

**19W4 Smooth — NAAMM MBG 534-19 Standard Load Table (ASTM A1011CS Type B)**

*U = Safe uniform load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Concentrated line load (lbs/ft) Dc = Deflection (in) Pedestrian cc*

Bar Size	Weight lbs/ft <sup>2</sup>	Ped Span (in)	Section Sx(in <sup>3</sup> /ft)	Type	2'0"	2'6"	3'0"	3'6"	4'0"
<b>1"×<sup>1</sup>/<sub>8</sub>"</b>	5.14	51	0.211	<b>U (psf)</b>	632	404	281	206	158
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	632	505	421	361	316
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1"×<sup>3</sup>/<sub>16</sub>"</b>	7.33	57	0.316	<b>U (psf)</b>	947	606	421	309	237
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	947	758	632	541	474
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1¼"×<sup>1</sup>/<sub>8</sub>"</b>	6.23	61	0.329	<b>U (psf)</b>	987	632	439	322	247
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	987	789	658	564	493
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1¼"×<sup>3</sup>/<sub>16</sub>"</b>	8.98	67	0.493	<b>U (psf)</b>	1,480	947	658	483	370
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	1,480	1,184	987	846	740
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1½"×<sup>1</sup>/<sub>8</sub>"</b>	7.33	70	0.474	<b>U (psf)</b>	1,421	909	632	464	355
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	1,421	1,137	947	812	711
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>1½"×<sup>3</sup>/<sub>16</sub>"</b>	10.63	77	0.711	<b>U (psf)</b>	2,132	1,364	947	696	533
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	2,132	1,705	1,421	1,218	1,066
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>1¾"×<sup>3</sup>/<sub>16</sub>"</b>	12.27	87	0.967	<b>U (psf)</b>	2,901	1,857	1,289	947	725
				<i>Du (in)</i>	0.040	0.070	0.100	0.130	0.170
				<b>C (plf)</b>	2,901	2,321	1,934	1,658	1,451
				<i>Dc (in)</i>	0.030	0.050	0.080	0.100	0.140

<b>2"×<sup>3</sup>/<sub>16</sub>"</b>	13.92	96	1.263	<b>U (psf)</b>	3,789	2,425	1,684	1,237	947
				<i>Du (in)</i>	0.040	0.060	0.080	0.110	0.150
				<b>C (plf)</b>	3,789	3,032	2,526	2,165	1,895
				<i>Dc (in)</i>	0.030	0.050	0.070	0.090	0.120

<b>2½"×<sup>3</sup>/<sub>16</sub>"</b>	17.21	113	1.974	<b>U (psf)</b>	5,921	3,789	2,632	1,933	1,480
				<i>Du (in)</i>	0.030	0.050	0.070	0.090	0.120
				<b>C (plf)</b>	5,921	4,737	3,947	3,383	2,961
				<i>Dc (in)</i>	0.020	0.040	0.050	0.070	0.100

**19W4 Serrated — NAAMM MBG 534-19 Standard Load Table (ASTM A1011CS Type B, F=18 ksi, spaced)**

*U = Safe Uniform Load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Safe Conc. Load (lbs/ft) Dc = Deflection (in) Serrated: pedes*

Bar Size	Weight lbs/ft <sup>2</sup>	Ped Span (in)	Section Sx(in <sup>3</sup> /ft)	Type	2'0"	2'6"	3'0"	3'6"	4'0"
<b>1"×1/8"</b>	5.14	42	0.118	<b>U (psf)</b>	355	227	158	116	—
				<i>Du (in)</i>	0.100	0.160	0.220	0.300	—
				<b>C (plf)</b>	355	284	237	203	—
				<i>Dc (in)</i>	0.080	0.120	0.180	0.240	—

<b>1"×3/16"</b>	7.33	46	0.178	<b>U (psf)</b>	533	341	237	174	133
				<i>Du (in)</i>	0.100	0.160	0.220	0.300	0.400
				<b>C (plf)</b>	533	426	355	305	266
				<i>Dc (in)</i>	0.080	0.120	0.180	0.240	0.320

<b>1 1/4"×1/8"</b>	6.23	51	0.211	<b>U (psf)</b>	632	404	281	206	158
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	632	505	421	361	316
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1 1/4"×3/16"</b>	8.98	57	0.316	<b>U (psf)</b>	947	606	421	309	237
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	947	758	632	541	474
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1 1/2"×1/8"</b>	7.33	61	0.329	<b>U (psf)</b>	987	632	439	322	247
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	987	789	658	564	493
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1 1/2"×3/16"</b>	10.63	67	0.493	<b>U (psf)</b>	1,480	947	658	483	370
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	1,480	1,184	987	846	740
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1 3/4"×3/16"</b>	12.27	77	0.711	<b>U (psf)</b>	2,132	1,364	947	696	533
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	2,132	1,705	1,421	1,218	1,066
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>2"×3/16"</b>	13.92	87	0.967	<b>U (psf)</b>	2,901	1,857	1,289	947	725
				<i>Du (in)</i>	0.040	0.070	0.100	0.130	0.170
				<b>C (plf)</b>	2,901	2,321	1,934	1,658	1,451
				<i>Dc (in)</i>	0.030	0.050	0.080	0.100	0.140

<b>2 1/2"×3/16"</b>	17.21	105	1.599	<b>U (psf)</b>	4,796	3,069	2,132	1,566	1,199
				<i>Du (in)</i>	0.030	0.050	0.070	0.100	0.130
				<b>C (plf)</b>	4,796	3,837	3,197	2,741	2,398
				<i>Dc (in)</i>	0.030	0.040	0.060	0.080	0.110

**15W4 Smooth (Close Mesh) — NAAMM MBG 534-19 Close Mesh Load Table (**

*U = Safe Uniform Load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Safe Conc. Load (lbs/ft) Dc = Deflection (in) Suitable for wh*

Bar Size	Weight lbs/ft <sup>2</sup>	Ped Span (in)	Section Sx(in <sup>3</sup> /ft)	Type	2'0"	2'6"	3'0"	3'6"	4'0"
<b>1"×1/8"</b>	6.27	55	0.267	<b>U (psf)</b>	800	512	356	261	200
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	800	640	533	457	400
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1"×3/16"</b>	9.03	60	0.400	<b>U (psf)</b>	1,200	768	533	392	300
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	1,200	960	800	686	600
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1 1/4"×1/8"</b>	7.65	65	0.417	<b>U (psf)</b>	1,250	800	556	408	313
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	1,250	1,000	833	714	625
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1 1/4"×3/16"</b>	11.10	71	0.625	<b>U (psf)</b>	1,875	1,200	833	612	469
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	1,875	1,500	1,250	1,071	938
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1 1/2"×1/8"</b>	9.03	74	0.600	<b>U (psf)</b>	1,800	1,152	800	588	450
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	1,800	1,440	1,200	1,029	900
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>1 1/2"×3/16"</b>	13.18	82	0.900	<b>U (psf)</b>	2,700	1,728	1,200	882	675
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	2,700	2,160	1,800	1,543	1,350
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>1 3/4"×3/16"</b>	15.25	92	1.225	<b>U (psf)</b>	3,675	2,352	1,633	1,200	919
				<i>Du (in)</i>	0.040	0.070	0.100	0.130	0.170
				<b>C (plf)</b>	3,675	2,940	2,450	2,100	1,838
				<i>Dc (in)</i>	0.030	0.050	0.080	0.100	0.140

<b>2"×3/16"</b>	17.32	102	1.600	<b>U (psf)</b>	4,800	3,072	2,133	1,567	1,200
				<i>Du (in)</i>	0.040	0.060	0.080	0.110	0.150
				<b>C (plf)</b>	4,800	3,840	3,200	2,743	2,400
				<i>Dc (in)</i>	0.030	0.050	0.070	0.090	0.120

<b>2 1/2"×3/16"</b>	21.46	120	2.500	<b>U (psf)</b>	7,500	4,800	3,333	2,449	1,875
				<i>Du (in)</i>	0.030	0.050	0.070	0.090	0.120
				<b>C (plf)</b>	7,500	6,000	5,000	4,286	3,750
				<i>Dc (in)</i>	0.020	0.040	0.050	0.070	0.100

**11W4 Smooth (Close Mesh) — NAAMM MBG 534-19 Ultra-Dense Mesh Load Tab**

*U = Safe Uniform Load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Safe Conc. Load (lbs/ft) Dc = Deflection (in) ADA compliant,*

Bar Size	Weight lbs/ft <sup>2</sup>	Ped Span (in)	Section Sx(in <sup>3</sup> /ft)	Type	2'0"	2'6"	3'0"	3'6"	4'0"
<b>1"x1/8"</b>	8.25	59	0.364	<b>U (psf)</b>	1,091	698	485	356	273
				<i>Du (in)</i>	0.070	0.120	0.170	0.230	0.300
				<b>C (plf)</b>	1,091	873	727	623	545
				<i>Dc (in)</i>	0.060	0.090	0.130	0.180	0.240

<b>1 1/4"x3/16"</b>	14.82	77	0.852	<b>U (psf)</b>	2,557	1,636	1,136	835	639
				<i>Du (in)</i>	0.060	0.090	0.130	0.180	0.240
				<b>C (plf)</b>	2,557	2,045	1,705	1,461	1,278
				<i>Dc (in)</i>	0.050	0.070	0.110	0.150	0.190

<b>1 1/2"x3/16"</b>	17.64	89	1.227	<b>U (psf)</b>	3,682	2,356	1,636	1,202	920
				<i>Du (in)</i>	0.050	0.080	0.110	0.150	0.200
				<b>C (plf)</b>	3,682	2,945	2,455	2,104	1,841
				<i>Dc (in)</i>	0.040	0.060	0.090	0.120	0.160

<b>1 3/4"x3/16"</b>	20.45	99	1.670	<b>U (psf)</b>	5,011	3,207	2,227	1,636	1,253
				<i>Du (in)</i>	0.040	0.070	0.100	0.130	0.170
				<b>C (plf)</b>	5,011	4,009	3,341	2,864	2,506
				<i>Dc (in)</i>	0.030	0.050	0.080	0.100	0.140

<b>2"x3/16"</b>	23.27	110	2.182	<b>U (psf)</b>	6,545	4,189	2,909	2,137	1,636
				<i>Du (in)</i>	0.040	0.060	0.080	0.110	0.150
				<b>C (plf)</b>	6,545	5,236	4,364	3,740	3,273
				<i>Dc (in)</i>	0.030	0.050	0.070	0.090	0.120

<b>2 1/2"x3/16"</b>	28.90	130	3.409	<b>U (psf)</b>	10,227	6,545	4,545	3,340	2,557
				<i>Du (in)</i>	0.030	0.050	0.070	0.090	0.120
				<b>C (plf)</b>	10,227	8,182	6,818	5,844	5,114
				<i>Dc (in)</i>	0.020	0.040	0.050	0.070	0.100

**(19-W-4) — ASTM A1011CS Type B, F=18 ksi, spacing of load-bearing flat st**

*U = Safe Uniform Load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Safe Conc. Load (lbs/ft) Dc = Deflection (in) SGW factor: m*

Bar Size	Weight lbs/ft <sup>2</sup>	Type	2'	2'6"	3'	3'6"	4'	4'6"	5'
<b>3/4"x1/8"</b>	4.1	<b>U (psf)</b>	355	227	158	116	89	70	—
		<i>Du (in)</i>	0.099	0.155	0.223	0.304	0.397	0.503	—
		<b>C (plf)</b>	355	284	237	203	178	158	—
		<i>Dc (in)</i>	0.079	0.124	0.179	0.243	0.318	0.402	—

<b>3/4"x3/16"</b>	5.8	<b>U (psf)</b>	533	341	237	174	133	105	—
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		<i>Du (in)</i>	0.099	0.155	0.223	0.304	0.397	0.503	—
		<b>C (plf)</b>	533	426	355	305	266	237	—
		<i>Dc (in)</i>	0.079	0.124	0.179	0.243	0.318	0.402	—

<b>1"×1/8"</b>	5.2	<b>U (psf)</b>	632	404	281	206	158	125	101
		<i>Du (in)</i>	0.074	0.116	0.168	0.228	0.298	0.377	0.466
		<b>C (plf)</b>	632	505	421	361	316	281	253
		<i>Dc (in)</i>	0.060	0.093	0.134	0.182	0.238	0.302	0.372

<b>1"×3/16"</b>	7.5	<b>U (psf)</b>	947	606	421	309	237	187	152
		<i>Du (in)</i>	0.074	0.116	0.168	0.228	0.298	0.377	0.466
		<b>C (plf)</b>	947	758	632	541	474	421	379
		<i>Dc (in)</i>	0.060	0.093	0.134	0.182	0.238	0.302	0.372

<b>1-1/4"×1/8"</b>	6.3	<b>U (psf)</b>	987	632	439	322	247	195	158
		<i>Du (in)</i>	0.060	0.093	0.134	0.182	0.238	0.302	0.372
		<b>C (plf)</b>	987	789	658	564	493	439	395
		<i>Dc (in)</i>	0.048	0.074	0.107	0.146	0.191	0.241	0.298

<b>1-1/4"×3/16"</b>	9.1	<b>U (psf)</b>	1,480	947	658	483	370	292	237
		<i>Du (in)</i>	0.060	0.093	0.134	0.182	0.238	0.302	0.372
		<b>C (plf)</b>	1,480	1,184	987	846	740	658	592
		<i>Dc (in)</i>	0.048	0.074	0.107	0.146	0.191	0.241	0.298

<b>1-1/2"×1/8"</b>	7.4	<b>U (psf)</b>	1,421	909	632	464	355	281	227
		<i>Du (in)</i>	0.050	0.078	0.112	0.152	0.199	0.251	0.310
		<b>C (plf)</b>	1,421	1,137	947	812	711	632	568
		<i>Dc (in)</i>	0.040	0.062	0.089	0.122	0.159	0.201	0.248

<b>1-1/2"×3/16"</b>	10.8	<b>U (psf)</b>	2,132	1,364	947	696	533	421	341
		<i>Du (in)</i>	0.050	0.078	0.112	0.152	0.199	0.251	0.310
		<b>C (plf)</b>	2,132	1,705	1,421	1,218	1,066	947	853
		<i>Dc (in)</i>	0.040	0.062	0.089	0.122	0.159	0.201	0.248

<b>1-3/4"×3/16"</b>	12.5	<b>U (psf)</b>	2,901	1,857	1,289	947	725	573	464
		<i>Du (in)</i>	0.043	0.067	0.096	0.130	0.170	0.215	0.266
		<b>C (plf)</b>	2,901	2,321	1,934	1,658	1,451	1,289	1,161
		<i>Dc (in)</i>	0.034	0.053	0.077	0.104	0.136	0.172	0.213

<b>2"×3/16"</b>	14.1	<b>U (psf)</b>	3,789	2,425	1,684	1,237	947	749	606
		<i>Du (in)</i>	0.037	0.058	0.084	0.114	0.149	0.189	0.233
		<b>C (plf)</b>	3,789	3,032	2,526	2,165	1,895	1,684	1,516
		<i>Dc (in)</i>	0.030	0.047	0.067	0.091	0.119	0.151	0.186

<b>2-1/4"×3/16"</b>	15.8	<b>U (psf)</b>	4,796	3,069	2,132	1,566	1,199	947	767
		<i>Du (in)</i>	0.033	0.052	0.074	0.101	0.132	0.168	0.207
		<b>C (plf)</b>	4,796	3,837	3,197	2,741	2,398	2,132	1,918
		<i>Dc (in)</i>	0.026	0.041	0.060	0.081	0.106	0.134	0.166

<b>2-1/2"×3/16"</b>	17.4	<b>U (psf)</b>	5,921	3,789	2,632	1,933	1,480	1,170	947
		<i>Du (in)</i>	0.030	0.047	0.067	0.091	0.119	0.151	0.186

		<b>C (plf)</b>	5,921	4,737	3,947	3,383	2,961	2,632	2,368
		<i>Dc (in)</i>	0.024	0.037	0.054	0.073	0.095	0.121	0.149

### Heavy-Duty Series (19-W-4) — ASTM A1011CS, 1/4-inch thick bars with sp

*U = Safe Uniform Load (lbs/ft<sup>2</sup>) Du = Deflection (in) C = Safe Conc. Load (lbs/ft) Dc = Deflection (in) Suitable for bric*

Bar Size	Weight lbs/ft <sup>2</sup>	Type	1'	1'6"	2'	2'6"	3'	3'6"	4'
<b>1"×1/4"</b>	9.8	<b>U (psf)</b>	5,615	2,495	1,404	898	624	458	351
		<i>Du (in)</i>	0.021	0.047	0.083	0.129	0.186	0.253	0.331
		<b>C (plf)</b>	2,807	1,872	1,404	1,123	936	802	702
		<i>Dc (in)</i>	0.016	0.037	0.066	0.104	0.149	0.203	0.265

<b>1-1/4"×1/4"</b>	12.0	<b>U (psf)</b>	8,772	3,899	2,193	1,404	975	716	548
		<i>Du (in)</i>	0.017	0.037	0.066	0.104	0.149	0.203	0.265
		<b>C (plf)</b>	4,386	2,924	2,193	1,754	1,462	1,253	1,097
		<i>Dc (in)</i>	0.013	0.030	0.053	0.083	0.119	0.162	0.212

<b>1-1/2"×1/4"</b>	14.3	<b>U (psf)</b>	12,632	5,614	3,158	2,021	1,404	1,031	790
		<i>Du (in)</i>	0.014	0.031	0.055	0.086	0.124	0.169	0.221
		<b>C (plf)</b>	6,316	4,211	3,158	2,526	2,105	1,805	1,579
		<i>Dc (in)</i>	0.011	0.025	0.044	0.069	0.099	0.135	0.177

<b>1-3/4"×1/4"</b>	16.5	<b>U (psf)</b>	17,193	7,641	4,298	2,751	1,910	1,404	1,075
		<i>Du (in)</i>	0.012	0.027	0.047	0.074	0.106	0.145	0.189
		<b>C (plf)</b>	8,597	5,731	4,298	3,439	2,866	2,456	2,149
		<i>Dc (in)</i>	0.010	0.021	0.038	0.059	0.085	0.116	0.151

<b>2"×1/4"</b>	18.7	<b>U (psf)</b>	22,456	9,980	5,614	3,593	2,495	1,833	1,404
		<i>Du (in)</i>	0.010	0.023	0.041	0.065	0.093	0.127	0.166
		<b>C (plf)</b>	11,228	7,485	5,614	4,491	3,743	3,208	2,807
		<i>Dc (in)</i>	0.008	0.019	0.033	0.052	0.075	0.101	0.132

<b>2-1/2"×1/4"</b>	23.2	<b>U (psf)</b>	35,088	15,595	8,772	5,614	3,899	2,864	2,193
		<i>Du (in)</i>	0.008	0.019	0.033	0.052	0.075	0.101	0.132
		<b>C (plf)</b>	17,544	11,696	8,772	7,018	5,848	5,013	4,386
		<i>Dc (in)</i>	0.007	0.015	0.027	0.041	0.060	0.081	0.106

<b>3"×1/4"</b>	27.9	<b>U (psf)</b>	50,527	22,456	12,632	8,084	5,614	4,125	3,158
		<i>Du (in)</i>	0.007	0.016	0.028	0.043	0.062	0.085	0.110
		<b>C (plf)</b>	25,263	16,842	12,632	10,105	8,421	7,218	6,316
		<i>Dc (in)</i>	0.006	0.012	0.022	0.035	0.050	0.068	0.088

<b>4"×1/4"</b>		<b>U (psf)</b>	89,825	39,922	22,456	14,372	9,981	7,333	5,614
		<i>Du (in)</i>	0.005	0.012	0.021	0.032	0.047	0.063	0.083
		<b>C (plf)</b>	44,913	29,942	22,456	17,965	14,971	12,832	11,228
		<i>Dc (in)</i>	0.004	0.009	0.017	0.026	0.037	0.051	0.066

**F=18 ksi, spacing of load-bearing flat steel bars 1-3/16"**

comfort deflection limit: 1/4" (6.4mm)

4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	备注
125	—	—	—	—	—	—	—	
0.380	—	—	—	—	—	—	—	
281	—	—	—	—	—	—	—	
0.300	—	—	—	—	—	—	—	

187	152	—	—	—	—	—	—	
0.380	0.470	—	—	—	—	—	—	
421	379	—	—	—	—	—	—	
0.300	0.370	—	—	—	—	—	—	

195	158	130	—	—	—	—	—	
0.300	0.370	0.450	—	—	—	—	—	
439	395	359	—	—	—	—	—	
0.240	0.300	0.360	—	—	—	—	—	

292	237	196	164	—	—	—	—	
0.300	0.370	0.450	0.540	—	—	—	—	
658	592	538	493	—	—	—	—	
0.240	0.300	0.360	0.430	—	—	—	—	

281	227	188	158	—	—	—	—	
0.250	0.310	0.380	0.450	—	—	—	—	
632	568	517	474	—	—	—	—	
0.200	0.250	0.300	0.360	—	—	—	—	

421	341	282	237	202	—	—	—	
0.250	0.310	0.380	0.450	0.520	—	—	—	
947	853	775	711	656	—	—	—	
0.200	0.250	0.300	0.360	0.420	—	—	—	

573	464	384	322	275	237	206	—	
0.220	0.270	0.320	0.380	0.450	0.520	0.600	—	
1,289	1,161	1,055	967	893	829	774	—	
0.170	0.210	0.260	0.310	0.360	0.420	0.480	—	

749	606	501	421	359	309	269	237	
0.190	0.230	0.280	0.340	0.390	0.460	0.520	0.600	
1,684	1,516	1,378	1,263	1,166	1,083	1,011	947	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	

1,170	947	783	658	561	483	421	370	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	
2,632	2,368	2,153	1,974	1,822	1,692	1,579	1,480	
0.120	0.150	0.180	0.210	0.250	0.290	0.340	0.380	

**Design of load-bearing flat steel bars 1-3/16" (1.675 inch), serrated surface)**

*Design span ~15% less than smooth*

4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	备注
—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	

—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	

125	—	—	—	—	—	—	—	
0.380	—	—	—	—	—	—	—	
281	—	—	—	—	—	—	—	
0.300	—	—	—	—	—	—	—	

187	152	—	—	—	—	—	—	
0.380	0.470	—	—	—	—	—	—	
421	379	—	—	—	—	—	—	
0.300	0.370	—	—	—	—	—	—	

195	158	130	—	—	—	—	—	
0.300	0.370	0.450	—	—	—	—	—	
439	395	359	—	—	—	—	—	
0.240	0.300	0.360	—	—	—	—	—	

292	237	196	164	—	—	—	—	
0.300	0.370	0.450	0.540	—	—	—	—	
658	592	538	493	—	—	—	—	
0.240	0.300	0.360	0.430	—	—	—	—	

421	341	282	237	202	—	—	—	
0.250	0.310	0.380	0.450	0.520	—	—	—	
947	853	775	711	656	—	—	—	
0.200	0.250	0.300	0.360	0.420	—	—	—	

573	464	384	322	275	237	206	—	
0.220	0.270	0.320	0.380	0.450	0.520	0.600	—	
1,289	1,161	1,055	967	893	829	774	—	
0.170	0.210	0.260	0.310	0.360	0.420	0.480	—	

947	767	634	533	454	392	341	300	
0.170	0.210	0.250	0.300	0.350	0.410	0.470	0.530	
2,132	1,918	1,744	1,599	1,476	1,370	1,279	1,199	
0.130	0.170	0.200	0.240	0.280	0.320	0.370	0.420	

**ASTM A1011CS Type B, F=18 ksi, spacing 15/16")**

Wheelchair / ADA applications

4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	备注
158	128	—	—	—	—	—	—	
0.380	0.470	—	—	—	—	—	—	
356	320	—	—	—	—	—	—	
0.300	0.370	—	—	—	—	—	—	

237	192	—	—	—	—	—	—	
0.380	0.470	—	—	—	—	—	—	
533	480	—	—	—	—	—	—	
0.300	0.370	—	—	—	—	—	—	

247	200	165	—	—	—	—	—	
0.300	0.370	0.450	—	—	—	—	—	
556	500	455	—	—	—	—	—	
0.240	0.300	0.360	—	—	—	—	—	

370	300	248	208	—	—	—	—	
0.300	0.370	0.450	0.540	—	—	—	—	
833	750	682	625	—	—	—	—	
0.240	0.300	0.360	0.430	—	—	—	—	

356	288	238	200	170	—	—	—	
0.250	0.310	0.380	0.450	0.520	—	—	—	
800	720	655	600	554	—	—	—	
0.200	0.250	0.300	0.360	0.420	—	—	—	

533	432	357	300	256	220	—	—	
0.250	0.310	0.380	0.450	0.520	0.610	—	—	
1,200	1,080	982	900	831	771	—	—	
0.200	0.250	0.300	0.360	0.420	0.490	—	—	

726	588	486	408	348	300	261	230	
0.220	0.270	0.320	0.380	0.450	0.520	0.600	0.680	
1,633	1,470	1,336	1,225	1,131	1,050	980	919	
0.170	0.210	0.260	0.310	0.360	0.420	0.480	0.540	

948	768	635	533	454	392	341	300	
0.190	0.230	0.280	0.340	0.390	0.460	0.520	0.600	
2,133	1,920	1,745	1,600	1,477	1,371	1,280	1,200	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	

1,481	1,200	992	833	710	612	533	469	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	
3,333	3,000	2,727	2,500	2,308	2,143	2,000	1,875	
0.120	0.150	0.180	0.210	0.250	0.290	0.340	0.380	

**e (ASTM A1011CS Type B, F=18 ksi, spacing 11/16")**

*prevents small object fall-through*

4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	备注
215	175	—	—	—	—	—	—	
0.380	0.470	—	—	—	—	—	—	
485	436	—	—	—	—	—	—	
0.300	0.370	—	—	—	—	—	—	

505	409	338	284	242	—	—	—	
0.300	0.370	0.450	0.540	0.630	—	—	—	
1,136	1,023	930	852	787	—	—	—	
0.240	0.300	0.360	0.430	0.500	—	—	—	

727	589	487	409	349	301	262	—	
0.250	0.310	0.380	0.450	0.520	0.610	0.700	—	
1,636	1,473	1,339	1,227	1,133	1,052	982	—	
0.200	0.250	0.300	0.360	0.420	0.490	0.560	—	

990	802	663	557	474	409	356	313	
0.220	0.270	0.320	0.380	0.450	0.520	0.600	0.680	
2,227	2,005	1,822	1,670	1,542	1,432	1,336	1,253	
0.170	0.210	0.260	0.310	0.360	0.420	0.480	0.540	

1,293	1,047	866	727	620	534	465	409	
0.190	0.230	0.280	0.340	0.390	0.460	0.520	0.600	
2,909	2,618	2,380	2,182	2,014	1,870	1,745	1,636	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	

2,020	1,636	1,352	1,136	968	835	727	639	
0.150	0.190	0.230	0.270	0.310	0.360	0.420	0.480	
4,545	4,091	3,719	3,409	3,147	2,922	2,727	2,557	
0.120	0.150	0.180	0.210	0.250	0.290	0.340	0.380	

**eel bars 1-3/16"**

*multiply U/C × 1.27*

5'6"	6'	7'	8'
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

—	—	—	—
---	---	---	---

—	—	—	—
—	—	—	—
—	—	—	—

84	70	—	—
0.563	0.670	—	—
230	211	—	—
0.451	0.536	—	—

125	105	—	—
0.563	0.670	—	—
344	316	—	—
0.451	0.536	—	—

130	110	81	—
0.451	0.536	0.730	—
359	329	282	—
0.360	0.429	0.584	—

196	164	121	—
0.451	0.536	0.730	—
538	493	423	—
0.360	0.429	0.584	—

188	158	116	89
0.376	0.447	0.608	0.794
517	474	406	355
0.300	0.358	0.487	0.636

282	237	174	133
0.376	0.447	0.608	0.794
775	711	609	533
0.300	0.358	0.487	0.636

384	322	237	181
0.322	0.383	0.521	0.681
1,055	967	829	725
0.257	0.306	0.417	0.545

501	421	309	237
0.282	0.335	0.456	0.596
1,378	1,263	1,083	947
0.225	0.268	0.365	0.477

634	533	392	300
0.250	0.298	0.406	0.530
1,744	1,599	1,370	1,199
0.200	0.238	0.324	0.424

783	658	483	370
0.225	0.268	0.365	0.477

2,153	1,974	1,692	1,480
0.180	0.215	0.292	0.381

### Spacing of 1-3/16 inch for load-bearing flat steel

*bridges, airports, highways*

4'6"	5'	5'6"	6'	6'6"	7'	7'6"	8'
277	225	186	156	133	115	100	88
0.419	0.518	0.627	0.745	0.875	1.018	1.166	1.329
624	561	510	468	432	401	374	351
0.335	0.414	0.500	0.596	0.700	0.811	0.931	1.060

433	351	290	244	208	179	156	137
0.335	0.414	0.501	0.597	0.701	0.811	0.931	1.059
975	877	797	731	675	627	585	548
0.268	0.331	0.400	0.477	0.560	0.649	0.745	0.847

624	505	418	351	299	258	225	197
0.279	0.345	0.418	0.497	0.583	0.676	0.777	0.881
1,404	1,263	1,148	1,053	972	902	842	790
0.224	0.276	0.334	0.397	0.466	0.541	0.621	0.707

849	688	568	478	407	351	306	269
0.239	0.296	0.357	0.426	0.500	0.580	0.666	0.758
1,910	1,719	1,563	1,433	1,323	1,228	1,146	1,075
0.192	0.236	0.286	0.341	0.400	0.463	0.532	0.606

1,109	898	742	624	532	458	399	351
0.210	0.259	0.313	0.373	0.438	0.507	0.582	0.662
2,495	2,246	2,041	1,871	1,727	1,604	1,497	1,404
0.168	0.207	0.250	0.298	0.350	0.406	0.466	0.530

1,733	1,404	1,160	975	830	716	624	548
0.168	0.207	0.250	0.298	0.350	0.406	0.466	0.529
3,899	3,509	3,190	2,924	2,699	2,506	2,339	2,193
0.134	0.166	0.200	0.238	0.280	0.324	0.372	0.424

2,495	2,021	1,670	1,404	1,196	1,031	898	789
0.140	0.172	0.209	0.248	0.291	0.338	0.388	0.441
5,614	5,053	4,593	4,211	3,887	3,609	3,368	3,158
0.112	0.138	0.167	0.199	0.233	0.270	0.310	0.353

4,436	3,593	2,969	2,495	2,126	1,833	1,597	1,404
0.105	0.129	0.156	0.186	0.219	0.253	0.291	0.331
9,981	8,983	8,166	7,485	6,910	6,416	5,988	5,614
0.084	0.104	0.125	0.149	0.175	0.203	0.233	0.265