

Table 4-13
Stiffness Reduction Factor τ_b

$\frac{P_r}{A}$	F_y , ksi											
	35		36		46		50		65		70	
	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
50	—	—	—	—	—	—	—	—	—	0.710	—	0.816
49	—	—	—	—	—	—	—	0.0784	—	0.742	—	0.840
48	—	—	—	—	—	—	—	0.154	—	0.773	—	0.862
47	—	—	—	—	—	—	—	0.226	—	0.801	—	0.882
46	—	—	—	—	—	—	—	0.294	—	0.827	—	0.901
45	—	—	—	—	—	0.0851	—	0.360	—	0.852	—	0.918
44	—	—	—	—	—	0.166	—	0.422	—	0.875	—	0.934
43	—	—	—	—	—	0.244	—	0.482	—	0.896	0.0674	0.948
42	—	—	—	—	—	0.318	—	0.538	—	0.915	0.154	0.960
41	—	—	—	—	—	0.388	—	0.590	—	0.932	0.236	0.971
40	—	—	—	—	—	0.454	—	0.640	0.0606	0.947	0.313	0.980
39	—	—	—	—	—	0.516	—	0.686	0.154	0.960	0.387	0.987
38	—	—	—	—	—	0.575	—	0.730	0.242	0.971	0.457	0.993
37	—	—	—	—	—	0.629	—	0.770	0.325	0.981	0.522	0.997
36	—	—	—	—	—	0.681	—	0.806	0.404	0.988	0.583	0.999
35	—	—	—	0.108	—	0.728	—	0.840	0.477	0.994	0.640	1.00
34	—	0.111	—	0.210	—	0.771	—	0.870	0.546	0.998	0.693	↓
33	—	0.216	—	0.306	—	0.811	—	0.898	0.610	1.00	0.741	
32	—	0.313	—	0.395	—	0.847	—	0.922	0.669		0.786	
31	—	0.405	—	0.478	—	0.879	0.0317	0.942	0.723		0.826	
30	—	0.490	—	0.556	—	0.907	0.154	0.960	0.773		0.862	
29	—	0.568	—	0.627	—	0.932	0.267	0.974	0.817		0.894	
28	—	0.640	—	0.691	0.102	0.953	0.373	0.986	0.857		0.922	
27	—	0.705	—	0.750	0.229	0.970	0.470	0.994	0.892		0.945	
26	—	0.764	—	0.802	0.346	0.983	0.559	0.998	0.922		0.964	
25	—	0.816	—	0.849	0.454	0.992	0.640	1.00	0.947		0.980	
24	—	0.862	—	0.889	0.552	0.998	0.713	↓	0.967		0.991	↓
23	—	0.901	—	0.923	0.640	1.00	0.777		0.982		0.997	
22	—	0.934	0.0869	0.951	0.719		0.834		0.993		1.00	
21	0.154	0.960	0.249	0.972	0.788		0.882		0.999			
20	0.313	0.980	0.395	0.988	0.847		0.922		1.00			
19	0.457	0.993	0.525	0.997	0.896		0.953					
18	0.583	0.999	0.640	1.00	0.936		0.977					
17	0.693	1.00	0.739		0.967		0.992					
16	0.786		0.822		0.987		0.999					
15	0.862		0.889		0.998		1.00					
14	0.922		0.940		1.00							
13	0.964		0.976									
12	0.991		0.996									
11	1.00	↓	1.00	↓								
10	1.00		1.00									

— Indicates the stiffness reduction parameter is not applicable because the required strength exceeds the available strength for $L_c/r = 0$.

$A = A_g$ for members not controlled by slender element buckling, in.²

$= A_e$ as defined in AISC Specification Section E7 for members controlled by slender element buckling, in.²