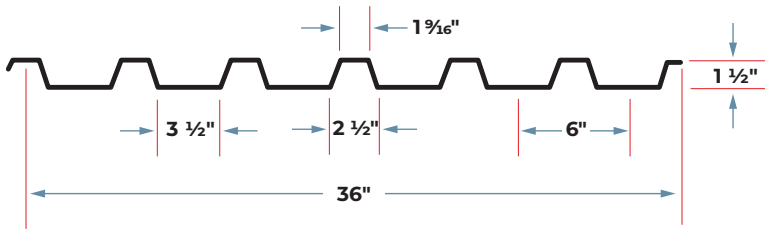


1.5" FORM DECK

GRADE 40 STEEL / FIELD INVERT DECK



Section Properties

| Gage | Design Thickness (inches) | Weight (psf) | F _y (ksi) | S _e + (inch ³ per foot) | S _e - (inch ³ per foot) | ASD (Ω = 1.67) | | I _d + (inch ⁴ per ft.) | I _d - (inch ⁴ per ft.) |
|------|---------------------------|--------------|----------------------|---|---|-------------------------------------|---------------------------------------|--|--|
| | | | | | | M _p /Ω (inch-lbs per ft) | M _n /Ω (inch-lbs per foot) | | |
| 22 | 0.0295 | 1.6 | 40 | 0.184 | 0.173 | 4415 | 4135 | 0.171 | 0.147 |
| 20 | 0.0358 | 2.0 | 40 | 0.231 | 0.219 | 5533 | 5246 | 0.216 | 0.187 |
| 18 | 0.0474 | 2.6 | 40 | 0.312 | 0.299 | 7473 | 7154 | 0.290 | 0.263 |
| 16 | 0.0598 | 3.0 | 40 | 0.390 | 0.383 | 9333 | 9166 | 0.363 | 0.350 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Shear and Web Crippling

| Gage | V _n /Ω (lbs/ft) | Web Crippling (R _n /Ω), lbs/ft One Flange Loading End Bearing | | | Web Crippling (R _n /Ω), lbs/ft One Flange Loading Interior Bearing | | |
|------|----------------------------|--|------|------|---|------|------|
| | | 1-1/2" | 2" | 3" | 1-1/2" | 2" | 3" |
| | | 22 | 1939 | 640 | 704 | 810 | 877 |
| 20 | 3042 | 915 | 1002 | 1149 | 1284 | 1388 | 1563 |
| 18 | 4025 | 1531 | 1670 | 1902 | 2218 | 2386 | 2667 |
| 16 | 4975 | 2345 | 2547 | 2885 | 3476 | 3723 | 4138 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Allowable Uniform Downward Loads, ASD (PSF)

| Span | Gage | 5'-0" | 5"-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 118 | 97 | 82 | 70 | 60 | 52 | 46 | 41 | 36 | 33 | 29 |
| | 20 | 148 | 122 | 102 | 87 | 75 | 66 | 58 | 51 | 46 | 41 | 37 |
| | 18 | 199 | 165 | 138 | 118 | 102 | 89 | 78 | 69 | 62 | 55 | 50 |
| | 16 | 249 | 206 | 173 | 147 | 127 | 111 | 97 | 86 | 77 | 69 | 62 |
| Double | 22 | 110 | 91 | 77 | 65 | 56 | 49 | 43 | 38 | 34 | 31 | 28 |
| | 20 | 140 | 116 | 97 | 83 | 71 | 62 | 55 | 48 | 43 | 39 | 35 |
| | 18 | 191 | 158 | 132 | 113 | 97 | 85 | 75 | 66 | 59 | 53 | 48 |
| | 16 | 244 | 202 | 170 | 145 | 125 | 109 | 95 | 85 | 75 | 68 | 61 |
| Triple | 22 | 138 | 114 | 96 | 82 | 70 | 61 | 54 | 48 | 43 | 38 | 34 |
| | 20 | 175 | 145 | 121 | 103 | 89 | 78 | 68 | 61 | 54 | 48 | 44 |
| | 18 | 238 | 197 | 166 | 141 | 122 | 106 | 93 | 83 | 74 | 66 | 60 |
| | 16 | 306 | 252 | 212 | 181 | 156 | 136 | 119 | 106 | 94 | 85 | 76 |

Notes

- All section properties and ASD (Ω = 1.67) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
- Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
- Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
- Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

| Span | Gage | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 77 | 58 | 45 | 35 | 28 | 23 | 19 | 16 | 13 | 11 | 10 |
| | 20 | 98 | 74 | 57 | 45 | 36 | 29 | 24 | 20 | 17 | 14 | 12 |
| | 18 | 138 | 104 | 80 | 63 | 50 | 41 | 34 | 28 | 24 | 20 | 17 |
| | 16 | 184 | 138 | 106 | 84 | 67 | 54 | 45 | 37 | 32 | 27 | 23 |
| Double | 22 | 185 | 139 | 107 | 84 | 68 | 55 | 45 | 38 | 32 | 27 | 23 |
| | 20 | 236 | 177 | 137 | 107 | 86 | 70 | 58 | 48 | 40 | 34 | 30 |
| | 18 | 333 | 250 | 193 | 152 | 121 | 99 | 81 | 68 | 57 | 49 | 42 |
| | 16 | 443 | 333 | 256 | 201 | 161 | 131 | 108 | 90 | 76 | 65 | 55 |
| Triple | 22 | 145 | 109 | 84 | 66 | 53 | 43 | 35 | 30 | 25 | 21 | 18 |
| | 20 | 185 | 139 | 107 | 84 | 67 | 55 | 45 | 38 | 32 | 27 | 23 |
| | 18 | 261 | 196 | 151 | 119 | 95 | 77 | 64 | 53 | 45 | 38 | 33 |
| | 16 | 346 | 260 | 200 | 158 | 126 | 103 | 85 | 71 | 59 | 51 | 43 |

Note
 For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Construction Span Table – 20 psf Construction Load

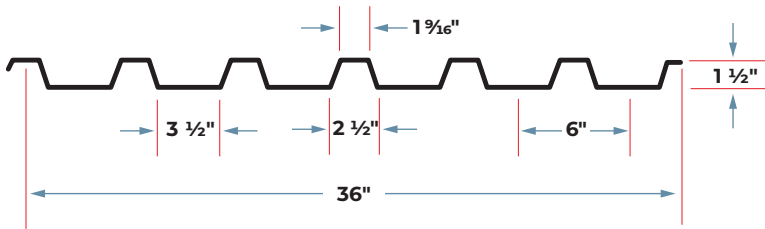
| Normal Weight Concrete (145 pcf) | | | | |
|----------------------------------|-------------|-----------------------------|--------|---------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 31 PSF | 1.5x6x22 ga | 5' 9" | 6' 10" | 6' 11" |
| | 1.5x6x20 ga | 6' 9" | 7' 11" | 8' 1" |
| | 1.5x6x18 ga | 8' 4" | 9' 3" | 9' 6" |
| | 1.5x6x16 ga | 9' 7" | 10' 5" | 10' 10" |
| 4.00 (t=2.50) 37 PSF | 1.5x6x22 ga | 5' 6" | 6' 6" | 6' 7" |
| | 1.5x6x20 ga | 6' 5" | 7' 6" | 7' 8" |
| | 1.5x6x18 ga | 7' 11" | 8' 9" | 9' 1" |
| | 1.5x6x16 ga | 9' 1" | 9' 11" | 10' 3" |
| 4.50 (t=3.00) 43 PSF | 1.5x6x22 ga | 5' 4" | 6' 3" | 6' 4" |
| | 1.5x6x20 ga | 6' 8" | 7' 5" | 7' 8" |
| | 1.5x6x18 ga | 7' 6" | 8' 4" | 8' 8" |
| | 1.5x6x16 ga | 8' 8" | 9' 6" | 9' 10" |
| 5.00 (t=3.50) 49 PSF | 1.5x6x22 ga | 5' 1" | 5' 12" | 6' 1" |
| | 1.5x6x20 ga | 5' 11" | 6' 10" | 7' 0" |
| | 1.5x6x18 ga | 7' 3" | 8' 0" | 8' 4" |
| | 1.5x6x16 ga | 8' 4" | 9' 1" | 9' 5" |
| 5.50 (t=4.00) 55 PSF | 1.5x6x22 ga | 4' 11" | 5' 9" | 5' 10" |
| | 1.5x6x20 ga | 5' 9" | 6' 7" | 6' 9" |
| | 1.5x6x18 ga | 6' 11" | 7' 9" | 7' 12" |
| | 1.5x6x16 ga | 7' 12" | 8' 9" | 9' 0" |
| 6.00 (t=4.50) 61 PSF | 1.5x6x22 ga | 4' 9" | 5' 7" | 5' 8" |
| | 1.5x6x20 ga | 5' 6" | 6' 5" | 6' 6" |
| | 1.5x6x18 ga | 6' 8" | 7' 5" | 7' 8" |
| | 1.5x6x16 ga | 7' 8" | 8' 5" | 8' 9" |

| Lightweight Concrete (115 pcf) | | | | |
|--------------------------------|-------------|-----------------------------|---------|--------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 23 PSF | 1.5x6x22 ga | 6' 3" | 7' 5" | 7' 6" |
| | 1.5x6x20 ga | 7' 5" | 8' 8" | 8' 10" |
| | 1.5x6x18 ga | 9' 1" | 10' 1" | 10' 5" |
| | 1.5x6x16 ga | 10' 7" | 11' 5" | 11' 9" |
| 4.00 (t=2.50) 28 PSF | 1.5x6x22 ga | 5' 12" | 7' 1" | 7' 2" |
| | 1.5x6x20 ga | 7' 0" | 8' 2" | 8' 4" |
| | 1.5x6x18 ga | 8' 8" | 9' 7" | 9' 11" |
| | 1.5x6x16 ga | 10' 0" | 10' 10" | 11' 2" |
| 4.50 (t=3.00) 33 PSF | 1.5x6x22 ga | 5' 9" | 6' 9" | 6' 10" |
| | 1.5x6x20 ga | 7' 5" | 8' 3" | 8' 6" |
| | 1.5x6x18 ga | 8' 3" | 9' 2" | 9' 5" |
| | 1.5x6x16 ga | 9' 6" | 10' 4" | 10' 8" |
| 5.00 (t=3.50) 37 PSF | 1.5x6x22 ga | 5' 7" | 6' 7" | 6' 8" |
| | 1.5x6x20 ga | 6' 6" | 7' 7" | 7' 9" |
| | 1.5x6x18 ga | 7' 11" | 8' 10" | 9' 2" |
| | 1.5x6x16 ga | 9' 2" | 10' 0" | 10' 4" |
| 5.50 (t=4.00) 42 PSF | 1.5x6x22 ga | 5' 5" | 6' 4" | 6' 5" |
| | 1.5x6x20 ga | 6' 3" | 7' 3" | 7' 5" |
| | 1.5x6x18 ga | 7' 8" | 8' 6" | 8' 9" |
| | 1.5x6x16 ga | 8' 10" | 9' 7" | 9' 11" |
| 6.00 (t=4.50) 46 PSF | 1.5x6x22 ga | 5' 3" | 6' 2" | 6' 3" |
| | 1.5x6x20 ga | 6' 1" | 7' 1" | 7' 3" |
| | 1.5x6x18 ga | 7' 5" | 8' 3" | 8' 6" |
| | 1.5x6x16 ga | 8' 7" | 9' 4" | 9' 8" |

Note
 Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

1.5" FORM DECK

GRADE 50 STEEL / FIELD INVERTED DECK



Section Properties

| Gage | Design Thickness (inches) | Weight (psf) | F _y (ksi) | S _e + (inch ³) per foot | S _e - (inch ³) per foot | ASD (Ω = 1.67) | | I _d + (inch ⁴) per ft. | I _d - (inch ⁴) per ft. |
|------|---------------------------|--------------|----------------------|--|--|--------------------------------------|--|---|---|
| | | | | | | M _p / Ω (inch-lbs per ft) | M _n / Ω (inch-lbs per foot) | | |
| 22 | 0.0295 | 1.6 | 50 | 0.179 | 0.170 | 5358 | 5101 | 0.167 | 0.144 |
| 20 | 0.0358 | 2.0 | 50 | 0.222 | 0.216 | 6661 | 6457 | 0.210 | 0.182 |
| 18 | 0.0474 | 2.6 | 50 | 0.310 | 0.294 | 9291 | 8812 | 0.290 | 0.257 |
| 16 | 0.0598 | 3.0 | 50 | 0.390 | 0.378 | 11667 | 11327 | 0.363 | 0.341 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Shear and Web Crippling

| Gage | V _n / Ω (lbs/ft) | Web Crippling (R _n / Ω), lbs/ft One Flange Loading End Bearing | | | Web Crippling (R _n / Ω), lbs/ft One Flange Loading Interior Bearing | | |
|------|-----------------------------|---|------|------|--|------|------|
| | | 1-1/2" | 2" | 3" | 1-1/2" | 2" | 3" |
| | | 22 | 2424 | 801 | 880 | 1013 | 1096 |
| 20 | 3803 | 1143 | 1253 | 1436 | 1605 | 1735 | 1953 |
| 18 | 5032 | 1914 | 2087 | 2377 | 2773 | 2983 | 3334 |
| 16 | 6219 | 2931 | 3183 | 3606 | 4345 | 4654 | 5172 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Allowable Uniform Downward Loads, ASD (PSF)

| Span | Gage | 5'-0" | 5"-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 143 | 118 | 99 | 85 | 73 | 64 | 56 | 49 | 44 | 40 | 36 |
| | 20 | 178 | 147 | 123 | 105 | 91 | 79 | 69 | 61 | 55 | 49 | 44 |
| | 18 | 248 | 205 | 172 | 147 | 126 | 110 | 97 | 86 | 76 | 69 | 62 |
| | 16 | 311 | 257 | 216 | 184 | 159 | 138 | 122 | 108 | 96 | 86 | 78 |
| Double | 22 | 136 | 112 | 94 | 80 | 69 | 60 | 53 | 47 | 42 | 38 | 34 |
| | 20 | 172 | 142 | 120 | 102 | 88 | 77 | 67 | 60 | 53 | 48 | 43 |
| | 18 | 235 | 194 | 163 | 139 | 120 | 104 | 92 | 81 | 73 | 65 | 59 |
| | 16 | 302 | 250 | 210 | 179 | 154 | 134 | 118 | 105 | 93 | 84 | 76 |
| Triple | 22 | 170 | 141 | 118 | 101 | 87 | 76 | 66 | 59 | 52 | 47 | 43 |
| | 20 | 215 | 178 | 149 | 127 | 110 | 96 | 84 | 74 | 66 | 60 | 54 |
| | 18 | 294 | 243 | 204 | 174 | 150 | 131 | 115 | 102 | 91 | 81 | 73 |
| | 16 | 378 | 312 | 262 | 223 | 193 | 168 | 147 | 131 | 117 | 105 | 94 |

Notes

- All section properties and ASD (Ω = 1.67) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
- Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
- Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
- Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

| Span | Gage | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 68 | 51 | 40 | 31 | 25 | 20 | 17 | 14 | 12 | 10 | 9 |
| | 20 | 86 | 64 | 50 | 39 | 31 | 25 | 21 | 17 | 15 | 13 | 11 |
| | 18 | 126 | 95 | 73 | 57 | 46 | 37 | 31 | 26 | 22 | 18 | 16 |
| | 16 | 173 | 130 | 100 | 79 | 63 | 51 | 42 | 35 | 30 | 25 | 22 |
| Double | 22 | 164 | 124 | 95 | 75 | 60 | 49 | 40 | 33 | 28 | 24 | 21 |
| | 20 | 207 | 155 | 120 | 94 | 75 | 61 | 50 | 42 | 35 | 30 | 26 |
| | 18 | 303 | 228 | 176 | 138 | 111 | 90 | 74 | 62 | 52 | 44 | 38 |
| | 16 | 417 | 314 | 241 | 190 | 152 | 124 | 102 | 85 | 72 | 61 | 52 |
| Triple | 22 | 129 | 97 | 74 | 59 | 47 | 38 | 31 | 26 | 22 | 19 | 16 |
| | 20 | 162 | 121 | 94 | 74 | 59 | 48 | 39 | 33 | 28 | 24 | 20 |
| | 18 | 238 | 178 | 137 | 108 | 87 | 70 | 58 | 48 | 41 | 35 | 30 |
| | 16 | 327 | 245 | 189 | 149 | 119 | 97 | 80 | 66 | 56 | 48 | 41 |

Note
 For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Construction Span Table – 20 psf Construction Load

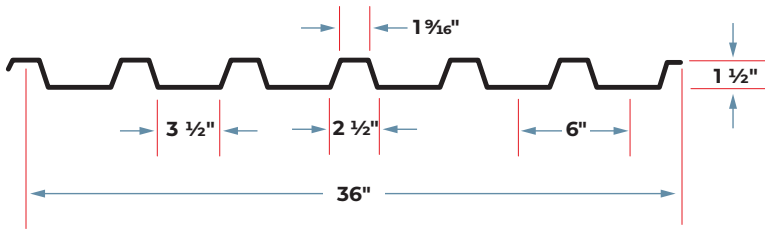
| Normal Weight Concrete (145 pcf) | | | | |
|----------------------------------|-------------|-----------------------------|--------|---------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 36 PSF | 1.5x6x22 ga | 6' 8" | 7' 9" | 7' 11" |
| | 1.5x6x20 ga | 7' 8" | 8' 9" | 9' 1" |
| | 1.5x6x18 ga | 9' 7" | 10' 3" | 10' 7" |
| | 1.5x6x16 ga | 11' 1" | 11' 7" | 12' 0" |
| 4.00 (t=2.50) 42 PSF | 1.5x6x22 ga | 6' 4" | 7' 5" | 7' 6" |
| | 1.5x6x20 ga | 7' 4" | 8' 4" | 8' 7" |
| | 1.5x6x18 ga | 9' 1" | 9' 9" | 10' 1" |
| | 1.5x6x16 ga | 10' 6" | 11' 0" | 11' 5" |
| 4.50 (t=3.00) 48 PSF | 1.5x6x22 ga | 6' 1" | 7' 1" | 7' 2" |
| | 1.5x6x20 ga | 7' 8" | 8' 3" | 8' 7" |
| | 1.5x6x18 ga | 8' 8" | 9' 4" | 9' 7" |
| | 1.5x6x16 ga | 9' 12" | 10' 6" | 10' 11" |
| 5.00 (t=3.50) 54 PSF | 1.5x6x22 ga | 5' 10" | 6' 9" | 6' 11" |
| | 1.5x6x20 ga | 6' 8" | 7' 8" | 7' 11" |
| | 1.5x6x18 ga | 8' 3" | 8' 11" | 9' 3" |
| | 1.5x6x16 ga | 9' 6" | 10' 1" | 10' 5" |
| 5.50 (t=4.00) 60 PSF | 1.5x6x22 ga | 5' 7" | 6' 6" | 6' 8" |
| | 1.5x6x20 ga | 6' 6" | 7' 4" | 7' 7" |
| | 1.5x6x18 ga | 7' 12" | 8' 7" | 8' 10" |
| | 1.5x6x16 ga | 9' 2" | 9' 9" | 10' 1" |
| 6.00 (t=4.50) 66 PSF | 1.5x6x22 ga | 5' 5" | 6' 3" | 6' 5" |
| | 1.5x6x20 ga | 6' 3" | 7' 1" | 7' 4" |
| | 1.5x6x18 ga | 7' 8" | 8' 3" | 8' 7" |
| | 1.5x6x16 ga | 8' 10" | 9' 4" | 9' 8" |

| Lightweight Concrete (115 pcf) | | | | |
|--------------------------------|-------------|-----------------------------|--------|---------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 27 PSF | 1.5x6x22 ga | 7' 3" | 8' 6" | 8' 7" |
| | 1.5x6x20 ga | 8' 5" | 9' 7" | 9' 11" |
| | 1.5x6x18 ga | 10' 7" | 11' 2" | 11' 7" |
| | 1.5x6x16 ga | 12' 4" | 12' 8" | 13' 1" |
| 4.00 (t=2.50) 32 PSF | 1.5x6x22 ga | 6' 10" | 8' 1" | 8' 2" |
| | 1.5x6x20 ga | 7' 12" | 9' 1" | 9' 5" |
| | 1.5x6x18 ga | 9' 12" | 10' 8" | 10' 12" |
| | 1.5x6x16 ga | 11' 7" | 12' 1" | 12' 5" |
| 4.50 (t=3.00) 37 PSF | 1.5x6x22 ga | 6' 7" | 7' 9" | 7' 10" |
| | 1.5x6x20 ga | 8' 6" | 9' 2" | 9' 6" |
| | 1.5x6x18 ga | 9' 6" | 10' 2" | 10' 6" |
| | 1.5x6x16 ga | 11' 0" | 11' 6" | 11' 11" |
| 5.00 (t=3.50) 41 PSF | 1.5x6x22 ga | 6' 4" | 7' 6" | 7' 7" |
| | 1.5x6x20 ga | 7' 4" | 8' 5" | 8' 8" |
| | 1.5x6x18 ga | 9' 2" | 9' 10" | 10' 2" |
| | 1.5x6x16 ga | 10' 7" | 11' 2" | 11' 6" |
| 5.50 (t=4.00) 46 PSF | 1.5x6x22 ga | 6' 2" | 7' 2" | 7' 3" |
| | 1.5x6x20 ga | 7' 1" | 8' 1" | 8' 4" |
| | 1.5x6x18 ga | 8' 10" | 9' 5" | 9' 9" |
| | 1.5x6x16 ga | 10' 2" | 10' 8" | 11' 1" |
| 6.00 (t=4.50) 50 PSF | 1.5x6x22 ga | 5' 12" | 6' 12" | 7' 1" |
| | 1.5x6x20 ga | 6' 11" | 7' 10" | 8' 1" |
| | 1.5x6x18 ga | 8' 6" | 9' 2" | 9' 6" |
| | 1.5x6x16 ga | 9' 10" | 10' 5" | 10' 9" |

Note
 Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

1.5" FORM DECK

GRADE 80 STEEL / FIELD INVERTED DECK



Section Properties

| Gage | Design Thickness (inches) | Weight (psf) | F _y (ksi) | S _e + (inch ³) per foot | S _e - (inch ³) per foot | ASD (Ω = 1.67) | | I _d + (inch ⁴) per ft. | I _d - (inch ⁴) per ft. |
|------|---------------------------|--------------|----------------------|--|--|--------------------------------------|--|---|---|
| | | | | | | M _p / Ω (inch-lbs per ft) | M _n / Ω (inch-lbs per foot) | | |
| 22 | 0.0295 | 1.6 | 60 | 0.175 | 0.166 | 6269 | 5958 | 0.167 | 0.142 |
| 20 | 0.0358 | 2.0 | 60 | 0.215 | 0.206 | 7738 | 7398 | 0.209 | 0.178 |
| 18 | 0.0474 | 2.6 | 60 | 0.306 | 0.291 | 11006 | 10455 | 0.288 | 0.252 |
| 16 | 0.0598 | 3.0 | 60 | 0.389 | 0.375 | 13976 | 13461 | 0.363 | 0.334 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Shear and Web Crippling

| Gage | V _n / Ω (lbs/ft) | Web Crippling (R _n / Ω), lbs/ft One Flange Loading End Bearing | | | Web Crippling (R _n / Ω), lbs/ft One Flange Loading Interior Bearing | | |
|------|-----------------------------|---|------|------|--|------|------|
| | | 1-1/2" | 2" | 3" | 1-1/2" | 2" | 3" |
| | | 22 | 2908 | 961 | 1056 | 1216 | 1316 |
| 20 | 4563 | 1372 | 1503 | 1723 | 1926 | 2082 | 2344 |
| 18 | 6038 | 2297 | 2505 | 2853 | 3327 | 3579 | 4001 |
| 16 | 7463 | 3517 | 3820 | 4327 | 5214 | 5584 | 6207 |

Note

All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016

Allowable Uniform Downward Loads, ASD (PSF)

| Span | Gage | 5'-0" | 5"-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 167 | 138 | 116 | 99 | 85 | 74 | 65 | 58 | 52 | 46 | 42 |
| | 20 | 206 | 171 | 143 | 122 | 105 | 92 | 81 | 71 | 64 | 57 | 52 |
| | 18 | 293 | 243 | 204 | 174 | 150 | 130 | 115 | 102 | 91 | 81 | 73 |
| | 16 | 373 | 308 | 259 | 221 | 190 | 166 | 146 | 129 | 115 | 103 | 93 |
| Double | 22 | 159 | 131 | 110 | 94 | 81 | 71 | 62 | 55 | 49 | 44 | 40 |
| | 20 | 197 | 163 | 137 | 117 | 101 | 88 | 77 | 68 | 61 | 55 | 49 |
| | 18 | 279 | 230 | 194 | 165 | 142 | 124 | 109 | 96 | 86 | 77 | 70 |
| | 16 | 359 | 297 | 249 | 212 | 183 | 160 | 140 | 124 | 111 | 99 | 90 |
| Triple | 22 | 199 | 164 | 138 | 118 | 101 | 88 | 78 | 69 | 61 | 55 | 50 |
| | 20 | 247 | 204 | 171 | 146 | 126 | 110 | 96 | 85 | 76 | 68 | 62 |
| | 18 | 349 | 288 | 242 | 206 | 178 | 155 | 136 | 121 | 108 | 97 | 87 |
| | 16 | 449 | 371 | 312 | 266 | 229 | 199 | 175 | 155 | 138 | 124 | 112 |

Notes

- All section properties and ASD (Ω = 1.67) uniform loads are calculated in accordance with ANSI/SDI RD-2017, AISI S100-2012 and AISI S100-2016
- Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
- Bending Moment formulae used for flexural stress limitations are: Simple and Two Span $M = \frac{wL^2}{8}$ Three Span or More $M = \frac{wL^2}{10}$
- Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Uniform Superimposed Service Load that Causes L/240 Deflection (PSF)

| Span | Gage | 5'-0" | 5'-6" | 6'-0" | 6'-6" | 7'-0" | 7'-6" | 8'-0" | 8'-6" | 9'-0" | 9'-6" | 10'-0" |
|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Single | 22 | 75 | 56 | 43 | 34 | 27 | 22 | 18 | 15 | 13 | 11 | 9 |
| | 20 | 93 | 70 | 54 | 43 | 34 | 28 | 23 | 19 | 16 | 14 | 12 |
| | 18 | 132 | 100 | 77 | 60 | 48 | 39 | 32 | 27 | 23 | 19 | 17 |
| | 16 | 176 | 132 | 102 | 80 | 64 | 52 | 43 | 36 | 30 | 26 | 22 |
| Double | 22 | 180 | 135 | 104 | 82 | 66 | 53 | 44 | 37 | 31 | 26 | 22 |
| | 20 | 225 | 169 | 130 | 102 | 82 | 67 | 55 | 46 | 39 | 33 | 28 |
| | 18 | 319 | 240 | 185 | 145 | 116 | 95 | 78 | 65 | 55 | 47 | 40 |
| | 16 | 423 | 318 | 245 | 193 | 154 | 125 | 103 | 86 | 73 | 62 | 53 |
| Triple | 22 | 141 | 106 | 81 | 64 | 51 | 42 | 34 | 29 | 24 | 21 | 18 |
| | 20 | 176 | 132 | 102 | 80 | 64 | 52 | 43 | 36 | 30 | 26 | 22 |
| | 18 | 250 | 188 | 144 | 114 | 91 | 74 | 61 | 51 | 43 | 36 | 31 |
| | 16 | 331 | 249 | 192 | 151 | 121 | 98 | 81 | 67 | 57 | 48 | 41 |

Note
 For loads that cause L/120 Deflection, multiply by 2.0. For loads that cause L/180 Deflection, multiply by 1.5. For loads that cause L/360 Deflection, multiply by 0.667.

Construction Span Table – 20 psf Construction Load

| Normal Weight Concrete (145 pcf) | | | | |
|----------------------------------|-------------|-----------------------------|--------|---------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 36 PSF | 1.5x6x22 ga | 7' 5" | 8' 5" | 8' 8" |
| | 1.5x6x20 ga | 8' 6" | 9' 5" | 9' 8" |
| | 1.5x6x18 ga | 10' 8" | 11' 2" | 11' 6" |
| | 1.5x6x16 ga | 12' 5" | 12' 8" | 13' 1" |
| 4.00 (t=2.50) 42 PSF | 1.5x6x22 ga | 7' 0" | 8' 0" | 8' 3" |
| | 1.5x6x20 ga | 8' 1" | 8' 11" | 9' 3" |
| | 1.5x6x18 ga | 10' 1" | 10' 7" | 10' 12" |
| | 1.5x6x16 ga | 11' 9" | 12' 0" | 12' 5" |
| 4.50 (t=3.00) 48 PSF | 1.5x6x22 ga | 6' 9" | 7' 8" | 7' 11" |
| | 1.5x6x20 ga | 8' 6" | 9' 0" | 9' 4" |
| | 1.5x6x18 ga | 9' 8" | 10' 1" | 10' 6" |
| | 1.5x6x16 ga | 11' 2" | 11' 6" | 11' 10" |
| 5.00 (t=3.50) 54 PSF | 1.5x6x22 ga | 6' 5" | 7' 4" | 7' 7" |
| | 1.5x6x20 ga | 7' 5" | 8' 2" | 8' 5" |
| | 1.5x6x18 ga | 9' 2" | 9' 8" | 10' 0" |
| | 1.5x6x16 ga | 10' 8" | 11' 0" | 11' 5" |
| 5.50 (t=4.00) 60 PSF | 1.5x6x22 ga | 6' 3" | 7' 1" | 7' 3" |
| | 1.5x6x20 ga | 7' 1" | 7' 10" | 8' 1" |
| | 1.5x6x18 ga | 8' 10" | 9' 4" | 9' 8" |
| | 1.5x6x16 ga | 10' 3" | 10' 7" | 10' 11" |
| 6.00 (t=4.50) 66 PSF | 1.5x6x22 ga | 6' 0" | 6' 10" | 7' 0" |
| | 1.5x6x20 ga | 6' 10" | 7' 7" | 7' 10" |
| | 1.5x6x18 ga | 8' 6" | 9' 0" | 9' 4" |
| | 1.5x6x16 ga | 9' 10" | 10' 3" | 10' 7" |

| Lightweight Concrete (115 pcf) | | | | |
|--------------------------------|-------------|-----------------------------|---------|---------|
| Total Slab Depth | Deck Type | Maximum Unshored Clear Span | | |
| | | 1 span | 2 span | 3 span |
| 3.50 (t=2.00) 27 PSF | 1.5x6x22 ga | 8' 1" | 9' 2" | 9' 6" |
| | 1.5x6x20 ga | 9' 4" | 10' 3" | 10' 7" |
| | 1.5x6x18 ga | 11' 10" | 12' 2" | 12' 7" |
| | 1.5x6x16 ga | 13' 10" | 13' 10" | 14' 3" |
| 4.00 (t=2.50) 32 PSF | 1.5x6x22 ga | 7' 8" | 8' 9" | 9' 0" |
| | 1.5x6x20 ga | 8' 10" | 9' 9" | 10' 1" |
| | 1.5x6x18 ga | 11' 2" | 11' 7" | 11' 12" |
| | 1.5x6x16 ga | 13' 0" | 13' 2" | 13' 7" |
| 4.50 (t=3.00) 37 PSF | 1.5x6x22 ga | 7' 4" | 8' 4" | 8' 8" |
| | 1.5x6x20 ga | 9' 6" | 9' 12" | 10' 4" |
| | 1.5x6x18 ga | 10' 7" | 11' 1" | 11' 5" |
| | 1.5x6x16 ga | 12' 4" | 12' 7" | 12' 12" |
| 5.00 (t=3.50) 41 PSF | 1.5x6x22 ga | 7' 1" | 8' 1" | 8' 4" |
| | 1.5x6x20 ga | 8' 2" | 8' 12" | 9' 4" |
| | 1.5x6x18 ga | 10' 3" | 10' 8" | 11' 1" |
| | 1.5x6x16 ga | 11' 10" | 12' 2" | 12' 6" |
| 5.50 (t=4.00) 46 PSF | 1.5x6x22 ga | 6' 10" | 7' 9" | 8' 0" |
| | 1.5x6x20 ga | 7' 10" | 8' 8" | 8' 11" |
| | 1.5x6x18 ga | 9' 9" | 10' 3" | 10' 7" |
| | 1.5x6x16 ga | 11' 4" | 11' 8" | 12' 1" |
| 6.00 (t=4.50) 50 PSF | 1.5x6x22 ga | 6' 7" | 7' 6" | 7' 9" |
| | 1.5x6x20 ga | 7' 7" | 8' 5" | 8' 8" |
| | 1.5x6x18 ga | 9' 6" | 9' 12" | 10' 4" |
| | 1.5x6x16 ga | 10' 12" | 11' 4" | 11' 8" |

Note
 Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.