
1.20	2.10	0.23	1.61	1.85	1.99	2.12	2.17	2.18
1.30	2.08	0.24	1.51	1.74	1.87	1.99	2.04	2.05
1.40	2.05	0.26	1.43	1.64	1.76	1.88	1.93	1.94
1.50	2.03	0.27	1.35	1.55	1.67	1.78	1.83	1.84
1.60	2.00	0.29	1.29	1.48	1.59	1.69	1.74	1.74
1.70	1.99	0.30	1.23	1.41	1.52	1.61	1.66	1.67
1.80	1.97	0.32	1.18	1.35	1.45	1.55	1.59	1.59
1.90	1.96	0.33	1.13	1.30	1.40	1.48	1.52	1.53
2.00	1.94	0.35	1.09	1.25	1.34	1.42	1.46	1.47
2.10	1.93	0.36	1.05	1.21	1.29	1.37	1.41	1.41
2.20	1.92	0.38	1.02	1.16	1.25	1.32	1.36	1.36
2.30	1.91	0.39	0.98	1.13	1.21	1.28	1.31	1.32
2.40	1.90	0.41	0.95	1.09	1.17	1.24	1.27	1.27
2.50	1.89	0.42	0.93	1.06	1.13	1.20	1.23	1.23
2.60	1.89	0.44	0.90	1.03	1.10	1.16	1.19	1.20
2.70	1.88	0.45	0.88	1.00	1.07	1.13	1.16	1.16
2.80	1.88	0.47	0.86	0.97	1.04	1.10	1.12	1.13
2.90	1.87	0.49	0.83	0.95	1.01	1.07	1.09	1.10
3.00	1.86	0.50	0.81	0.92	0.98	1.04	1.06	1.07



**Table K-14 DCW-8B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.56	0.58	0.58	0.59	0.6	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	2.90	0.10	0.7%	0.4%	0.3%	0.2%	0.2%	0.3%
0.50	2.75	0.11	1.7%	1.0%	0.8%	0.6%	0.6%	0.7%
0.60	2.60	0.13	3.3%	2.0%	1.6%	1.3%	1.2%	1.4%
0.70	2.45	0.14	5.4%	3.5%	2.8%	2.3%	2.1%	2.4%
0.80	2.30	0.15	8.2%	5.4%	4.3%	3.6%	3.4%	3.7%
0.90	2.25	0.17	11.1%	7.5%	6.1%	5.1%	4.8%	5.1%
1.00	2.20	0.18	14.2%	9.8%	8.0%	6.8%	6.4%	6.7%
1.10	2.15	0.20	17.5%	12.3%	10.2%	8.7%	8.2%	8.5%
1.20	2.10	0.21	21.0%	15.0%	12.6%	10.8%	10.1%	10.5%
1.30	2.08	0.22	24.3%	17.7%	14.9%	12.9%	12.1%	12.5%
1.40	2.05	0.24	27.6%	20.5%	17.4%	15.1%	14.2%	14.6%
1.50	2.03	0.25	30.9%	23.2%	19.8%	17.3%	16.4%	16.7%
1.60	2.00	0.27	34.1%	26.0%	22.3%	19.6%	18.6%	18.8%
1.70	1.99	0.28	37.1%	28.6%	24.8%	21.9%	20.7%	21.0%
1.80	1.97	0.30	40.0%	31.2%	27.2%	24.1%	22.9%	23.1%
1.90	1.96	0.31	42.7%	33.8%	29.6%	26.4%	25.1%	25.2%
2.00	1.94	0.32	45.4%	36.3%	31.9%	28.6%	27.2%	27.3%
2.10	1.93	0.34	47.9%	38.7%	34.2%	30.7%	29.4%	29.4%
2.20	1.92	0.35	50.3%	41.0%	36.4%	32.9%	31.5%	31.5%
2.30	1.91	0.37	52.6%	43.2%	38.6%	35.0%	33.5%	33.5%
2.40	1.90	0.38	54.8%	45.4%	40.8%	37.1%	35.6%	35.5%
2.50	1.89	0.39	56.9%	47.5%	42.8%	39.1%	37.6%	37.5%
2.60	1.89	0.41	58.8%	49.5%	44.8%	41.0%	39.5%	39.4%
2.70	1.88	0.42	60.7%	51.4%	46.7%	43.0%	41.4%	41.3%
2.80	1.88	0.44	62.4%	53.3%	48.6%	44.9%	43.3%	43.1%
2.90	1.87	0.45	64.1%	55.1%	50.5%	46.7%	45.2%	45.0%
3.00	1.86	0.47	65.7%	56.9%	52.2%	48.5%	47.0%	46.8%

**Table K-15 DCW-8B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.51	0.53	0.53	0.54	0.55	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	2.90	0.15	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
0.50	2.75	0.17	0.6%	0.3%	0.3%	0.2%	0.2%	0.2%
0.60	2.60	0.20	1.4%	0.8%	0.6%	0.5%	0.4%	0.5%
0.70	2.45	0.21	2.6%	1.5%	1.2%	0.9%	0.9%	1.0%
0.80	2.30	0.23	4.3%	2.6%	2.0%	1.6%	1.5%	1.6%
0.90	2.25	0.25	6.2%	3.8%	3.0%	2.4%	2.3%	2.5%
1.00	2.20	0.28	8.3%	5.3%	4.2%	3.5%	3.2%	3.4%
1.10	2.15	0.30	10.8%	7.0%	5.6%	4.7%	4.3%	4.6%
1.20	2.10	0.32	13.5%	9.0%	7.3%	6.1%	5.7%	5.9%
1.30	2.08	0.34	16.1%	11.0%	9.0%	7.6%	7.1%	7.3%
1.40	2.05	0.36	18.9%	13.2%	10.8%	9.2%	8.6%	8.9%
1.50	2.03	0.38	21.7%	15.4%	12.8%	11.0%	10.3%	10.6%
1.60	2.00	0.40	24.6%	17.8%	14.9%	12.9%	12.1%	12.3%
1.70	1.99	0.42	27.4%	20.1%	17.0%	14.8%	14.0%	14.2%
1.80	1.97	0.44	30.2%	22.5%	19.2%	16.8%	15.9%	16.1%
1.90	1.96	0.46	32.9%	24.9%	21.4%	18.9%	17.9%	18.1%
2.00	1.94	0.49	35.6%	27.3%	23.7%	21.0%	20.0%	20.1%
2.10	1.93	0.51	38.2%	29.7%	26.0%	23.2%	22.1%	22.2%
2.20	1.92	0.53	40.8%	32.1%	28.3%	25.4%	24.3%	24.4%
2.30	1.91	0.55	43.3%	34.5%	30.6%	27.7%	26.5%	26.6%
2.40	1.90	0.57	45.7%	36.9%	32.9%	29.9%	28.8%	28.8%
2.50	1.89	0.59	48.0%	39.2%	35.2%	32.2%	31.1%	31.1%
2.60	1.89	0.61	50.3%	41.5%	37.5%	34.5%	33.4%	33.3%
2.70	1.88	0.63	52.5%	43.8%	39.8%	36.9%	35.8%	35.7%
2.80	1.88	0.66	54.7%	46.1%	42.1%	39.2%	38.1%	38.0%
2.90	1.87	0.68	57.4%	48.8%	44.8%	41.8%	40.7%	40.5%
3.00	1.86	0.70	60.0%	51.4%	47.3%	44.3%	43.1%	43.0%

**Table K-16 DCW-8B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 7.45$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.56	0.58	0.58	0.59	0.60	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	3.2%	3.8%	4.2%	4.6%	4.8%	DR <sub>IC</sub>
0.40	2.90	0.10	0.6%	0.4%	0.3%	0.2%	0.2%	0.3%
0.50	2.75	0.12	1.6%	0.9%	0.7%	0.6%	0.6%	0.7%
0.60	2.60	0.14	3.1%	1.9%	1.5%	1.2%	1.1%	1.3%
0.70	2.45	0.15	5.1%	3.3%	2.6%	2.2%	2.0%	2.2%
0.80	2.30	0.16	7.7%	5.1%	4.1%	3.4%	3.2%	3.4%
0.90	2.25	0.18	10.5%	7.1%	5.7%	4.8%	4.5%	4.8%
1.00	2.20	0.20	13.5%	9.3%	7.6%	6.5%	6.0%	6.4%
1.10	2.15	0.21	16.7%	11.7%	9.7%	8.3%	7.7%	8.1%
1.20	2.10	0.23	20.1%	14.3%	11.9%	10.3%	9.6%	10.0%
1.30	2.08	0.24	23.3%	16.9%	14.2%	12.3%	11.5%	11.9%
1.40	2.05	0.26	26.5%	19.5%	16.5%	14.4%	13.5%	13.8%
1.50	2.03	0.27	29.6%	22.2%	18.9%	16.5%	15.6%	15.9%
1.60	2.00	0.29	32.7%	24.9%	21.4%	18.7%	17.7%	18.0%
1.70	1.99	0.30	35.7%	27.4%	23.7%	20.9%	19.8%	20.1%
1.80	1.97	0.32	38.5%	30.0%	26.1%	23.1%	21.9%	22.1%
1.90	1.96	0.33	41.3%	32.5%	28.4%	25.3%	24.1%	24.2%
2.00	1.94	0.35	43.9%	35.0%	30.7%	27.5%	26.2%	26.3%
2.10	1.93	0.36	46.4%	37.3%	33.0%	29.6%	28.3%	28.4%
2.20	1.92	0.38	48.8%	39.6%	35.2%	31.8%	30.4%	30.4%
2.30	1.91	0.39	51.1%	41.8%	37.4%	33.8%	32.4%	32.4%
2.40	1.90	0.41	53.3%	44.0%	39.5%	35.9%	34.5%	34.4%
2.50	1.89	0.42	55.3%	46.1%	41.5%	37.9%	36.5%	36.4%
2.60	1.89	0.44	57.3%	48.1%	43.5%	39.9%	38.4%	38.3%
2.70	1.88	0.45	59.2%	50.0%	45.5%	41.8%	40.4%	40.2%
2.80	1.88	0.47	60.9%	51.9%	47.4%	43.8%	42.3%	42.1%
2.90	1.87	0.49	62.7%	53.8%	49.2%	45.6%	44.1%	44.0%
3.00	1.86	0.50	64.3%	55.5%	51.1%	47.5%	46.0%	45.8%

**Table K-17** Values of  $\hat{S}_{CT}$  from the DCW-12A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>	
0.3	0.04	0.80	0.93	1.05	1.22	1.32	1.37	4.41
0.4	0.06	0.83	0.97	1.09	1.27	1.37	1.42	4.41
0.5	0.07	0.86	1.00	1.13	1.31	1.42	1.47	4.41
0.6	0.09	0.89	1.04	1.17	1.36	1.47	1.52	4.41
0.7	0.10	0.92	1.07	1.21	1.40	1.51	1.57	4.41
0.8	0.11	0.95	1.10	1.25	1.44	1.56	1.61	4.41
0.9	0.13	0.97	1.13	1.28	1.48	1.60	1.65	4.41
1.0	0.14	1.00	1.16	1.32	1.52	1.64	1.70	4.41
1.1	0.16	1.02	1.19	1.35	1.56	1.68	1.74	4.41
1.2	0.17	1.05	1.22	1.38	1.59	1.72	1.78	4.41
1.3	0.18	1.07	1.25	1.41	1.63	1.75	1.81	4.41
1.4	0.20	1.09	1.28	1.44	1.66	1.79	1.85	4.41
1.5	0.21	1.11	1.30	1.47	1.69	1.82	1.88	4.41
1.6	0.23	1.13	1.32	1.50	1.73	1.86	1.92	4.41
1.7	0.24	1.15	1.35	1.52	1.75	1.89	1.95	4.41
1.8	0.26	1.17	1.37	1.55	1.78	1.92	1.98	4.41
1.9	0.27	1.19	1.39	1.57	1.81	1.94	2.01	4.41
2.0	0.28	1.21	1.41	1.60	1.83	1.97	2.03	4.41
2.1	0.30	1.22	1.43	1.62	1.86	1.99	2.06	4.41
2.2	0.31	1.24	1.45	1.64	1.88	2.02	2.08	4.41
2.3	0.33	1.25	1.46	1.65	1.90	2.04	2.11	4.41
2.4	0.34	1.27	1.48	1.67	1.92	2.06	2.13	4.41
2.5	0.35	1.28	1.49	1.69	1.94	2.08	2.15	4.41
2.6	0.37	1.29	1.51	1.70	1.95	2.10	2.16	4.41
2.7	0.38	1.30	1.52	1.72	1.97	2.11	2.18	4.41
2.8	0.40	1.31	1.53	1.73	1.98	2.13	2.20	4.41

**Table K-18 Values of  $\hat{S}_{CT}$  from the DCW-12A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>	
0.3	0.06	0.85	0.98	1.11	1.29	1.40	1.45	4.41
0.4	0.09	0.89	1.04	1.17	1.36	1.47	1.52	4.41
0.5	0.11	0.93	1.09	1.23	1.42	1.53	1.59	4.41
0.6	0.13	0.97	1.13	1.28	1.48	1.60	1.65	4.41
0.7	0.15	1.01	1.18	1.33	1.54	1.66	1.72	4.41
0.8	0.17	1.05	1.22	1.38	1.59	1.72	1.78	4.41
0.9	0.19	1.08	1.26	1.43	1.65	1.77	1.83	4.41
1.0	0.21	1.11	1.30	1.47	1.69	1.82	1.88	4.41
1.1	0.23	1.14	1.34	1.51	1.74	1.87	1.93	4.41
1.2	0.26	1.17	1.37	1.55	1.78	1.92	1.98	4.41
1.3	0.28	1.20	1.40	1.58	1.82	1.96	2.02	4.41
1.4	0.30	1.22	1.43	1.62	1.86	1.99	2.06	4.41
1.5	0.32	1.25	1.46	1.65	1.89	2.03	2.09	4.41
1.6	0.34	1.27	1.48	1.67	1.92	2.06	2.13	4.41
1.7	0.36	1.29	1.50	1.70	1.95	2.09	2.16	4.41
1.8	0.38	1.30	1.52	1.72	1.97	2.11	2.18	4.41
1.9	0.40	1.32	1.54	1.73	1.99	2.14	2.20	4.41
2.0	0.43	1.33	1.55	1.75	2.01	2.15	2.22	4.41
2.1	0.45	1.34	1.56	1.76	2.02	2.17	2.24	4.41
2.2	0.47	1.35	1.57	1.77	2.03	2.18	2.25	4.41
2.3	0.49	1.36	1.58	1.78	2.04	2.19	2.26	4.41
2.4	0.51	1.37	1.58	1.78	2.04	2.20	2.27	4.41
2.5	0.53	1.37	1.59	1.78	2.05	2.20	2.27	4.41
2.6	0.55	1.37	1.59	1.78	2.05	2.20	2.27	4.41
2.7	0.57	1.37	1.59	1.78	2.05	2.20	2.27	4.41
2.8	0.60	1.37	1.59	1.78	2.05	2.20	2.27	4.41

**Table K-19 DCW-12A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.35	1.35	1.35	1.35	1.35	0.7582
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.04	3.65	4.23	4.77	5.54	6.01	6.25
0.40	1.70	0.06	2.84	3.29	3.72	4.31	4.68	4.85
0.50	1.70	0.07	2.35	2.73	3.09	3.57	3.87	4.01
0.60	1.70	0.09	2.02	2.35	2.66	3.08	3.33	3.45
0.70	1.70	0.10	1.79	2.08	2.35	2.72	2.94	3.04
0.80	1.70	0.11	1.61	1.87	2.12	2.45	2.64	2.74
0.90	1.70	0.13	1.47	1.71	1.94	2.24	2.41	2.50
1.00	1.70	0.14	1.36	1.58	1.79	2.06	2.23	2.30
1.10	1.70	0.16	1.26	1.47	1.67	1.92	2.07	2.14
1.20	1.70	0.17	1.18	1.38	1.56	1.80	1.94	2.01
1.30	1.70	0.18	1.12	1.30	1.47	1.70	1.83	1.89
1.40	1.70	0.20	1.06	1.23	1.40	1.61	1.73	1.79
1.50	1.70	0.21	1.00	1.17	1.33	1.53	1.64	1.70
1.60	1.70	0.23	0.96	1.12	1.27	1.46	1.57	1.62
1.70	1.70	0.24	0.92	1.07	1.21	1.39	1.50	1.55
1.80	1.70	0.26	0.88	1.03	1.16	1.34	1.44	1.48
1.90	1.70	0.27	0.85	0.99	1.12	1.28	1.38	1.42
2.00	1.70	0.28	0.81	0.95	1.08	1.24	1.33	1.37
2.10	1.70	0.30	0.79	0.92	1.04	1.19	1.28	1.32
2.20	1.70	0.31	0.76	0.89	1.00	1.15	1.24	1.27
2.30	1.70	0.33	0.73	0.86	0.97	1.11	1.19	1.23
2.40	1.70	0.34	0.71	0.83	0.94	1.08	1.15	1.19
2.50	1.70	0.35	0.69	0.80	0.91	1.04	1.12	1.15
2.60	1.70	0.37	0.67	0.78	0.88	1.01	1.08	1.12
2.70	1.70	0.38	0.65	0.75	0.85	0.98	1.05	1.08
2.80	1.70	0.40	0.63	0.73	0.83	0.95	1.02	1.05

**Table K-20 DCW-12A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.06	3.85	4.47	5.05	5.85	6.34	6.58
0.40	1.70	0.09	3.03	3.53	3.99	4.61	4.99	5.18
0.50	1.70	0.11	2.54	2.95	3.34	3.86	4.17	4.32
0.60	1.70	0.13	2.20	2.57	2.90	3.35	3.62	3.75
0.70	1.70	0.15	1.96	2.29	2.59	2.98	3.22	3.33
0.80	1.70	0.17	1.78	2.07	2.34	2.70	2.91	3.01
0.90	1.70	0.19	1.63	1.90	2.15	2.48	2.67	2.75
1.00	1.70	0.21	1.51	1.76	1.99	2.29	2.47	2.55
1.10	1.70	0.23	1.41	1.64	1.86	2.14	2.30	2.37
1.20	1.70	0.26	1.32	1.54	1.74	2.01	2.15	2.22
1.30	1.70	0.28	1.24	1.45	1.64	1.89	2.03	2.09
1.40	1.70	0.30	1.18	1.38	1.55	1.79	1.92	1.98
1.50	1.70	0.32	1.12	1.31	1.48	1.70	1.82	1.88
1.60	1.70	0.34	1.06	1.24	1.40	1.61	1.73	1.79
1.70	1.70	0.36	1.02	1.19	1.34	1.54	1.65	1.70
1.80	1.70	0.38	0.97	1.13	1.28	1.47	1.58	1.63
1.90	1.70	0.40	0.93	1.08	1.22	1.40	1.51	1.55
2.00	1.70	0.43	0.89	1.04	1.17	1.34	1.44	1.49
2.10	1.70	0.45	0.85	0.99	1.12	1.29	1.38	1.43
2.20	1.70	0.47	0.82	0.95	1.08	1.23	1.32	1.37
2.30	1.70	0.49	0.79	0.92	1.03	1.18	1.27	1.31
2.40	1.70	0.51	0.76	0.88	0.99	1.13	1.22	1.26
2.50	1.70	0.53	0.73	0.84	0.95	1.09	1.17	1.21
2.60	1.70	0.55	0.70	0.81	0.91	1.05	1.12	1.16
2.70	1.70	0.57	0.67	0.78	0.88	1.01	1.08	1.12
2.80	1.70	0.60	0.65	0.75	0.85	0.97	1.04	1.08

**Table K-21 DCW-12A ACMR Values Assuming  $R/I_e = 15.4$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.36	1.36	1.36	1.36	1.36	1.36
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.02	3.45	3.98	4.49	5.22	5.68	5.91
0.40	1.70	0.03	2.64	3.05	3.45	4.00	4.35	4.52
0.50	1.70	0.04	2.16	2.49	2.82	3.27	3.55	3.69
0.60	1.70	0.04	1.83	2.12	2.40	2.78	3.02	3.14
0.70	1.70	0.05	1.60	1.86	2.10	2.43	2.64	2.74
0.80	1.70	0.06	1.43	1.66	1.87	2.17	2.35	2.44
0.90	1.70	0.07	1.29	1.50	1.69	1.96	2.13	2.21
1.00	1.70	0.07	1.18	1.37	1.55	1.80	1.95	2.02
1.10	1.70	0.08	1.09	1.27	1.44	1.66	1.80	1.87
1.20	1.70	0.09	1.02	1.18	1.34	1.55	1.68	1.74
1.30	1.70	0.10	0.96	1.11	1.26	1.45	1.57	1.63
1.40	1.70	0.10	0.90	1.05	1.19	1.37	1.48	1.53
1.50	1.70	0.11	0.85	0.99	1.12	1.30	1.40	1.45
1.60	1.70	0.12	0.81	0.95	1.07	1.23	1.33	1.38
1.70	1.70	0.13	0.77	0.90	1.02	1.18	1.27	1.32
1.80	1.70	0.13	0.74	0.86	0.98	1.13	1.22	1.26
1.90	1.70	0.14	0.71	0.83	0.94	1.08	1.17	1.21
2.00	1.70	0.15	0.68	0.80	0.90	1.04	1.12	1.16
2.10	1.70	0.15	0.66	0.77	0.87	1.00	1.08	1.12
2.20	1.70	0.16	0.64	0.74	0.84	0.97	1.05	1.08
2.30	1.70	0.17	0.62	0.72	0.81	0.94	1.01	1.05
2.40	1.70	0.18	0.60	0.70	0.79	0.91	0.98	1.01
2.50	1.70	0.18	0.58	0.68	0.77	0.88	0.95	0.98
2.60	1.70	0.19	0.56	0.66	0.74	0.86	0.92	0.95
2.70	1.70	0.20	0.55	0.64	0.72	0.83	0.90	0.93
2.80	1.70	0.21	0.53	0.62	0.71	0.81	0.87	0.90



**Table K-21 DCW-12A ACMR Values Assuming  $R/I_e = 3.85$  for Target Reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	$DR_{IC}$
0.30	1.70	0.09	4.08	4.74	5.36	6.20	6.71	6.95
0.40	1.70	0.12	3.25	3.78	4.28	4.94	5.33	5.52
0.50	1.70	0.15	2.74	3.19	3.61	4.17	4.49	4.65
0.60	1.70	0.18	2.39	2.79	3.16	3.64	3.92	4.05
0.70	1.70	0.21	2.14	2.49	2.82	3.25	3.50	3.61
0.80	1.70	0.24	1.94	2.26	2.56	2.95	3.17	3.27
0.90	1.70	0.26	1.78	2.08	2.35	2.70	2.90	2.99
1.00	1.70	0.29	1.64	1.92	2.17	2.50	2.68	2.77
1.10	1.70	0.32	1.53	1.79	2.02	2.32	2.49	2.57
1.20	1.70	0.35	1.43	1.67	1.89	2.17	2.33	2.40
1.30	1.70	0.38	1.34	1.57	1.77	2.03	2.18	2.25
1.40	1.70	0.41	1.27	1.47	1.66	1.91	2.05	2.12
1.50	1.70	0.44	1.19	1.39	1.57	1.80	1.93	1.99
1.60	1.70	0.47	1.13	1.31	1.48	1.70	1.82	1.88
1.70	1.70	0.50	1.07	1.24	1.40	1.60	1.72	1.78
1.80	1.70	0.53	1.01	1.17	1.32	1.51	1.63	1.68
1.90	1.70	0.56	0.96	1.11	1.25	1.43	1.54	1.59
2.00	1.70	0.59	0.91	1.05	1.18	1.36	1.46	1.51
2.10	1.70	0.62	0.86	1.00	1.13	1.29	1.39	1.43
2.20	1.70	0.65	0.82	0.95	1.07	1.23	1.32	1.36
2.30	1.70	0.68	0.79	0.91	1.02	1.17	1.26	1.30
2.40	1.70	0.71	0.75	0.87	0.98	1.12	1.21	1.25
2.50	1.70	0.74	0.72	0.83	0.94	1.08	1.16	1.20
2.60	1.70	0.77	0.69	0.80	0.90	1.03	1.11	1.15
2.70	1.70	0.79	0.67	0.77	0.87	0.99	1.07	1.10
2.80	1.70	0.82	0.64	0.74	0.83	0.96	1.03	1.06

**Table K-22 DCW-12A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category II (I<sub>e</sub> = 1.0)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.58	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.04	0.8%	0.5%	0.3%	0.2%	0.1%	0.2%
0.40	1.70	0.06	2.4%	1.6%	1.0%	0.6%	0.4%	0.5%
0.50	1.70	0.07	5.2%	3.5%	2.3%	1.4%	1.0%	1.2%
0.60	1.70	0.09	8.8%	6.2%	4.2%	2.6%	2.0%	2.2%
0.70	1.70	0.10	12.9%	9.4%	6.5%	4.1%	3.2%	3.5%
0.80	1.70	0.11	17.4%	12.9%	9.2%	6.0%	4.8%	5.1%
0.90	1.70	0.13	21.9%	16.7%	12.1%	8.1%	6.6%	6.8%
1.00	1.70	0.14	26.4%	20.5%	15.1%	10.4%	8.5%	8.7%
1.10	1.70	0.16	30.8%	24.3%	18.3%	12.8%	10.6%	10.7%
1.20	1.70	0.17	35.1%	28.1%	21.5%	15.4%	12.8%	12.8%
1.30	1.70	0.18	39.1%	31.8%	24.6%	17.9%	15.1%	14.9%
1.40	1.70	0.20	43.0%	35.3%	27.7%	20.5%	17.4%	17.1%
1.50	1.70	0.21	46.6%	38.7%	30.8%	23.1%	19.7%	19.3%
1.60	1.70	0.23	50.0%	42.0%	33.8%	25.7%	22.1%	21.5%
1.70	1.70	0.24	53.2%	45.1%	36.7%	28.2%	24.4%	23.7%
1.80	1.70	0.26	56.2%	48.1%	39.5%	30.7%	26.8%	25.9%
1.90	1.70	0.27	59.0%	50.9%	42.2%	33.2%	29.1%	28.1%
2.00	1.70	0.28	61.7%	53.6%	44.9%	35.7%	31.4%	30.2%
2.10	1.70	0.30	64.2%	56.2%	47.5%	38.1%	33.6%	32.4%
2.20	1.70	0.31	66.5%	58.7%	50.0%	40.4%	35.9%	34.5%
2.30	1.70	0.33	68.7%	61.0%	52.4%	42.7%	38.1%	36.6%
2.40	1.70	0.34	70.8%	63.3%	54.7%	45.0%	40.3%	38.7%
2.50	1.70	0.35	72.7%	65.4%	56.9%	47.2%	42.4%	40.7%
2.60	1.70	0.37	74.5%	67.4%	59.1%	49.4%	44.6%	42.7%
2.70	1.70	0.38	76.2%	69.4%	61.2%	51.5%	46.7%	44.7%
2.80	1.70	0.40	77.9%	71.2%	63.2%	53.6%	48.7%	46.7%

**Table K-23 DCW-12A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.53	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.06	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%
0.40	1.70	0.09	1.1%	0.6%	0.4%	0.2%	0.1%	0.2%
0.50	1.70	0.11	2.6%	1.6%	1.0%	0.5%	0.4%	0.5%
0.60	1.70	0.13	4.8%	3.1%	1.9%	1.1%	0.8%	1.0%
0.70	1.70	0.15	7.6%	5.1%	3.2%	1.9%	1.4%	1.6%
0.80	1.70	0.17	10.9%	7.5%	4.9%	2.9%	2.3%	2.5%
0.90	1.70	0.19	14.5%	10.2%	6.8%	4.2%	3.3%	3.6%
1.00	1.70	0.21	18.3%	13.2%	9.0%	5.7%	4.6%	4.8%
1.10	1.70	0.23	22.2%	16.4%	11.4%	7.4%	6.0%	6.1%
1.20	1.70	0.26	26.1%	19.6%	14.0%	9.3%	7.5%	7.6%
1.30	1.70	0.28	30.1%	23.0%	16.7%	11.3%	9.3%	9.3%
1.40	1.70	0.30	34.0%	26.5%	19.5%	13.5%	11.1%	11.0%
1.50	1.70	0.32	37.9%	29.9%	22.5%	15.8%	13.1%	12.9%
1.60	1.70	0.34	41.7%	33.4%	25.5%	18.2%	15.2%	14.8%
1.70	1.70	0.36	45.4%	36.9%	28.5%	20.7%	17.4%	16.9%
1.80	1.70	0.38	49.0%	40.3%	31.6%	23.3%	19.7%	19.1%
1.90	1.70	0.40	52.5%	43.7%	34.8%	26.0%	22.2%	21.3%
2.00	1.70	0.43	55.9%	47.1%	38.0%	28.8%	24.7%	23.6%
2.10	1.70	0.45	59.1%	50.5%	41.2%	31.6%	27.3%	26.1%
2.20	1.70	0.47	62.3%	53.7%	44.4%	34.5%	29.9%	28.6%
2.30	1.70	0.49	65.3%	57.0%	47.6%	37.5%	32.7%	31.1%
2.40	1.70	0.51	68.2%	60.1%	50.8%	40.5%	35.6%	33.8%
2.50	1.70	0.53	71.0%	63.2%	54.0%	43.6%	38.4%	36.5%
2.60	1.70	0.55	73.6%	66.1%	57.1%	46.6%	41.4%	39.3%
2.70	1.70	0.57	76.1%	68.9%	60.1%	49.5%	44.2%	42.0%
2.80	1.70	0.60	78.4%	71.4%	62.8%	52.4%	47.0%	44.7%

**Table K-24 DCW-12A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 15.4$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.58	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.02	1.0%	0.7%	0.4%	0.2%	0.2%	0.2%
0.40	1.70	0.03	3.3%	2.2%	1.4%	0.8%	0.6%	0.7%
0.50	1.70	0.04	7.1%	5.0%	3.3%	2.0%	1.5%	1.7%
0.60	1.70	0.04	12.0%	8.8%	6.1%	3.8%	2.9%	3.2%
0.70	1.70	0.05	17.7%	13.3%	9.5%	6.1%	4.8%	5.1%
0.80	1.70	0.06	23.6%	18.2%	13.3%	9.0%	7.2%	7.4%
0.90	1.70	0.07	29.5%	23.3%	17.5%	12.1%	9.8%	10.0%
1.00	1.70	0.07	35.2%	28.4%	21.8%	15.4%	12.7%	12.7%
1.10	1.70	0.08	40.7%	33.3%	26.0%	18.9%	15.7%	15.6%
1.20	1.70	0.09	45.7%	38.0%	30.2%	22.4%	18.8%	18.5%
1.30	1.70	0.10	50.3%	42.5%	34.3%	25.8%	22.0%	21.4%
1.40	1.70	0.10	54.6%	46.6%	38.1%	29.2%	25.1%	24.3%
1.50	1.70	0.11	58.4%	50.5%	41.8%	32.5%	28.1%	27.2%
1.60	1.70	0.12	62.0%	54.1%	45.3%	35.7%	31.1%	30.0%
1.70	1.70	0.13	65.1%	57.4%	48.6%	38.8%	34.0%	32.7%
1.80	1.70	0.13	68.0%	60.4%	51.6%	41.7%	36.8%	35.4%
1.90	1.70	0.14	70.6%	63.2%	54.5%	44.5%	39.5%	37.9%
2.00	1.70	0.15	73.0%	65.8%	57.2%	47.2%	42.1%	40.3%
2.10	1.70	0.15	75.2%	68.1%	59.7%	49.7%	44.6%	42.7%
2.20	1.70	0.16	77.1%	70.3%	62.1%	52.1%	47.0%	45.0%
2.30	1.70	0.17	78.9%	72.3%	64.2%	54.4%	49.2%	47.1%
2.40	1.70	0.18	80.5%	74.2%	66.3%	56.5%	51.4%	49.2%
2.50	1.70	0.18	82.0%	75.9%	68.2%	58.6%	53.5%	51.2%
2.60	1.70	0.19	83.3%	77.4%	70.0%	60.5%	55.5%	53.1%
2.70	1.70	0.20	84.5%	78.9%	71.7%	62.4%	57.3%	54.9%
2.80	1.70	0.21	85.6%	80.3%	73.2%	64.1%	59.1%	56.7%

**Table K-25 DCW-12A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 3.85$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.53	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	1.70	0.09	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%
0.40	1.70	0.12	0.7%	0.4%	0.2%	0.1%	0.1%	0.1%
0.50	1.70	0.15	1.8%	1.1%	0.6%	0.3%	0.2%	0.3%
0.60	1.70	0.18	3.4%	2.1%	1.3%	0.7%	0.5%	0.6%
0.70	1.70	0.21	5.5%	3.6%	2.2%	1.3%	1.0%	1.1%
0.80	1.70	0.24	8.0%	5.3%	3.4%	2.0%	1.5%	1.7%
0.90	1.70	0.26	10.8%	7.5%	4.8%	3.0%	2.3%	2.5%
1.00	1.70	0.29	14.0%	9.9%	6.6%	4.1%	3.2%	3.4%
1.10	1.70	0.32	17.5%	12.6%	8.6%	5.5%	4.4%	4.5%
1.20	1.70	0.35	21.1%	15.5%	10.8%	7.1%	5.7%	5.7%
1.30	1.70	0.38	24.9%	18.7%	13.3%	8.9%	7.2%	7.2%
1.40	1.70	0.41	28.9%	22.1%	16.1%	10.9%	8.9%	8.8%
1.50	1.70	0.44	33.0%	25.8%	19.1%	13.2%	10.9%	10.6%
1.60	1.70	0.47	37.2%	29.6%	22.3%	15.7%	13.1%	12.6%
1.70	1.70	0.50	41.5%	33.6%	25.8%	18.5%	15.5%	14.8%
1.80	1.70	0.53	45.9%	37.7%	29.5%	21.6%	18.2%	17.3%
1.90	1.70	0.56	50.2%	41.9%	33.4%	24.8%	21.0%	20.0%
2.00	1.70	0.59	54.4%	46.0%	37.2%	28.1%	24.0%	22.7%
2.10	1.70	0.62	58.4%	50.0%	40.9%	31.4%	27.0%	25.5%
2.20	1.70	0.65	62.1%	53.8%	44.6%	34.7%	30.1%	28.4%
2.30	1.70	0.68	65.5%	57.4%	48.1%	38.0%	33.1%	31.3%
2.40	1.70	0.71	68.7%	60.8%	51.6%	41.2%	36.2%	34.2%
2.50	1.70	0.74	71.7%	63.9%	54.8%	44.4%	39.2%	37.1%
2.60	1.70	0.77	74.4%	66.9%	58.0%	47.4%	42.2%	39.9%
2.70	1.70	0.79	76.8%	69.7%	60.9%	50.4%	45.1%	42.8%
2.80	1.70	0.82	79.1%	72.3%	63.7%	53.3%	47.9%	45.6%

**Table K-26 Values of  $\hat{S}_{CT}$  from the DCW-12B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						DR <sub>IC</sub> [%]
		S <sub>CT</sub> (g) at DR						
		2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>	
0.3	0.07	0.90	1.01	1.14	1.32	1.43	1.48	4.41
0.4	0.09	0.94	1.05	1.18	1.37	1.48	1.54	4.41
0.5	0.10	0.97	1.08	1.22	1.41	1.53	1.58	4.41
0.6	0.11	0.99	1.11	1.25	1.44	1.56	1.62	4.41
0.7	0.13	1.02	1.14	1.29	1.49	1.61	1.66	4.41
0.8	0.14	1.05	1.17	1.32	1.53	1.65	1.70	4.41
0.9	0.16	1.07	1.20	1.35	1.56	1.68	1.74	4.41
1.0	0.17	1.10	1.23	1.39	1.60	1.72	1.78	4.41
1.1	0.19	1.12	1.25	1.42	1.63	1.76	1.82	4.41
1.2	0.20	1.14	1.28	1.45	1.67	1.79	1.85	4.41
1.3	0.21	1.16	1.30	1.47	1.70	1.83	1.89	4.41
1.4	0.23	1.19	1.33	1.50	1.73	1.86	1.92	4.41
1.5	0.24	1.21	1.35	1.53	1.76	1.89	1.95	4.41
1.6	0.26	1.23	1.37	1.55	1.79	1.92	1.98	4.41
1.7	0.27	1.24	1.39	1.58	1.81	1.95	2.01	4.41
1.8	0.28	1.26	1.41	1.60	1.84	1.97	2.04	4.41
1.9	0.30	1.28	1.43	1.62	1.86	2.00	2.06	4.41
2.0	0.31	1.30	1.45	1.64	1.88	2.02	2.09	4.41
2.1	0.33	1.31	1.47	1.66	1.90	2.04	2.11	4.41
2.2	0.34	1.32	1.48	1.67	1.92	2.06	2.13	4.41
2.3	0.36	1.34	1.50	1.69	1.94	2.08	2.15	4.41
2.4	0.37	1.35	1.51	1.70	1.96	2.10	2.17	4.41
2.5	0.38	1.36	1.52	1.72	1.97	2.12	2.18	4.41
2.6	0.40	1.37	1.53	1.73	1.99	2.13	2.20	4.41
2.7	0.41	1.38	1.54	1.74	2.00	2.14	2.21	4.41
2.8	0.43	1.39	1.55	1.75	2.01	2.16	2.22	4.41

**Table K-27 Values of  $\hat{S}_{CT}$  from the DCW-12B Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>	
0.3	0.11	0.98	1.09	1.23	1.43	1.54	1.60	4.41
0.4	0.13	1.03	1.15	1.30	1.50	1.62	1.68	4.41
0.5	0.16	1.07	1.19	1.35	1.56	1.68	1.74	4.41
0.6	0.17	1.10	1.23	1.39	1.60	1.72	1.78	4.41
0.7	0.19	1.13	1.27	1.44	1.65	1.78	1.84	4.41
0.8	0.22	1.17	1.31	1.48	1.70	1.83	1.89	4.41
0.9	0.24	1.20	1.34	1.52	1.74	1.88	1.94	4.41
1.0	0.26	1.23	1.37	1.55	1.79	1.92	1.98	4.41
1.1	0.28	1.25	1.40	1.59	1.83	1.96	2.02	4.41
1.2	0.30	1.28	1.43	1.62	1.86	2.00	2.06	4.41
1.3	0.32	1.30	1.46	1.65	1.89	2.03	2.10	4.41
1.4	0.34	1.32	1.48	1.67	1.92	2.06	2.13	4.41
1.5	0.36	1.34	1.50	1.70	1.95	2.09	2.16	4.41
1.6	0.38	1.36	1.52	1.72	1.97	2.12	2.18	4.41
1.7	0.41	1.38	1.54	1.74	1.99	2.14	2.21	4.41
1.8	0.43	1.39	1.55	1.75	2.01	2.16	2.22	4.41
1.9	0.45	1.40	1.56	1.76	2.02	2.17	2.24	4.41
2.0	0.47	1.41	1.57	1.77	2.03	2.18	2.25	4.41
2.1	0.49	1.42	1.58	1.78	2.04	2.19	2.26	4.41
2.2	0.51	1.42	1.58	1.78	2.04	2.20	2.27	4.41
2.3	0.53	1.42	1.59	1.78	2.05	2.20	2.27	4.41
2.4	0.55	1.43	1.59	1.78	2.05	2.20	2.27	4.41
2.5	0.58	1.43	1.59	1.78	2.05	2.20	2.27	4.41
2.6	0.60	1.43	1.59	1.78	2.05	2.20	2.27	4.41
2.7	0.62	1.43	1.59	1.78	2.05	2.20	2.27	4.41
2.8	0.64	1.43	1.59	1.78	2.05	2.20	2.27	4.41

**Table K-28 DCW-12B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.35	1.35	1.35	1.35	1.35	0.8088
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	$DR_{IC}$
0.30	2.90	0.07	4.10	4.57	5.16	5.98	6.47	6.71
0.40	2.69	0.09	3.19	3.57	4.03	4.66	5.04	5.23
0.50	2.49	0.10	2.63	2.94	3.32	3.84	4.15	4.30
0.60	2.29	0.11	2.24	2.50	2.83	3.27	3.54	3.66
0.70	2.23	0.13	1.98	2.21	2.50	2.89	3.12	3.22
0.80	2.16	0.14	1.77	1.98	2.24	2.59	2.79	2.89
0.90	2.10	0.16	1.61	1.80	2.04	2.35	2.54	2.62
1.00	2.06	0.17	1.49	1.66	1.88	2.17	2.33	2.41
1.10	2.03	0.19	1.38	1.54	1.75	2.01	2.17	2.24
1.20	2.00	0.20	1.29	1.44	1.63	1.88	2.02	2.09
1.30	1.98	0.21	1.21	1.36	1.53	1.77	1.90	1.96
1.40	1.96	0.23	1.15	1.28	1.45	1.67	1.79	1.85
1.50	1.94	0.24	1.09	1.22	1.38	1.58	1.70	1.76
1.60	1.92	0.26	1.03	1.16	1.31	1.51	1.62	1.67
1.70	1.91	0.27	0.99	1.11	1.25	1.44	1.54	1.59
1.80	1.90	0.28	0.95	1.06	1.20	1.38	1.48	1.52
1.90	1.89	0.30	0.91	1.01	1.15	1.32	1.42	1.46
2.00	1.88	0.31	0.87	0.98	1.10	1.27	1.36	1.40
2.10	1.87	0.33	0.84	0.94	1.06	1.22	1.31	1.35
2.20	1.86	0.34	0.81	0.90	1.02	1.17	1.26	1.30
2.30	1.86	0.36	0.78	0.87	0.99	1.13	1.22	1.25
2.40	1.85	0.37	0.75	0.84	0.95	1.09	1.17	1.21
2.50	1.84	0.38	0.73	0.82	0.92	1.06	1.14	1.17
2.60	1.84	0.40	0.71	0.79	0.89	1.02	1.10	1.13
2.70	1.83	0.41	0.68	0.76	0.86	0.99	1.06	1.10
2.80	1.83	0.43	0.66	0.74	0.84	0.96	1.03	1.06



**Table K-29 DCW-12B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.11	4.43	4.95	5.60	6.47	6.99	7.24
0.40	2.69	0.13	3.49	3.90	4.41	5.10	5.50	5.69
0.50	2.49	0.16	2.89	3.24	3.66	4.22	4.55	4.71
0.60	2.29	0.17	2.48	2.77	3.13	3.61	3.89	4.02
0.70	2.23	0.19	2.19	2.46	2.78	3.20	3.44	3.56
0.80	2.16	0.22	1.97	2.21	2.50	2.88	3.10	3.20
0.90	2.10	0.24	1.80	2.01	2.28	2.62	2.82	2.91
1.00	2.06	0.26	1.66	1.85	2.10	2.41	2.59	2.68
1.10	2.03	0.28	1.54	1.72	1.95	2.24	2.40	2.48
1.20	2.00	0.30	1.44	1.61	1.82	2.09	2.24	2.31
1.30	1.98	0.32	1.35	1.51	1.71	1.96	2.10	2.17
1.40	1.96	0.34	1.27	1.42	1.61	1.85	1.98	2.04
1.50	1.94	0.36	1.20	1.34	1.52	1.74	1.87	1.93
1.60	1.92	0.38	1.14	1.28	1.44	1.65	1.77	1.83
1.70	1.91	0.41	1.08	1.21	1.37	1.57	1.68	1.74
1.80	1.90	0.43	1.03	1.15	1.30	1.49	1.60	1.65
1.90	1.89	0.45	0.99	1.10	1.24	1.42	1.53	1.58
2.00	1.88	0.47	0.94	1.05	1.18	1.36	1.46	1.50
2.10	1.87	0.49	0.90	1.00	1.13	1.30	1.39	1.44
2.20	1.86	0.51	0.86	0.96	1.08	1.24	1.33	1.37
2.30	1.86	0.53	0.82	0.92	1.03	1.18	1.27	1.31
2.40	1.85	0.55	0.79	0.88	0.99	1.13	1.22	1.26
2.50	1.84	0.58	0.76	0.84	0.95	1.09	1.17	1.21
2.60	1.84	0.60	0.73	0.81	0.91	1.04	1.12	1.16
2.70	1.83	0.62	0.70	0.78	0.88	1.00	1.08	1.11
2.80	1.83	0.64	0.67	0.75	0.84	0.97	1.04	1.07

**Table K-30 DCW-12B ACMR Values Assuming  $R/I_e = 19$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.36	1.36	1.36	1.36	1.36	1.36
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.03	3.67	4.08	4.61	5.35	5.82	6.05
0.40	2.69	0.04	2.81	3.13	3.53	4.10	4.45	4.63
0.50	2.49	0.04	2.28	2.54	2.87	3.33	3.62	3.76
0.60	2.29	0.05	1.93	2.15	2.43	2.81	3.05	3.17
0.70	2.23	0.05	1.68	1.87	2.11	2.45	2.66	2.76
0.80	2.16	0.06	1.49	1.66	1.88	2.18	2.36	2.45
0.90	2.10	0.07	1.35	1.50	1.69	1.96	2.13	2.21
1.00	2.06	0.07	1.23	1.37	1.55	1.79	1.94	2.01
1.10	2.03	0.08	1.13	1.26	1.43	1.65	1.79	1.85
1.20	2.00	0.08	1.05	1.17	1.33	1.53	1.66	1.72
1.30	1.98	0.09	0.98	1.10	1.24	1.44	1.55	1.61
1.40	1.96	0.10	0.93	1.03	1.17	1.35	1.46	1.51
1.50	1.94	0.10	0.87	0.98	1.10	1.28	1.38	1.43
1.60	1.92	0.11	0.83	0.93	1.05	1.21	1.31	1.36
1.70	1.91	0.11	0.79	0.88	1.00	1.15	1.25	1.29
1.80	1.90	0.12	0.76	0.84	0.95	1.10	1.19	1.23
1.90	1.89	0.13	0.72	0.81	0.91	1.06	1.14	1.18
2.00	1.88	0.13	0.70	0.78	0.88	1.01	1.09	1.13
2.10	1.87	0.14	0.67	0.75	0.85	0.98	1.05	1.09
2.20	1.86	0.14	0.65	0.72	0.82	0.94	1.02	1.05
2.30	1.86	0.15	0.62	0.70	0.79	0.91	0.98	1.01
2.40	1.85	0.16	0.60	0.67	0.76	0.88	0.95	0.98
2.50	1.84	0.16	0.58	0.65	0.74	0.85	0.92	0.95
2.60	1.84	0.17	0.57	0.64	0.72	0.83	0.89	0.92
2.70	1.83	0.17	0.55	0.62	0.70	0.80	0.87	0.90
2.80	1.83	0.18	0.54	0.60	0.68	0.78	0.84	0.87

**Table K-31 DCW-12B ACMR Values Assuming  $R/I_e = 4.7$  for Target Reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.34	1.34	1.34	1.34	1.34	1.34
$MCE_R$ $S_{MT}(g)$	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	$DR_{IC}$
0.30	2.90	0.12	4.56	5.10	5.76	6.66	7.19	7.44
0.40	2.69	0.15	3.60	4.03	4.56	5.26	5.67	5.86
0.50	2.49	0.18	2.99	3.35	3.79	4.36	4.70	4.86
0.60	2.29	0.20	2.56	2.87	3.24	3.74	4.02	4.15
0.70	2.23	0.22	2.27	2.54	2.87	3.31	3.56	3.68
0.80	2.16	0.25	2.04	2.29	2.59	2.98	3.20	3.30
0.90	2.10	0.27	1.86	2.08	2.35	2.71	2.91	3.00
1.00	2.06	0.29	1.71	1.92	2.17	2.49	2.68	2.76
1.10	2.03	0.32	1.59	1.78	2.01	2.31	2.48	2.56
1.20	2.00	0.34	1.48	1.66	1.87	2.15	2.31	2.38
1.30	1.98	0.36	1.39	1.55	1.75	2.01	2.16	2.23
1.40	1.96	0.39	1.31	1.46	1.65	1.89	2.03	2.10
1.50	1.94	0.41	1.23	1.38	1.55	1.78	1.91	1.97
1.60	1.92	0.44	1.17	1.30	1.47	1.68	1.81	1.87
1.70	1.91	0.46	1.10	1.23	1.39	1.59	1.71	1.77
1.80	1.90	0.48	1.05	1.17	1.32	1.51	1.62	1.67
1.90	1.89	0.51	1.00	1.11	1.25	1.43	1.54	1.59
2.00	1.88	0.53	0.95	1.05	1.19	1.36	1.46	1.51
2.10	1.87	0.56	0.90	1.00	1.13	1.29	1.39	1.44
2.20	1.86	0.58	0.86	0.96	1.08	1.23	1.33	1.37
2.30	1.86	0.61	0.82	0.91	1.03	1.18	1.27	1.31
2.40	1.85	0.63	0.79	0.87	0.98	1.13	1.21	1.25
2.50	1.84	0.65	0.75	0.84	0.94	1.08	1.16	1.20
2.60	1.84	0.68	0.72	0.81	0.91	1.04	1.12	1.15
2.70	1.83	0.70	0.70	0.77	0.87	1.00	1.07	1.11
2.80	1.83	0.73	0.67	0.75	0.84	0.96	1.03	1.07

**Table K-32 DCW-12B MCE<sub>R</sub> Collapse Probability Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.58	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.07	0.5%	0.3%	0.2%	0.1%	0.1%	0.1%
0.40	2.69	0.09	1.7%	1.1%	0.7%	0.4%	0.3%	0.4%
0.50	2.49	0.10	3.9%	2.6%	1.7%	1.0%	0.7%	0.9%
0.60	2.29	0.11	7.1%	4.9%	3.2%	2.0%	1.5%	1.7%
0.70	2.23	0.13	10.8%	7.7%	5.2%	3.3%	2.6%	2.8%
0.80	2.16	0.14	14.9%	10.9%	7.6%	4.9%	3.9%	4.2%
0.90	2.10	0.16	19.2%	14.4%	10.3%	6.9%	5.6%	5.8%
1.00	2.06	0.17	23.6%	18.1%	13.2%	9.0%	7.3%	7.5%
1.10	2.03	0.19	28.0%	21.8%	16.2%	11.3%	9.3%	9.4%
1.20	2.00	0.20	32.3%	25.5%	19.3%	13.7%	11.4%	11.4%
1.30	1.98	0.21	36.3%	29.2%	22.4%	16.2%	13.6%	13.5%
1.40	1.96	0.23	40.3%	32.8%	25.5%	18.7%	15.8%	15.6%
1.50	1.94	0.24	44.0%	36.3%	28.6%	21.3%	18.2%	17.8%
1.60	1.92	0.26	47.6%	39.6%	31.7%	23.9%	20.5%	20.0%
1.70	1.91	0.27	50.9%	42.9%	34.6%	26.4%	22.8%	22.2%
1.80	1.90	0.28	54.1%	46.0%	37.6%	29.0%	25.2%	24.4%
1.90	1.89	0.30	57.1%	49.0%	40.4%	31.6%	27.6%	26.6%
2.00	1.88	0.31	59.9%	51.8%	43.2%	34.1%	29.9%	28.8%
2.10	1.87	0.33	62.5%	54.5%	45.8%	36.6%	32.3%	31.0%
2.20	1.86	0.34	65.0%	57.2%	48.5%	39.0%	34.6%	33.2%
2.30	1.86	0.36	67.4%	59.7%	51.0%	41.4%	36.9%	35.4%
2.40	1.85	0.37	69.6%	62.0%	53.4%	43.8%	39.2%	37.6%
2.50	1.84	0.38	71.7%	64.3%	55.8%	46.1%	41.4%	39.7%
2.60	1.84	0.40	73.6%	66.5%	58.1%	48.4%	43.6%	41.8%
2.70	1.83	0.41	75.5%	68.5%	60.3%	50.7%	45.8%	43.9%
2.80	1.83	0.43	77.2%	70.5%	62.4%	52.8%	48.0%	46.0%

**Table K-33 DCW-12B MCE<sub>R</sub> Collapse Probability Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.53	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.11	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
0.40	2.69	0.13	0.6%	0.4%	0.2%	0.1%	0.1%	0.1%
0.50	2.49	0.16	1.7%	1.0%	0.6%	0.3%	0.2%	0.3%
0.60	2.29	0.17	3.5%	2.2%	1.3%	0.7%	0.6%	0.7%
0.70	2.23	0.19	5.8%	3.8%	2.3%	1.4%	1.0%	1.2%
0.80	2.16	0.22	8.7%	5.9%	3.7%	2.2%	1.7%	1.9%
0.90	2.10	0.24	12.1%	8.4%	5.5%	3.4%	2.6%	2.8%
1.00	2.06	0.26	15.6%	11.1%	7.5%	4.7%	3.7%	3.9%
1.10	2.03	0.28	19.5%	14.2%	9.8%	6.3%	5.0%	5.2%
1.20	2.00	0.30	23.5%	17.4%	12.3%	8.1%	6.5%	6.6%
1.30	1.98	0.32	27.5%	20.8%	14.9%	10.0%	8.2%	8.2%
1.40	1.96	0.34	31.6%	24.3%	17.8%	12.2%	10.0%	9.9%
1.50	1.94	0.36	35.6%	27.9%	20.8%	14.5%	12.0%	11.8%
1.60	1.92	0.38	39.6%	31.6%	23.9%	17.0%	14.1%	13.8%
1.70	1.91	0.41	43.6%	35.2%	27.1%	19.6%	16.4%	15.9%
1.80	1.90	0.43	47.4%	38.9%	30.4%	22.3%	18.9%	18.1%
1.90	1.89	0.45	51.2%	42.6%	33.8%	25.1%	21.4%	20.5%
2.00	1.88	0.47	54.8%	46.2%	37.2%	28.1%	24.0%	23.0%
2.10	1.87	0.49	58.4%	49.8%	40.6%	31.1%	26.8%	25.5%
2.20	1.86	0.51	61.8%	53.3%	44.1%	34.2%	29.7%	28.2%
2.30	1.86	0.53	65.0%	56.8%	47.6%	37.4%	32.6%	31.0%
2.40	1.85	0.55	68.2%	60.2%	50.9%	40.6%	35.6%	33.8%
2.50	1.84	0.58	71.1%	63.3%	54.2%	43.7%	38.6%	36.6%
2.60	1.84	0.60	73.8%	66.3%	57.3%	46.8%	41.5%	39.4%
2.70	1.83	0.62	76.3%	69.0%	60.2%	49.7%	44.4%	42.2%
2.80	1.83	0.64	78.5%	71.6%	63.0%	52.6%	47.2%	44.9%

**Table K-34 DCW-12B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 19$  for Target Reliability of 10% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.58	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.03	0.9%	0.6%	0.3%	0.2%	0.1%	0.2%
0.40	2.69	0.04	3.0%	2.0%	1.3%	0.7%	0.5%	0.7%
0.50	2.49	0.04	6.7%	4.7%	3.1%	1.8%	1.4%	1.6%
0.60	2.29	0.05	11.6%	8.5%	5.8%	3.6%	2.8%	3.1%
0.70	2.23	0.05	17.3%	13.0%	9.2%	6.0%	4.7%	5.0%
0.80	2.16	0.06	23.3%	18.0%	13.2%	8.8%	7.1%	7.3%
0.90	2.10	0.07	29.5%	23.3%	17.5%	12.1%	9.8%	10.0%
1.00	2.06	0.07	35.4%	28.6%	21.9%	15.5%	12.8%	12.8%
1.10	2.03	0.08	41.1%	33.8%	26.4%	19.2%	16.0%	15.8%
1.20	2.00	0.08	46.4%	38.7%	30.8%	22.9%	19.3%	18.9%
1.30	1.98	0.09	51.2%	43.3%	35.1%	26.5%	22.5%	22.0%
1.40	1.96	0.10	55.6%	47.7%	39.2%	30.1%	25.8%	25.0%
1.50	1.94	0.10	59.7%	51.7%	43.0%	33.6%	29.1%	28.1%
1.60	1.92	0.11	63.3%	55.5%	46.7%	37.0%	32.3%	31.0%
1.70	1.91	0.11	66.6%	58.9%	50.1%	40.2%	35.3%	33.9%
1.80	1.90	0.12	69.5%	62.0%	53.3%	43.3%	38.3%	36.7%
1.90	1.89	0.13	72.2%	64.9%	56.3%	46.2%	41.1%	39.4%
2.00	1.88	0.13	74.6%	67.5%	59.1%	49.0%	43.9%	42.0%
2.10	1.87	0.14	76.8%	69.9%	61.7%	51.6%	46.5%	44.4%
2.20	1.86	0.14	78.7%	72.2%	64.1%	54.2%	49.0%	46.8%
2.30	1.86	0.15	80.5%	74.2%	66.3%	56.5%	51.3%	49.1%
2.40	1.85	0.16	82.1%	76.1%	68.4%	58.8%	53.6%	51.2%
2.50	1.84	0.16	83.5%	77.8%	70.3%	60.8%	55.7%	53.3%
2.60	1.84	0.17	84.8%	79.3%	72.1%	62.8%	57.7%	55.2%
2.70	1.83	0.17	86.0%	80.7%	73.8%	64.7%	59.7%	57.1%
2.80	1.83	0.18	87.1%	82.1%	75.4%	66.5%	61.5%	58.9%

**Table K-35 DCW-12B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 4.7$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.53	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.2%	DR <sub>IC</sub>
0.30	2.90	0.12	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
0.40	2.69	0.15	0.5%	0.3%	0.2%	0.1%	0.1%	0.1%
0.50	2.49	0.18	1.4%	0.9%	0.5%	0.3%	0.2%	0.3%
0.60	2.29	0.20	3.0%	1.9%	1.1%	0.6%	0.5%	0.6%
0.70	2.23	0.22	5.1%	3.3%	2.0%	1.1%	0.9%	1.0%
0.80	2.16	0.25	7.7%	5.1%	3.2%	1.9%	1.5%	1.6%
0.90	2.10	0.27	10.7%	7.4%	4.8%	2.9%	2.3%	2.5%
1.00	2.06	0.29	14.1%	9.9%	6.6%	4.1%	3.3%	3.4%
1.10	2.03	0.32	17.7%	12.8%	8.7%	5.6%	4.5%	4.6%
1.20	2.00	0.34	21.6%	15.9%	11.1%	7.3%	5.9%	5.9%
1.30	1.98	0.36	25.6%	19.2%	13.7%	9.2%	7.4%	7.4%
1.40	1.96	0.39	29.7%	22.7%	16.6%	11.3%	9.2%	9.1%
1.50	1.94	0.41	33.8%	26.4%	19.6%	13.6%	11.2%	10.9%
1.60	1.92	0.44	38.0%	30.1%	22.8%	16.1%	13.4%	13.0%
1.70	1.91	0.46	42.1%	34.0%	26.1%	18.8%	15.7%	15.1%
1.80	1.90	0.48	46.2%	37.9%	29.6%	21.6%	18.2%	17.5%
1.90	1.89	0.51	50.3%	41.8%	33.2%	24.7%	21.0%	20.0%
2.00	1.88	0.53	54.3%	45.8%	37.0%	27.9%	23.8%	22.6%
2.10	1.87	0.56	58.1%	49.7%	40.7%	31.2%	26.8%	25.4%
2.20	1.86	0.58	61.8%	53.5%	44.3%	34.5%	29.9%	28.3%
2.30	1.86	0.61	65.3%	57.1%	47.9%	37.7%	32.9%	31.1%
2.40	1.85	0.63	68.4%	60.4%	51.2%	40.9%	35.9%	34.0%
2.50	1.84	0.65	71.4%	63.6%	54.5%	44.0%	38.9%	36.9%
2.60	1.84	0.68	74.1%	66.6%	57.6%	47.1%	41.8%	39.7%
2.70	1.83	0.70	76.5%	69.3%	60.6%	50.1%	44.7%	42.5%
2.80	1.83	0.73	78.8%	71.9%	63.3%	52.9%	47.5%	45.2%

**Table K-36 Values of  $\hat{S}_{CT}$  from the DCW-18A Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						DR <sub>IC</sub> [%]
		S <sub>CT</sub> (g) at DR						
		2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>	
0.30	0.04	0.84	0.91	0.99	1.09	1.16	1.17	4.54
0.40	0.06	0.87	0.93	1.01	1.11	1.17	1.18	4.54
0.50	0.07	0.89	0.96	1.04	1.13	1.19	1.20	4.54
0.60	0.09	0.92	0.98	1.06	1.15	1.20	1.21	4.54
0.70	0.10	0.94	1.01	1.08	1.17	1.22	1.23	4.54
0.80	0.11	0.96	1.03	1.10	1.18	1.23	1.24	4.54
0.90	0.13	0.99	1.05	1.12	1.20	1.25	1.25	4.54
1.00	0.14	1.01	1.07	1.14	1.22	1.26	1.27	4.54
1.10	0.16	1.03	1.09	1.16	1.24	1.28	1.28	4.54
1.20	0.17	1.05	1.12	1.18	1.26	1.29	1.29	4.54
1.30	0.18	1.07	1.14	1.20	1.27	1.30	1.31	4.54
1.40	0.20	1.09	1.16	1.22	1.29	1.32	1.32	4.54
1.50	0.21	1.11	1.17	1.24	1.31	1.33	1.33	4.54
1.60	0.23	1.13	1.19	1.26	1.32	1.35	1.35	4.54
1.70	0.24	1.15	1.21	1.28	1.34	1.36	1.36	4.54
1.80	0.26	1.17	1.23	1.29	1.35	1.37	1.37	4.54
1.90	0.27	1.18	1.24	1.31	1.37	1.39	1.39	4.54
2.00	0.28	1.20	1.26	1.33	1.38	1.40	1.40	4.54



**Table K-37 Values of  $\hat{S}_{CT}$  from the DCW-18A Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration,						DR <sub>IC</sub> [%]
		S <sub>CT</sub> (g) at DR						
		2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>	
0.30	0.06	0.88	0.95	1.02	1.12	1.18	1.19	4.54
0.40	0.09	0.92	0.98	1.06	1.15	1.20	1.21	4.54
0.50	0.11	0.95	1.02	1.09	1.18	1.23	1.23	4.54
0.60	0.13	0.99	1.05	1.12	1.20	1.25	1.25	4.54
0.70	0.15	1.02	1.08	1.15	1.23	1.27	1.27	4.54
0.80	0.17	1.05	1.12	1.18	1.26	1.29	1.29	4.54
0.90	0.19	1.08	1.15	1.21	1.28	1.31	1.31	4.54
1.00	0.21	1.11	1.17	1.24	1.31	1.33	1.33	4.54
1.10	0.23	1.14	1.20	1.27	1.33	1.35	1.35	4.54
1.20	0.26	1.17	1.23	1.29	1.35	1.37	1.37	4.54
1.30	0.28	1.19	1.25	1.32	1.38	1.39	1.39	4.54
1.40	0.30	1.21	1.28	1.34	1.40	1.41	1.41	4.54
1.50	0.32	1.24	1.30	1.36	1.42	1.43	1.43	4.54
1.60	0.34	1.26	1.32	1.38	1.44	1.45	1.45	4.54
1.70	0.36	1.27	1.34	1.40	1.46	1.47	1.47	4.54
1.80	0.38	1.29	1.36	1.42	1.48	1.49	1.49	4.54
1.90	0.40	1.31	1.37	1.44	1.50	1.51	1.51	4.54
2.00	0.43	1.32	1.39	1.46	1.51	1.52	1.52	4.54

**Table K-38 DCW-18A ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.57	1.57	1.57	1.57	1.57	1.4235
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.04	4.40	4.76	5.18	5.70	6.07	6.13
0.40	1.70	0.06	3.41	3.67	3.98	4.35	4.61	4.66
0.50	1.70	0.07	2.80	3.01	3.26	3.54	3.74	3.77
0.60	1.70	0.09	2.40	2.58	2.77	3.01	3.15	3.18
0.70	1.70	0.10	2.11	2.26	2.43	2.62	2.74	2.75
0.80	1.70	0.11	1.90	2.02	2.17	2.33	2.42	2.44
0.90	1.70	0.13	1.73	1.84	1.96	2.10	2.18	2.19
1.00	1.70	0.14	1.59	1.69	1.80	1.92	1.98	1.99
1.10	1.70	0.16	1.48	1.57	1.67	1.77	1.82	1.83
1.20	1.70	0.17	1.38	1.46	1.55	1.65	1.69	1.70
1.30	1.70	0.18	1.30	1.37	1.46	1.54	1.58	1.58
1.40	1.70	0.20	1.23	1.30	1.37	1.45	1.48	1.48
1.50	1.70	0.21	1.17	1.23	1.30	1.37	1.39	1.40
1.60	1.70	0.23	1.11	1.17	1.23	1.30	1.32	1.32
1.70	1.70	0.24	1.06	1.11	1.17	1.23	1.25	1.25
1.80	1.70	0.26	1.01	1.06	1.12	1.17	1.19	1.19
1.90	1.70	0.27	0.97	1.02	1.07	1.12	1.14	1.14
2.00	1.70	0.28	0.93	0.98	1.03	1.08	1.09	1.09

**Table K-39 DCW-18A ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.55	1.55	1.55	1.55	1.55	1.55
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.06	4.61	4.96	5.37	5.86	6.19	6.25
0.40	1.70	0.09	3.60	3.86	4.16	4.51	4.73	4.77
0.50	1.70	0.11	3.00	3.20	3.43	3.70	3.85	3.88
0.60	1.70	0.13	2.59	2.76	2.94	3.15	3.27	3.29
0.70	1.70	0.15	2.29	2.44	2.59	2.76	2.85	2.86
0.80	1.70	0.17	2.07	2.19	2.33	2.47	2.54	2.54
0.90	1.70	0.19	1.89	2.00	2.12	2.24	2.29	2.29
1.00	1.70	0.21	1.75	1.85	1.95	2.05	2.09	2.09
1.10	1.70	0.23	1.62	1.71	1.80	1.90	1.92	1.93
1.20	1.70	0.26	1.52	1.60	1.68	1.76	1.78	1.78
1.30	1.70	0.28	1.42	1.50	1.58	1.65	1.67	1.67
1.40	1.70	0.30	1.34	1.41	1.48	1.55	1.56	1.56
1.50	1.70	0.32	1.27	1.34	1.40	1.46	1.47	1.47
1.60	1.70	0.34	1.21	1.27	1.33	1.38	1.39	1.39
1.70	1.70	0.36	1.15	1.21	1.26	1.32	1.32	1.32
1.80	1.70	0.38	1.10	1.15	1.21	1.25	1.26	1.26
1.90	1.70	0.40	1.05	1.10	1.15	1.20	1.21	1.21
2.00	1.70	0.43	1.00	1.05	1.10	1.15	1.15	1.15

**Table K-40 DCW-18A ACMR Values Assuming  $R/I_e = 10.6$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.57	1.57	1.57	1.57	1.57	1.57
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.03	4.30	4.66	5.09	5.62	6.01	6.08
0.40	1.70	0.04	3.30	3.57	3.89	4.27	4.55	4.60
0.50	1.70	0.05	2.71	2.92	3.17	3.47	3.68	3.72
0.60	1.70	0.06	2.31	2.48	2.69	2.93	3.10	3.12
0.70	1.70	0.07	2.02	2.17	2.34	2.54	2.68	2.70
0.80	1.70	0.09	1.80	1.93	2.08	2.26	2.37	2.38
0.90	1.70	0.10	1.64	1.75	1.88	2.03	2.12	2.14
1.00	1.70	0.11	1.50	1.60	1.72	1.85	1.93	1.94
1.10	1.70	0.12	1.39	1.48	1.59	1.70	1.77	1.78
1.20	1.70	0.13	1.30	1.38	1.47	1.58	1.64	1.64
1.30	1.70	0.14	1.22	1.29	1.38	1.47	1.52	1.53
1.40	1.70	0.15	1.15	1.22	1.30	1.38	1.43	1.43
1.50	1.70	0.16	1.09	1.16	1.23	1.31	1.34	1.35
1.60	1.70	0.17	1.04	1.10	1.17	1.24	1.27	1.27
1.70	1.70	0.18	0.99	1.05	1.11	1.18	1.20	1.21
1.80	1.70	0.19	0.95	1.00	1.06	1.12	1.15	1.15
1.90	1.70	0.20	0.91	0.96	1.02	1.07	1.09	1.10
2.00	1.70	0.21	0.87	0.92	0.98	1.03	1.05	1.05

**Table K-42 DCW-18A MCE<sub>R</sub> Collapse Probability Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.59	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.04	0.4%	0.3%	0.2%	0.1%	0.1%	0.1%
0.40	1.70	0.06	1.3%	1.0%	0.7%	0.5%	0.5%	0.5%
0.50	1.70	0.07	3.0%	2.4%	1.8%	1.4%	1.3%	1.2%
0.60	1.70	0.09	5.6%	4.5%	3.5%	2.8%	2.5%	2.5%
0.70	1.70	0.10	8.7%	7.1%	5.8%	4.7%	4.4%	4.3%
0.80	1.70	0.11	12.2%	10.3%	8.5%	7.1%	6.6%	6.5%
0.90	1.70	0.13	16.1%	13.7%	11.6%	9.9%	9.3%	9.1%
1.00	1.70	0.14	20.0%	17.3%	14.9%	12.9%	12.2%	12.0%
1.10	1.70	0.16	24.0%	21.0%	18.3%	16.0%	15.3%	15.1%
1.20	1.70	0.17	27.9%	24.7%	21.8%	19.3%	18.6%	18.3%
1.30	1.70	0.18	31.8%	28.4%	25.3%	22.6%	21.9%	21.6%
1.40	1.70	0.20	35.5%	32.0%	28.7%	25.9%	25.2%	25.0%
1.50	1.70	0.21	39.1%	35.5%	32.1%	29.3%	28.6%	28.3%
1.60	1.70	0.23	42.6%	39.0%	35.5%	32.6%	31.9%	31.7%
1.70	1.70	0.24	46.0%	42.3%	38.8%	35.9%	35.2%	35.0%
1.80	1.70	0.26	49.3%	45.6%	42.0%	39.0%	38.4%	38.2%
1.90	1.70	0.27	52.3%	48.6%	45.1%	42.1%	41.5%	41.3%
2.00	1.70	0.28	55.2%	51.6%	48.0%	45.0%	44.4%	44.3%

**Table K-43 DCW-18A MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.54	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.06	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
0.40	1.70	0.09	0.5%	0.4%	0.3%	0.2%	0.2%	0.2%
0.50	1.70	0.11	1.4%	1.1%	0.8%	0.7%	0.6%	0.6%
0.60	1.70	0.13	2.9%	2.3%	1.8%	1.5%	1.4%	1.3%
0.70	1.70	0.15	4.8%	3.9%	3.2%	2.7%	2.6%	2.5%
0.80	1.70	0.17	7.3%	6.0%	5.0%	4.3%	4.2%	4.0%
0.90	1.70	0.19	10.1%	8.5%	7.2%	6.3%	6.2%	6.0%
1.00	1.70	0.21	13.2%	11.3%	9.7%	8.6%	8.5%	8.2%
1.10	1.70	0.23	16.7%	14.4%	12.6%	11.2%	11.2%	10.9%
1.20	1.70	0.26	20.3%	17.8%	15.6%	14.1%	14.1%	13.7%
1.30	1.70	0.28	24.0%	21.2%	18.8%	17.1%	17.2%	16.7%
1.40	1.70	0.30	27.8%	24.8%	22.2%	20.3%	20.3%	19.8%
1.50	1.70	0.32	31.6%	28.4%	25.6%	23.5%	23.6%	23.0%
1.60	1.70	0.34	35.4%	32.0%	29.0%	26.8%	26.8%	26.3%
1.70	1.70	0.36	39.1%	35.6%	32.4%	30.1%	30.1%	29.5%
1.80	1.70	0.38	42.8%	39.1%	35.8%	33.3%	33.3%	32.8%
1.90	1.70	0.40	46.4%	42.6%	39.1%	36.5%	36.4%	36.0%
2.00	1.70	0.43	49.9%	46.0%	42.4%	39.7%	39.5%	39.1%

**Table K-44 DCW-18A MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 10.6$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.59	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	1.70	0.03	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%
0.40	1.70	0.04	0.8%	0.6%	0.4%	0.3%	0.2%	0.2%
0.50	1.70	0.05	2.3%	1.7%	1.2%	0.9%	0.8%	0.8%
0.60	1.70	0.06	4.7%	3.6%	2.7%	2.1%	1.8%	1.8%
0.70	1.70	0.07	8.0%	6.3%	4.9%	3.8%	3.4%	3.3%
0.80	1.70	0.09	11.9%	9.6%	7.7%	6.1%	5.5%	5.4%
0.90	1.70	0.10	16.3%	13.5%	11.0%	8.9%	8.1%	7.9%
1.00	1.70	0.11	20.9%	17.6%	14.6%	12.1%	11.1%	10.9%
1.10	1.70	0.12	25.6%	21.9%	18.5%	15.6%	14.5%	14.2%
1.20	1.70	0.13	30.2%	26.2%	22.5%	19.3%	18.0%	17.7%
1.30	1.70	0.14	34.7%	30.5%	26.6%	23.1%	21.7%	21.4%
1.40	1.70	0.15	39.1%	34.7%	30.6%	26.9%	25.5%	25.1%
1.50	1.70	0.16	43.2%	38.8%	34.5%	30.6%	29.2%	28.9%
1.60	1.70	0.17	47.2%	42.7%	38.3%	34.3%	32.9%	32.6%
1.70	1.70	0.18	50.8%	46.3%	41.9%	37.9%	36.5%	36.2%
1.80	1.70	0.19	54.3%	49.8%	45.4%	41.4%	40.0%	39.8%
1.90	1.70	0.20	57.5%	53.1%	48.7%	44.7%	43.3%	43.2%
2.00	1.70	0.21	60.5%	56.2%	51.9%	47.9%	46.6%	46.5%

**Table K-45 Values of  $\hat{S}_{CT}$  from the DCW-18B Collapse Surface Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>	
0.30	0.08	0.86	0.92	0.99	1.06	1.09	1.09	4.54
0.40	0.09	0.88	0.95	1.02	1.08	1.11	1.11	4.54
0.50	0.10	0.91	0.97	1.04	1.11	1.13	1.13	4.54
0.60	0.12	0.93	0.99	1.06	1.13	1.15	1.15	4.54
0.70	0.13	0.96	1.02	1.09	1.15	1.17	1.17	4.54
0.80	0.15	0.98	1.04	1.11	1.17	1.20	1.20	4.54
0.90	0.16	1.00	1.07	1.13	1.20	1.22	1.22	4.54
1.00	0.17	1.03	1.09	1.15	1.22	1.24	1.24	4.54
1.10	0.19	1.05	1.11	1.17	1.24	1.26	1.26	4.54
1.20	0.20	1.07	1.13	1.20	1.26	1.28	1.28	4.54
1.30	0.22	1.09	1.15	1.22	1.28	1.29	1.29	4.54
1.40	0.23	1.11	1.17	1.24	1.30	1.31	1.31	4.54
1.50	0.25	1.13	1.19	1.25	1.31	1.33	1.33	4.54
1.60	0.26	1.15	1.21	1.27	1.33	1.35	1.35	4.54
1.70	0.27	1.16	1.23	1.29	1.35	1.36	1.36	4.54
1.80	0.29	1.18	1.24	1.30	1.36	1.38	1.38	4.54
1.90	0.30	1.20	1.26	1.32	1.38	1.39	1.39	4.54
2.00	0.32	1.21	1.27	1.34	1.39	1.41	1.41	4.54



**Table K-46 Values of  $\hat{S}_{CT}$  from the DCW-18B Collapse Surface Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

MCE <sub>R</sub> S <sub>MT</sub> (g)	V <sub>max</sub> /W	Median Collapse Acceleration, S <sub>CT</sub> (g) at DR						DR <sub>IC</sub> [%]
		2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>	
0.30	0.12	0.93	1.00	1.06	1.13	1.15	1.15	4.54
0.40	0.14	0.97	1.03	1.10	1.16	1.18	1.18	4.54
0.50	0.16	1.00	1.06	1.13	1.19	1.21	1.21	4.54
0.60	0.18	1.03	1.09	1.16	1.22	1.24	1.24	4.54
0.70	0.20	1.06	1.12	1.19	1.25	1.27	1.27	4.54
0.80	0.22	1.09	1.16	1.22	1.28	1.30	1.30	4.54
0.90	0.24	1.12	1.18	1.25	1.31	1.32	1.32	4.54
1.00	0.26	1.15	1.21	1.27	1.33	1.35	1.35	4.54
1.10	0.28	1.17	1.24	1.30	1.36	1.37	1.37	4.54
1.20	0.30	1.20	1.26	1.32	1.38	1.39	1.39	4.54
1.30	0.33	1.22	1.28	1.34	1.40	1.41	1.41	4.54
1.40	0.35	1.24	1.30	1.37	1.42	1.43	1.43	4.54
1.50	0.37	1.26	1.32	1.38	1.44	1.45	1.45	4.54
1.60	0.39	1.27	1.34	1.40	1.46	1.47	1.47	4.54
1.70	0.41	1.29	1.35	1.42	1.47	1.48	1.48	4.54
1.80	0.43	1.30	1.37	1.43	1.49	1.50	1.50	4.54
1.90	0.45	1.31	1.38	1.44	1.50	1.51	1.51	4.54
2.00	0.48	1.32	1.39	1.45	1.51	1.52	1.52	4.54

**Table K-47 DCW-18B ACMR Values Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.57	1.57	1.57	1.57	1.57	1.4599
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	3.17	0.08	4.49	4.83	5.20	5.56	5.70	5.70
0.40	2.76	0.09	3.47	3.72	3.99	4.26	4.36	4.36
0.50	2.51	0.10	2.85	3.05	3.26	3.48	3.55	3.56
0.60	2.37	0.12	2.44	2.61	2.78	2.96	3.02	3.02
0.70	2.27	0.13	2.15	2.29	2.44	2.59	2.64	2.64
0.80	2.20	0.15	1.93	2.05	2.18	2.31	2.35	2.35
0.90	2.14	0.16	1.75	1.86	1.98	2.09	2.12	2.13
1.00	2.10	0.17	1.61	1.71	1.81	1.91	1.94	1.95
1.10	2.06	0.19	1.50	1.59	1.68	1.77	1.80	1.80
1.20	2.03	0.20	1.40	1.48	1.57	1.65	1.67	1.67
1.30	2.00	0.22	1.32	1.39	1.47	1.54	1.56	1.57
1.40	1.99	0.23	1.25	1.32	1.39	1.46	1.47	1.47
1.50	1.97	0.25	1.18	1.25	1.31	1.38	1.39	1.39
1.60	1.95	0.26	1.13	1.19	1.25	1.31	1.32	1.32
1.70	1.94	0.27	1.08	1.13	1.19	1.25	1.26	1.26
1.80	1.92	0.29	1.03	1.08	1.14	1.19	1.20	1.20
1.90	1.91	0.30	0.98	1.03	1.09	1.13	1.15	1.15
2.00	1.90	0.32	0.94	0.99	1.04	1.09	1.10	1.10

**Table K-48 DCW-18B ACMR Values Assuming  $R = 8$ , Risk Category IV ( $I_e = 1.5$ )**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.55	1.55	1.55	1.55	1.55	1.55
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	3.17	0.12	4.89	5.22	5.57	5.92	6.04	6.05
0.40	2.76	0.14	3.80	4.05	4.31	4.56	4.65	4.65
0.50	2.51	0.16	3.14	3.34	3.54	3.74	3.81	3.81
0.60	2.37	0.18	2.70	2.87	3.04	3.20	3.25	3.25
0.70	2.27	0.20	2.39	2.53	2.67	2.81	2.85	2.85
0.80	2.20	0.22	2.15	2.27	2.40	2.52	2.55	2.55
0.90	2.14	0.24	1.96	2.07	2.18	2.28	2.31	2.31
1.00	2.10	0.26	1.81	1.90	2.00	2.10	2.12	2.12
1.10	2.06	0.28	1.68	1.76	1.85	1.94	1.96	1.96
1.20	2.03	0.30	1.56	1.64	1.72	1.80	1.81	1.81
1.30	2.00	0.33	1.46	1.53	1.61	1.68	1.69	1.69
1.40	1.99	0.35	1.37	1.44	1.51	1.57	1.59	1.59
1.50	1.97	0.37	1.29	1.36	1.42	1.48	1.49	1.49
1.60	1.95	0.39	1.22	1.28	1.34	1.40	1.41	1.41
1.70	1.94	0.41	1.16	1.22	1.27	1.32	1.33	1.33
1.80	1.92	0.43	1.10	1.15	1.21	1.26	1.26	1.26
1.90	1.91	0.45	1.05	1.10	1.15	1.20	1.20	1.20
2.00	1.90	0.48	1.00	1.05	1.10	1.14	1.14	1.14

**Table K-49 DCW-18B ACMR Values Assuming  $R/I_e = 6.7$  for Target Reliability of 2.5% P[Col |  $MCE_R$ ]**

			Typical Spectrum Shape Factor (SSF) at DR					
			1.57	1.57	1.57	1.57	1.57	1.57
$MCE_R$ $S_{MT}$ (g)	Strength Property		ACMR at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	$DR_{IC}$
0.30	3.17	0.09	4.65	4.99	5.35	5.71	5.83	5.84
0.40	2.76	0.11	3.60	3.85	4.12	4.38	4.47	4.48
0.50	2.51	0.13	2.97	3.17	3.38	3.58	3.66	3.66
0.60	2.37	0.14	2.55	2.71	2.89	3.06	3.11	3.11
0.70	2.27	0.16	2.25	2.39	2.53	2.68	2.72	2.72
0.80	2.20	0.17	2.02	2.14	2.27	2.39	2.43	2.43
0.90	2.14	0.19	1.84	1.95	2.06	2.17	2.20	2.20
1.00	2.10	0.21	1.70	1.79	1.89	1.99	2.02	2.02
1.10	2.06	0.23	1.58	1.66	1.75	1.84	1.86	1.86
1.20	2.03	0.24	1.47	1.55	1.64	1.72	1.74	1.74
1.30	2.00	0.26	1.39	1.46	1.54	1.61	1.63	1.63
1.40	1.99	0.28	1.31	1.38	1.45	1.52	1.53	1.53
1.50	1.97	0.29	1.24	1.30	1.37	1.43	1.44	1.44
1.60	1.95	0.31	1.18	1.24	1.30	1.35	1.37	1.37
1.70	1.94	0.33	1.12	1.17	1.23	1.28	1.30	1.30
1.80	1.92	0.34	1.07	1.12	1.17	1.22	1.23	1.23
1.90	1.91	0.36	1.02	1.07	1.12	1.17	1.17	1.17
2.00	1.90	0.38	0.97	1.02	1.07	1.11	1.12	1.12

**Table K-50 DCW-18B MCE<sub>R</sub> Collapse Probability Assuming  $R = 8$ , Risk Category II ( $I_e = 1.0$ )**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.59	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	$V_{max}/W$	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	3.17	0.08	0.3%	0.2%	0.2%	0.1%	0.2%	0.2%
0.40	2.76	0.09	1.2%	0.9%	0.7%	0.6%	0.6%	0.7%
0.50	2.51	0.10	2.8%	2.2%	1.8%	1.5%	1.6%	1.6%
0.60	2.37	0.12	5.2%	4.2%	3.5%	3.0%	3.0%	3.1%
0.70	2.27	0.13	8.2%	6.8%	5.7%	5.0%	5.0%	5.1%
0.80	2.20	0.15	11.6%	9.8%	8.4%	7.3%	7.3%	7.4%
0.90	2.14	0.16	15.4%	13.2%	11.3%	10.1%	10.0%	10.1%
1.00	2.10	0.17	19.2%	16.7%	14.5%	13.0%	12.9%	12.9%
1.10	2.06	0.19	23.1%	20.3%	17.9%	16.1%	16.0%	16.0%
1.20	2.03	0.20	26.9%	23.9%	21.3%	19.3%	19.1%	19.1%
1.30	2.00	0.22	30.8%	27.6%	24.7%	22.5%	22.3%	22.2%
1.40	1.99	0.23	34.4%	31.1%	28.1%	25.7%	25.5%	25.4%
1.50	1.97	0.25	37.9%	34.5%	31.4%	28.9%	28.6%	28.5%
1.60	1.95	0.26	41.3%	37.8%	34.6%	32.0%	31.7%	31.6%
1.70	1.94	0.27	44.6%	41.1%	37.8%	35.1%	34.7%	34.6%
1.80	1.92	0.29	48.0%	44.4%	41.0%	38.3%	37.9%	37.7%
1.90	1.91	0.30	51.1%	47.6%	44.2%	41.4%	40.9%	40.8%
2.00	1.90	0.32	54.2%	50.6%	47.2%	44.3%	43.8%	43.8%

**Table K-51 DCW-18B MCE<sub>R</sub> Collapse Probability Assuming R = 8, Risk Category IV (I<sub>e</sub> = 1.5)**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.50	0.51	0.51	0.53	0.54	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	3.17	0.12	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%
0.40	2.76	0.14	0.4%	0.3%	0.2%	0.2%	0.2%	0.2%
0.50	2.51	0.16	1.1%	0.9%	0.7%	0.6%	0.7%	0.7%
0.60	2.37	0.18	2.3%	1.9%	1.5%	1.4%	1.4%	1.4%
0.70	2.27	0.20	4.1%	3.4%	2.8%	2.5%	2.6%	2.6%
0.80	2.20	0.22	6.3%	5.3%	4.5%	4.0%	4.1%	4.0%
0.90	2.14	0.24	8.9%	7.6%	6.5%	5.8%	6.0%	5.9%
1.00	2.10	0.26	11.8%	10.2%	8.8%	8.0%	8.1%	7.9%
1.10	2.06	0.28	15.1%	13.1%	11.5%	10.5%	10.6%	10.3%
1.20	2.03	0.30	18.7%	16.4%	14.5%	13.3%	13.4%	13.0%
1.30	2.00	0.33	22.5%	19.9%	17.7%	16.3%	16.4%	16.0%
1.40	1.99	0.35	26.4%	23.6%	21.1%	19.5%	19.6%	19.1%
1.50	1.97	0.37	30.3%	27.3%	24.6%	22.8%	22.9%	22.3%
1.60	1.95	0.39	34.4%	31.1%	28.2%	26.2%	26.2%	25.7%
1.70	1.94	0.41	38.4%	35.0%	31.9%	29.7%	29.7%	29.1%
1.80	1.92	0.43	42.5%	38.9%	35.6%	33.2%	33.2%	32.6%
1.90	1.91	0.45	46.4%	42.7%	39.3%	36.7%	36.6%	36.2%
2.00	1.90	0.48	50.3%	46.5%	42.9%	40.3%	40.1%	39.7%

**Table K-52 DCW-18B MCE<sub>R</sub> Collapse Probability Assuming  $R/I_e = 6.7$  for Target Reliability of 2.5% P[Col | MCE<sub>R</sub>]**

			Total Collapse Variability ( $\beta_{TOT}$ ) at DR					
			0.55	0.56	0.56	0.58	0.59	varies
MCE <sub>R</sub> S <sub>MT</sub> (g)	Strength Property		P[Collapse   S <sub>MT</sub> ] at DR					
	$\Omega$	V <sub>max</sub> /W	2.5%	2.8%	3.2%	3.8%	4.4%	DR <sub>IC</sub>
0.30	3.17	0.09	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
0.40	2.76	0.11	0.5%	0.4%	0.3%	0.3%	0.3%	0.3%
0.50	2.51	0.13	1.5%	1.1%	0.9%	0.8%	0.8%	0.9%
0.60	2.37	0.14	3.1%	2.4%	2.0%	1.7%	1.7%	1.8%
0.70	2.27	0.16	5.3%	4.3%	3.5%	3.1%	3.1%	3.2%
0.80	2.20	0.17	8.0%	6.6%	5.6%	4.9%	4.9%	5.0%
0.90	2.14	0.19	11.1%	9.4%	8.0%	7.1%	7.1%	7.1%
1.00	2.10	0.21	14.5%	12.5%	10.7%	9.6%	9.6%	9.6%
1.10	2.06	0.23	18.2%	15.8%	13.7%	12.3%	12.3%	12.2%
1.20	2.03	0.24	21.9%	19.2%	16.9%	15.2%	15.2%	15.1%
1.30	2.00	0.26	25.7%	22.7%	20.2%	18.3%	18.3%	18.1%
1.40	1.99	0.28	29.4%	26.3%	23.5%	21.5%	21.4%	21.1%
1.50	1.97	0.29	33.4%	30.1%	27.1%	24.9%	24.8%	24.5%
1.60	1.95	0.31	37.3%	33.8%	30.7%	28.3%	28.1%	27.8%
1.70	1.94	0.33	41.2%	37.6%	34.3%	31.7%	31.5%	31.2%
1.80	1.92	0.34	45.0%	41.2%	37.8%	35.2%	34.9%	34.6%
1.90	1.91	0.36	48.6%	44.8%	41.3%	38.5%	38.2%	38.0%
2.00	1.90	0.38	52.1%	48.3%	44.7%	41.8%	41.5%	41.3%









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