



TELLING



BUILDSTRONG

RESPONSIVENESS, SERVICE, QUALITY

# EXTERIOR METAL FRAMING





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## COMPLIANCE IS GUARANTEED

When you use Telling™ Industries, you are using the most up-to-date code compliant framing products available in the World.

### INTERNATIONAL CODE COUNCIL

#### International Building Code Compliant

- ICC ESR 2281
  - ICC-ES Certified
  - Internationally recognized
- Verified by ICC Certified Inspectors at all facilities
  - Cambridge, Ohio
  - Osceola, Arkansas
  - Windsor, Connecticut

#### Industry Affiliations

- USGBC: Telling is an active Member of The United States Green Building Council
- Many More: SFA, AWCI, AISI, ASTM, LGSEA and SFIA



### ASTM INTERNATIONAL

Telling meets or exceeds all applicable structural framing Standards.

**A 1003** - Standard Specifications for Steel Sheet, Carbon, Metallic and Nonmetallic - Coated for Cold-Formed Framing Members

**A 653** - Standard Specifications for Steel Sheet, Zinc-Coated (Galvanized) or Zing-Iron Alloy - Coated (Galvannealed) by the Hot-Dip Process

**C 645** - Standard Specifications for Nonstructural Steel Framing Members

**C 754** - Standard Specifications for Installation of Steel Framing Members to Receive Screw - Attached Gypsum Panel Products

**C 955** - Standard Specifications for Load-Bearing (Transverse and Axial) Steel Studs, Runners, (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases

**C 1007** - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories



# PRODUCT IDENTIFICATION

## Section Properties Product Identification

All Telling Industries products contain a four part identification code. This identifies the size (both depth and flange/leg height), style, and material thickness of each member.

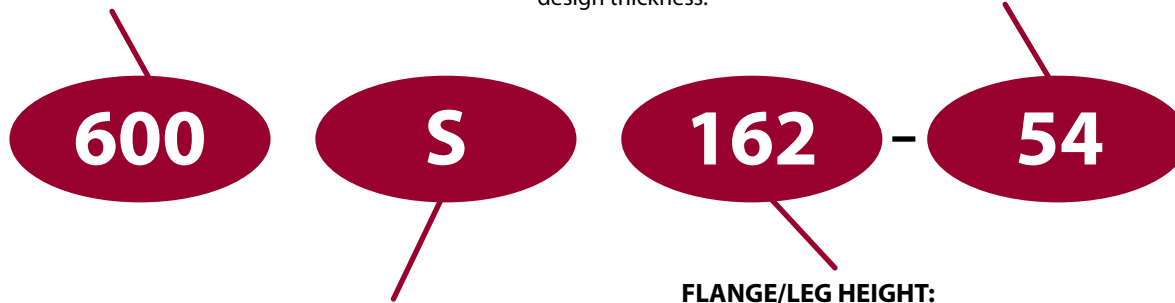
### Example:

#### WEB DEPTH:

(Example: 6" = 600 x 1/100 inches) All member depths are taken in 1/100 inches. For all "T" sections member depths is the inside to inside dimension.

#### MATERIAL THICKNESS:

(Example: 0.054 in. = 54 mils = 16 gauge; 1 mil = 1/1000 in.) Material thickness is the minimum base metal thickness in mils. Minimum base metal thickness represents 95% of the design thickness.



#### STYLE:

(Example: Stud or Joist section = S)  
The two alpha characters utilized by the identification code are:  
S= Stud or Joist Sections  
T= Track Sections

#### FLANGE/LEG HEIGHT:

(Example: 1 5/8" = 1.625" ~ 162 x 1/100 inches)  
All flange widths are taken in 1/100 inches.

Note: For those sections where two different yield strengths (33 ksi and 50 ksi) are shown, the yield strength used in the design, if greater than 33 ksi, should be identified on the design and ordering of steel. (i.e., 600S162-54(50 ksi))

## THICKNESS - STEEL COMPONENTS

| Mill Thickness (mils) | Design Thickness (in) | Reference Only Gauge Number | Color Coding |
|-----------------------|-----------------------|-----------------------------|--------------|
| 33                    | 0.0346                | 20 - Structural             | White        |
| 43                    | 0.0451                | 18                          | Yellow       |
| 54                    | 0.0566                | 16                          | Green        |
| 68                    | 0.0713                | 14                          | Orange       |
| 97                    | 0.1017                | 12                          | Red          |
| 118                   | .1242                 | 10                          | Blue         |

## DESIGN STIFFNESS LIP LENGTH

| Section | Flange Width | Design Stiffening Lip Length (in) |
|---------|--------------|-----------------------------------|
| S137    | 1-3/8"       | 0.375                             |
| S162    | 1-5/8"       | 0.5                               |
| S200    | 2"           | 0.625                             |
| S250    | 2-1/2"       | 0.625                             |
| S300    | 3"           | 0.75                              |
| S350    | 3-1/2"       | 1.0                               |

Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on Section A2.4 of AISI S100-07.

## GENERAL PRODUCT INFORMATION

### RAW MATERIAL INFORMATION

All Telling Industries products are formed from steel with a minimum yield strength of 33 or 50 KSI (1000 lbs per square inch). All products contained in this brochure are engineered to meet the 2012 Edition of the AISI (American Iron and Steel Institute) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100-2012) and The International Building Code (IBC 2015). The same document was used to calculate the physical and structural properties of all products listed herein via allowable stress design criteria.

### TECHNICAL ASSISTANCE

Technical assistance is available to Telling Industries customers when requested. A Telling Industries representative or design professional can review project specific load conditions and determine deflection criteria and lateral bracing conditions not discussed herein. Further, our representatives can assist purchasers and designers in economical applications for maximum efficiency.

All information contained in this brochure is intended as a general guide for using Telling Industries' products. This information should be used as a general guide only and all designs should be completed by a qualified design professional experienced with cold-form steel design. Such an assessment is necessary to verify the suitability of a particular product for use in any load bearing application. Telling Industries assumes no liability for failure resulting from the use or misapplications of any information contained herein. Detail drawings contained herein are for information only. Telling Industries reserves the right to make modifications, changes, additions or deletions to the information on any of our products without prior notice or obligation. For the latest product information or to verify availability, contact a Telling Industries representative. This brochure contains the latest information available at the time of printing.

### General Notes for All Tables

- Calculations are based on AISI Standard, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 edition (AISI S100-2012). All calculations are based on allowable strength design (ASD).
- The strength increase from cold work of forming has been incorporated for flexural strength per AISI S100, A7.2
- Sections may be manufactured with yield points of 33 or 50 ksi. The yield point used for calculations is indicated in the tables.
- For sections available in both 33 and 50 ksi, the specifier must clearly indicate which yield point is required. For example: 362S162-54 (50)
- When provided, factory punchouts will be located along the centerline of the webs of the members and will have a minimum center-to-center spacing of 24 inches. Punchouts for members > 2.5 inches deep are a maximum of 1.5 inches wide x 4 inches long. Members with depths 2.5" and smaller are maximum 3/4" wide x 4 inches long.

### DEFINITIONS OF STRUCTURAL PROPERTY SYMBOLS

#### GROSS PROPERTIES

- I<sub>xx</sub>**: Moment of inertia of the gross section about the X-X axis (strong axis).
- R<sub>x</sub>**: Radius of gyration of the gross section about the X-X axis.
- I<sub>yy</sub>**: Moment of inertia of the gross section about the Y-Y axis (weak axis).
- R<sub>y</sub>**: Radius of gyration of the gross section about the Y-Y axis.
- S<sub>xx</sub>**: Section modulus of the gross section about the X-X axis (strong axis)

#### EFFECTIVE PROPERTIES

- I<sub>xx</sub>**: Effective Moment of inertia about the X-X axis (strong axis).
- S<sub>xx</sub>**: Effective Section modulus about the X-X axis (strong axis).
- Ma-L**: Allowable moment at yield, based on local buckling.
- Ma-D**: Allowable moment based on distortional buckling (AISI S100 C3.1.4.)
- K<sub>fc</sub>**: Critical value of rotational stiffness,  $k_f$ , where allowable distortional buckling moment equals allowable local buckling moment.
- V<sub>ag</sub>**: Allowable strong axis shear away from punch-outs, per AISI S100 C3.2.1.
- V<sub>aNet</sub>**: Allowable strong axis shear at a punch-out, per AISI S100 C3.2.2.

### TORSIONAL PROPERTIES

- J**: St. Venant Torsional Constant.
- C<sub>w</sub>**: Torsional warping constant.
- X<sub>o</sub>**: Distance from the shear center to the centroidal along the principal X-axis.
- m**: Distance from shear center to the mid-plane of the web.
- R<sub>o</sub>**: Polar radius of gyration about the centroidal principal axis.
- β**:  $1 - (X_o/R_o)^2$
- L<sub>u</sub>**: The longest weak axis ( $L_y$ ) and torsional ( $L_t$ ) unbraced length at which lateral-torsional buckling is restrained in accordance with AISI S100 C3.1.2.1.

### Section Property Table Notes

- Web depth for track sections equals nominal depth plus 2 x design thickness plus bend radius.
- Effective properties include the strength increase from cold-work of forming per AISI S100 section A7.2 where applicable.
- For deflection determination, use the effective moment of inertia. Effective moment of inertia is based on Procedure 1 of AISI S100.
- The effective moment of inertia for deflection is calculated at a stress which results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable local buckling moment.
- Tabulated gross properties are based on the full, unreduced section away from punchouts.
- Effective X-X Axis properties of all stud and joist sections based on punched sections. Track sections are considered unpunched.
- In Section Property Tables, allowable moment and shear do NOT include the 0.9 factor on W per AISI S220-11.
- Where effective properties are not listed for a section, web depth-to-thickness or flange width-to-thickness limits from the AISI S100 are exceeded. Only gross properties are available.
- Where section designations include a superscript '1', web height-to-thickness exceeds 200. Web stiffeners are required at all supports and concentrated loads.

# STRUCTURAL STUD SECTION PROPERTIES

| Section    | Design Thickness (in) | Fy (Yield) (ksi) | Gross Properties        |                |                        |         |                        |         |                        |                        | Effective Properties |             |             |          |            |                           | Torsional Properties  |         |        |         |         |         |
|------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|----------------------|-------------|-------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|---------|---------|
|            |                       |                  | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k)          | Ma-D (in-k) | K0c (in-lb) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b       | Lu (in) |
| 250S137-33 | 0.0346                | 33               | 0.197                   | 0.67           | 0.203                  | 1.015   | 0.052                  | 0.515   | 0.203                  | 0.158                  | 3.11                 | 3.09        | 6.7         | 975      | 399        | 0.079                     | 0.076                 | -1.141  | 0.677  | 1.612   | 0.499   | 35.6    |
| 250S137-43 | 0.0451                | 33               | 0.255                   | 0.87           | 0.261                  | 1.01    | 0.067                  | 0.511   | 0.261                  | 0.205                  | 4.53                 | 4.6         | 0.00        | 1265     | 394        | 0.173                     | 0.096                 | -1.129  | 0.67   | 1.599   | 0.501   | 33.6    |
| 250S137-54 | 0.0566                | 33               | 0.316                   | 1.07           | 0.318                  | 1.004   | 0.08                   | 0.504   | 0.318                  | 0.255                  | 5.76                 | 5.76        | 0.00        | 1553     | 373        | 0.337                     | 0.115                 | -1.115  | 0.663  | 1.583   | 0.504   | 33.4    |
| 250S137-54 | 0.0566                | 50               | 0.316                   | 1.07           | 0.318                  | 1.004   | 0.08                   | 0.504   | 0.318                  | 0.244                  | 8.22                 | 8.34        | 0.00        | 2353     | 565        | 0.337                     | 0.115                 | -1.115  | 0.663  | 1.583   | 0.504   | 27.1    |
| 250S137-68 | 0.0713                | 33               | 0.39                    | 1.33           | 0.386                  | 0.994   | 0.095                  | 0.495   | 0.386                  | 0.309                  | 7.19                 | 7.19        | 0.00        | 1891     | 342        | 0.661                     | 0.138                 | -1.096  | 0.653  | 1.561   | 0.507   | 33.1    |
| 250S137-68 | 0.0713                | 50               | 0.39                    | 1.33           | 0.386                  | 0.994   | 0.095                  | 0.495   | 0.386                  | 0.308                  | 10.65                | 10.67       | 0.00        | 2866     | 519        | 0.661                     | 0.138                 | -1.096  | 0.653  | 1.561   | 0.507   | 26.8    |
| 250S137-97 | 0.1017                | 33               | 0.533                   | 1.81           | 0.506                  | 0.975   | 0.12                   | 0.475   | 0.506                  | 0.405                  | 10.01                | 10.01       | 0.00        | 2506     | 283        | 1.839                     | 0.176                 | -1.057  | 0.633  | 1.514   | 0.513   | 33.1    |
| 250S137-97 | 0.1017                | 50               | 0.533                   | 1.81           | 0.506                  | 0.975   | 0.12                   | 0.475   | 0.506                  | 0.405                  | 14.75                | 14.75       | 0.00        | 3798     | 429        | 1.839                     | 0.176                 | -1.057  | 0.633  | 1.514   | 0.513   | 26.5    |
| 250S162-33 | 0.0346                | 33               | 0.223                   | 0.76           | 0.235                  | 1.027   | 0.087                  | 0.624   | 0.235                  | 0.18                   | 3.55                 | 3.56        | 0.00        | 975      | 399        | 0.089                     | 0.146                 | -1.47   | 0.859  | 1.898   | 0.401   | 44.1    |
| 250S162-43 | 0.0451                | 33               | 0.289                   | 0.98           | 0.302                  | 1.022   | 0.111                  | 0.62    | 0.302                  | 0.24                   | 5.22                 | 5.25        | 0.00        | 1265     | 394        | 0.196                     | 0.184                 | -1.457  | 0.852  | 1.885   | 0.402   | 42.1    |
| 250S162-54 | 0.0566                | 33               | 0.358                   | 1.22           | 0.37                   | 1.016   | 0.135                  | 0.613   | 0.37                   | 0.296                  | 6.57                 | 6.57        | 0.00        | 1553     | 373        | 0.383                     | 0.223                 | -1.443  | 0.845  | 1.868   | 0.403   | 41.8    |
| 250S162-54 | 0.0566                | 50               | 0.358                   | 1.22           | 0.37                   | 1.016   | 0.135                  | 0.613   | 0.37                   | 0.284                  | 9.42                 | 9.46        | 0.00        | 2353     | 565        | 0.383                     | 0.223                 | -1.443  | 0.845  | 1.868   | 0.403   | 33.9    |
| 250S162-68 | 0.0713                | 33               | 0.443                   | 1.51           | 0.45                   | 1.007   | 0.162                  | 0.605   | 0.45                   | 0.36                   | 8.21                 | 8.21        | 0.00        | 1891     | 342        | 0.752                     | 0.268                 | -1.424  | 0.835  | 1.846   | 0.405   | 41.7    |
| 250S162-68 | 0.0713                | 50               | 0.443                   | 1.51           | 0.45                   | 1.007   | 0.162                  | 0.605   | 0.45                   | 0.357                  | 12.11                | 12.21       | 0.00        | 2866     | 519        | 0.752                     | 0.268                 | -1.424  | 0.835  | 1.846   | 0.405   | 33.7    |
| 250S162-97 | 0.1017                | 33               | 0.61                    | 2.07           | 0.596                  | 0.989   | 0.209                  | 0.586   | 0.596                  | 0.477                  | 11.45                | 11.45       | 0.00        | 2506     | 283        | 2.102                     | 0.346                 | -1.386  | 0.815  | 1.801   | 0.408   | 41.9    |
| 250S162-97 | 0.1017                | 50               | 0.61                    | 2.07           | 0.596                  | 0.989   | 0.209                  | 0.586   | 0.596                  | 0.477                  | 16.93                | 16.93       | 0.00        | 3798     | 429        | 2.102                     | 0.346                 | -1.386  | 0.815  | 1.801   | 0.408   | 33.5    |
| 250S200-33 | 0.0346                | 33               | 0.258                   | 0.88           | 0.279                  | 1.04    | 0.154                  | 0.773   | 0.265                  | 0.182                  | 5.44                 | 5.41        | 3.8         | 1260     | 515        | 0.103                     | 0.302                 | -1.926  | 1.108  | 2.321   | 0.312   | 45.3    |
| 250S200-43 | 0.0451                | 33               | 0.334                   | 1.14           | 0.358                  | 1.036   | 0.198                  | 0.769   | 0.358                  | 0.252                  | 7.56                 | 7.64        | 0.00        | 1917     | 597        | 0.227                     | 0.382                 | -1.914  | 1.101  | 2.308   | 0.312   | 45.3    |
| 250S200-54 | 0.0566                | 33               | 0.415                   | 1.41           | 0.44                   | 1.03    | 0.241                  | 0.763   | 0.44                   | 0.352                  | 7.65                 | 7.65        | 0.00        | 1553     | 373        | 0.443                     | 0.464                 | -1.899  | 1.093  | 2.291   | 0.313   | 53.7    |
| 250S200-54 | 0.0566                | 50               | 0.415                   | 1.41           | 0.44                   | 1.03    | 0.241                  | 0.763   | 0.44                   | 0.321                  | 9.6                  | 10.11       | 0.00        | 2353     | 565        | 0.443                     | 0.464                 | -1.899  | 1.093  | 2.291   | 0.313   | 45.5    |
| 250S200-68 | 0.0713                | 33               | 0.515                   | 1.75           | 0.537                  | 1.022   | 0.293                  | 0.754   | 0.537                  | 0.43                   | 9.57                 | 9.57        | 0.00        | 1891     | 342        | 0.872                     | 0.561                 | -1.881  | 1.084  | 2.27    | 0.313   | 53.7    |
| 250S200-68 | 0.0713                | 50               | 0.515                   | 1.75           | 0.537                  | 1.022   | 0.293                  | 0.754   | 0.537                  | 0.417                  | 13.84                | 14.27       | 0.00        | 2866     | 519        | 0.872                     | 0.561                 | -1.881  | 1.084  | 2.27    | 0.313   | 43.4    |
| 250S200-97 | 0.1017                | 33               | 0.711                   | 2.42           | 0.718                  | 1.005   | 0.386                  | 0.736   | 0.718                  | 0.575                  | 13.36                | 13.36       | 0.00        | 2506     | 283        | 2.452                     | 0.735                 | -1.843  | 1.063  | 2.224   | 0.314   | 54.2    |
| 250S200-97 | 0.1017                | 50               | 0.711                   | 2.42           | 0.718                  | 1.005   | 0.386                  | 0.736   | 0.718                  | 0.575                  | 19.82                | 19.82       | 0.00        | 3798     | 429        | 2.452                     | 0.735                 | -1.843  | 1.063  | 2.224   | 0.314   | 43.4    |
| 250S250-43 | 0.0451                | 33               | 0.379                   | 1.29           | 0.426                  | 1.06    | 0.336                  | 0.941   | 0.426                  | 0.297                  | 5.87                 | 6.24        | 0.00        | 1265     | 394        | 0.257                     | 0.638                 | -2.404  | 1.359  | 2.791   | 0.258   | 66.8    |
| 250S250-54 | 0.0566                | 33               | 0.471                   | 1.6            | 0.524                  | 1.055   | 0.412                  | 0.935   | 0.524                  | 0.379                  | 7.49                 | 8.22        | 0.00        | 1553     | 373        | 0.503                     | 0.778                 | -2.389  | 1.351  | 2.774   | 0.258   | 67.3    |
| 250S250-54 | 0.0566                | 50               | 0.471                   | 1.6            | 0.524                  | 1.055   | 0.412                  | 0.935   | 0.521                  | 0.341                  | 10.22                | 11.02       | 0.00        | 2353     | 565        | 0.503                     | 0.778                 | -2.389  | 1.351  | 2.774   | 0.258   | 54.1    |
| 250S250-68 | 0.0713                | 33               | 0.586                   | 1.99           | 0.643                  | 1.047   | 0.503                  | 0.926   | 0.643                  | 0.495                  | 10.79                | 11.19       | 0.00        | 1891     | 342        | 0.993                     | 0.944                 | -2.371  | 1.341  | 2.752   | 0.258   | 64.6    |
| 250S250-68 | 0.0713                | 50               | 0.586                   | 1.99           | 0.643                  | 1.047   | 0.503                  | 0.926   | 0.643                  | 0.446                  | 13.35                | 14.59       | 0.00        | 2866     | 519        | 0.993                     | 0.944                 | -2.371  | 1.341  | 2.752   | 0.258   | 54.5    |
| 250S250-97 | 0.1017                | 33               | 0.813                   | 2.77           | 0.864                  | 1.031   | 0.67                   | 0.908   | 0.864                  | 0.69                   | 15.6                 | 15.62       | 0.00        | 2506     | 283        | 2.803                     | 1.245                 | -2.332  | 1.32   | 2.707   | 0.258   | 65.6    |
| 250S250-97 | 0.1017                | 50               | 0.813                   | 2.77           | 0.864                  | 1.031   | 0.67                   | 0.908   | 0.864                  | 0.663                  | 22.31                | 23.26       | 0.00        | 3798     | 429        | 2.803                     | 1.245                 | -2.332  | 1.32   | 2.707   | 0.258   | 52.4    |
| 350S137-33 | 0.0346                | 33               | 0.232                   | 0.79           | 0.441                  | 1.38    | 0.059                  | 0.503   | 0.441                  | 0.223                  | 4.41                 | 4.54        | 0.00        | 1024     | 487        | 0.093                     | 0.153                 | -1.016  | 0.621  | 1.786   | 0.676   | 34.8    |
| 350S137-33 | 0.0346                | 33               | 0.232                   | 0.79           | 0.441                  | 1.38    | 0.059                  | 0.503   | 0.441                  | 0.223                  | 4.41                 | 4.54        | 0.00        | 1024     | 487        | 0.093                     | 0.153                 | -1.016  | 0.621  | 1.786   | 0.676   | 34.8    |
| 350S137-43 | 0.0451                | 33               | 0.3                     | 1.02           | 0.568                  | 1.375   | 0.075                  | 0.498   | 0.568                  | 0.307                  | 6.07                 | 6.38        | 0.00        | 1739     | 631        | 0.204                     | 0.193                 | -1.005  | 0.615  | 1.774   | 0.679   | 34.7    |
| 350S137-54 | 0.0566                | 33               | 0.372                   | 1.27           | 0.696                  | 1.367   | 0.09                   | 0.492   | 0.696                  | 0.385                  | 7.61                 | 7.86        | 0.00        | 2253     | 633        | 0.398                     | 0.233                 | -0.991  | 0.607  | 1.759   | 0.683   | 34.7    |
| 350S137-54 | 0.0566                | 50               | 0.372                   | 1.27           | 0.696                  | 1.367   | 0.09                   | 0.492   | 0.696                  | 0.366                  | 10.95                | 11.42       | 0.00        | 3372     | 947        | 0.398                     | 0.233                 | -0.991  | 0.607  | 1.759   | 0.683   | 28      |
| 350S137-68 | 0.0713                | 33               | 0.461                   | 1.57           | 0.849                  | 1.357   | 0.107                  | 0.482   | 0.849                  | 0.474                  | 11.04                | 11.31       | 0.00        | 2774     | 592        | 0.782                     | 0.28                  | -0.973  | 0.598  | 1.738   | 0.687   | 31.8    |
| 350S137-68 | 0.0713                | 50               | 0.461                   | 1.57           | 0.849                  | 1.357   | 0.107                  | 0.482   | 0.849                  | 0.472                  | 14.12                | 14.53       | 0.00        | 4202     | 897        | 0.782                     | 0.28                  | -0.973  | 0.598  | 1.738   | 0.687   | 27.9    |
| 350S137-97 | 0.1017                | 33               | 0.635                   | 2.16           | 1.13                   | 1.334   | 0.136                  | 0.462   | 1.13                   | 0.629                  | 15.54                | 15.95       | 0.00        | 3765     | 511        | 2.189                     | 0.361                 | -0.935  | 0.579  | 1.693   | 0.695   | 31.1    |
| 350S137-97 | 0.1017                | 50               | 0.635                   | 2.16           | 1.13                   | 1.334   | 0.136                  | 0.462   | 1.13                   | 0.629                  | 22.9                 | 23.49       | 0.00        | 5704     | 775        | 2.189                     | 0.361                 | -0.935  | 0.579  | 1.693   | 0.695   | 25.2    |
| 350S162-33 | 0.0346                | 33               | 0.258                   | 0.88           | 0.508                  | 1.404   | 0.098                  | 0.617   | 0.508                  | 0.257                  | 5.08                 | 5.22        | 0.00        | 1024     | 487        | 0.103                     | 0.277                 | -1.324  | 0.796  | 2.026   | 0.573   | 42.7    |
| 350S162-43 | 0.0451                | 33               | 0.334                   | 1.14           | 0.654                  | 1.4     | 0.125                  | 0.612   | 0.654                  | 0.357                  | 7.05                 | 7.31        | 0.00        | 1739     | 631        | 0.227                     | 0.35                  | -1.312  | 0.789  | 2.014   | 0.575   | 42.6    |
| 350S162-54 | 0.0566                | 33               | 0.415                   | 1.41           | 0.804                  | 1.392   | 0.152                  | 0.606   | 0.804                  | 0.447                  | 8.83                 | 9.08        | 0.00        | 2253     | 633        | 0.443                     | 0.426                 | -1.298  | 0.782  | 1.998   | 0.578   | 42.7    |
| 350S162-54 | 0.0566                | 50               | 0.415                   | 1.41           | 0.804                  | 1.392   | 0.152                  | 0.606   | 0.804                  | 0.426                  | 12.74                | 13.05       | 0.00        | 3372     | 947        | 0.443                     | 0.426                 | -1.298  | 0.782  | 1.998   | 0.578   | 34.5    |
| 350S162-68 | 0.0713                | 33               | 0.515                   | 1.75           | 0.985                  | 1.383   | 0.184                  | 0.597   | 0.985                  | 0.551                  | 12.56                | 12.83       | 0.00        | 2774     | 592        | 0.872                     | 0.514                 | -1.28   | 0.772  | 1.977   | 0.581   | 39.7    |
| 350S162-68 | 0.0713                | 50               | 0.515                   | 1.75           | 0.985                  | 1.383   | 0.184                  | 0.597   | 0.985                  | 0.549                  | 16.44                | 16.84       | 0.00        | 4202     | 897        | 0.872                     | 0.514                 | -1.28   | 0.772  | 1.977   | 0.581   | 34.5    |
| 350S162-97 | 0.1017                | 33               | 0.711                   | 2.42           | 1.32                   | 1.362   | 0.238                  | 0.578   | 1.32                   | 0.738                  | 17.71                | 18.11       | 0.00        | 3765     | 511        | 2.452                     | 0.672                 | -1.242  | 0.752  | 1.932   | 0.587   | 39.1    |
| 350S162-97 | 0.1017                | 50               | 0.711                   | 2.42           | 1.32                   | 1.362   | 0.238                  | 0.578   | 1.32                   | 0.738                  | 26.18                | 26.76       | 0.00        | 5704     | 775        | 2.452                     | 0.672                 | -1.242  | 0.752  | 1.932   | 0.587   | 31.7    |
| 350S200-33 | 0.0346                | 33               | 0.292                   | 0.99           | 0.598                  | 1.431   | 0.175                  | 0.773   | 0.597                  | 0.283                  | 5.59                 | 5.95        | 0.00        | 1024     | 487        | 0.117                     | 0.541                 | -1.76   | 1.039  | 2.396   | 0.461   | 53.7    |
| 350S200-43 | 0.0451                | 33               | 0.379                   | 1.29           | 0.771                  | 1.426   | 0.224                  | 0.768   | 0.771                  | 0.41                   | 8.09                 | 8.36        | 0.00        | 1739     | 631        | 0.257                     | 0.687                 | -1.748  | 1.032  | 2.383   | 0.462   | 53.7    |
| 350S200-54 | 0.0566                | 33               | 0.471                   | 1.6            | 0.95                   | 1.42    | 0.274                  | 0.762   | 0.95                   | 0.53                   | 10.47                | 10.73       | 0.00        | 2253     | 633        | 0.503                     | 0.838                 | -1.733  | 1.024  | 2.367   | 0.464   | 53.8    |
| 350S200-54 | 0.0566                | 50               | 0.471                   | 1.6            | 0.95                   | 1.42    | 0.274                  | 0.762   | 0.95                   | 0.47                   | 14.07                | 14.86       | 0.00        | 3372     | 947        | 0.503                     | 0.838                 | -1.733  | 1.024  | 2.367   | 0.464</ |         |

# STRUCTURAL STUD SECTION PROPERTIES

| Section     | Design Thickness (in) | Fy (Yield) (ksi) | Gross Properties        |                |                        |         |                        |         |                        | Effective Properties   |             |             |              |          |            |                           | Torsional Properties  |         |        |         |       |         |
|-------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|--------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|             |                       |                  | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb/) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 350S250-54  | 0.0566                | 50               | 0.528                   | 1.8            | 1.118                  | 1.455   | 0.467                  | 0.94    | 1.113                  | 0.494                  | 14.78       | 15.92       | 0.00         | 3372     | 947        | 0.564                     | 1.409                 | -2.205  | 1.278  | 2.804   | 0.382 | 52.1    |
| 350S250-68  | 0.0713                | 33               | 0.657                   | 2.24           | 1.376                  | 1.447   | 0.57                   | 0.931   | 1.376                  | 0.739                  | 16.1        | 16.99       | 0.00         | 2774     | 592        | 1.114                     | 1.718                 | -2.186  | 1.268  | 2.782   | 0.383 | 61.6    |
| 350S250-68  | 0.0713                | 50               | 0.657                   | 2.24           | 1.376                  | 1.447   | 0.57                   | 0.931   | 1.376                  | 0.661                  | 19.78       | 21.31       | 0.00         | 4202     | 897        | 1.114                     | 1.718                 | -2.186  | 1.268  | 2.782   | 0.383 | 52.2    |
| 350S250-97  | 0.1017                | 33               | 0.915                   | 3.11           | 1.87                   | 1.43    | 0.762                  | 0.913   | 1.87                   | 1.05                   | 23.72       | 24.14       | 0.00         | 3765     | 511        | 3.154                     | 2.291                 | -2.147  | 1.248  | 2.736   | 0.384 | 61.4    |
| 350S250-97  | 0.1017                | 50               | 0.915                   | 3.11           | 1.87                   | 1.43    | 0.762                  | 0.913   | 1.87                   | 0.998                  | 33.58       | 35.43       | 0.00         | 5704     | 775        | 3.154                     | 2.291                 | -2.147  | 1.248  | 2.736   | 0.384 | 49.5    |
| 350S300-54  | 0.0566                | 33               | 0.585                   | 1.99           | 1.286                  | 1.483   | 0.724                  | 1.113   | 1.279                  | 0.582                  | 11.51       | 12.73       | 0.00         | 2253     | 633        | 0.624                     | 2.166                 | -2.682  | 1.531  | 3.261   | 0.323 | 74.7    |
| 350S300-54  | 0.0566                | 50               | 0.585                   | 1.99           | 1.286                  | 1.483   | 0.724                  | 1.113   | 1.213                  | 0.508                  | 15.2        | 16.71       | 0.00         | 3372     | 947        | 0.624                     | 2.166                 | -2.682  | 1.531  | 3.261   | 0.323 | 60.4    |
| 350S300-68  | 0.0713                | 33               | 0.729                   | 2.48           | 1.586                  | 1.475   | 0.888                  | 1.104   | 1.586                  | 0.775                  | 15.31       | 16.97       | 0.00         | 2774     | 592        | 1.235                     | 2.649                 | -2.663  | 1.521  | 3.238   | 0.324 | 75.1    |
| 350S300-68  | 0.0713                | 50               | 0.729                   | 2.48           | 1.586                  | 1.475   | 0.888                  | 1.104   | 1.557                  | 0.687                  | 20.56       | 22.55       | 0.00         | 4202     | 897        | 1.235                     | 2.649                 | -2.663  | 1.521  | 3.238   | 0.324 | 60.5    |
| 350S300-97  | 0.1017                | 33               | 1.016                   | 3.46           | 2.164                  | 1.459   | 1.197                  | 1.085   | 2.164                  | 1.164                  | 25.76       | 27.37       | 0.00         | 3765     | 511        | 3.504                     | 3.552                 | -2.623  | 1.5    | 3.192   | 0.325 | 71.9    |
| 350S300-97  | 0.1017                | 50               | 1.016                   | 3.46           | 2.164                  | 1.459   | 1.197                  | 1.085   | 2.144                  | 1.098                  | 32.89       | 34.99       | 0.00         | 5704     | 775        | 3.504                     | 3.552                 | -2.623  | 1.5    | 3.192   | 0.325 | 61.1    |
| 362S137-33  | 0.0346                | 33               | 0.236                   | 0.8            | 0.479                  | 1.424   | 0.059                  | 0.501   | 0.479                  | 0.232                  | 4.59        | 4.73        | 0.00         | 1024     | 521        | 0.094                     | 0.165                 | -1.003  | 0.615  | 1.813   | 0.694 | 34.7    |
| 362S137-43  | 0.0451                | 33               | 0.306                   | 1.04           | 0.616                  | 1.419   | 0.075                  | 0.497   | 0.616                  | 0.32                   | 6.32        | 6.65        | 0.00         | 1739     | 676        | 0.207                     | 0.208                 | -0.991  | 0.608  | 1.801   | 0.697 | 34.6    |
| 362S137-54  | 0.0566                | 33               | 0.379                   | 1.29           | 0.756                  | 1.411   | 0.091                  | 0.49    | 0.756                  | 0.402                  | 7.94        | 8.24        | 0.00         | 2341     | 705        | 0.405                     | 0.251                 | -0.978  | 0.601  | 1.785   | 0.7   | 34.6    |
| 362S137-54  | 0.0566                | 50               | 0.379                   | 1.29           | 0.756                  | 1.411   | 0.091                  | 0.49    | 0.756                  | 0.381                  | 11.42       | 11.91       | 0.00         | 3372     | 1016       | 0.405                     | 0.251                 | -0.978  | 0.601  | 1.785   | 0.7   | 27.9    |
| 362S137-68  | 0.0713                | 33               | 0.47                    | 1.6            | 0.922                  | 1.401   | 0.109                  | 0.48    | 0.922                  | 0.498                  | 9.84        | 10.06       | 0.00         | 2884     | 662        | 0.797                     | 0.302                 | -0.959  | 0.592  | 1.764   | 0.704 | 34.6    |
| 362S137-68  | 0.0713                | 50               | 0.47                    | 1.6            | 0.922                  | 1.401   | 0.109                  | 0.48    | 0.922                  | 0.493                  | 14.77       | 15.24       | 0.00         | 4370     | 1004       | 0.797                     | 0.302                 | -0.959  | 0.592  | 1.764   | 0.704 | 27.8    |
| 362S137-97  | 0.1017                | 33               | 0.648                   | 2.2            | 1.229                  | 1.377   | 0.137                  | 0.46    | 1.229                  | 0.662                  | 16.36       | 16.75       | 0.00         | 3922     | 577        | 2.233                     | 0.39                  | -0.922  | 0.573  | 1.72    | 0.713 | 30.9    |
| 362S137-97  | 0.1017                | 50               | 0.648                   | 2.2            | 1.229                  | 1.377   | 0.137                  | 0.46    | 1.229                  | 0.662                  | 24.1        | 24.67       | 0.00         | 5943     | 875        | 2.233                     | 0.39                  | -0.922  | 0.573  | 1.72    | 0.713 | 25.1    |
| 362S162-33  | 0.0346                | 33               | 0.262                   | 0.89           | 0.551                  | 1.45    | 0.099                  | 0.616   | 0.551                  | 0.268                  | 5.29        | 5.43        | 0.00         | 1024     | 521        | 0.105                     | 0.297                 | -1.308  | 0.789  | 2.048   | 0.592 | 42.6    |
| 362S162-43  | 0.0451                | 33               | 0.34                    | 1.16           | 0.71                   | 1.445   | 0.127                  | 0.611   | 0.71                   | 0.372                  | 7.34        | 7.62        | 0.00         | 1739     | 676        | 0.23                      | 0.376                 | -1.297  | 0.782  | 2.036   | 0.594 | 42.5    |
| 362S162-54  | 0.0566                | 33               | 0.422                   | 1.44           | 0.873                  | 1.438   | 0.154                  | 0.604   | 0.873                  | 0.466                  | 9.22        | 9.51        | 0.00         | 2341     | 705        | 0.451                     | 0.457                 | -1.283  | 0.774  | 2.02    | 0.597 | 42.5    |
| 362S162-54  | 0.0566                | 50               | 0.422                   | 1.44           | 0.873                  | 1.438   | 0.154                  | 0.604   | 0.873                  | 0.444                  | 13.28       | 13.59       | 0.00         | 3372     | 1016       | 0.451                     | 0.457                 | -1.283  | 0.774  | 2.02    | 0.597 | 34.4    |
| 362S162-68  | 0.0713                | 33               | 0.524                   | 1.78           | 1.069                  | 1.429   | 0.186                  | 0.596   | 1.069                  | 0.579                  | 11.43       | 11.65       | 0.00         | 2884     | 662        | 0.887                     | 0.552                 | -1.264  | 0.765  | 1.998   | 0.6   | 42.7    |
| 362S162-68  | 0.0713                | 50               | 0.524                   | 1.78           | 1.069                  | 1.429   | 0.186                  | 0.596   | 1.069                  | 0.574                  | 17.18       | 17.65       | 0.00         | 4370     | 1004       | 0.887                     | 0.552                 | -1.264  | 0.765  | 1.998   | 0.6   | 34.3    |
| 362S162-97  | 0.1017                | 33               | 0.724                   | 2.46           | 1.435                  | 1.408   | 0.241                  | 0.577   | 1.435                  | 0.776                  | 18.62       | 19          | 0.00         | 3922     | 577        | 2.496                     | 0.723                 | -1.226  | 0.745  | 1.954   | 0.606 | 38.9    |
| 362S162-97  | 0.1017                | 50               | 0.724                   | 2.46           | 1.435                  | 1.408   | 0.241                  | 0.577   | 1.435                  | 0.776                  | 27.52       | 28.08       | 0.00         | 5943     | 875        | 2.496                     | 0.723                 | -1.226  | 0.745  | 1.954   | 0.606 | 31.5    |
| 362S162-118 | 0.1242                | 50               | 0.863                   | 2.94           | 1.672                  | 1.392   | 0.273                  | 0.562   | 1.672                  | 0.903                  | 33.05       | 33.76       | 0.00         | 6996     | 784        | 4.440                     | 0.827                 | -1.198  | 0.731  | 1.920   | 0.611 | 31.1    |
| 362S200-33  | 0.0346                | 33               | 0.297                   | 1.01           | 0.648                  | 1.478   | 0.177                  | 0.772   | 0.647                  | 0.294                  | 5.81        | 6.18        | 0.00         | 1024     | 521        | 0.118                     | 0.577                 | -1.741  | 1.03   | 2.411   | 0.478 | 53.6    |
| 362S200-43  | 0.0451                | 33               | 0.385                   | 1.31           | 0.836                  | 1.474   | 0.227                  | 0.767   | 0.836                  | 0.427                  | 8.43        | 8.7         | 0.00         | 1739     | 676        | 0.261                     | 0.734                 | -1.729  | 1.024  | 2.398   | 0.48  | 53.5    |
| 362S200-54  | 0.0566                | 33               | 0.479                   | 1.63           | 1.03                   | 1.467   | 0.277                  | 0.761   | 1.03                   | 0.553                  | 10.93       | 11.23       | 0.00         | 2341     | 705        | 0.511                     | 0.896                 | -1.715  | 1.016  | 2.382   | 0.482 | 53.6    |
| 362S200-54  | 0.0566                | 50               | 0.479                   | 1.63           | 1.03                   | 1.467   | 0.277                  | 0.761   | 1.03                   | 0.49                   | 14.66       | 15.47       | 0.00         | 3372     | 1016       | 0.511                     | 0.896                 | -1.715  | 1.016  | 2.382   | 0.482 | 43.3    |
| 362S200-68  | 0.0713                | 33               | 0.595                   | 2.02           | 1.265                  | 1.458   | 0.337                  | 0.753   | 1.265                  | 0.687                  | 15.29       | 15.54       | 0.00         | 2884     | 662        | 1.008                     | 1.089                 | -1.696  | 1.006  | 2.36    | 0.484 | 50.6    |
| 362S200-68  | 0.0713                | 50               | 0.595                   | 2.02           | 1.265                  | 1.458   | 0.337                  | 0.753   | 1.265                  | 0.666                  | 19.95       | 20.51       | 0.00         | 4370     | 1004       | 1.008                     | 1.089                 | -1.696  | 1.006  | 2.36    | 0.484 | 43.3    |
| 362S200-97  | 0.1017                | 33               | 0.826                   | 2.81           | 1.711                  | 1.44    | 0.446                  | 0.735   | 1.711                  | 0.928                  | 21.59       | 21.95       | 0.00         | 3922     | 577        | 2.847                     | 1.441                 | -1.658  | 0.986  | 2.315   | 0.487 | 50      |
| 362S200-97  | 0.1017                | 50               | 0.826                   | 2.81           | 1.711                  | 1.44    | 0.446                  | 0.735   | 1.711                  | 0.928                  | 32.03       | 32.57       | 0.00         | 5943     | 875        | 2.847                     | 1.441                 | -1.658  | 0.986  | 2.315   | 0.487 | 40.5    |
| 362S200-118 | 0.1242                | 50               | 0.988                   | 3.36           | 2.006                  | 1.425   | 0.513                  | 0.721   | 2.006                  | 1.088                  | 38.54       | 39.22       | 0.00         | 6996     | 784        | 5.078                     | 1.664                 | -1.629  | 0.971  | 2.281   | 0.490 | 40.2    |
| 362S250-33  | 0.0346                | 33               | 0.331                   | 1.13           | 0.76                   | 1.514   | 0.299                  | 0.951   | 0.76                   | 0.132                  | 0.965       | -2.211      | 1.284        | 2.844    | 0.395      |                           |                       |         |        |         |       |         |
| 362S250-43  | 0.0451                | 33               | 0.43                    | 1.46           | 0.98                   | 1.51    | 0.385                  | 0.946   | 0.98                   | 0.449                  | 8.88        | 9.35        | 0.00         | 1739     | 676        | 0.292                     | 1.23                  | -2.199  | 1.277  | 2.83    | 0.396 | 64.2    |
| 362S250-54  | 0.0566                | 33               | 0.535                   | 1.82           | 1.21                   | 1.504   | 0.473                  | 0.94    | 1.21                   | 0.582                  | 11.51       | 12.46       | 0.00         | 2341     | 705        | 0.571                     | 1.506                 | -2.184  | 1.269  | 2.813   | 0.397 | 64.3    |
| 362S250-54  | 0.0566                | 50               | 0.535                   | 1.82           | 1.21                   | 1.504   | 0.473                  | 0.94    | 1.205                  | 0.514                  | 15.4        | 16.54       | 0.00         | 3372     | 1016       | 0.571                     | 1.506                 | -2.184  | 1.269  | 2.813   | 0.397 | 52      |
| 362S250-68  | 0.0713                | 33               | 0.666                   | 2.27           | 1.49                   | 1.496   | 0.578                  | 0.931   | 1.49                   | 0.774                  | 16.85       | 17.68       | 0.00         | 2884     | 662        | 1.129                     | 1.837                 | -2.165  | 1.259  | 2.791   | 0.398 | 61.4    |
| 362S250-68  | 0.0713                | 50               | 0.666                   | 2.27           | 1.49                   | 1.496   | 0.578                  | 0.931   | 1.49                   | 0.689                  | 20.63       | 22.17       | 0.00         | 4370     | 1004       | 1.129                     | 1.837                 | -2.165  | 1.259  | 2.791   | 0.398 | 52      |
| 362S250-97  | 0.1017                | 33               | 0.927                   | 3.16           | 2.027                  | 1.478   | 0.772                  | 0.912   | 2.027                  | 1.1                    | 24.85       | 25.26       | 0.00         | 3922     | 577        | 3.197                     | 2.452                 | -2.126  | 1.239  | 2.746   | 0.4   | 61      |
| 362S250-97  | 0.1017                | 50               | 0.927                   | 3.16           | 2.027                  | 1.478   | 0.772                  | 0.912   | 2.027                  | 1.046                  | 35.17       | 36.93       | 0.00         | 5943     | 875        | 3.197                     | 2.452                 | -2.126  | 1.239  | 2.746   | 0.4   | 49.3    |
| 362S250-118 | 0.1242                | 50               | 1.112                   | 3.78           | 2.387                  | 1.465   | 0.897                  | 0.898   | 2.387                  | 1.258                  | 43.29       | 45.30       | 0.00         | 6996     | 784        | 5.717                     | 2.849                 | -2.097  | 1.224  | 2.711   | 0.402 | 49.1    |
| 362S300-54  | 0.0566                | 33               | 0.592                   | 2.01           | 1.39                   | 1.533   | 0.734                  | 1.114   | 1.383                  | 0.607                  | 11.99       | 13.22       | 0.00         | 2341     | 705        | 0.632                     | 2.316                 | -2.659  | 1.522  | 3.265   | 0.337 | 74.5    |
| 362S300-54  | 0.0566                | 50               | 0.592                   | 2.01           | 1.39                   | 1.533   | 0.734                  | 1.114   | 1.312                  | 0.529                  | 15.83       | 17.34       | 0.00         | 3372     | 1016       | 0.632                     | 2.316                 | -2.659  | 1.522  | 3.265   | 0.337 | 60.2    |
| 362S300-68  | 0.0713                | 33               | 0.738                   | 2.51           | 1.716                  | 1.525   | 0.9                    | 1.105   | 1.716                  | 0.811                  | 16.02       | 17.65       | 0.00         | 2884     | 662        | 1.25                      | 2.833                 | -2.64   | 1.512  | 3.243   | 0.337 | 74.9    |
| 362S300-68  | 0.0713                | 50               | 0.738                   | 2.51           | 1.716                  | 1.525   | 0.9                    | 1.105   | 1.684                  | 0.716                  | 21.44       | 23.42       | 0.00         | 4370     | 1004       | 1.25                      | 2.833                 | -2.64   | 1.512  | 3.243   | 0.337 | 60.4    |
| 362S300-97  | 0.1017                | 33               | 1.029                   | 3.5            | 2.343                  | 1.509   | 1.213                  | 1.086   | 2.343                  | 1.217                  | 26.95       | 28.61       | 0.00         | 3922     | 577        | 3.548                     | 3.803                 | -2.6    | 1.491  | 3.196   | 0.338 | 71.6    |
| 362S300-97  | 0.1017                | 50               | 1.029                   | 3.5            | 2.343                  | 1.509   | 1.213                  | 1.086   | 2.32                   | 1.15                   | 34.42       | 36.41       | 0.00         | 5943     | 875        | 3.548                     | 3.803                 | -2.6    | 1.491  | 3.196   | 0.338 | 60.9    |
| 362S3       |                       |                  |                         |                |                        |         |                        |         |                        |                        |             |             |              |          |            |                           |                       |         |        |         |       |         |



# STRUCTURAL STUD SECTION PROPERTIES

| Section     | Design Thickness (in) | Fy (Yield) (ksi) | Gross Properties        |                |                        |         |                        |         |                        |                        | Effective Properties |             |              |          |            |                           | Torsional Properties  |         |        |         |       |         |       |
|-------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|----------------------|-------------|--------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|-------|
|             |                       |                  | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k)          | Ma-D (in-k) | KØc (in-lb/) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |       |
| 400S137-43  | 0.0451                | 33               | 0.323                   | 1.10           | 0.776                  | 1.551   | 0.078                  | 0.491   | 0.776                  | 0.359                  | 7.09                 | 7.47        | 0.00         | 1739     | 810        | 0.219                     | 0.257                 | -0.954  | 0.591  | 1.885   | 0.744 | 34.3    |       |
| 400S137-54  | 0.0566                | 33               | 0.401                   | 1.36           | 0.953                  | 1.542   | 0.094                  | 0.484   | 0.953                  | 0.453                  | 8.96                 | 9.42        | 0.00         | 2603     | 944        | 0.428                     | 0.311                 | -0.940  | 0.583  | 1.870   | 0.747 | 34.3    |       |
| 400S137-54  | 0.0566                | 50               | 0.401                   | 1.36           | 0.953                  | 1.542   | 0.094                  | 0.484   | 0.953                  | 0.428                  | 12.82                | 13.38       | 0.00         | 3372     | 1223       | 0.428                     | 0.311                 | -0.940  | 0.583  | 1.870   | 0.747 | 27.7    |       |
| 400S137-68  | 0.0713                | 33               | 0.497                   | 1.69           | 1.165                  | 1.531   | 0.112                  | 0.475   | 1.165                  | 0.567                  | 11.21                | 11.51       | 0.00         | 3215     | 895        | 0.842                     | 0.375                 | -0.922  | 0.574  | 1.849   | 0.751 | 34.2    |       |
| 400S137-68  | 0.0713                | 50               | 0.497                   | 1.69           | 1.165                  | 1.531   | 0.112                  | 0.475   | 1.165                  | 0.558                  | 16.70                | 17.44       | 0.00         | 4871     | 1356       | 0.842                     | 0.375                 | -0.922  | 0.574  | 1.849   | 0.751 | 27.6    |       |
| 400S162-33  | 0.0346                | 33               | 0.275                   | 0.94           | 0.692                  | 1.586   | 0.103                  | 0.611   | 0.692                  | 0.299                  | 5.91                 | 6.07        | 0.00         | 976      | 595        | 0.110                     | 0.363                 | -1.263  | 0.768  | 2.118   | 0.644 | 42.3    |       |
| 400S162-43  | 0.0451                | 33               | 0.357                   | 1.21           | 0.892                  | 1.581   | 0.131                  | 0.606   | 0.892                  | 0.417                  | 8.23                 | 8.54        | 0.00         | 1739     | 810        | 0.242                     | 0.460                 | -1.252  | 0.761  | 2.106   | 0.647 | 42.2    |       |
| 400S162-54  | 0.0566                | 33               | 0.443                   | 1.51           | 1.098                  | 1.574   | 0.159                  | 0.600   | 1.098                  | 0.526                  | 10.39                | 10.85       | 0.00         | 2603     | 944        | 0.473                     | 0.560                 | -1.238  | 0.754  | 2.090   | 0.649 | 42.2    |       |
| 400S162-54  | 0.0566                | 50               | 0.443                   | 1.51           | 1.098                  | 1.574   | 0.159                  | 0.600   | 1.098                  | 0.498                  | 14.90                | 15.25       | 0.00         | 3372     | 1223       | 0.473                     | 0.560                 | -1.238  | 0.754  | 2.090   | 0.649 | 34.1    |       |
| 400S162-68  | 0.0713                | 33               | 0.550                   | 1.87           | 1.346                  | 1.564   | 0.192                  | 0.591   | 1.346                  | 0.658                  | 13.00                | 13.30       | 0.00         | 3215     | 895        | 0.933                     | 0.677                 | -1.220  | 0.745  | 2.069   | 0.653 | 42.2    |       |
| 400S162-68  | 0.0713                | 50               | 0.550                   | 1.87           | 1.346                  | 1.564   | 0.192                  | 0.591   | 1.346                  | 0.648                  | 19.41                | 20.15       | 0.00         | 4871     | 1356       | 0.933                     | 0.677                 | -1.220  | 0.745  | 2.069   | 0.653 | 34.0    |       |
| 400S162-97  | 0.1017                | 33               | 0.762                   | 2.59           | 1.812                  | 1.542   | 0.249                  | 0.572   | 1.812                  | 0.892                  | 21.4                 | 21.75       | 0.00         | 4394     | 797        | 2.628                     | 0.889                 | -1.182  | 0.725  | 2.025   | 0.659 | 38.3    |       |
| 400S162-97  | 0.1017                | 50               | 0.762                   | 2.59           | 1.812                  | 1.542   | 0.249                  | 0.572   | 1.812                  | 0.892                  | 31.64                | 32.15       | 0.00         | 6658     | 1207       | 2.628                     | 0.889                 | -1.182  | 0.725  | 2.025   | 0.659 | 31.1    |       |
| 400S162-118 | 0.1242                | 50               | 0.910                   | 3.10           | 2.118                  | 1.525   | 0.282                  | 0.557   | 2.118                  | 1.041                  | 38.10                | 38.74       | 0.00         | 7869     | 1102       | 4.679                     | 1.020                 | -1.154  | 0.711  | 1.992   | 0.664 | 30.6    |       |
| 400S200-33  | 0.0346                | 33               | 0.31                    | 1.05           | 0.812                  | 1.619   | 0.183                  | 0.769   | 0.812                  | 0.328                  | 6.49                 | 6.9         | 0.00         | 976      | 595        | 0.124                     | 0.697                 | -1.688  | 1.007  | 2.462   | 0.53  | 53.1    |       |
| 400S200-43  | 0.0451                | 33               | 0.402                   | 1.37           | 1.047                  | 1.615   | 0.235                  | 0.764   | 1.047                  | 0.478                  | 9.45                 | 9.74        | 0.00         | 1739     | 810        | 0.272                     | 0.886                 | -1.676  | 1      | 2.449   | 0.532 | 53      |       |
| 400S200-54  | 0.0566                | 33               | 0.5                     | 1.7            | 1.292                  | 1.608   | 0.287                  | 0.758   | 1.292                  | 0.623                  | 12.3                 | 12.77       | 0.00         | 2603     | 944        | 0.534                     | 1.083                 | -1.662  | 0.993  | 2.433   | 0.534 | 53      |       |
| 400S200-54  | 0.0566                | 50               | 0.5                     | 1.7            | 1.292                  | 1.608   | 0.287                  | 0.758   | 1.292                  | 0.549                  | 16.43                | 17.31       | 0.00         | 3372     | 1223       | 0.534                     | 1.083                 | -1.662  | 0.993  | 2.433   | 0.534 | 42.9    |       |
| 400S200-68  | 0.0713                | 33               | 0.622                   | 2.12           | 1.589                  | 1.599   | 0.349                  | 0.75    | 1.589                  | 0.78                   | 15.4                 | 15.7        | 0.00         | 3215     | 895        | 1.054                     | 1.318                 | -1.643  | 0.983  | 2.412   | 0.536 | 53.2    |       |
| 400S200-68  | 0.0713                | 50               | 0.622                   | 2.12           | 1.589                  | 1.599   | 0.349                  | 0.75    | 1.589                  | 0.751                  | 22.48                | 23.03       | 0.00         | 4871     | 1356       | 1.054                     | 1.318                 | -1.643  | 0.983  | 2.412   | 0.536 | 42.9    |       |
| 400S200-97  | 0.1017                | 33               | 0.864                   | 2.94           | 2.155                  | 1.579   | 0.462                  | 0.731   | 2.155                  | 1.063                  | 24.72                | 25.05       | 0.00         | 4394     | 797        | 2.978                     | 1.749                 | -1.605  | 0.963  | 2.368   | 0.54  | 49.3    |       |
| 400S200-97  | 0.1017                | 50               | 0.864                   | 2.94           | 2.155                  | 1.579   | 0.462                  | 0.731   | 2.155                  | 1.063                  | 36.68                | 37.17       | 0.00         | 6658     | 1207       | 2.978                     | 1.749                 | -1.605  | 0.963  | 2.368   | 0.54  | 39.9    |       |
| 400S200-118 | 0.1242                | 50               | 1.034                   | 3.52           | 2.532                  | 1.565   | 0.532                  | 0.717   | 2.532                  | 1.248                  | 44.23                | 44.85       | 0.00         | 7869     | 1102       | 5.318                     | 2.024                 | -1.577  | 0.948  | 2.334   | 0.544 | 39.5    |       |
| 400S250-33  | 0.0346                | 33               | 0.344                   | 1.17           | 0.948                  | 1.659   | 0.31                   | 0.949   | 0.949                  | 0.945                  | 1.224                | 0.503       | 9.93         | 10.41    | 0.00       | 1739                      | 810                   | 0.137   | 1.165  | -2.151  | 1.259 | 2.878   | 0.441 |
| 400S250-43  | 0.0451                | 33               | 0.447                   | 1.52           | 1.224                  | 1.655   | 0.399                  | 0.945   | 1.224                  | 0.503                  | 9.93                 | 10.41       | 0.00         | 1739     | 810        | 0.303                     | 1.486                 | -2.139  | 1.252  | 2.864   | 0.443 | 63.7    |       |
| 400S250-54  | 0.0566                | 33               | 0.556                   | 1.89           | 1.512                  | 1.649   | 0.49                   | 0.938   | 1.512                  | 0.653                  | 12.9                 | 13.91       | 0.00         | 2603     | 944        | 0.594                     | 1.821                 | -2.124  | 1.244  | 2.848   | 0.444 | 63.8    |       |
| 400S250-54  | 0.0566                | 50               | 0.556                   | 1.89           | 1.512                  | 1.649   | 0.49                   | 0.938   | 1.506                  | 0.576                  | 17.24                | 18.42       | 0.00         | 3372     | 1223       | 0.594                     | 1.821                 | -2.124  | 1.244  | 2.848   | 0.444 | 51.6    |       |
| 400S250-68  | 0.0713                | 33               | 0.693                   | 2.36           | 1.864                  | 1.64    | 0.599                  | 0.929   | 1.864                  | 0.883                  | 17.45                | 18.42       | 0.00         | 3215     | 895        | 1.174                     | 2.225                 | -2.105  | 1.235  | 2.826   | 0.445 | 64      |       |
| 400S250-68  | 0.0713                | 50               | 0.693                   | 2.36           | 1.864                  | 1.64    | 0.599                  | 0.929   | 1.864                  | 0.775                  | 23.19                | 24.76       | 0.00         | 4871     | 1356       | 1.174                     | 2.225                 | -2.105  | 1.235  | 2.826   | 0.445 | 51.6    |       |
| 400S250-97  | 0.1017                | 33               | 0.966                   | 3.29           | 2.541                  | 1.622   | 0.801                  | 0.911   | 2.541                  | 1.253                  | 28.31                | 28.7        | 0.00         | 4394     | 797        | 3.329                     | 2.978                 | -2.066  | 1.214  | 2.78    | 0.448 | 60.3    |       |
| 400S250-97  | 0.1017                | 50               | 0.966                   | 3.29           | 2.541                  | 1.622   | 0.801                  | 0.911   | 2.541                  | 1.191                  | 40.06                | 41.47       | 0.00         | 6658     | 1207       | 3.329                     | 2.978                 | -2.066  | 1.214  | 2.78    | 0.448 | 48.8    |       |
| 400S250-118 | 0.1242                | 50               | 1.158                   | 3.94           | 2.998                  | 1.609   | 0.931                  | 0.897   | 2.998                  | 1.436                  | 49.40                | 51.57       | 0.00         | 7869     | 1102       | 5.956                     | 3.467                 | -2.037  | 1.199  | 2.746   | 0.450 | 48.5    |       |
| 400S300-54  | 0.0566                | 33               | 0.613                   | 2.09           | 1.732                  | 1.681   | 0.76                   | 1.114   | 1.723                  | 0.68                   | 13.44                | 14.7        | 0.00         | 2603     | 944        | 0.655                     | 2.802                 | -2.594  | 1.496  | 3.285   | 0.377 | 74      |       |
| 400S300-54  | 0.0566                | 50               | 0.613                   | 2.09           | 1.732                  | 1.681   | 0.76                   | 1.114   | 1.637                  | 0.592                  | 17.72                | 19.24       | 0.00         | 3372     | 1223       | 0.655                     | 2.802                 | -2.594  | 1.496  | 3.285   | 0.377 | 59.9    |       |
| 400S300-68  | 0.0713                | 33               | 0.764                   | 2.6            | 2.139                  | 1.673   | 0.933                  | 1.105   | 2.139                  | 0.914                  | 18.06                | 19.68       | 0.00         | 3215     | 895        | 1.295                     | 3.432                 | -2.574  | 1.486  | 3.263   | 0.378 | 74.3    |       |
| 400S300-68  | 0.0713                | 50               | 0.764                   | 2.6            | 2.139                  | 1.673   | 0.933                  | 1.105   | 2.099                  | 0.805                  | 24.09                | 26.05       | 0.00         | 4871     | 1356       | 1.295                     | 3.432                 | -2.574  | 1.486  | 3.263   | 0.378 | 60      |       |
| 400S300-97  | 0.1017                | 33               | 1.067                   | 3.63           | 2.928                  | 1.656   | 1.258                  | 1.086   | 2.928                  | 1.381                  | 30.58                | 32.4        | 0.00         | 4394     | 797        | 3.679                     | 4.619                 | -2.535  | 1.465  | 3.216   | 0.379 | 70.8    |       |
| 400S300-97  | 0.1017                | 50               | 1.067                   | 3.63           | 2.928                  | 1.656   | 1.258                  | 1.086   | 2.897                  | 1.307                  | 39.12                | 40.72       | 0.00         | 6658     | 1207       | 3.679                     | 4.619                 | -2.535  | 1.465  | 3.216   | 0.379 | 60.3    |       |
| 400S300-118 | 0.1242                | 50               | 1.283                   | 4.36           | 3.464                  | 1.644   | 1.472                  | 1.071   | 3.444                  | 1.632                  | 54.98                | 56.23       | 0.00         | 7869     | 1102       | 6.595                     | 5.401                 | -2.505  | 1.450  | 3.182   | 0.380 | 57.1    |       |
| 400S350-54  | 0.0566                | 50               | 0.712                   | 2.42           | 2.012                  | 1.681   | 1.286                  | 1.344   | 1.899                  | 0.735                  | 22.01                | 23.68       | 0.00         | 3372     | 1223       | 0.760                     | 6.333                 | -3.375  | 1.927  | 4.003   | 0.289 | 77.6    |       |
| 400S350-68  | 0.0713                | 50               | 0.889                   | 3.03           | 2.491                  | 1.674   | 1.586                  | 1.336   | 2.474                  | 1.007                  | 30.16                | 31.88       | 0.00         | 4871     | 1356       | 1.507                     | 7.786                 | -3.357  | 1.917  | 3.982   | 0.289 | 77.8    |       |
| 400S350-97  | 0.1017                | 50               | 1.245                   | 4.24           | 3.422                  | 1.658   | 2.164                  | 1.318   | 3.422                  | 1.520                  | 45.50                | 49.33       | 0.00         | 6658     | 1207       | 4.293                     | 10.555                | -3.319  | 1.897  | 3.937   | 0.289 | 78.3    |       |
| 400S350-118 | 0.1242                | 50               | 1.500                   | 5.10           | 4.063                  | 1.646   | 2.555                  | 1.305   | 4.063                  | 1.923                  | 63.80                | 67.06       | 0.00         | 7869     | 1102       | 7.712                     | 12.410                | -3.290  | 1.882  | 3.904   | 0.290 | 74.7    |       |
| 550S137-33  | 0.0346                | 33               | 0.301                   | 1.02           | 1.283                  | 2.064   | 0.067                  | 0.472   | 1.283                  | 0.453                  | 8.95                 | 7.48        | 114.3        | 699      | 699        | 0.12                      | 0.411                 | -0.841  | 0.536  | 2.278   | 0.864 | 33.7    |       |
| 550S137-43  | 0.0451                | 33               | 0.391                   | 1.33           | 1.655                  | 2.059   | 0.085                  | 0.467   | 1.655                  | 0.592                  | 13.08                | 11.6        | 174.5        | 1550     | 1199       | 0.265                     | 0.52                  | -0.83   | 0.53   | 2.268   | 0.866 | 31.7    |       |
| 550S137-54  | 0.0566                | 33               | 0.486                   | 1.65           | 2.039                  | 2.049   | 0.103                  | 0.46    | 2.039                  | 0.741                  | 16.77                | 15.9        | 157.9        | 2739     | 1666       | 0.519                     | 0.632                 | -0.817  | 0.523  | 2.254   | 0.868 | 31.1    |       |
| 550S137-54  | 0.0566                | 50               | 0.486                   | 1.65           | 2.039                  | 2.049   | 0.103                  | 0.46    | 2.039                  | 0.714                  | 24.03                | 20.88       | 419.4        | 3093     | 1881       | 0.519                     | 0.632                 | -0.817  | 0.523  | 2.254   | 0.868 | 25.4    |       |
| 550S137-68  | 0.0713                | 33               | 0.604                   | 2.05           | 2.503                  | 2.036   | 0.123                  | 0.451   | 2.503                  | 0.91                   | 21.22                | 21.22       | 0.00         | 4347     | 2057       | 1.023                     | 0.764                 | -0.801  | 0.514  | 2.234   | 0.871 | 30.4    |       |
| 550S137-68  | 0.0713                | 50               | 0.604                   | 2.05           | 2.503                  | 2.036   | 0.123                  | 0.451   | 2.503                  | 0.909                  | 31.42                | 28.89       | 545.9        | 5350     | 2532       | 1.023                     | 0.764                 | -0.801  | 0.514  | 2.234   | 0.871 | 24.9    |       |
| 550S137-97  | 0.1017                | 33               | 0.838                   | 2.85           | 3.38                   | 2.008   | 0.155                  | 0.43    | 3.38                   | 1.229                  | 30.35                | 30.35       | 0.00         | 6282     | 1997       | 2.891                     | 0.997                 | -0.766  | 0.497  | 2.192   | 0.878 | 29.2    |       |
| 550S137-97  | 0.1017                | 50               | 0.838                   | 2.85           | 3.38                   | 2.008   | 0.155                  | 0.43    | 3.38                   | 1.229                  | 44.72                | 44.72       | 0.00         | 9518     | 3026       | 2.891                     | 0.997                 | -0.766  | 0.497  | 2.192   | 0.878 | 23.9    |       |
| 550S162-33  | 0.0346                | 33               | 0.327                   | 1.11           | 1.458                  | 2.112   | 0.113                  | 0.589   |                        |                        |                      |             |              |          |            |                           |                       |         |        |         |       |         |       |

# STRUCTURAL STUD SECTION PROPERTIES

| Section     | Gross Properties      |                  |                         |                |                        |         |                        |         | Effective Properties   |                        |             |             |             |          |            | Torsional Properties      |                       |         |        |         |       |         |
|-------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|-------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|             | Design Thickness (in) | Fy (Yield) (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 5505162-97  | 0.1017                | 50               | 0.915                   | 3.11           | 3.886                  | 2.061   | 0.276                  | 0.549   | 3.886                  | 1.413                  | 50.13       | 50.13       | 0.00        | 9518     | 3026       | 3.154                     | 1.775                 | -1.037  | 0.656  | 2.372   | 0.809 | 30      |
| 5505200-33  | 0.0346                | 33               | 0.362                   | 1.23           | 1.694                  | 2.164   | 0.204                  | 0.751   | 1.678                  | 0.559                  | 11.05       | 9.8         | 58.5        | 699      | 699        | 0.144                     | 1.326                 | -1.508  | 0.925  | 2.742   | 0.698 | 51.9    |
| 5505200-43  | 0.0451                | 33               | 0.469                   | 1.6            | 2.189                  | 2.159   | 0.261                  | 0.746   | 2.189                  | 0.776                  | 15.33       | 13.96       | 112.2       | 1550     | 1199       | 0.318                     | 1.691                 | -1.496  | 0.918  | 2.731   | 0.7   | 51.7    |
| 5505200-54  | 0.0566                | 33               | 0.585                   | 1.99           | 2.706                  | 2.152   | 0.32                   | 0.739   | 2.706                  | 0.984                  | 21.41       | 19.98       | 173.9       | 2739     | 1666       | 0.624                     | 2.072                 | -1.483  | 0.911  | 2.716   | 0.702 | 49.2    |
| 5505200-54  | 0.0566                | 50               | 0.585                   | 1.99           | 2.706                  | 2.152   | 0.32                   | 0.739   | 2.706                  | 0.901                  | 26.98       | 24.84       | 180.4       | 3093     | 1881       | 0.624                     | 2.072                 | -1.483  | 0.911  | 2.716   | 0.702 | 41.8    |
| 5505200-68  | 0.0713                | 33               | 0.729                   | 2.48           | 3.341                  | 2.141   | 0.389                  | 0.731   | 3.341                  | 1.215                  | 27.03       | 27.03       | 0.00        | 4347     | 2057       | 1.235                     | 2.531                 | -1.465  | 0.902  | 2.695   | 0.705 | 48.5    |
| 5505200-68  | 0.0713                | 50               | 0.729                   | 2.48           | 3.341                  | 2.141   | 0.389                  | 0.731   | 3.341                  | 1.17                   | 38.83       | 35.92       | 380.3       | 5350     | 2532       | 1.235                     | 2.531                 | -1.465  | 0.902  | 2.695   | 0.705 | 39.6    |
| 5505200-97  | 0.1017                | 33               | 1.016                   | 3.46           | 4.563                  | 2.119   | 0.515                  | 0.712   | 4.563                  | 1.659                  | 38.58       | 38.58       | 0.00        | 6282     | 1997       | 3.504                     | 3.384                 | -1.428  | 0.882  | 2.652   | 0.71  | 47.4    |
| 5505200-97  | 0.1017                | 50               | 1.016                   | 3.46           | 4.563                  | 2.119   | 0.515                  | 0.712   | 4.563                  | 1.659                  | 57.25       | 57.25       | 0.00        | 9518     | 3026       | 3.504                     | 3.384                 | -1.428  | 0.882  | 2.652   | 0.71  | 38.6    |
| 5505250-33  | 0.0346                | 33               | 0.396                   | 1.35           | 1.952                  | 2.22    | 0.346                  | 0.935   | 1.952                  | 0.817                  | 16.15       | 14.74       | 94.1        | 1550     | 1199       | 0.349                     | 2.837                 | -1.933  | 1.163  | 3.083   | 0.607 | 62.6    |
| 5505250-43  | 0.0451                | 33               | 0.515                   | 1.75           | 2.524                  | 2.215   | 0.445                  | 0.93    | 2.524                  | 0.817                  | 16.15       | 14.74       | 94.1        | 1550     | 1199       | 0.349                     | 2.837                 | -1.933  | 1.163  | 3.083   | 0.607 | 62.6    |
| 5505250-54  | 0.0566                | 33               | 0.641                   | 2.18           | 3.126                  | 2.208   | 0.547                  | 0.923   | 3.126                  | 1.033                  | 20.4        | 19.87       | 53.3        | 2739     | 1666       | 0.685                     | 3.486                 | -1.919  | 1.155  | 3.067   | 0.609 | 62.6    |
| 5505250-54  | 0.0566                | 50               | 0.641                   | 2.18           | 3.126                  | 2.208   | 0.547                  | 0.923   | 3.084                  | 0.95                   | 28.44       | 26.11       | 166.4       | 3093     | 1881       | 0.685                     | 3.486                 | -1.919  | 1.155  | 3.067   | 0.609 | 50.7    |
| 5505250-68  | 0.0713                | 33               | 0.8                     | 2.72           | 3.866                  | 2.198   | 0.669                  | 0.914   | 3.866                  | 1.345                  | 29.28       | 28.52       | 117.8       | 4347     | 2057       | 1.356                     | 4.274                 | -1.9    | 1.146  | 3.046   | 0.611 | 59.5    |
| 5505250-68  | 0.0713                | 50               | 0.8                     | 2.72           | 3.866                  | 2.198   | 0.669                  | 0.914   | 3.864                  | 1.233                  | 36.91       | 35.43       | 164.4       | 5350     | 2532       | 1.356                     | 4.274                 | -1.9    | 1.146  | 3.046   | 0.611 | 50.6    |
| 5505250-97  | 0.1017                | 33               | 1.118                   | 3.8            | 5.304                  | 2.178   | 0.897                  | 0.895   | 5.304                  | 1.925                  | 43.47       | 43.57       | 0.00        | 6282     | 1997       | 3.855                     | 5.761                 | -1.862  | 1.126  | 3.002   | 0.615 | 58.4    |
| 5505250-97  | 0.1017                | 50               | 1.118                   | 3.8            | 5.304                  | 2.178   | 0.897                  | 0.895   | 5.304                  | 1.837                  | 61.77       | 60.32       | 328         | 9518     | 3026       | 3.855                     | 5.761                 | -1.862  | 1.126  | 3.002   | 0.615 | 47.6    |
| 5505300-54  | 0.0566                | 33               | 0.698                   | 2.37           | 3.545                  | 2.254   | 0.85                   | 1.104   | 3.505                  | 1.08                   | 21.34       | 20.74       | 51.4        | 2739     | 1666       | 0.745                     | 5.364                 | -2.365  | 1.401  | 3.449   | 0.53  | 73      |
| 5505300-54  | 0.0566                | 50               | 0.698                   | 2.37           | 3.545                  | 2.254   | 0.85                   | 1.104   | 3.295                  | 0.983                  | 29.44       | 27          | 156.5       | 3093     | 1881       | 0.745                     | 5.364                 | -2.365  | 1.401  | 3.449   | 0.53  | 59.2    |
| 5505300-68  | 0.0713                | 33               | 0.871                   | 2.96           | 4.391                  | 2.245   | 1.044                  | 1.095   | 4.384                  | 1.411                  | 27.88       | 28.03       | 0.00        | 4347     | 2057       | 1.476                     | 6.594                 | -2.346  | 1.391  | 3.427   | 0.531 | 73.1    |
| 5505300-68  | 0.0713                | 50               | 0.871                   | 2.96           | 4.391                  | 2.245   | 1.044                  | 1.095   | 4.285                  | 1.287                  | 38.53       | 36.85       | 164.5       | 5350     | 2532       | 1.476                     | 6.594                 | -2.346  | 1.391  | 3.427   | 0.531 | 59.1    |
| 5505300-97  | 0.1017                | 33               | 1.22                    | 4.15           | 6.045                  | 2.226   | 1.411                  | 1.075   | 6.045                  | 2.101                  | 46.52       | 47.35       | 0.00        | 6282     | 1997       | 4.205                     | 8.937                 | -2.307  | 1.371  | 3.381   | 0.535 | 69.1    |
| 5505300-97  | 0.1017                | 50               | 1.22                    | 4.15           | 6.045                  | 2.226   | 1.411                  | 1.075   | 5.964                  | 2.005                  | 60.02       | 58.54       | 315.2       | 9518     | 3026       | 4.205                     | 8.937                 | -2.307  | 1.371  | 3.381   | 0.535 | 59.1    |
| 6005137-33  | 0.0346                | 33               | 0.318                   | 1.08           | 1.582                  | 2.229   | 0.069                  | 0.464   | 1.548                  | 0.455                  | 8.98        | 8.18        | 43.2        | 638      | 638        | 0.127                     | 0.5                   | -0.807  | 0.519  | 2.416   | 0.889 | 33.5    |
| 6005137-33  | 0.0346                | 33               | 0.318                   | 1.08           | 1.582                  | 2.229   | 0.069                  | 0.464   | 1.548                  | 0.455                  | 8.98        | 8.18        | 43.2        | 638      | 638        | 0.127                     | 0.500                 | -0.807  | 0.519  | 2.416   | 0.889 | 33.5    |
| 6005137-43  | 0.0451                | 33               | 0.413                   | 1.41           | 2.042                  | 2.223   | 0.087                  | 0.459   | 2.041                  | 0.645                  | 12.74       | 11.82       | 90.2        | 1416     | 1240       | 0.28                      | 0.633                 | -0.796  | 0.513  | 2.406   | 0.89  | 33.3    |
| 6005137-43  | 0.0451                | 33               | 0.413                   | 1.41           | 2.042                  | 2.223   | 0.087                  | 0.459   | 2.041                  | 0.645                  | 12.74       | 11.82       | 90.2        | 1416     | 1240       | 0.280                     | 0.633                 | -0.796  | 0.513  | 2.406   | 0.890 | 33.3    |
| 6005137-54  | 0.0566                | 33               | 0.514                   | 1.75           | 2.518                  | 2.213   | 0.105                  | 0.452   | 2.518                  | 0.832                  | 16.44       | 15.95       | 82          | 2739     | 1890       | 0.549                     | 0.769                 | -0.784  | 0.506  | 2.391   | 0.893 | 33      |
| 6005137-54  | 0.0566                | 50               | 0.514                   | 1.75           | 2.518                  | 2.213   | 0.105                  | 0.452   | 2.518                  | 0.777                  | 23.26       | 21.24       | 226.8       | 2823     | 1947       | 0.549                     | 0.769                 | -0.784  | 0.506  | 2.391   | 0.893 | 26.8    |
| 6005137-68  | 0.0713                | 33               | 0.64                    | 2.18           | 3.094                  | 2.2     | 0.125                  | 0.443   | 3.094                  | 1.031                  | 24.05       | 24.05       | 0.00        | 4347     | 2339       | 1.084                     | 0.93                  | -0.768  | 0.497  | 2.371   | 0.895 | 30.1    |
| 6005137-68  | 0.0713                | 50               | 0.64                    | 2.18           | 3.094                  | 2.2     | 0.125                  | 0.443   | 3.094                  | 1.03                   | 30.84       | 28.89       | 394.7       | 5350     | 2879       | 1.084                     | 0.93                  | -0.768  | 0.497  | 2.371   | 0.895 | 26.5    |
| 6005137-97  | 0.1017                | 33               | 0.889                   | 3.03           | 4.188                  | 2.17    | 0.159                  | 0.422   | 4.188                  | 1.396                  | 34.48       | 34.48       | 0.00        | 6911     | 2512       | 3.066                     | 1.216                 | -0.734  | 0.48   | 2.33    | 0.901 | 28.8    |
| 6005137-97  | 0.1017                | 50               | 0.889                   | 3.03           | 4.188                  | 2.17    | 0.159                  | 0.422   | 4.188                  | 1.396                  | 50.8        | 50.8        | 0.00        | 10472    | 3805       | 3.066                     | 1.216                 | -0.734  | 0.48   | 2.33    | 0.901 | 23.6    |
| 6005162-33  | 0.0346                | 33               | 0.344                   | 1.17           | 1.793                  | 2.282   | 0.116                  | 0.581   | 1.793                  | 0.577                  | 11.41       | 9.47        | 102.4       | 638      | 638        | 0.137                     | 0.861                 | -1.072  | 0.677  | 2.587   | 0.828 | 41.1    |
| 6005162-43  | 0.0451                | 33               | 0.447                   | 1.52           | 2.316                  | 2.276   | 0.148                  | 0.576   | 2.316                  | 0.767                  | 16.68       | 14.46       | 182.3       | 1416     | 1240       | 0.303                     | 1.095                 | -1.062  | 0.67   | 2.577   | 0.83  | 39      |
| 6005162-54  | 0.0566                | 33               | 0.556                   | 1.89           | 2.86                   | 2.267   | 0.18                   | 0.57    | 2.86                   | 0.953                  | 21.17       | 19.75       | 173.3       | 2739     | 1890       | 0.594                     | 1.337                 | -1.049  | 0.663  | 2.562   | 0.832 | 38.4    |
| 6005162-54  | 0.0566                | 50               | 0.556                   | 1.89           | 2.86                   | 2.267   | 0.18                   | 0.57    | 2.86                   | 0.916                  | 30.33       | 25.9        | 396.6       | 2823     | 1947       | 0.594                     | 1.337                 | -1.049  | 0.663  | 2.562   | 0.832 | 31.4    |
| 6005162-68  | 0.0713                | 33               | 0.693                   | 2.36           | 3.525                  | 2.255   | 0.218                  | 0.56    | 3.525                  | 1.175                  | 26.79       | 26.79       | 0.00        | 4347     | 2339       | 1.174                     | 1.626                 | -1.032  | 0.655  | 2.543   | 0.835 | 37.7    |
| 6005162-68  | 0.0713                | 50               | 0.693                   | 2.36           | 3.525                  | 2.255   | 0.218                  | 0.56    | 3.525                  | 1.164                  | 39.47       | 35.7        | 534.3       | 5350     | 2879       | 1.174                     | 1.626                 | -1.032  | 0.655  | 2.543   | 0.835 | 30.8    |
| 6005162-97  | 0.1017                | 33               | 0.966                   | 3.29           | 4.797                  | 2.229   | 0.283                  | 0.541   | 4.797                  | 1.599                  | 38.37       | 38.37       | 0.00        | 6911     | 2512       | 3.329                     | 2.153                 | -0.997  | 0.636  | 2.501   | 0.841 | 36.4    |
| 6005162-97  | 0.1017                | 50               | 0.966                   | 3.29           | 4.797                  | 2.229   | 0.283                  | 0.541   | 4.797                  | 1.599                  | 56.73       | 56.73       | 0.00        | 10472    | 3805       | 3.329                     | 2.153                 | -0.997  | 0.636  | 2.501   | 0.841 | 29.8    |
| 6005162-118 | 0.1242                | 50               | 1.158                   | 3.94           | 5.652                  | 2.209   | 0.321                  | 0.526   | 5.652                  | 1.884                  | 68.94       | 68.94       | 0.00        | 12526    | 3622       | 5.956                     | 2.487                 | -0.971  | 0.623  | 2.470   | 0.845 | 29.1    |
| 6005200-33  | 0.0346                | 33               | 0.379                   | 1.29           | 2.075                  | 2.34    | 0.209                  | 0.743   | 2.058                  | 0.621                  | 12.28       | 10.76       | 58.8        | 638      | 638        | 0.151                     | 1.593                 | -1.457  | 0.901  | 2.855   | 0.74  | 51.6    |
| 6005200-43  | 0.0451                | 33               | 0.492                   | 1.67           | 2.683                  | 2.335   | 0.268                  | 0.739   | 2.683                  | 0.873                  | 17.24       | 15.39       | 128.7       | 1416     | 1240       | 0.334                     | 2.033                 | -1.446  | 0.894  | 2.844   | 0.742 | 51.4    |
| 6005200-54  | 0.0566                | 33               | 0.613                   | 2.09           | 3.319                  | 2.327   | 0.328                  | 0.732   | 3.319                  | 1.106                  | 24.07       | 22.07       | 205.1       | 2739     | 1890       | 0.655                     | 2.493                 | -1.432  | 0.887  | 2.829   | 0.744 | 48.9    |
| 6005200-54  | 0.0566                | 50               | 0.613                   | 2.09           | 3.319                  | 2.327   | 0.328                  | 0.732   | 3.319                  | 1.015                  | 30.4        | 27.38       | 216.3       | 2823     | 1947       | 0.655                     | 2.493                 | -1.432  | 0.887  | 2.829   | 0.744 | 41.6    |
| 6005200-68  | 0.0713                | 33               | 0.764                   | 2.6            | 4.101                  | 2.316   | 0.4                    | 0.723   | 4.101                  | 1.367                  | 30.42       | 29.97       | 69.1        | 4347     | 2339       | 1.295                     | 3.047                 | -1.415  | 0.878  | 2.809   | 0.746 | 48.2    |
| 6005200-68  | 0.0713                | 50               | 0.764                   | 2.6            | 4.101                  | 2.316   | 0.4                    | 0.723   | 4.101                  | 1.317                  | 43.71       | 39.69       | 443.7       | 5350     | 2879       | 1.295                     | 3.047                 | -1.415  | 0.878  | 2.809   | 0.746 | 39.3    |
| 6005200-97  | 0.1017                | 33               | 1.067                   | 3.63           | 5.612                  | 2.293   | 0.53                   | 0.705   | 5.612                  | 1.871                  | 43.49       | 43.49       | 0.00        | 6911     | 2512       | 3.679                     | 4.08                  | -1.378  | 0.859  | 2.767   | 0.752 | 46.9    |
| 6005200-97  | 0.1017                | 50               | 1.067                   | 3.63           | 5.612                  | 2.293   | 0.53                   | 0.705   | 5.612                  | 1.871                  | 64.53       | 63.67       | 196.7       | 10472    | 3805       | 3.679                     | 4.08                  | -1.378  | 0.859  | 2.767   | 0.752 | 38.3    |
| 6005200-118 | 0.1242                | 50               | 1.283                   | 4.36           | 6.641                  | 2.275   | 0.611                  | 0.690   | 6.641                  | 2.214                  | 78.44       | 78.44       | 0.00        | 12526    | 3622       | 6.595                     | 4.753                 | -1.351  | 0.845  | 2.735   | 0.756 | 37.6    |
| 6005250-33  | 0.0346                | 33               | 0.413                   | 1.41           | 2.383                  | 2.401   | 0.356                  | 0.928   | 2.38                   |                        |             |             |             |          |            |                           |                       |         |        |         |       |         |

# STRUCTURAL STUD SECTION PROPERTIES

| Section                 | Gross Properties      |                  |                         |                |                        | Effective Properties |                        |         |                        |                        |             |             |                |          |            | Torsional Properties      |                       |         |        |         |       |         |
|-------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|----------------------|------------------------|---------|------------------------|------------------------|-------------|-------------|----------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|                         | Design Thickness (in) | Fy (Yield) (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in)              | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb/ft) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 600S250-97              | 0.1017                | 50               | 1.169                   | 3.98           | 6.496                  | 2.357                | 0.923                  | 0.889   | 6.496                  | 2.063                  | 69.38       | 66.81       | 488.5          | 10472    | 3805       | 4.03                      | 6.947                 | -1.803  | 1.1    | 3.098   | 0.661 | 47.3    |
| 600S250-118             | 0.1242                | 50               | 1.407                   | 4.79           | 7.713                  | 2.342                | 1.075                  | 0.874   | 7.713                  | 2.498                  | 85.92       | 86.83       | 0.00           | 12526    | 3622       | 7.234                     | 8.142                 | -1.775  | 1.085  | 3.066   | 0.665 | 46.6    |
| 600S300-54              | 0.0566                | 33               | 0.726                   | 2.47           | 4.319                  | 2.439                | 0.875                  | 1.098   | 4.269                  | 1.211                  | 23.93       | 22.8        | 83.5           | 2739     | 1890       | 0.775                     | 6.452                 | -2.299  | 1.372  | 3.527   | 0.575 | 72.8    |
| 600S300-54              | 0.0566                | 50               | 0.726                   | 2.47           | 4.319                  | 2.439                | 0.875                  | 1.098   | 4.014                  | 1.106                  | 33.13       | 29.62       | 192.1          | 1921     | 1947       | 0.775                     | 6.452                 | -2.299  | 1.372  | 3.527   | 0.575 | 59.1    |
| 600S300-68              | 0.0713                | 33               | 0.907                   | 3.09           | 5.354                  | 2.43                 | 1.075                  | 1.089   | 5.344                  | 1.581                  | 31.23       | 30.88       | 40.7           | 4347     | 2339       | 1.537                     | 7.937                 | -2.28   | 1.363  | 3.505   | 0.577 | 72.8    |
| 600S300-68              | 0.0713                | 50               | 0.907                   | 3.09           | 5.354                  | 2.43                 | 1.075                  | 1.089   | 5.221                  | 1.446                  | 43.3        | 40.53       | 231.4          | 5350     | 2879       | 1.537                     | 7.937                 | -2.28   | 1.363  | 3.505   | 0.577 | 59      |
| 600S300-97              | 0.1017                | 33               | 1.271                   | 4.32           | 7.381                  | 2.41                 | 1.454                  | 1.07    | 7.381                  | 2.352                  | 52.07       | 52.4        | 0.00           | 6911     | 2512       | 4.381                     | 10.776                | -2.241  | 1.343  | 3.461   | 0.581 | 68.8    |
| 600S300-97              | 0.1017                | 50               | 1.271                   | 4.32           | 7.381                  | 2.41                 | 1.454                  | 1.07    | 7.28                   | 2.247                  | 67.28       | 64.67       | 471.1          | 10472    | 3805       | 4.381                     | 10.776                | -2.241  | 1.343  | 3.461   | 0.581 | 58.8    |
| 600S300-118             | 0.1242                | 50               | 1.531                   | 5.21           | 8.785                  | 2.395                | 1.704                  | 1.055   | 8.713                  | 2.797                  | 94.24       | 90.37       | 0.00           | 12526    | 3622       | 7.872                     | 12.683                | -2.212  | 1.328  | 3.427   | 0.583 | 55.3    |
| 600S350-54              | 0.0566                | 50               | 0.825                   | 2.81           | 5.022                  | 2.467                | 1.491                  | 1.344   | 4.721                  | 1.335                  | 39.97       | 36.56       | 0.00           | 2823     | 1947       | 0.881                     | 12.942                | -3.037  | 1.787  | 4.137   | 0.461 | 74.4    |
| 600S350-68              | 0.0713                | 50               | 1.032                   | 3.51           | 6.237                  | 2.459                | 1.841                  | 1.336   | 6.166                  | 1.771                  | 53.01       | 49.70       | 0.00           | 5350     | 2879       | 1.748                     | 15.968                | -3.018  | 1.777  | 4.115   | 0.462 | 74.4    |
| 600S350-97              | 0.1017                | 50               | 1.449                   | 4.93           | 8.631                  | 2.441                | 2.518                  | 1.318   | 8.631                  | 2.593                  | 77.64       | 78.36       | 0.00           | 10472    | 3805       | 4.994                     | 21.811                | -2.979  | 1.757  | 4.071   | 0.464 | 74.4    |
| 600S350-118             | 0.1242                | 50               | 1.748                   | 5.95           | 10.304                 | 2.428                | 2.978                  | 1.305   | 10.304                 | 3.268                  | 108.43      | 107.66      | 0.00           | 12526    | 3622       | 8.990                     | 25.791                | -2.951  | 1.742  | 4.038   | 0.466 | 70.6    |
| 725S125-33 <sup>1</sup> | 0.0346                | 33               | 0.34                    | 1.16           | 2.251                  | 2.573                | 0.043                  | 0.357   | 2.114                  | 0.456                  | 9           | 7.55        | 92.7           | 525      | 525        | 0.136                     | 0.464                 | -0.549  | 0.366  | 2.655   | 0.957 | 27      |
| 725S125-43              | 0.0451                | 33               | 0.441                   | 1.5            | 2.905                  | 2.566                | 0.055                  | 0.352   | 2.835                  | 0.691                  | 13.65       | 11.46       | 255.9          | 1163     | 1163       | 0.299                     | 0.586                 | -0.54   | 0.361  | 2.646   | 0.958 | 26.7    |
| 725S125-54              | 0.0566                | 33               | 0.549                   | 1.87           | 3.582                  | 2.554                | 0.065                  | 0.344   | 3.582                  | 0.92                   | 18.17       | 16.18       | 378.4          | 2316     | 2072       | 0.587                     | 0.708                 | -0.528  | 0.354  | 2.631   | 0.96  | 26.4    |
| 725S125-54              | 0.0566                | 50               | 0.549                   | 1.87           | 3.582                  | 2.554                | 0.065                  | 0.344   | 3.504                  | 0.841                  | 25.18       | 21.1        | 558            | 2316     | 2072       | 0.587                     | 0.708                 | -0.528  | 0.354  | 2.631   | 0.96  | 21.4    |
| 725S125-68              | 0.0713                | 33               | 0.684                   | 2.33           | 4.403                  | 2.537                | 0.076                  | 0.334   | 4.396                  | 1.21                   | 23.91       | 22.63       | 420.9          | 4347     | 3044       | 1.159                     | 0.851                 | -0.514  | 0.347  | 2.61    | 0.961 | 26      |
| 725S125-68              | 0.0713                | 50               | 0.684                   | 2.33           | 4.403                  | 2.537                | 0.076                  | 0.334   | 4.396                  | 1.141                  | 34.15       | 30.02       | 946.3          | 4680     | 3278       | 1.159                     | 0.851                 | -0.514  | 0.347  | 2.61    | 0.961 | 21.1    |
| 725S137-33 <sup>1</sup> | 0.0346                | 33               | 0.362                   | 1.23           | 2.509                  | 2.634                | 0.072                  | 0.445   | 2.392                  | 0.559                  | 11.05       | 9.82        | 45.8           | 525      | 525        | 0.144                     | 0.766                 | -0.733  | 0.48   | 2.77    | 0.93  | 32.9    |
| 725S137-43              | 0.0451                | 33               | 0.469                   | 1.6            | 3.241                  | 2.628                | 0.091                  | 0.441   | 3.178                  | 0.802                  | 15.84       | 14.36       | 97.3           | 1163     | 1163       | 0.318                     | 0.971                 | -0.724  | 0.474  | 2.761   | 0.931 | 32.6    |
| 725S137-54              | 0.0566                | 33               | 0.585                   | 1.99           | 4.003                  | 2.617                | 0.11                   | 0.434   | 4.003                  | 1.048                  | 20.72       | 19.64       | 116.6          | 2316     | 2072       | 0.624                     | 1.181                 | -0.712  | 0.468  | 2.746   | 0.933 | 32.4    |
| 725S137-54              | 0.0566                | 50               | 0.585                   | 1.99           | 4.003                  | 2.617                | 0.11                   | 0.434   | 3.945                  | 0.968                  | 28.99       | 25.88       | 237.8          | 2316     | 2072       | 0.624                     | 1.181                 | -0.712  | 0.468  | 2.746   | 0.933 | 26.2    |
| 725S137-68              | 0.0713                | 33               | 0.729                   | 2.48           | 4.932                  | 2.602                | 0.131                  | 0.424   | 4.932                  | 1.359                  | 26.86       | 26.63       | 42.4           | 4347     | 3044       | 1.235                     | 1.43                  | -0.697  | 0.46   | 2.726   | 0.935 | 32.1    |
| 725S137-68              | 0.0713                | 50               | 0.729                   | 2.48           | 4.932                  | 2.602                | 0.131                  | 0.424   | 4.932                  | 1.304                  | 39.03       | 35.69       | 448.5          | 4680     | 3278       | 1.235                     | 1.43                  | -0.697  | 0.46   | 2.726   | 0.935 | 26      |
| 725S137-97              | 0.1017                | 33               | 1.016                   | 3.46           | 6.71                   | 2.569                | 0.166                  | 0.404   | 6.71                   | 1.851                  | 36.58       | 36.58       | 0.00           | 8484     | 4049       | 3.504                     | 1.875                 | -0.665  | 0.443  | 2.685   | 0.939 | 31.5    |
| 725S137-97              | 0.1017                | 50               | 1.016                   | 3.46           | 6.71                   | 2.569                | 0.166                  | 0.404   | 6.71                   | 1.851                  | 55.42       | 55.42       | 0.00           | 10885    | 5195       | 3.504                     | 1.875                 | -0.665  | 0.443  | 2.685   | 0.939 | 25.4    |
| 725S162-33 <sup>1</sup> | 0.0346                | 33               | 0.388                   | 1.32           | 2.822                  | 2.698                | 0.122                  | 0.562   | 2.706                  | 0.638                  | 12.61       | 11.48       | 32.8           | 525      | 525        | 0.155                     | 1.309                 | -0.982  | 0.631  | 2.926   | 0.887 | 40.5    |
| 725S162-43              | 0.0451                | 33               | 0.503                   | 1.71           | 3.648                  | 2.692                | 0.156                  | 0.557   | 3.585                  | 0.913                  | 18.04       | 16.6        | 73.8           | 1163     | 1163       | 0.341                     | 1.666                 | -0.972  | 0.625  | 2.916   | 0.889 | 40.2    |
| 725S162-54              | 0.0566                | 33               | 0.627                   | 2.13           | 4.513                  | 2.683                | 0.19                   | 0.55    | 4.513                  | 1.188                  | 23.48       | 22.49       | 82.6           | 2316     | 2072       | 0.67                      | 2.036                 | -0.96   | 0.618  | 2.902   | 0.891 | 40      |
| 725S162-54              | 0.0566                | 50               | 0.627                   | 2.13           | 4.513                  | 2.683                | 0.19                   | 0.55    | 4.455                  | 1.1                    | 32.93       | 29.69       | 189.1          | 2316     | 2072       | 0.67                      | 2.036                 | -0.96   | 0.618  | 2.902   | 0.891 | 32.5    |
| 725S162-68              | 0.0713                | 33               | 0.782                   | 2.66           | 5.572                  | 2.669                | 0.229                  | 0.541   | 5.572                  | 1.536                  | 30.35       | 30.24       | 15.7           | 4347     | 3044       | 1.325                     | 2.479                 | -0.944  | 0.61   | 2.882   | 0.893 | 39.8    |
| 725S162-68              | 0.0713                | 50               | 0.782                   | 2.66           | 5.572                  | 2.669                | 0.229                  | 0.541   | 5.572                  | 1.479                  | 44.29       | 40.57       | 378.5          | 4680     | 3278       | 1.325                     | 2.479                 | -0.944  | 0.61   | 2.882   | 0.893 | 32.2    |
| 725S162-97              | 0.1017                | 33               | 1.093                   | 3.72           | 7.618                  | 2.64                 | 0.297                  | 0.522   | 7.618                  | 2.101                  | 50.43       | 50.43       | 0.00           | 8484     | 4049       | 3.767                     | 3.293                 | -0.911  | 0.592  | 2.841   | 0.897 | 35.6    |
| 725S162-97              | 0.1017                | 50               | 1.093                   | 3.72           | 7.618                  | 2.64                 | 0.297                  | 0.522   | 7.618                  | 2.101                  | 74.54       | 72.43       | 418.2          | 10885    | 5195       | 3.767                     | 3.293                 | -0.911  | 0.592  | 2.841   | 0.897 | 29.1    |
| 725S200-33 <sup>1</sup> | 0.0346                | 33               | 0.422                   | 1.44           | 3.241                  | 2.771                | 0.221                  | 0.724   | 3.234                  | 0.743                  | 14.67       | 13.14       | 37.4           | 525      | 525        | 0.168                     | 2.395                 | -1.346  | 0.847  | 3.164   | 0.819 | 50.9    |
| 725S200-43              | 0.0451                | 33               | 0.548                   | 1.87           | 4.193                  | 2.765                | 0.284                  | 0.719   | 4.193                  | 1.131                  | 22.34       | 18.92       | 167.9          | 1163     | 1163       | 0.372                     | 3.059                 | -1.335  | 0.84   | 3.154   | 0.821 | 50.7    |
| 725S200-54              | 0.0566                | 33               | 0.684                   | 2.33           | 5.195                  | 2.756                | 0.347                  | 0.713   | 5.195                  | 1.433                  | 31.18       | 27.29       | 278.5          | 2316     | 2072       | 0.73                      | 3.755                 | -1.322  | 0.833  | 3.139   | 0.823 | 48.1    |
| 725S200-54              | 0.0566                | 50               | 0.684                   | 2.33           | 5.195                  | 2.756                | 0.347                  | 0.713   | 5.195                  | 1.321                  | 39.55       | 33.68       | 301.7          | 2316     | 2072       | 0.73                      | 3.755                 | -1.322  | 0.833  | 3.139   | 0.823 | 41      |
| 725S200-68              | 0.0713                | 33               | 0.853                   | 2.9            | 6.428                  | 2.744                | 0.423                  | 0.704   | 6.428                  | 1.773                  | 39.46       | 37.37       | 222.1          | 4347     | 3044       | 1.446                     | 4.596                 | -1.305  | 0.824  | 3.119   | 0.825 | 47.4    |
| 725S200-68              | 0.0713                | 50               | 0.853                   | 2.9            | 6.428                  | 2.744                | 0.423                  | 0.704   | 6.428                  | 1.71                   | 56.77       | 49.12       | 597.1          | 4680     | 3278       | 1.446                     | 4.596                 | -1.305  | 0.824  | 3.119   | 0.825 | 38.7    |
| 725S200-97              | 0.1017                | 33               | 1.194                   | 4.06           | 8.831                  | 2.719                | 0.561                  | 0.685   | 8.831                  | 2.436                  | 56.64       | 56.64       | 0.00           | 8484     | 4049       | 4.118                     | 6.175                 | -1.27   | 0.806  | 3.078   | 0.83  | 46      |
| 725S200-97              | 0.1017                | 50               | 1.194                   | 4.06           | 8.831                  | 2.719                | 0.561                  | 0.685   | 8.831                  | 2.436                  | 84.04       | 79.95       | 643.8          | 10885    | 5195       | 4.118                     | 6.175                 | -1.27   | 0.806  | 3.078   | 0.83  | 37.6    |
| 725S250-43              | 0.0451                | 33               | 0.593                   | 2.02           | 4.778                  | 2.838                | 0.486                  | 0.905   | 4.778                  | 1.186                  | 23.44       | 19.88       | 144.7          | 1163     | 1163       | 0.402                     | 5.134                 | -1.744  | 1.076  | 3.451   | 0.745 | 61.8    |
| 725S250-54              | 0.0566                | 33               | 0.74                    | 2.52           | 5.927                  | 2.829                | 0.597                  | 0.898   | 5.927                  | 1.495                  | 29.55       | 27          | 151.7          | 2316     | 2072       | 0.791                     | 6.319                 | -1.73   | 1.069  | 3.436   | 0.747 | 61.7    |
| 725S250-54              | 0.0566                | 50               | 0.74                    | 2.52           | 5.927                  | 2.829                | 0.597                  | 0.898   | 5.837                  | 1.388                  | 41.55       | 35.24       | 277.3          | 2316     | 2072       | 0.791                     | 6.319                 | -1.73   | 1.069  | 3.436   | 0.747 | 50      |
| 725S250-68              | 0.0713                | 33               | 0.925                   | 3.15           | 7.347                  | 2.819                | 0.73                   | 0.889   | 7.347                  | 1.942                  | 42.27       | 39.07       | 292.7          | 4347     | 3044       | 1.567                     | 7.765                 | -1.712  | 1.059  | 3.415   | 0.749 | 58.6    |
| 725S250-68              | 0.0713                | 50               | 0.925                   | 3.15           | 7.347                  | 2.819                | 0.73                   | 0.889   | 7.334                  | 1.795                  | 53.75       | 48.25       | 370.9          | 4680     | 3278       | 1.567                     | 7.765                 | -1.712  | 1.059  | 3.415   | 0.749 | 49.9    |
| 725S250-97              | 0.1017                | 33               | 1.296                   | 4.41           | 10.13                  | 2.796                | 0.98                   | 0.869   | 10.13                  | 2.788                  | 62.98       | 62.87       | 21.1           | 8484     | 4049       | 4.468                     | 10.516                | -1.675  | 1.04   | 3.373   | 0.753 | 57.2    |
| 725S250-97              | 0.1017                | 50               | 1.296                   | 4.41           | 10.13                  | 2.796                | 0.98                   | 0.869   | 10.13                  | 2.666                  | 89.66       | 83.36       | 838            | 10885    | 5195       | 4.468                     | 10.516                | -1.675  | 1.04   | 3.373   | 0.753 | 46.7    |
| 725S300-54              | 0.0566                | 33               | 0.797                   | 2.71           | 6.659                  | 2.891                | 0.931                  | 1.081   | 6.575                  | 1.561                  | 30.84       | 27.99       | 149.4          | 2316     | 2072       | 0.851                     | 9.721                 | -2.152  | 1.307  | 3.762   | 0.673 | 72.4    |
| 725S300-54              | 0.0566                | 50               | 0.797                   | 2.71           | 6.659                  | 2.8                  |                        |         |                        |                        |             |             |                |          |            |                           |                       |         |        |         |       |         |



# STRUCTURAL STUD SECTION PROPERTIES

| Section                 | Design Thickness (in) | Fy (Yield) (ksi) | Gross Properties        |                |                        |         |                        |         | Effective Properties   |                        |             |             |                |          |            | Torsional Properties      |                       |         |        |         |       |         |
|-------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|----------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|                         |                       |                  | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KØc (in-lb/ft) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 8005137-54              | 0.0566                | 33               | 0.627                   | 2.13           | 5.11                   | 2.855   | 0.112                  | 0.423   | 5.077                  | 1.179                  | 23.29       | 21.74       | 137.1          | 2091     | 2091       | 0.67                      | 1.478                 | -0.676  | 0.448  | 2.964   | 0.948 | 32      |
| 8005137-54              | 0.0566                | 50               | 0.627                   | 2.13           | 5.11                   | 2.855   | 0.112                  | 0.423   | 4.974                  | 1.083                  | 32.42       | 28.47       | 251            | 2091     | 2091       | 0.67                      | 1.478                 | -0.676  | 0.448  | 2.964   | 0.948 | 25.9    |
| 8005137-68              | 0.0713                | 33               | 0.782                   | 2.66           | 6.303                  | 2.839   | 0.134                  | 0.414   | 6.303                  | 1.541                  | 30.45       | 29.75       | 107.5          | 4221     | 3367       | 1.325                     | 1.789                 | -0.661  | 0.44   | 2.944   | 0.95  | 31.6    |
| 8005137-68              | 0.0713                | 50               | 0.782                   | 2.66           | 6.303                  | 2.839   | 0.134                  | 0.414   | 6.285                  | 1.468                  | 43.96       | 39.57       | 482.1          | 4221     | 3367       | 1.325                     | 1.789                 | -0.661  | 0.44   | 2.944   | 0.95  | 25.6    |
| 8005137-97              | 0.1017                | 33               | 1.093                   | 3.72           | 8.597                  | 2.805   | 0.169                  | 0.394   | 8.597                  | 2.149                  | 53.09       | 53.09       | 0.00           | 8843     | 4824       | 3.767                     | 2.349                 | -0.63   | 0.423  | 2.902   | 0.953 | 27.6    |
| 8005137-97              | 0.1017                | 50               | 1.093                   | 3.72           | 8.597                  | 2.805   | 0.169                  | 0.394   | 8.597                  | 2.149                  | 64.35       | 63.91       | 113            | 10885    | 5938       | 3.767                     | 2.349                 | -0.63   | 0.423  | 2.902   | 0.953 | 25      |
| 8005162-33 <sup>1</sup> | 0.0346                | 33               | 0.413                   | 1.41           | 3.582                  | 2.943   | 0.125                  | 0.55    | 3.384                  | 0.71                   | 14.03       | 12.61       | 33.8           | 474      | 474        | 0.165                     | 1.63                  | -0.936  | 0.607  | 3.137   | 0.911 | 40.1    |
| 8005162-43              | 0.0451                | 33               | 0.537                   | 1.83           | 4.633                  | 2.937   | 0.16                   | 0.546   | 4.5                    | 1.019                  | 20.14       | 18.33       | 75.3           | 1051     | 1051       | 0.364                     | 2.076                 | -0.926  | 0.601  | 3.128   | 0.912 | 39.8    |
| 8005162-54              | 0.0566                | 33               | 0.67                    | 2.28           | 5.736                  | 2.927   | 0.194                  | 0.539   | 5.702                  | 1.334                  | 26.36       | 24.98       | 91.9           | 2091     | 2091       | 0.715                     | 2.539                 | -0.914  | 0.594  | 3.113   | 0.914 | 39.6    |
| 8005162-54              | 0.0566                | 50               | 0.67                    | 2.28           | 5.736                  | 2.927   | 0.194                  | 0.539   | 5.6                    | 1.229                  | 36.79       | 32.81       | 189.8          | 2091     | 2091       | 0.715                     | 2.539                 | -0.914  | 0.594  | 3.113   | 0.914 | 32.1    |
| 8005162-68              | 0.0713                | 33               | 0.836                   | 2.84           | 7.089                  | 2.913   | 0.235                  | 0.53    | 7.089                  | 1.737                  | 34.32       | 33.84       | 55.2           | 4221     | 3367       | 1.416                     | 3.093                 | -0.899  | 0.586  | 3.094   | 0.916 | 39.3    |
| 8005162-68              | 0.0713                | 50               | 0.836                   | 2.84           | 7.089                  | 2.913   | 0.235                  | 0.53    | 7.07                   | 1.663                  | 49.8        | 45.11       | 384.9          | 4221     | 3367       | 1.416                     | 3.093                 | -0.899  | 0.586  | 3.094   | 0.916 | 31.9    |
| 8005162-97              | 0.1017                | 33               | 1.169                   | 3.98           | 9.713                  | 2.883   | 0.305                  | 0.51    | 9.713                  | 2.428                  | 58.27       | 58.27       | 0.00           | 8843     | 4824       | 4.03                      | 4.114                 | -0.866  | 0.568  | 3.053   | 0.919 | 35.1    |
| 8005162-97              | 0.1017                | 50               | 1.169                   | 3.98           | 9.713                  | 2.883   | 0.305                  | 0.51    | 9.713                  | 2.428                  | 72.7        | 71.94       | 143            | 10885    | 5938       | 4.03                      | 4.114                 | -0.866  | 0.568  | 3.053   | 0.919 | 31.4    |
| 8005162-118             | 0.1242                | 50               | 1.407                   | 4.79           | 11.504                 | 2.860   | 0.345                  | 0.496   | 11.504                 | 2.876                  | 105.23      | 105.23      | 0.00           | 16235    | 7115       | 7.234                     | 4.766                 | -1.842  | 0.556  | 3.022   | 0.922 | 28.0    |
| 8005200-33 <sup>1</sup> | 0.0346                | 33               | 0.448                   | 1.52           | 4.096                  | 3.023   | 0.227                  | 0.712   | 4.096                  | 0.816                  | 16.12       | 14.52       | 31.2           | 474      | 474        | 0.179                     | 2.971                 | -0.288  | 0.817  | 3.363   | 0.853 | 50.6    |
| 8005200-43              | 0.0451                | 33               | 0.582                   | 1.98           | 5.302                  | 3.018   | 0.292                  | 0.708   | 5.302                  | 1.293                  | 25.54       | 20.99       | 186.8          | 1051     | 1051       | 0.395                     | 3.797                 | -1.277  | 0.811  | 3.353   | 0.855 | 50.3    |
| 8005200-54              | 0.0566                | 33               | 0.726                   | 2.47           | 6.573                  | 3.009   | 0.357                  | 0.701   | 6.573                  | 1.643                  | 35.75       | 30.37       | 323            | 2091     | 2091       | 0.775                     | 4.663                 | -1.265  | 0.804  | 3.338   | 0.856 | 47.8    |
| 8005200-54              | 0.0566                | 50               | 0.726                   | 2.47           | 6.573                  | 3.009   | 0.357                  | 0.701   | 6.573                  | 1.499                  | 44.87       | 37.37       | 318.9          | 2091     | 2091       | 0.775                     | 4.663                 | -1.265  | 0.804  | 3.338   | 0.856 | 40.7    |
| 8005200-68              | 0.0713                | 33               | 0.907                   | 3.09           | 8.14                   | 2.996   | 0.435                  | 0.692   | 8.14                   | 2.035                  | 45.29       | 41.79       | 309.3          | 4221     | 3367       | 1.537                     | 5.712                 | -1.248  | 0.796  | 3.319   | 0.859 | 47      |
| 8005200-68              | 0.0713                | 50               | 0.907                   | 3.09           | 8.14                   | 2.996   | 0.435                  | 0.692   | 8.14                   | 1.964                  | 65.21       | 54.7        | 691.9          | 4221     | 3367       | 1.537                     | 5.712                 | -1.248  | 0.796  | 3.319   | 0.859 | 38.4    |
| 8005200-97              | 0.1017                | 33               | 1.271                   | 4.32           | 11.203                 | 2.969   | 0.576                  | 0.673   | 11.203                 | 2.801                  | 65.12       | 65.12       | 0.00           | 8843     | 4824       | 4.381                     | 7.684                 | -1.214  | 0.777  | 3.278   | 0.863 | 45.5    |
| 8005200-97              | 0.1017                | 50               | 1.271                   | 4.32           | 11.203                 | 2.969   | 0.576                  | 0.673   | 11.203                 | 2.801                  | 96.63       | 89.76       | 901.1          | 10885    | 5938       | 4.381                     | 7.684                 | -1.214  | 0.777  | 3.278   | 0.863 | 37.2    |
| 8005200-118             | 0.1242                | 50               | 1.531                   | 5.21           | 13.316                 | 2.949   | 0.665                  | 0.659   | 13.316                 | 3.329                  | 117.95      | 117.55      | 0.00           | 16235    | 7115       | 7.872                     | 8.981                 | -1.188  | 0.764  | 3.247   | 0.866 | 36.5    |
| 8005250-33 <sup>1</sup> | 0.0346                | 33               | 0.483                   | 1.64           | 4.645                  | 3.102   | 0.389                  | 0.897   | 4.645                  | 1.175                  | 15.242      | 12.751      | 0              | 16235    | 7115       | 8.511                     | 15.395                | -1.580  | 0.994  | 3.524   | 0.799 | 45.6    |
| 8005250-43              | 0.0451                | 33               | 0.627                   | 2.13           | 6.015                  | 3.097   | 0.5                    | 0.893   | 6.015                  | 1.313                  | 25.95       | 22.06       | 126.1          | 1051     | 1051       | 0.425                     | 6.374                 | -1.675  | 1.043  | 3.632   | 0.787 | 61.5    |
| 8005250-54              | 0.0566                | 33               | 0.783                   | 2.66           | 7.465                  | 3.088   | 0.614                  | 0.886   | 7.465                  | 1.712                  | 33.82       | 30.06       | 188.2          | 2091     | 2091       | 0.836                     | 7.85                  | -1.661  | 1.036  | 3.617   | 0.789 | 61.4    |
| 8005250-54              | 0.0566                | 50               | 0.783                   | 2.66           | 7.465                  | 3.088   | 0.614                  | 0.886   | 7.378                  | 1.525                  | 45.66       | 39.13       | 228.2          | 2091     | 2091       | 0.836                     | 7.85                  | -1.661  | 1.036  | 3.617   | 0.789 | 49.8    |
| 8005250-68              | 0.0713                | 33               | 0.978                   | 3.33           | 9.261                  | 3.077   | 0.752                  | 0.877   | 9.261                  | 2.22                   | 48.33       | 43.63       | 358.5          | 4221     | 3367       | 1.658                     | 9.652                 | -1.644  | 1.027  | 3.597   | 0.791 | 58.2    |
| 8005250-68              | 0.0713                | 50               | 0.978                   | 3.33           | 9.261                  | 3.077   | 0.752                  | 0.877   | 9.24                   | 2.059                  | 61.65       | 53.75       | 448.8          | 4221     | 3367       | 1.658                     | 9.652                 | -1.644  | 1.027  | 3.597   | 0.791 | 49.6    |
| 8005250-97              | 0.1017                | 33               | 1.372                   | 4.67           | 12.789                 | 3.053   | 1.009                  | 0.857   | 12.789                 | 3.191                  | 72.07       | 70.72       | 211.4          | 8843     | 4824       | 4.731                     | 13.091                | -1.607  | 1.008  | 3.555   | 0.796 | 56.8    |
| 8005250-97              | 0.1017                | 50               | 1.372                   | 4.67           | 12.789                 | 3.053   | 1.009                  | 0.857   | 12.789                 | 3.054                  | 102.7       | 93.42       | 1031.6         | 10885    | 5938       | 4.731                     | 13.091                | -1.607  | 1.008  | 3.555   | 0.796 | 46.4    |
| 8005250-118             | 0.1242                | 50               | 1.655                   | 5.63           | 15.242                 | 3.035   | 1.175                  | 0.843   | 15.242                 | 3.707                  | 127.51      | 122.92      | 0              | 16235    | 7115       | 8.511                     | 15.395                | -1.580  | 0.994  | 3.524   | 0.799 | 45.6    |
| 8005300-54              | 0.0566                | 33               | 0.839                   | 2.86           | 8.358                  | 3.156   | 0.96                   | 1.069   | 8.249                  | 1.785                  | 35.28       | 31.13       | 183.1          | 2091     | 2091       | 0.896                     | 12.076                | -2.073  | 1.271  | 3.924   | 0.721 | 72.2    |
| 8005300-54              | 0.0566                | 50               | 0.839                   | 2.86           | 8.358                  | 3.156   | 0.96                   | 1.069   | 7.862                  | 1.535                  | 45.96       | 40.22       | 176.4          | 2091     | 2091       | 0.896                     | 12.076                | -2.073  | 1.271  | 3.924   | 0.721 | 58.6    |
| 8005300-68              | 0.0713                | 33               | 1.05                    | 3.57           | 10.382                 | 3.145   | 1.179                  | 1.06    | 10.351                 | 2.321                  | 45.86       | 42.54       | 227.2          | 4221     | 3367       | 1.779                     | 14.888                | -2.055  | 1.262  | 3.903   | 0.723 | 72      |
| 8005300-68              | 0.0713                | 50               | 1.05                    | 3.57           | 10.382                 | 3.145   | 1.179                  | 1.06    | 10.082                 | 2.145                  | 64.21       | 55.47       | 442            | 4221     | 3367       | 1.779                     | 14.888                | -2.055  | 1.262  | 3.903   | 0.723 | 58.4    |
| 8005300-97              | 0.1017                | 33               | 1.474                   | 5.02           | 14.375                 | 3.123   | 1.595                  | 1.04    | 14.375                 | 3.443                  | 76.21       | 73.25       | 400.5          | 8843     | 4824       | 5.082                     | 20.304                | -2.017  | 1.243  | 3.86    | 0.727 | 67.7    |
| 8005300-97              | 0.1017                | 50               | 1.474                   | 5.02           | 14.375                 | 3.123   | 1.595                  | 1.04    | 14.17                  | 3.304                  | 98.92       | 89.88       | 958.5          | 10885    | 5938       | 5.082                     | 20.304                | -2.017  | 1.243  | 3.86    | 0.727 | 58.1    |
| 8005300-118             | 0.1242                | 50               | 1.779                   | 6.05           | 17.167                 | 3.106   | 1.871                  | 1.025   | 17.022                 | 4.108                  | 138.41      | 126.69      | 0              | 16235    | 7115       | 9.149                     | 23.979                | -1.989  | 1.229  | 3.828   | 0.730 | 54.5    |
| 8005350-54              | 0.0566                | 50               | 0.938                   | 3.19           | 9.683                  | 3.212   | 1.646                  | 1.325   | 9.191                  | 1.869                  | 55.96       | 49.74       | 0              | 2091     | 2091       | 1.002                     | 22.897                | -2.766  | 1.668  | 4.441   | 0.612 | 73.1    |
| 8005350-68              | 0.0713                | 50               | 1.174                   | 4.00           | 12.046                 | 3.203   | 2.034                  | 1.316   | 11.909                 | 2.596                  | 77.73       | 68.05       | 0              | 4221     | 3367       | 1.990                     | 28.308                | -2.748  | 1.658  | 4.421   | 0.614 | 72.9    |
| 8005350-97              | 0.1017                | 50               | 1.652                   | 5.62           | 16.737                 | 3.183   | 2.784                  | 1.298   | 16.737                 | 3.785                  | 113.34      | 108.67      | 0              | 10885    | 5938       | 5.696                     | 38.834                | -2.710  | 1.639  | 4.377   | 0.617 | 72.7    |
| 8005350-118             | 0.1242                | 50               | 1.997                   | 6.79           | 20.041                 | 3.168   | 3.295                  | 1.285   | 20.041                 | 4.762                  | 158.02      | 150.37      | 0              | 16235    | 7115       | 10.267                    | 46.068                | -2.682  | 1.624  | 4.345   | 0.619 | 68.9    |
| 9255137-43              | 0.0451                | 33               | 0.56                    | 1.9            | 5.941                  | 3.258   | 0.096                  | 0.414   | 5.612                  | 1.053                  | 20.8        | 17.93       | 120.5          | 905      | 905        | 0.379                     | 1.688                 | -0.633  | 0.424  | 3.345   | 0.964 | 31.6    |
| 9255137-54              | 0.0566                | 33               | 0.698                   | 2.37           | 7.352                  | 3.246   | 0.116                  | 0.407   | 7.175                  | 1.396                  | 27.58       | 24.98       | 173.7          | 1800     | 1800       | 0.745                     | 2.055                 | -0.623  | 0.418  | 3.33    | 0.965 | 31.3    |
| 9255137-54              | 0.0566                | 50               | 0.698                   | 2.37           | 7.352                  | 3.246   | 0.116                  | 0.407   | 6.993                  | 1.274                  | 38.15       | 32.44       | 281.6          | 1800     | 1800       | 0.745                     | 2.055                 | -0.623  | 0.418  | 3.33    | 0.965 | 25.4    |
| 9255137-68              | 0.0713                | 33               | 0.871                   | 2.96           | 9.084                  | 3.229   | 0.138                  | 0.398   | 9.084                  | 1.846                  | 36.47       | 34.66       | 204.2          | 3628     | 3483       | 1.476                     | 2.491                 | -0.609  | 0.41   | 3.31    | 0.966 | 30.9    |
| 9255137-68              | 0.0713                | 50               | 0.871                   | 2.96           | 9.084                  | 3.229   | 0.138                  | 0.398   | 8.905                  | 1.743                  | 52.19       | 45.61       | 548.3          | 3628     | 3483       | 1.476                     | 2.491                 | -0.609  | 0.41   | 3.31    | 0.966 | 25.1    |
| 9255137-97              | 0.1017                | 33               | 1.22                    | 4.15           | 12.437                 | 3.193   | 0.174                  | 0.378   | 12.437                 | 2.689                  | 66.42       | 65.59       | 191.2          | 8843     | 5830       | 4.205                     | 3.275                 | -0.58   | 0.394  | 3.267   | 0.968 | 26.9    |
| 9255137-97              | 0.1017                | 50               | 1.22                    | 4.15           | 12.437                 | 3.193   | 0.174                  | 0.378   | 12.437                 | 2.637                  | 78.95       | 75.31       | 698.6          | 10710    | 7061       | 4.205                     | 3.275                 | -0.58   | 0.394  | 3.267   | 0.968 | 24.4    |
|                         |                       |                  |                         |                |                        |         |                        |         |                        |                        |             |             |                |          |            |                           |                       |         |        |         |       |         |

# STRUCTURAL STUD SECTION PROPERTIES

| Section                  | Gross Properties      |                  |                         |                |                        |         |                        |         | Effective Properties   |                        |             |             |             |          | Torsional Properties |                           |                       |         |        |         |       |         |
|--------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|-------------|----------|----------------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|                          | Design Thickness (in) | Fy (Yield) (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb) | Vag (lb) | VaNet (lb)           | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 925S200-43               | 0.0451                | 33               | 0.639                   | 2.17           | 7.519                  | 3.431   | 0.303                  | 0.689   | 7.204                  | 1.351                  | 26.7        | 24.28       | 58.8        | 905      | 905                  | 0.433                     | 5.24                  | -1.193  | 0.767  | 3.697   | 0.896 | 49.7    |
| 925S200-54               | 0.0566                | 33               | 0.797                   | 2.71           | 9.329                  | 3.422   | 0.371                  | 0.682   | 9.147                  | 1.818                  | 35.92       | 33.17       | 108.9       | 1800     | 1800                 | 0.851                     | 6.438                 | -1.18   | 0.761  | 3.683   | 0.897 | 49.5    |
| 925S200-54               | 0.0566                | 50               | 0.797                   | 2.71           | 9.329                  | 3.422   | 0.371                  | 0.682   | 9.009                  | 1.567                  | 46.91       | 43.27       | 96.7        | 1800     | 1800                 | 0.851                     | 6.438                 | -1.18   | 0.761  | 3.683   | 0.897 | 40.1    |
| 925S200-68               | 0.0713                | 33               | 0.996                   | 3.39           | 11.568                 | 3.408   | 0.451                  | 0.673   | 11.568                 | 2.379                  | 47          | 45.16       | 120         | 3628     | 3483                 | 1.688                     | 7.893                 | -1.164  | 0.752  | 3.664   | 0.899 | 49.2    |
| 925S200-68               | 0.0713                | 50               | 0.996                   | 3.39           | 11.568                 | 3.408   | 0.451                  | 0.673   | 11.398                 | 2.217                  | 66.36       | 59.62       | 311.6       | 3628     | 3483                 | 1.688                     | 7.893                 | -1.164  | 0.752  | 3.664   | 0.899 | 39.9    |
| 925S200-97               | 0.1017                | 33               | 1.398                   | 4.76           | 15.963                 | 3.379   | 0.598                  | 0.654   | 15.963                 | 3.451                  | 68.2        | 68.2        | 0           | 8843     | 5830                 | 4.819                     | 10.637                | -1.131  | 0.735  | 3.623   | 0.902 | 48.7    |
| 925S200-97               | 0.1017                | 50               | 1.398                   | 4.76           | 15.963                 | 3.379   | 0.598                  | 0.654   | 15.963                 | 3.397                  | 101.71      | 96.01       | 604.2       | 10710    | 7061                 | 4.819                     | 10.637                | -1.131  | 0.735  | 3.623   | 0.902 | 39.4    |
| 925S250-43               | 0.0451                | 33               | 0.684                   | 2.33           | 8.474                  | 3.521   | 0.52                   | 0.872   | 8.474                  | 1.502                  | 29.69       | 25.61       | 93.6        | 905      | 905                  | 0.464                     | 8.801                 | -1.573  | 0.993  | 3.953   | 0.842 | 61      |
| 925S250-54               | 0.0566                | 33               | 0.853                   | 2.9            | 10.525                 | 3.512   | 0.64                   | 0.866   | 10.525                 | 2.096                  | 41.42       | 35.09       | 247.8       | 1800     | 1800                 | 0.911                     | 10.847                | -1.559  | 0.986  | 3.939   | 0.843 | 60.8    |
| 925S250-54               | 0.0566                | 50               | 0.853                   | 2.9            | 10.525                 | 3.512   | 0.64                   | 0.866   | 10.469                 | 1.746                  | 52.27       | 45.48       | 170.9       | 1800     | 1800                 | 0.911                     | 10.847                | -1.559  | 0.986  | 3.939   | 0.843 | 49.3    |
| 925S250-68               | 0.0713                | 33               | 1.067                   | 3.63           | 13.07                  | 3.499   | 0.783                  | 0.856   | 13.07                  | 2.714                  | 59.09       | 51.17       | 466.9       | 3628     | 3483                 | 1.809                     | 13.349                | -1.542  | 0.977  | 3.919   | 0.845 | 57.7    |
| 925S250-68               | 0.0713                | 50               | 1.067                   | 3.63           | 13.07                  | 3.499   | 0.783                  | 0.856   | 13.031                 | 2.529                  | 75.73       | 62.82       | 577.3       | 3628     | 3483                 | 1.809                     | 13.349                | -1.542  | 0.977  | 3.919   | 0.845 | 49.1    |
| 925S250-97               | 0.1017                | 33               | 1.499                   | 5.1            | 18.09                  | 3.473   | 1.05                   | 0.837   | 18.09                  | 3.903                  | 88.17       | 83.89       | 508.7       | 8843     | 5830                 | 5.17                      | 18.137                | -1.507  | 0.959  | 3.878   | 0.849 | 56.2    |
| 925S250-97               | 0.1017                | 50               | 1.499                   | 5.1            | 18.09                  | 3.473   | 1.05                   | 0.837   | 18.09                  | 3.742                  | 125.86      | 110.18      | 1352.2      | 10710    | 7061                 | 5.17                      | 18.137                | -1.507  | 0.959  | 3.878   | 0.849 | 45.9    |
| 925S300-54               | 0.0566                | 33               | 0.91                    | 3.1            | 11.721                 | 3.589   | 1.001                  | 1.049   | 11.573                 | 2.155                  | 42.57       | 36.33       | 211         | 1800     | 1800                 | 0.972                     | 16.691                | -1.956  | 1.216  | 4.219   | 0.785 | 71.8    |
| 925S300-54               | 0.0566                | 50               | 0.91                    | 3.1            | 11.721                 | 3.589   | 1.001                  | 1.049   | 11.135                 | 1.764                  | 52.83       | 46.81       | 135.2       | 1800     | 1800                 | 0.972                     | 16.691                | -1.956  | 1.216  | 4.219   | 0.785 | 58.3    |
| 925S300-68               | 0.0713                | 33               | 1.139                   | 3.87           | 14.572                 | 3.577   | 1.231                  | 1.04    | 14.52                  | 2.833                  | 55.98       | 49.9        | 322.6       | 3628     | 3483                 | 1.93                      | 20.596                | -1.938  | 1.207  | 4.199   | 0.787 | 71.6    |
| 925S300-68               | 0.0713                | 50               | 1.139                   | 3.87           | 14.572                 | 3.577   | 1.231                  | 1.04    | 14.158                 | 2.61                   | 78.14       | 64.83       | 522.4       | 3628     | 3483                 | 1.93                      | 20.596                | -1.938  | 1.207  | 4.199   | 0.787 | 58      |
| 925S300-97               | 0.1017                | 33               | 1.601                   | 5.45           | 20.218                 | 3.553   | 1.665                  | 1.02    | 20.218                 | 4.194                  | 92.84       | 86.63       | 642.6       | 8843     | 5830                 | 5.52                      | 28.138                | -1.901  | 1.188  | 4.157   | 0.791 | 67.2    |
| 925S300-97               | 0.1017                | 50               | 1.601                   | 5.45           | 20.218                 | 3.553   | 1.665                  | 1.02    | 19.928                 | 4.035                  | 120.79      | 105.96      | 1218        | 10710    | 7061                 | 5.52                      | 28.138                | -1.901  | 1.188  | 4.157   | 0.791 | 57.6    |
| 925S137-43               | 0.0451                | 33               | 0.56                    | 1.9            | 5.941                  | 3.258   | 0.096                  | 0.414   | 5.612                  | 1.053                  | 20.8        | 17.93       | 120.5       | 905      | 905                  | 0.379                     | 1.688                 | -0.633  | 0.424  | 3.345   | 0.964 | 31.6    |
| 925S137-54               | 0.0566                | 33               | 0.698                   | 2.37           | 7.352                  | 3.246   | 0.116                  | 0.407   | 7.175                  | 1.396                  | 27.58       | 24.98       | 173.7       | 1800     | 1800                 | 0.745                     | 2.055                 | -0.623  | 0.418  | 3.33    | 0.965 | 31.3    |
| 925S137-54               | 0.0566                | 50               | 0.698                   | 2.37           | 7.352                  | 3.246   | 0.116                  | 0.407   | 6.993                  | 1.274                  | 38.15       | 32.44       | 281.6       | 1800     | 1800                 | 0.745                     | 2.055                 | -0.623  | 0.418  | 3.33    | 0.965 | 25.4    |
| 925S137-68               | 0.0713                | 33               | 0.871                   | 2.96           | 9.084                  | 3.229   | 0.138                  | 0.398   | 9.084                  | 1.846                  | 36.47       | 34.66       | 204.2       | 3628     | 3483                 | 1.476                     | 2.491                 | -0.609  | 0.41   | 3.31    | 0.966 | 30.9    |
| 925S137-68               | 0.0713                | 50               | 0.871                   | 2.96           | 9.084                  | 3.229   | 0.138                  | 0.398   | 8.905                  | 1.743                  | 52.19       | 45.61       | 548.3       | 3628     | 3483                 | 1.476                     | 2.491                 | -0.609  | 0.41   | 3.31    | 0.966 | 25.1    |
| 925S137-97               | 0.1017                | 33               | 1.22                    | 4.15           | 12.437                 | 3.193   | 0.174                  | 0.378   | 12.437                 | 2.689                  | 66.42       | 65.59       | 191.2       | 8843     | 5830                 | 4.205                     | 3.275                 | -0.58   | 0.394  | 3.267   | 0.968 | 26.9    |
| 925S137-97               | 0.1017                | 50               | 1.22                    | 4.15           | 12.437                 | 3.193   | 0.174                  | 0.378   | 12.437                 | 2.637                  | 78.95       | 75.31       | 698.6       | 10710    | 7061                 | 4.205                     | 3.275                 | -0.58   | 0.394  | 3.267   | 0.968 | 24.4    |
| 925S162-43               | 0.0451                | 33               | 0.593                   | 2.02           | 6.616                  | 3.339   | 0.165                  | 0.528   | 6.288                  | 1.196                  | 23.64       | 21.01       | 82          | 905      | 905                  | 0.402                     | 2.877                 | -0.859  | 0.564  | 3.488   | 0.939 | 39.2    |
| 925S162-54               | 0.0566                | 33               | 0.74                    | 2.52           | 8.198                  | 3.328   | 0.201                  | 0.521   | 8.019                  | 1.576                  | 31.15       | 28.91       | 110.6       | 1800     | 1800                 | 0.791                     | 3.521                 | -0.848  | 0.558  | 3.473   | 0.94  | 38.9    |
| 925S162-54               | 0.0566                | 50               | 0.74                    | 2.52           | 8.198                  | 3.328   | 0.201                  | 0.521   | 7.841                  | 1.443                  | 43.22       | 37.67       | 200.2       | 1800     | 1800                 | 0.791                     | 3.521                 | -0.848  | 0.558  | 3.473   | 0.94  | 31.6    |
| 925S162-68               | 0.0713                | 33               | 0.925                   | 3.15           | 10.148                 | 3.313   | 0.242                  | 0.512   | 10.148                 | 2.074                  | 40.98       | 39.62       | 112.4       | 3628     | 3483                 | 1.567                     | 4.293                 | -0.833  | 0.55   | 3.454   | 0.942 | 38.6    |
| 925S162-68               | 0.0713                | 50               | 0.925                   | 3.15           | 10.148                 | 3.313   | 0.242                  | 0.512   | 9.965                  | 1.97                   | 58.99       | 52.3        | 407.3       | 3628     | 3483                 | 1.567                     | 4.293                 | -0.833  | 0.55   | 3.454   | 0.942 | 31.3    |
| 925S162-97               | 0.1017                | 33               | 1.296                   | 4.41           | 13.947                 | 3.28    | 0.315                  | 0.493   | 13.947                 | 3.016                  | 59.59       | 59.59       | 0           | 8843     | 5830                 | 4.468                     | 5.719                 | -0.802  | 0.533  | 3.413   | 0.945 | 38      |
| 925S162-97               | 0.1017                | 50               | 1.296                   | 4.41           | 13.947                 | 3.28    | 0.315                  | 0.493   | 13.947                 | 2.962                  | 88.7        | 85.01       | 511.8       | 10710    | 7061                 | 4.468                     | 5.719                 | -0.802  | 0.533  | 3.413   | 0.945 | 30.8    |
| 1000S137-33 <sup>1</sup> | 0.0346                | 33               | 0.457                   | 1.55           | 5.589                  | 3.498   | 0.077                  | 0.409   | 6.727                  | 1.147                  | 22.66       | 19.09       | 131.6       | 836      | 836                  | 0.402                     | 1.587                 | -0.614  | 0.413  | 3.575   | 0.971 | 31.2    |
| 1000S137-43 <sup>1</sup> | 0.0451                | 33               | 0.593                   | 2.02           | 7.232                  | 3.491   | 0.097                  | 0.405   | 6.727                  | 1.147                  | 22.66       | 19.09       | 131.6       | 836      | 836                  | 0.402                     | 2.014                 | -0.605  | 0.408  | 3.566   | 0.971 | 31.2    |
| 1000S137-54              | 0.0566                | 33               | 0.74                    | 2.52           | 8.956                  | 3.478   | 0.117                  | 0.398   | 8.636                  | 1.526                  | 30.15       | 26.78       | 197         | 1661     | 1661                 | 0.791                     | 2.454                 | -0.595  | 0.402  | 3.551   | 0.972 | 30.9    |
| 1000S137-54              | 0.0566                | 50               | 0.74                    | 2.52           | 8.956                  | 3.478   | 0.117                  | 0.398   | 8.393                  | 1.389                  | 41.58       | 34.61       | 303.5       | 1661     | 1661                 | 0.791                     | 2.454                 | -0.595  | 0.402  | 3.551   | 0.972 | 25.1    |
| 1000S137-68              | 0.0713                | 33               | 0.925                   | 3.15           | 11.076                 | 3.461   | 0.14                   | 0.389   | 11.01                  | 2.029                  | 40.09       | 37.42       | 259.3       | 3345     | 3345                 | 1.567                     | 2.975                 | -0.581  | 0.394  | 3.531   | 0.973 | 30.5    |
| 1000S137-68              | 0.0713                | 50               | 0.925                   | 3.15           | 11.076                 | 3.461   | 0.14                   | 0.389   | 10.732                 | 1.908                  | 57.13       | 48.96       | 593.2       | 3345     | 3345                 | 1.567                     | 2.975                 | -0.581  | 0.394  | 3.531   | 0.973 | 24.8    |
| 1000S137-97              | 0.1017                | 33               | 1.296                   | 4.41           | 15.192                 | 3.424   | 0.177                  | 0.369   | 15.192                 | 3.038                  | 60.04       | 60.04       | 0.0         | 8843     | 6434                 | 4.468                     | 3.913                 | -0.554  | 0.379  | 3.488   | 0.975 | 29.8    |
| 1000S137-97              | 0.1017                | 50               | 1.296                   | 4.41           | 15.192                 | 3.424   | 0.177                  | 0.369   | 15.192                 | 2.917                  | 87.32       | 81.79       | 900.4       | 9864     | 7177                 | 4.468                     | 3.913                 | -0.554  | 0.379  | 3.488   | 0.975 | 24.1    |
| 1000S162-33 <sup>1</sup> | 0.0346                | 33               | 0.483                   | 1.64           | 6.198                  | 3.583   | 0.132                  | 0.522   | 6.727                  | 1.147                  | 22.66       | 19.09       | 131.6       | 836      | 836                  | 0.402                     | 1.587                 | -0.614  | 0.413  | 3.575   | 0.971 | 31.2    |
| 1000S162-43 <sup>1</sup> | 0.0451                | 33               | 0.627                   | 2.13           | 8.025                  | 3.577   | 0.168                  | 0.518   | 7.523                  | 1.302                  | 25.74       | 22.49       | 87.8        | 836      | 836                  | 0.425                     | 3.43                  | -0.823  | 0.545  | 3.707   | 0.951 | 38.8    |
| 1000S162-54              | 0.0566                | 33               | 0.783                   | 2.66           | 9.95                   | 3.565   | 0.204                  | 0.511   | 9.627                  | 1.722                  | 34.02       | 31.11       | 123.7       | 1661     | 1661                 | 0.836                     | 4.198                 | -0.812  | 0.538  | 3.692   | 0.952 | 38.6    |
| 1000S162-54              | 0.0566                | 50               | 0.783                   | 2.66           | 9.95                   | 3.565   | 0.204                  | 0.511   | 9.391                  | 1.572                  | 47.07       | 40.37       | 210.7       | 1661     | 1661                 | 0.836                     | 4.198                 | -0.812  | 0.538  | 3.692   | 0.952 | 31.3    |
| 1000S162-68              | 0.0713                | 33               | 0.978                   | 3.33           | 12.325                 | 3.55    | 0.246                  | 0.502   | 12.256                 | 2.276                  | 44.98       | 42.91       | 145.3       | 3345     | 3345                 | 1.658                     | 5.121                 | -0.798  | 0.531  | 3.673   | 0.953 | 38.2    |
| 1000S162-68              | 0.0713                | 50               | 0.978                   | 3.33           | 12.325                 | 3.55    | 0.246                  | 0.502   | 11.978                 | 2.154                  | 64.51       | 56.35       | 427.6       | 3345     | 3345                 | 1.658                     | 5.121                 | -0.798  | 0.531  | 3.673   | 0.953 | 31      |
| 1000S162-97              | 0.1017                | 33               | 1.372                   | 4.67           | 16.967                 | 3.516   | 0.32                   | 0.483   | 16.967                 | 3.393                  | 67.06       | 67.06       | 0.0         | 8843     | 6434                 | 4.731                     | 6.827                 | -0.768  | 0.514  | 3.631   | 0.955 | 37.5    |
| 1000S162-97              | 0.1017                | 50               | 1.372                   | 4.67           | 16.967                 | 3.516   | 0.32                   | 0.483   | 16.967                 | 3.269                  | 97.89       | 92.55       | 625.9       | 9864     | 7177                 | 4.731                     | 6.827                 | -0.768  | 0.514  | 3.631   | 0.955 | 30.4    |
| 1000S162-118             | 0.1242                | 50               | 1.655                   | 5.63           | 20.169                 | 3.491   | 0.363                  | 0.468   | 20.169                 | 4.034                  | 120.77      | 120.34      | 0.0         | 16235    | 9536                 | 8.511                     | 7.924                 | -0.746  | 0.502  | 3.600   | 0.957 |         |

# STRUCTURAL STUD SECTION PROPERTIES

| Section                  | Design Thickness (in) | Fy (Yield) (ksi) | Gross Properties        |                |                        |         |                        |         | Effective Properties   |                        |             |             |             |          | Torsional Properties |                           |                       |         |        |         |       |         |
|--------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|-------------|----------|----------------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|                          |                       |                  | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb) | Vag (lb) | VaNet (lb)           | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 1000S200-97              | 0.1017                | 33               | 1.474                   | 5.02           | 19.336                 | 3.622   | 0.609                  | 0.643   | 19.336                 | 3.867                  | 76.42       | 76.42       | 0.00        | 8843     | 6434                 | 5.082                     | 12.679                | -1.088  | 0.711  | 3.836   | 0.92  | 48.2    |
| 1000S200-97              | 0.1017                | 50               | 1.474                   | 5.02           | 19.336                 | 3.622   | 0.609                  | 0.643   | 19.336                 | 3.741                  | 112         | 104.73      | 648         | 9864     | 7177                 | 5.082                     | 12.679                | -1.088  | 0.711  | 3.836   | 0.92  | 39      |
| 1000S200-118             | 0.1242                | 50               | 1.779                   | 6.05           | 23.052                 | 3.599   | 0.703                  | 0.629   | 23.052                 | 4.610                  | 138.04      | 135.75      | 0.00        | 16235    | 9536                 | 9.149                     | 14.848                | -1.064  | 0.699  | 3.805   | 0.922 | 38.7    |
| 1000S250-33 <sup>1</sup> | 0.0346                | 33               | 0.552                   | 1.88           | 7.872                  | 3.777   | 0.413                  | 0.865   |                        |                        |             |             |             |          |                      | 0.22                      | 8.173                 | -1.528  | 0.971  | 4.165   | 0.865 |         |
| 1000S250-43 <sup>1</sup> | 0.0451                | 33               | 0.717                   | 2.44           | 10.203                 | 3.771   | 0.531                  | 0.86    | 10.203                 | 1.617                  | 31.95       | 27.67       | 82.5        | 836      | 836                  | 0.486                     | 10.481                | -1.518  | 0.965  | 4.155   | 0.867 | 60.7    |
| 1000S250-54              | 0.0566                | 33               | 0.896                   | 3.05           | 12.677                 | 3.762   | 0.653                  | 0.854   | 12.677                 | 2.277                  | 44.99       | 38.02       | 228.6       | 1661     | 1661                 | 0.957                     | 12.922                | -1.505  | 0.958  | 4.14    | 0.868 | 60.5    |
| 1000S250-54              | 0.0566                | 50               | 0.896                   | 3.05           | 12.677                 | 3.762   | 0.653                  | 0.854   | 12.66                  | 1.879                  | 56.26       | 49.16       | 151.1       | 1661     | 1661                 | 0.957                     | 12.922                | -1.505  | 0.958  | 4.14    | 0.868 | 49.1    |
| 1000S250-68              | 0.0713                | 33               | 1.121                   | 3.81           | 15.751                 | 3.749   | 0.799                  | 0.844   | 15.751                 | 3.028                  | 65.93       | 55.62       | 533.9       | 3345     | 3345                 | 1.899                     | 15.909                | -1.488  | 0.95   | 4.121   | 0.87  | 57.3    |
| 1000S250-68              | 0.0713                | 50               | 1.121                   | 3.81           | 15.751                 | 3.749   | 0.799                  | 0.844   | 15.741                 | 2.768                  | 82.89       | 68.13       | 563.4       | 3345     | 3345                 | 1.899                     | 15.909                | -1.488  | 0.95   | 4.121   | 0.87  | 48.8    |
| 1000S250-97              | 0.1017                | 33               | 1.576                   | 5.36           | 21.827                 | 3.722   | 1.072                  | 0.825   | 21.827                 | 4.357                  | 98.41       | 91.77       | 684.2       | 8843     | 6434                 | 5.433                     | 21.632                | -1.454  | 0.932  | 4.08    | 0.873 | 55.8    |
| 1000S250-97              | 0.1017                | 50               | 1.576                   | 5.36           | 21.827                 | 3.722   | 1.072                  | 0.825   | 21.827                 | 4.181                  | 140.63      | 120.13      | 1551.1      | 9864     | 7177                 | 5.433                     | 21.632                | -1.454  | 0.932  | 4.08    | 0.873 | 45.6    |
| 1000S250-118             | 0.1242                | 50               | 1.904                   | 6.48           | 26.080                 | 3.701   | 1.249                  | 0.810   | 26.080                 | 5.082                  | 174.84      | 159.80      | 0.00        | 16235    | 9536                 | 9.788                     | 25.490                | -1.428  | 0.918  | 4.049   | 0.876 | 44.8    |
| 1000S300-54              | 0.0566                | 33               | 0.953                   | 3.24           | 14.076                 | 3.844   | 1.024                  | 1.037   | 13.938                 | 2.312                  | 45.69       | 39.41       | 176.4       | 1661     | 1661                 | 1.017                     | 19.888                | -1.892  | 1.185  | 4.408   | 0.816 | 71.5    |
| 1000S300-54              | 0.0566                | 50               | 0.953                   | 3.24           | 14.076                 | 3.844   | 1.024                  | 1.037   | 13.44                  | 1.902                  | 56.96       | 50.69       | 119.5       | 1661     | 1661                 | 1.017                     | 19.888                | -1.892  | 1.185  | 4.408   | 0.816 | 58.1    |
| 1000S300-68              | 0.0713                | 33               | 1.192                   | 4.06           | 17.509                 | 3.832   | 1.258                  | 1.027   | 17.441                 | 3.158                  | 62.41       | 54.29       | 377.6       | 3345     | 3345                 | 2.02                      | 24.551                | -1.874  | 1.176  | 4.388   | 0.818 | 71.3    |
| 1000S300-68              | 0.0713                | 50               | 1.192                   | 4.06           | 17.509                 | 3.832   | 1.258                  | 1.027   | 17.099                 | 2.802                  | 83.89       | 70.39       | 442.2       | 3345     | 3345                 | 2.02                      | 24.551                | -1.874  | 1.176  | 4.388   | 0.818 | 57.8    |
| 1000S300-97              | 0.1017                | 33               | 1.677                   | 5.71           | 24.318                 | 3.808   | 1.702                  | 1.007   | 24.318                 | 4.671                  | 103.39      | 94.7        | 781.7       | 8843     | 6434                 | 5.783                     | 33.57                 | -1.838  | 1.158  | 4.346   | 0.821 | 66.9    |
| 1000S300-97              | 0.1017                | 50               | 1.677                   | 5.71           | 24.318                 | 3.808   | 1.702                  | 1.007   | 23.97                  | 4.499                  | 134.69      | 115.62      | 1371.3      | 9864     | 7177                 | 5.783                     | 33.57                 | -1.838  | 1.158  | 4.346   | 0.821 | 57.4    |
| 1000S300-118             | 0.1242                | 50               | 2.028                   | 6.90           | 29.109                 | 3.789   | 1.997                  | 0.992   | 28.861                 | 5.586                  | 188.23      | 164.18      | 0.00        | 16235    | 9536                 | 10.427                    | 39.725                | -1.811  | 1.144  | 4.315   | 0.824 | 53.8    |
| 1000S350-54              | 0.0566                | 50               | 1.052                   | 3.58           | 16.220                 | 3.927   | 1.768                  | 1.297   | 15.577                 | 2.328                  | 69.69       | 62.97       | 0.00        | 1661     | 1661                 | 1.123                     | 36.575                | -2.546  | 1.566  | 4.857   | 0.725 | 72.2    |
| 1000S350-68              | 0.0713                | 50               | 1.317                   | 4.48           | 20.204                 | 3.917   | 2.185                  | 1.288   | 20.026                 | 3.417                  | 102.32      | 86.60       | 0.00        | 3345     | 3345                 | 2.232                     | 45.277                | -2.529  | 1.557  | 4.837   | 0.727 | 72.0    |
| 1000S350-97              | 0.1017                | 50               | 1.855                   | 6.31           | 28.148                 | 3.895   | 2.992                  | 1.270   | 28.148                 | 5.118                  | 153.25      | 139.74      | 0.00        | 9864     | 7177                 | 6.397                     | 62.280                | -2.492  | 1.538  | 4.795   | 0.730 | 71.6    |
| 1000S350-118             | 0.1242                | 50               | 2.245                   | 7.64           | 33.772                 | 3.878   | 3.543                  | 1.256   | 33.772                 | 6.427                  | 213.25      | 194.46      | 0.00        | 16235    | 9536                 | 11.544                    | 74.030                | -2.465  | 1.524  | 4.764   | 0.732 | 67.8    |
| 1150S137-43 <sup>1</sup> | 0.0451                | 33               | 0.661                   | 2.25           | 10.325                 | 3.952   | 0.1                    | 0.388   | 9.301                  | 1.334                  | 26.36       | 21.19       | 155.6       | 725      | 725                  | 0.448                     | 2.764                 | -0.556  | 0.379  | 4.01    | 0.981 | 30.5    |
| 1150S137-54              | 0.0566                | 33               | 0.825                   | 2.81           | 12.8                   | 3.938   | 0.12                   | 0.381   | 12.025                 | 1.786                  | 35.3        | 30.04       | 245.3       | 1439     | 1439                 | 0.881                     | 3.369                 | -0.546  | 0.373  | 3.994   | 0.981 | 30.2    |
| 1150S137-54              | 0.0566                | 50               | 0.825                   | 2.81           | 12.8                   | 3.938   | 0.12                   | 0.381   | 11.627                 | 1.617                  | 48.43       | 38.54       | 352         | 1439     | 1439                 | 0.881                     | 3.369                 | -0.546  | 0.373  | 3.994   | 0.981 | 24.5    |
| 1150S137-68              | 0.0713                | 33               | 1.032                   | 3.51           | 15.854                 | 3.92    | 0.143                  | 0.372   | 15.463                 | 2.396                  | 47.34       | 42.51       | 365.8       | 2895     | 2895                 | 1.748                     | 4.085                 | -0.534  | 0.366  | 3.974   | 0.982 | 29.8    |
| 1150S137-68              | 0.0713                | 50               | 1.032                   | 3.51           | 15.854                 | 3.92    | 0.143                  | 0.372   | 14.977                 | 2.238                  | 67.01       | 55.1        | 689.8       | 2895     | 2895                 | 1.748                     | 4.085                 | -0.534  | 0.366  | 3.974   | 0.982 | 24.2    |
| 1150S137-97              | 0.1017                | 33               | 1.449                   | 4.93           | 21.817                 | 3.881   | 0.181                  | 0.353   | 21.817                 | 3.687                  | 72.87       | 70.77       | 365.9       | 8518     | 7361                 | 4.994                     | 5.379                 | -0.508  | 0.352  | 3.93    | 0.983 | 28.9    |
| 1150S137-97              | 0.1017                | 50               | 1.449                   | 4.93           | 21.817                 | 3.881   | 0.181                  | 0.353   | 21.738                 | 3.478                  | 104.13      | 93.92       | 1261        | 8518     | 7361                 | 4.994                     | 5.379                 | -0.508  | 0.352  | 3.93    | 0.983 | 23.5    |
| 1150S162-43 <sup>1</sup> | 0.0451                | 33               | 0.695                   | 2.36           | 11.383                 | 4.047   | 0.173                  | 0.499   | 10.366                 | 1.514                  | 29.92       | 25.15       | 102.1       | 725      | 725                  | 0.471                     | 4.703                 | -0.761  | 0.509  | 4.148   | 0.966 | 38.1    |
| 1150S162-54              | 0.0566                | 33               | 0.868                   | 2.95           | 14.126                 | 4.035   | 0.21                   | 0.492   | 13.35                  | 2.012                  | 39.76       | 35.14       | 153.2       | 1439     | 1439                 | 0.927                     | 5.759                 | -0.75   | 0.503  | 4.134   | 0.967 | 37.8    |
| 1150S162-54              | 0.0566                | 50               | 0.868                   | 2.95           | 14.126                 | 4.035   | 0.21                   | 0.492   | 12.964                 | 1.829                  | 54.75       | 45.26       | 237.9       | 1439     | 1439                 | 0.927                     | 5.759                 | -0.75   | 0.503  | 4.134   | 0.967 | 30.7    |
| 1150S162-68              | 0.0713                | 33               | 1.085                   | 3.69           | 17.521                 | 4.018   | 0.253                  | 0.483   | 17.124                 | 2.681                  | 52.99       | 49.05       | 211.6       | 2895     | 2895                 | 1.839                     | 7.028                 | -0.737  | 0.496  | 4.114   | 0.968 | 37.4    |
| 1150S162-68              | 0.0713                | 50               | 1.085                   | 3.69           | 17.521                 | 4.018   | 0.253                  | 0.483   | 16.642                 | 2.523                  | 75.52       | 63.83       | 479.7       | 2895     | 2895                 | 1.839                     | 7.028                 | -0.737  | 0.496  | 4.114   | 0.968 | 30.4    |
| 1150S162-97              | 0.1017                | 33               | 1.525                   | 5.19           | 24.186                 | 3.983   | 0.329                  | 0.464   | 24.186                 | 4.098                  | 80.97       | 80.16       | 101.5       | 8518     | 7361                 | 5.257                     | 9.379                 | -0.709  | 0.48   | 4.072   | 0.97  | 36.7    |
| 1150S162-97              | 0.1017                | 50               | 1.525                   | 5.19           | 24.186                 | 3.983   | 0.329                  | 0.464   | 24.098                 | 3.885                  | 116.33      | 106.81      | 843.5       | 8518     | 7361                 | 5.257                     | 9.379                 | -0.709  | 0.48   | 4.072   | 0.97  | 29.7    |
| 1150S200-43 <sup>1</sup> | 0.0451                | 33               | 0.74                    | 2.52           | 12.796                 | 4.158   | 0.319                  | 0.656   | 11.815                 | 1.708                  | 33.75       | 29.59       | 66.8        | 725      | 725                  | 0.502                     | 8.534                 | -1.067  | 0.7    | 4.343   | 0.94  | 48.6    |
| 1150S200-54              | 0.0566                | 33               | 0.924                   | 3.14           | 15.896                 | 4.147   | 0.39                   | 0.65    | 15.121                 | 2.315                  | 45.75       | 40.9        | 123.6       | 1439     | 1439                 | 0.987                     | 10.494                | -1.056  | 0.694  | 4.328   | 0.941 | 48.3    |
| 1150S200-54              | 0.0566                | 50               | 0.924                   | 3.14           | 15.896                 | 4.147   | 0.39                   | 0.65    | 14.823                 | 1.981                  | 59.31       | 52.82       | 115.6       | 1439     | 1439                 | 0.987                     | 10.494                | -1.056  | 0.694  | 4.328   | 0.941 | 39.2    |
| 1150S200-68              | 0.0713                | 33               | 1.156                   | 3.94           | 19.747                 | 4.132   | 0.475                  | 0.641   | 19.342                 | 3.063                  | 60.53       | 56.49       | 165.4       | 2895     | 2895                 | 1.96                      | 12.878                | -1.041  | 0.686  | 4.309   | 0.942 | 48      |
| 1150S200-68              | 0.0713                | 50               | 1.156                   | 3.94           | 19.747                 | 4.132   | 0.475                  | 0.641   | 18.904                 | 2.827                  | 84.65       | 73.68       | 330.5       | 2895     | 2895                 | 1.96                      | 12.878                | -1.041  | 0.686  | 4.309   | 0.942 | 38.9    |
| 1150S200-97              | 0.1017                | 33               | 1.627                   | 5.53           | 27.348                 | 4.1     | 0.629                  | 0.622   | 27.348                 | 4.645                  | 91.79       | 91.1        | 64.7        | 8518     | 7361                 | 5.608                     | 17.39                 | -1.01   | 0.669  | 4.268   | 0.944 | 47.3    |
| 1150S200-97              | 0.1017                | 50               | 1.627                   | 5.53           | 27.348                 | 4.1     | 0.629                  | 0.622   | 27.25                  | 4.43                   | 132.63      | 121.51      | 737.5       | 8518     | 7361                 | 5.608                     | 17.39                 | -1.01   | 0.669  | 4.268   | 0.944 | 38.3    |
| 1150S250-43 <sup>1</sup> | 0.0451                | 33               | 0.785                   | 2.67           | 14.275                 | 4.264   | 0.55                   | 0.837   | 13.394                 | 1.766                  | 34.9        | 31.58       | 45.5        | 725      | 725                  | 0.532                     | 14.361                | -1.419  | 0.915  | 4.571   | 0.904 | 60      |
| 1150S250-54              | 0.0566                | 33               | 0.981                   | 3.34           | 17.749                 | 4.254   | 0.676                  | 0.83    | 17.089                 | 2.371                  | 46.85       | 43.64       | 67.6        | 1439     | 1439                 | 1.047                     | 17.713                | -1.407  | 0.908  | 4.557   | 0.905 | 59.8    |
| 1150S250-54              | 0.0566                | 50               | 0.981                   | 3.34           | 17.749                 | 4.254   | 0.676                  | 0.83    | 16.736                 | 2.054                  | 61.5        | 56.18       | 81.8        | 1439     | 1439                 | 1.047                     | 17.713                | -1.407  | 0.908  | 4.557   | 0.905 | 48.5    |
| 1150S250-68              | 0.0713                | 33               | 1.228                   | 4.18           | 22.075                 | 4.24    | 0.827                  | 0.821   | 21.712                 | 3.334                  | 65.87       | 60.33       | 198.7       | 2895     | 2895                 | 2.081                     | 21.822                | -1.391  | 0.9    | 4.537   | 0.906 | 59.5    |
| 1150S250-68              | 0.0713                | 50               | 1.228                   | 4.18           | 22.075                 | 4.24    | 0.827                  | 0.821   | 21.38                  | 2.871                  | 85.97       | 78.34       | 188.2       | 2895     | 2895                 | 2.081                     | 21.822                | -1.391  | 0.9    | 4.537   | 0.906 | 48.3    |
| 1150S250-97              | 0.1017                | 33               | 1.728                   | 5.88           | 30.651                 | 4.211   | 1.1                    | 0.801   | 30.651                 | 5.217                  | 103.1       | 97.82       | 440.4       | 8518     | 7361                 | 5.959                     | 29.711                | -1.358  | 0.882  | 4.497   | 0.909 | 58.9    |
| 1150S250-97              | 0.1017                | 50               | 1.728                   | 5.88           | 30.651                 | 4.211   | 1.1                    | 0.801   | 30.602                 | 4.794                  | 143.54      |             |             |          |                      |                           |                       |         |        |         |       |         |



# STRUCTURAL STUD SECTION PROPERTIES

| Section                  | Gross Properties      |                  |                         |                |                        |         |                        |         | Effective Properties   |                        |             |             |              |          |            | Torsional Properties      |                       |         |        |         |       |         |
|--------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|--------------|----------|------------|---------------------------|-----------------------|---------|--------|---------|-------|---------|
|                          | Design Thickness (in) | Fy (Yield) (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KØc (in-lb/) | Vag (lb) | VaNet (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b     | Lu (in) |
| 1200S137-33 <sup>1</sup> | 0.0346                | 33               | 0.526                   | 1.79           | 8.893                  | 4.112   | 0.079                  | 0.387   |                        |                        |             |             |              |          |            | 0.21                      | 2.398                 | -0.549  | 0.375  | 4.167   | 0.983 |         |
| 1200S137-43 <sup>1</sup> | 0.0451                | 33               | 0.684                   | 2.33           | 11.517                 | 4.104   | 0.1                    | 0.383   |                        |                        |             |             |              |          |            | 0.464                     | 3.043                 | -0.542  | 0.37   | 4.158   | 0.983 |         |
| 1200S137-54 <sup>1</sup> | 0.0566                | 33               | 0.853                   | 2.9            | 14.283                 | 4.091   | 0.121                  | 0.376   | 13.296                 | 1.873                  | 37.01       | 31.04       | 261.6        | 1377     | 1377       | 0.911                     | 3.709                 | -0.532  | 0.365  | 4.142   | 0.984 | 30      |
| 1200S137-54 <sup>1</sup> | 0.0566                | 50               | 0.853                   | 2.9            | 14.283                 | 4.091   | 0.121                  | 0.376   | 12.836                 | 1.694                  | 50.71       | 39.74       | 368.8        | 1377     | 1377       | 0.911                     | 3.709                 | -0.532  | 0.365  | 4.142   | 0.984 | 24.3    |
| 1200S137-68              | 0.0713                | 33               | 1.067                   | 3.63           | 17.698                 | 4.072   | 0.144                  | 0.367   | 17.142                 | 2.518                  | 49.76       | 44.09       | 400.1        | 2771     | 2771       | 1.809                     | 4.499                 | -0.52   | 0.358  | 4.121   | 0.984 | 29.5    |
| 1200S137-68              | 0.0713                | 50               | 1.067                   | 3.63           | 17.698                 | 4.072   | 0.144                  | 0.367   | 16.572                 | 2.348                  | 70.3        | 56.99       | 722.8        | 2771     | 2771       | 1.809                     | 4.499                 | -0.52   | 0.358  | 4.121   | 0.984 | 24      |
| 1200S137-97              | 0.1017                | 33               | 1.499                   | 5.1            | 24.379                 | 4.032   | 0.182                  | 0.348   | 24.379                 | 3.899                  | 77.04       | 73.94       | 493.8        | 8147     | 7411       | 5.17                      | 5.925                 | -0.494  | 0.343  | 4.077   | 0.985 | 28.7    |
| 1200S137-97              | 0.1017                | 50               | 1.499                   | 5.1            | 24.379                 | 4.032   | 0.182                  | 0.348   | 24.161                 | 3.666                  | 109.75      | 97.73       | 1369.7       | 8147     | 7411       | 5.17                      | 5.925                 | -0.494  | 0.343  | 4.077   | 0.985 | 23.2    |
| 1200S162-33 <sup>1</sup> | 0.0346                | 33               | 0.552                   | 1.88           | 9.78                   | 4.21    | 0.136                  | 0.497   |                        |                        |             |             |              |          |            | 0.22                      | 4.061                 | -0.751  | 0.504  | 4.305   | 0.97  |         |
| 1200S162-43 <sup>1</sup> | 0.0451                | 33               | 0.717                   | 2.44           | 12.672                 | 4.203   | 0.174                  | 0.493   |                        |                        |             |             |              |          |            | 0.486                     | 5.177                 | -0.742  | 0.499  | 4.296   | 0.97  |         |
| 1200S162-54 <sup>1</sup> | 0.0566                | 33               | 0.896                   | 3.05           | 15.73                  | 4.19    | 0.212                  | 0.486   | 14.743                 | 2.109                  | 41.68       | 36.38       | 163.7        | 1377     | 1377       | 0.957                     | 6.34                  | -0.732  | 0.493  | 4.281   | 0.971 | 37.5    |
| 1200S162-54 <sup>1</sup> | 0.0566                | 50               | 0.896                   | 3.05           | 15.73                  | 4.19    | 0.212                  | 0.486   | 14.298                 | 1.914                  | 57.31       | 46.76       | 248.3        | 1377     | 1377       | 0.957                     | 6.34                  | -0.732  | 0.493  | 4.281   | 0.971 | 30.5    |
| 1200S162-68              | 0.0713                | 33               | 1.121                   | 3.81           | 19.518                 | 4.173   | 0.255                  | 0.477   | 18.955                 | 2.817                  | 55.66       | 50.96       | 233.9        | 2771     | 2771       | 1.899                     | 7.739                 | -0.719  | 0.485  | 4.261   | 0.972 | 37.2    |
| 1200S162-68              | 0.0713                | 50               | 1.121                   | 3.81           | 19.518                 | 4.173   | 0.255                  | 0.477   | 18.39                  | 2.645                  | 79.19       | 66.14       | 499.5        | 2771     | 2771       | 1.899                     | 7.739                 | -0.719  | 0.485  | 4.261   | 0.972 | 30.2    |
| 1200S162-97              | 0.1017                | 33               | 1.576                   | 5.36           | 26.966                 | 4.137   | 0.331                  | 0.459   | 26.966                 | 4.327                  | 85.51       | 83.86       | 188.7        | 8147     | 7411       | 5.433                     | 10.331                | -0.691  | 0.47   | 4.219   | 0.973 | 36.4    |
| 1200S162-97              | 0.1017                | 50               | 1.576                   | 5.36           | 26.966                 | 4.137   | 0.331                  | 0.459   | 26.735                 | 4.091                  | 122.49      | 111.3       | 915          | 8147     | 7411       | 5.433                     | 10.331                | -0.691  | 0.47   | 4.219   | 0.973 | 29.5    |
| 1200S162-118             | 0.1242                | 50               | 1.904                   | 6.48           | 32.145                 | 4.109   | 0.376                  | 0.444   | 32.145                 | 5.168                  | 154.74      | 147.23      | 0.00         | 14986    | 11037      | 9.788                     | 12.002                | -0.670  | 0.459  | 4.187   | 0.974 | 29.0    |
| 1200S200-33 <sup>1</sup> | 0.0346                | 33               | 0.586                   | 2              | 10.965                 | 4.324   | 0.251                  | 0.654   |                        |                        |             |             |              |          |            | 0.234                     | 7.338                 | -1.052  | 0.693  | 4.498   | 0.945 |         |
| 1200S200-43 <sup>1</sup> | 0.0451                | 33               | 0.763                   | 2.59           | 14.214                 | 4.317   | 0.322                  | 0.649   |                        |                        |             |             |              |          |            | 0.517                     | 9.391                 | -1.043  | 0.687  | 4.489   | 0.946 |         |
| 1200S200-54 <sup>1</sup> | 0.0566                | 33               | 0.953                   | 3.24           | 17.662                 | 4.306   | 0.393                  | 0.643   | 16.678                 | 2.425                  | 47.93       | 42.46       | 128.6        | 1377     | 1377       | 1.017                     | 11.55                 | -1.032  | 0.681  | 4.474   | 0.947 | 48      |
| 1200S200-54 <sup>1</sup> | 0.0566                | 50               | 0.953                   | 3.24           | 17.662                 | 4.306   | 0.393                  | 0.643   | 16.334                 | 2.073                  | 62.07       | 54.74       | 121.4        | 1377     | 1377       | 1.017                     | 11.55                 | -1.032  | 0.681  | 4.474   | 0.947 | 39      |
| 1200S200-68              | 0.0713                | 33               | 1.192                   | 4.06           | 21.947                 | 4.291   | 0.479                  | 0.634   | 21.376                 | 3.215                  | 63.54       | 58.83       | 177.1        | 2771     | 2771       | 2.02                      | 14.176                | -1.017  | 0.673  | 4.455   | 0.948 | 47.7    |
| 1200S200-68              | 0.0713                | 50               | 1.192                   | 4.06           | 21.947                 | 4.291   | 0.479                  | 0.634   | 20.864                 | 2.963                  | 88.71       | 76.55       | 339.1        | 2771     | 2771       | 2.02                      | 14.176                | -1.017  | 0.673  | 4.455   | 0.948 | 38.7    |
| 1200S200-97              | 0.1017                | 33               | 1.677                   | 5.71           | 30.417                 | 4.258   | 0.635                  | 0.615   | 30.417                 | 4.899                  | 96.81       | 95.43       | 116.8        | 8147     | 7411       | 5.783                     | 19.15                 | -0.987  | 0.656  | 4.414   | 0.95  | 47      |
| 1200S200-97              | 0.1017                | 50               | 1.677                   | 5.71           | 30.417                 | 4.258   | 0.635                  | 0.615   | 30.175                 | 4.66                   | 139.51      | 126.87      | 770.1        | 8147     | 7411       | 5.783                     | 19.15                 | -0.987  | 0.656  | 4.414   | 0.95  | 38.1    |
| 1200S200-118             | 0.1242                | 50               | 2.028                   | 6.90           | 36.347                 | 4.234   | 0.732                  | 0.601   | 36.347                 | 5.865                  | 175.59      | 166.80      | 0.00         | 14986    | 11037      | 10.427                    | 22.451                | -0.964  | 0.644  | 4.384   | 0.952 | 37.7    |
| 1200S250-33 <sup>1</sup> | 0.0346                | 33               | 0.621                   | 2.11           | 12.203                 | 4.433   | 0.432                  | 0.834   |                        |                        |             |             |              |          |            | 0.248                     | 12.322                | -1.4    | 0.905  | 4.723   | 0.912 |         |
| 1200S250-43 <sup>1</sup> | 0.0451                | 33               | 0.808                   | 2.75           | 15.825                 | 4.426   | 0.556                  | 0.829   |                        |                        |             |             |              |          |            | 0.548                     | 15.812                | -1.39   | 0.899  | 4.713   | 0.913 |         |
| 1200S250-54 <sup>1</sup> | 0.0566                | 33               | 1.009                   | 3.43           | 19.681                 | 4.416   | 0.683                  | 0.823   | 18.832                 | 2.482                  | 49.05       | 45.43       | 70.3         | 1377     | 1377       | 1.078                     | 19.505                | -1.378  | 0.892  | 4.699   | 0.914 | 59.6    |
| 1200S250-54 <sup>1</sup> | 0.0566                | 50               | 1.009                   | 3.43           | 19.681                 | 4.416   | 0.683                  | 0.823   | 18.433                 | 2.149                  | 64.34       | 58.39       | 84.6         | 1377     | 1377       | 1.078                     | 19.505                | -1.378  | 0.892  | 4.699   | 0.914 | 48.3    |
| 1200S250-68              | 0.0713                | 33               | 1.263                   | 4.3            | 24.484                 | 4.402   | 0.836                  | 0.813   | 23.963                 | 3.496                  | 69.08       | 62.95       | 201.9        | 2771     | 2771       | 2.141                     | 24.034                | -1.362  | 0.884  | 4.679   | 0.915 | 59.2    |
| 1200S250-68              | 0.0713                | 50               | 1.263                   | 4.3            | 24.484                 | 4.402   | 0.836                  | 0.813   | 23.575                 | 3.007                  | 90.04       | 81.59       | 192.6        | 2771     | 2771       | 2.141                     | 24.034                | -1.362  | 0.884  | 4.679   | 0.915 | 48.1    |
| 1200S250-97              | 0.1017                | 33               | 1.779                   | 6.05           | 34.016                 | 4.373   | 1.121                  | 0.794   | 34.016                 | 5.496                  | 108.6       | 102.52      | 461.6        | 8147     | 7411       | 6.134                     | 32.734                | -1.329  | 0.867  | 4.639   | 0.918 | 58.6    |
| 1200S250-97              | 0.1017                | 50               | 1.779                   | 6.05           | 34.016                 | 4.373   | 1.121                  | 0.794   | 33.835                 | 5.037                  | 150.82      | 135.37      | 801.7        | 8147     | 7411       | 6.134                     | 32.734                | -1.329  | 0.867  | 4.639   | 0.918 | 47.5    |
| 1200S250-118             | 0.1242                | 50               | 2.152                   | 7.32           | 40.726                 | 4.350   | 1.307                  | 0.779   | 40.726                 | 6.541                  | 195.84      | 178.57      | 0.00         | 14986    | 11037      | 11.065                    | 38.619                | -1.305  | 0.854  | 4.608   | 0.920 | 47.1    |
| 1200S300-54 <sup>1</sup> | 0.0566                | 33               | 1.066                   | 3.63           | 21.699                 | 4.512   | 1.074                  | 1.004   | 21.648                 | 2.736                  | 54.06       | 47.36       | 125.6        | 1377     | 1377       | 1.138                     | 30.051                | -1.743  | 1.111  | 4.94    | 0.876 | 70.8    |
| 1200S300-54 <sup>1</sup> | 0.0566                | 50               | 1.066                   | 3.63           | 21.699                 | 4.512   | 1.074                  | 1.004   | 21.043                 | 2.272                  | 68.04       | 60.65       | 98           | 1377     | 1377       | 1.138                     | 30.051                | -1.743  | 1.111  | 4.94    | 0.876 | 57.4    |
| 1200S300-68              | 0.0713                | 33               | 1.335                   | 4.54           | 27.02                  | 4.499   | 1.32                   | 0.994   | 26.918                 | 4.064                  | 80.3        | 65.72       | 500.9        | 2771     | 2771       | 2.262                     | 37.126                | -1.726  | 1.103  | 4.921   | 0.877 | 70.5    |
| 1200S300-68              | 0.0713                | 50               | 1.335                   | 4.54           | 27.02                  | 4.499   | 1.32                   | 0.994   | 26.51                  | 3.317                  | 99.32       | 84.79       | 320          | 2771     | 2771       | 2.262                     | 37.126                | -1.726  | 1.103  | 4.921   | 0.877 | 57.2    |
| 1200S300-97              | 0.1017                | 33               | 1.881                   | 6.4            | 37.616                 | 4.472   | 1.786                  | 0.974   | 37.616                 | 6.035                  | 133.59      | 116.06      | 1156.6       | 8147     | 7411       | 6.484                     | 50.853                | -1.691  | 1.085  | 4.88    | 0.88  | 66      |
| 1200S300-97              | 0.1017                | 50               | 1.881                   | 6.4            | 37.616                 | 4.472   | 1.786                  | 0.974   | 37.085                 | 5.831                  | 174.57      | 141.05      | 1798.3       | 8147     | 7411       | 6.484                     | 50.853                | -1.691  | 1.085  | 4.88    | 0.88  | 56.7    |
| 1200S300-118             | 0.1242                | 50               | 2.276                   | 7.75           | 45.106                 | 4.452   | 2.095                  | 0.959   | 44.727                 | 7.232                  | 243.67      | 201.68      | 0.00         | 14986    | 11037      | 11.704                    | 60.251                | -1.666  | 1.071  | 4.849   | 0.882 | 53.0    |
| 1200S350-54 <sup>1</sup> | 0.0566                | 50               | 1.165                   | 3.96           | 24.860                 | 4.620   | 1.866                  | 1.266   | 24.087                 | 2.787                  | 83.46       | 75.91       | 0.00         | 1377     | 1377       | 1.244                     | 54.279                | -2.363  | 1.478  | 5.341   | 0.804 | 71.4    |
| 1200S350-68              | 0.0713                | 50               | 1.460                   | 4.97           | 30.996                 | 4.608   | 2.306                  | 1.257   | 30.916                 | 4.061                  | 121.59      | 104.89      | 0.00         | 2771     | 2771       | 2.473                     | 67.251                | -2.346  | 1.469  | 5.322   | 0.806 | 71.2    |
| 1200S350-97              | 0.1017                | 50               | 2.059                   | 7.01           | 43.269                 | 4.584   | 3.159                  | 1.239   | 43.269                 | 6.590                  | 197.31      | 170.84      | 0.00         | 8147     | 7411       | 7.098                     | 92.672                | -2.310  | 1.450  | 5.281   | 0.809 | 70.8    |
| 1200S350-118             | 0.1242                | 50               | 2.494                   | 8.48           | 51.992                 | 4.566   | 3.741                  | 1.225   | 51.992                 | 8.260                  | 274.07      | 238.96      | 0.00         | 14986    | 11037      | 12.821                    | 110.302               | -2.284  | 1.436  | 5.250   | 0.811 | 66.9    |
| 1350S137-54 <sup>1</sup> | 0.0566                | 33               | 0.938                   | 3.19           | 19.386                 | 4.545   | 0.123                  | 0.362   | 17.546                 | 2.133                  | 42.14       | 33.82       | 309.7        | 1221     | 1221       | 1.002                     | 4.839                 | -0.493  | 0.341  | 4.586   | 0.988 | 29.3    |
| 1350S137-54 <sup>1</sup> | 0.0566                | 50               | 0.938                   | 3.19           | 19.386                 | 4.545   | 0.123                  | 0.362   | 16.866                 | 1.922                  | 57.54       | 43.07       | 419.8        | 1221     | 1221       | 1.002                     | 4.839                 | -0.493  | 0.341  | 4.586   | 0.988 | 23.8    |
| 1350S137-68              | 0.0713                | 33               | 1.174                   | 4              | 24.05                  | 4.526   | 0.147                  | 0.353   | 22.783                 | 2.885                  | 57.02       | 48.52       | 498          | 2455     | 2455       | 1.99                      | 5.87                  | -0.482  | 0.334  | 4.565   | 0.989 | 28.8    |
| 1350S137-68              | 0.0713                | 50               | 1.174                   | 4              | 24.05                  | 4.526   | 0.147                  | 0.353   | 21.907                 | 2.677                  | 80.15       | 62.28       | 820.1        | 2455     | 2455       | 1.99                      | 5.87                  | -0.482  | 0.334  | 4.565   | 0.989 | 23.4    |
| 1350S137-97              | 0.1017                | 33               | 1.652                   | 5.62           | 33.215                 | 4.484   | 0.185                  | 0.335   | 33.215                 | 4.535                  | 89.62       | 82.98       | 828.3        | 7206     | 7206       | 5.696                     | 7.735                 | -0.458  | 0.321  | 4.52    | 0.99  | 27.9    |
| 1350S137-97              | 0.1017                | 50               | 1.652                   | 5.62           | 33.215                 | 4.484   | 0.185                  |         |                        |                        |             |             |              |          |            |                           |                       |         |        |         |       |         |

# STRUCTURAL STUD SECTION PROPERTIES

| Section                  | Gross Properties      |                  |                         |                |                        |         |                        |         | Effective Properties   |                        |             |             |             |          | Torsional Properties |                           |                       |         |        |         |         |         |
|--------------------------|-----------------------|------------------|-------------------------|----------------|------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|-------------|-------------|----------|----------------------|---------------------------|-----------------------|---------|--------|---------|---------|---------|
|                          | Design Thickness (in) | Fy (Yield) (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Ma-L (in-k) | Ma-D (in-k) | KΦc (in-lb) | Vag (lb) | VaNet (lb)           | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | b       | Lu (in) |
| 1350S137-68              | 0.0713                | 33               | 1.174                   | 4              | 24.05                  | 4.526   | 0.147                  | 0.353   | 22.783                 | 2.885                  | 57.02       | 48.52       | 498         | 2455     | 2455                 | 1.99                      | 5.87                  | -0.482  | 0.334  | 4.565   | 0.989   | 28.8    |
| 1350S137-68              | 0.0713                | 50               | 1.174                   | 4              | 24.05                  | 4.526   | 0.147                  | 0.353   | 21.907                 | 2.677                  | 80.15       | 62.28       | 820.1       | 2455     | 2455                 | 1.99                      | 5.87                  | -0.482  | 0.334  | 4.565   | 0.989   | 23.4    |
| 1350S137-97              | 0.1017                | 33               | 1.652                   | 5.62           | 33.215                 | 4.484   | 0.185                  | 0.335   | 33.215                 | 4.535                  | 89.62       | 82.98       | 828.3       | 7206     | 7206                 | 5.696                     | 7.735                 | -0.458  | 0.321  | 4.52    | 0.99    | 27.9    |
| 1350S137-97              | 0.1017                | 50               | 1.652                   | 5.62           | 33.215                 | 4.484   | 0.185                  | 0.335   | 32.333                 | 4.229                  | 126.61      | 108.55      | 1660.4      | 7206     | 7206                 | 5.696                     | 7.735                 | -0.458  | 0.321  | 4.52    | 0.99    | 22.7    |
| 1350S162-54 <sup>1</sup> | 0.0566                | 33               | 0.981                   | 3.34           | 21.228                 | 4.652   | 0.216                  | 0.469   | 19.394                 | 2.399                  | 47.41       | 39.8        | 196.2       | 1221     | 1221                 | 1.047                     | 8.273                 | -0.682  | 0.463  | 4.725   | 0.979   | 36.8    |
| 1350S162-54 <sup>1</sup> | 0.0566                | 50               | 0.981                   | 3.34           | 21.228                 | 4.652   | 0.216                  | 0.469   | 18.737                 | 2.17                   | 64.98       | 50.87       | 281.7       | 1221     | 1221                 | 1.047                     | 8.273                 | -0.682  | 0.463  | 4.725   | 0.979   | 29.9    |
| 1350S162-68              | 0.0713                | 33               | 1.228                   | 4.18           | 26.368                 | 4.634   | 0.261                  | 0.461   | 25.092                 | 3.222                  | 63.66       | 56.3        | 301         | 2455     | 2455                 | 2.081                     | 10.101                | -0.669  | 0.456  | 4.705   | 0.98    | 36.4    |
| 1350S162-68              | 0.0713                | 50               | 1.228                   | 4.18           | 26.368                 | 4.634   | 0.261                  | 0.461   | 24.228                 | 3.012                  | 90.19       | 72.57       | 563.6       | 2455     | 2455                 | 2.081                     | 10.101                | -0.669  | 0.456  | 4.705   | 0.98    | 29.6    |
| 1350S162-97              | 0.1017                | 33               | 1.728                   | 5.88           | 36.51                  | 4.596   | 0.338                  | 0.442   | 36.51                  | 5.018                  | 99.15       | 94.38       | 431.4       | 7206     | 7206                 | 5.959                     | 13.494                | -0.643  | 0.441  | 4.662   | 0.981   | 35.6    |
| 1350S162-97              | 0.1017                | 50               | 1.728                   | 5.88           | 36.51                  | 4.596   | 0.338                  | 0.442   | 35.611                 | 4.709                  | 140.98      | 123.98      | 1127.1      | 7206     | 7206                 | 5.959                     | 13.494                | -0.643  | 0.441  | 4.662   | 0.981   | 28.9    |
| 1350S200-54 <sup>1</sup> | 0.0566                | 33               | 1.037                   | 3.53           | 23.688                 | 4.778   | 0.403                  | 0.623   | 21.864                 | 2.756                  | 54.46       | 46.83       | 146.3       | 1221     | 1221                 | 1.108                     | 15.066                | -0.966  | 0.644  | 4.915   | 0.961   | 47.3    |
| 1350S200-54 <sup>1</sup> | 0.0566                | 50               | 1.037                   | 3.53           | 23.688                 | 4.778   | 0.403                  | 0.623   | 21.358                 | 2.348                  | 70.31       | 60.04       | 141.4       | 1221     | 1221                 | 1.108                     | 15.066                | -0.966  | 0.644  | 4.915   | 0.961   | 38.4    |
| 1350S200-68              | 0.0713                | 33               | 1.299                   | 4.42           | 29.461                 | 4.762   | 0.491                  | 0.615   | 28.18                  | 3.672                  | 72.55       | 65.43       | 215.1       | 2455     | 2455                 | 2.201                     | 18.498                | -0.952  | 0.636  | 4.895   | 0.962   | 46.9    |
| 1350S200-68              | 0.0713                | 50               | 1.299                   | 4.42           | 29.461                 | 4.762   | 0.491                  | 0.615   | 27.397                 | 3.369                  | 100.88      | 84.6        | 371.7       | 2455     | 2455                 | 2.201                     | 18.498                | -0.952  | 0.636  | 4.895   | 0.962   | 38.1    |
| 1350S200-97              | 0.1017                | 33               | 1.83                    | 6.23           | 40.907                 | 4.728   | 0.65                   | 0.596   | 40.905                 | 5.662                  | 111.89      | 107.9       | 263.9       | 7206     | 7206                 | 6.309                     | 25.008                | -0.923  | 0.62   | 4.854   | 0.964   | 46.2    |
| 1350S200-97              | 0.1017                | 50               | 1.83                    | 6.23           | 40.907                 | 4.728   | 0.65                   | 0.596   | 39.991                 | 5.35                   | 160.18      | 142.15      | 877         | 7206     | 7206                 | 6.309                     | 25.008                | -0.923  | 0.62   | 4.854   | 0.964   | 37.5    |
| 1350S250-54 <sup>1</sup> | 0.0566                | 33               | 1.094                   | 3.72           | 26.245                 | 4.898   | 0.701                  | 0.801   | 24.632                 | 2.816                  | 55.64       | 50.5        | 80.8        | 1221     | 1221                 | 1.168                     | 25.48                 | -1.296  | 0.849  | 5.129   | 0.936   | 58.8    |
| 1350S250-54 <sup>1</sup> | 0.0566                | 50               | 1.094                   | 3.72           | 26.245                 | 4.898   | 0.701                  | 0.801   | 24.075                 | 2.432                  | 72.82       | 64.64       | 95.4        | 1221     | 1221                 | 1.168                     | 25.48                 | -1.296  | 0.849  | 5.129   | 0.936   | 47.8    |
| 1350S250-68              | 0.0713                | 33               | 1.37                    | 4.66           | 32.675                 | 4.883   | 0.858                  | 0.791   | 31.477                 | 3.983                  | 78.7        | 70.45       | 216.7       | 2455     | 2455                 | 2.322                     | 31.409                | -1.281  | 0.841  | 5.11    | 0.937   | 58.5    |
| 1350S250-68              | 0.0713                | 50               | 1.37                    | 4.66           | 32.675                 | 4.883   | 0.858                  | 0.791   | 30.883                 | 3.415                  | 102.23      | 90.87       | 210.6       | 2455     | 2455                 | 2.322                     | 31.409                | -1.281  | 0.841  | 5.11    | 0.937   | 47.5    |
| 1350S250-97              | 0.1017                | 33               | 1.932                   | 6.57           | 45.471                 | 4.852   | 1.151                  | 0.772   | 45.457                 | 6.332                  | 125.12      | 116.23      | 525.4       | 7206     | 7206                 | 6.66                      | 42.816                | -1.25   | 0.824  | 5.069   | 0.939   | 57.8    |
| 1350S250-97              | 0.1017                | 50               | 1.932                   | 6.57           | 45.471                 | 4.852   | 1.151                  | 0.772   | 44.659                 | 5.767                  | 172.67      | 152.47      | 834.7       | 7206     | 7206                 | 6.66                      | 42.816                | -1.25   | 0.824  | 5.069   | 0.939   | 46.9    |
| 1350S300-54 <sup>1</sup> | 0.0566                | 33               | 1.151                   | 3.92           | 28.803                 | 5.003   | 1.106                  | 0.98    | 27.24                  | 2.905                  | 57.41       | 52.96       | 62.2        | 1221     | 1221                 | 1.229                     | 39.293                | -1.647  | 1.062  | 5.358   | 0.906   | 70.1    |
| 1350S300-54 <sup>1</sup> | 0.0566                | 50               | 1.151                   | 3.92           | 28.803                 | 5.003   | 1.106                  | 0.98    | 25.104                 | 2.484                  | 74.37       | 67.61       | 70.4        | 1221     | 1221                 | 1.229                     | 39.293                | -1.647  | 1.062  | 5.358   | 0.906   | 57      |
| 1350S300-68              | 0.0713                | 33               | 1.442                   | 4.91           | 35.89                  | 4.989   | 1.358                  | 0.971   | 34.869                 | 4.072                  | 80.46       | 73.89       | 148.7       | 2455     | 2455                 | 2.443                     | 48.565                | -1.631  | 1.053  | 5.338   | 0.907   | 69.8    |
| 1350S300-68              | 0.0713                | 50               | 1.442                   | 4.91           | 35.89                  | 4.989   | 1.358                  | 0.971   | 33.417                 | 3.516                  | 105.27      | 94.99       | 169.3       | 2455     | 2455                 | 2.443                     | 48.565                | -1.631  | 1.053  | 5.338   | 0.907   | 56.7    |
| 1350S300-97              | 0.1017                | 33               | 2.033                   | 6.92           | 50.035                 | 4.961   | 1.838                  | 0.951   | 50.035                 | 6.743                  | 133.25      | 122.23      | 568.7       | 7206     | 7206                 | 7.01                      | 66.58                 | -1.597  | 1.036  | 5.297   | 0.909   | 69.2    |
| 1350S300-97              | 0.1017                | 50               | 2.033                   | 6.92           | 50.035                 | 4.961   | 1.838                  | 0.951   | 48.895                 | 6.117                  | 183.16      | 159.48      | 872.5       | 7206     | 7206                 | 7.01                      | 66.58                 | -1.597  | 1.036  | 5.297   | 0.909   | 56.1    |
| 1400S162-54 <sup>1</sup> | 0.0566                | 33               | 1.009                   | 3.43           | 23.302                 | 4.805   | 0.218                  | 0.464   | 21.103                 | 2.496                  | 49.32       | 40.86       | 207.3       | 1177     | 1177                 | 1.078                     | 8.98                  | -0.667  | 0.454  | 4.873   | 0.981   | 36.6    |
| 1400S162-54 <sup>1</sup> | 0.0566                | 50               | 1.009                   | 3.43           | 23.302                 | 4.805   | 0.218                  | 0.464   | 20.365                 | 2.256                  | 67.54       | 52.13       | 293.4       | 1177     | 1177                 | 1.078                     | 8.98                  | -0.667  | 0.454  | 4.873   | 0.981   | 29.7    |
| 1400S162-68              | 0.0713                | 33               | 1.263                   | 4.3            | 28.952                 | 4.787   | 0.262                  | 0.456   | 27.357                 | 3.357                  | 66.33       | 57.96       | 323.3       | 2365     | 2365                 | 2.141                     | 10.966                | -0.654  | 0.447  | 4.853   | 0.982   | 36.2    |
| 1400S162-68              | 0.0713                | 50               | 1.263                   | 4.3            | 28.952                 | 4.787   | 0.262                  | 0.456   | 26.375                 | 3.135                  | 93.85       | 74.56       | 586         | 2365     | 2365                 | 2.141                     | 10.966                | -0.654  | 0.447  | 4.853   | 0.982   | 29.4    |
| 1400S162-97              | 0.1017                | 33               | 1.779                   | 6.05           | 40.115                 | 4.748   | 0.34                   | 0.437   | 39.965                 | 5.248                  | 103.71      | 97.7        | 507.2       | 6939     | 6939                 | 6.134                     | 14.651                | -0.628  | 0.433  | 4.81    | 0.983   | 35.3    |
| 1400S162-97              | 0.1017                | 50               | 1.779                   | 6.05           | 40.115                 | 4.748   | 0.34                   | 0.437   | 38.897                 | 4.915                  | 147.14      | 127.96      | 1196.5      | 6939     | 6939                 | 6.134                     | 14.651                | -0.628  | 0.433  | 4.81    | 0.983   | 28.7    |
| 1400S162-118             | 0.1242                | 50               | 2.152                   | 7.32           | 47.928                 | 4.719   | 0.385                  | 0.423   | 47.772                 | 6.282                  | 188.07      | 171.63      | 0.0         | 12745    | 11287                | 11.065                    | 17.032                | -0.609  | 0.422  | 4.777   | 0.984   | 28.1    |
| 1400S200-54 <sup>1</sup> | 0.0566                | 33               | 1.066                   | 3.63           | 25.951                 | 4.935   | 0.406                  | 0.617   | 23.767                 | 2.866                  | 56.63       | 48.18       | 152.9       | 1177     | 1177                 | 1.138                     | 16.355                | -0.946  | 0.633  | 5.062   | 0.965   | 47      |
| 1400S200-54 <sup>1</sup> | 0.0566                | 50               | 1.066                   | 3.63           | 25.951                 | 4.935   | 0.406                  | 0.617   | 23.199                 | 2.44                   | 73.05       | 61.67       | 148.6       | 1177     | 1177                 | 1.138                     | 16.355                | -0.946  | 0.633  | 5.062   | 0.965   | 38.2    |
| 1400S200-68              | 0.0713                | 33               | 1.335                   | 4.54           | 32.284                 | 4.918   | 0.494                  | 0.608   | 30.684                 | 3.824                  | 75.56       | 67.5        | 228.5       | 2365     | 2365                 | 2.262                     | 20.083                | -0.932  | 0.625  | 5.043   | 0.966   | 46.7    |
| 1400S200-68              | 0.0713                | 50               | 1.335                   | 4.54           | 32.284                 | 4.918   | 0.494                  | 0.608   | 29.797                 | 3.505                  | 104.93      | 87.1        | 384.3       | 2365     | 2365                 | 2.262                     | 20.083                | -0.932  | 0.625  | 5.043   | 0.966   | 37.9    |
| 1400S200-97              | 0.1017                | 33               | 1.881                   | 6.4            | 44.853                 | 4.883   | 0.655                  | 0.59    | 44.683                 | 5.917                  | 116.93      | 111.87      | 311.1       | 6939     | 6939                 | 6.484                     | 27.156                | -0.904  | 0.609  | 5.001   | 0.967   | 45.9    |
| 1400S200-97              | 0.1017                | 50               | 1.881                   | 6.4            | 44.853                 | 4.883   | 0.655                  | 0.59    | 43.616                 | 5.58                   | 167.07      | 146.98      | 915.4       | 6939     | 6939                 | 6.484                     | 27.156                | -0.904  | 0.609  | 5.001   | 0.967   | 37.3    |
| 1400S200-118             | 0.1242                | 50               | 2.276                   | 7.75           | 53.698                 | 4.857   | 0.755                  | 0.576   | 53.520                 | 7.096                  | 212.47      | 195.62      | 0.0         | 12745    | 11287                | 11.704                    | 31.861                | -0.883  | 0.598  | 4.970   | 0.968   | 36.8    |
| 1400S250-54 <sup>1</sup> | 0.0566                | 33               | 1.122                   | 3.82           | 28.702                 | 5.057   | 0.707                  | 0.794   | 26.758                 | 2.927                  | 57.83       | 52.08       | 84.9        | 1177     | 1177                 | 1.198                     | 27.675                | -1.272  | 0.835  | 5.275   | 0.942   | 58.6    |
| 1400S250-54 <sup>1</sup> | 0.0566                | 50               | 1.122                   | 3.82           | 28.702                 | 5.057   | 0.707                  | 0.794   | 26.141                 | 2.527                  | 75.65       | 66.58       | 99.7        | 1177     | 1177                 | 1.198                     | 27.675                | -1.272  | 0.835  | 5.275   | 0.942   | 47.6    |
| 1400S250-68              | 0.0713                | 33               | 1.406                   | 4.78           | 35.743                 | 5.042   | 0.865                  | 0.784   | 34.239                 | 4.145                  | 81.9        | 72.82       | 223.1       | 2365     | 2365                 | 2.383                     | 34.118                | -1.257  | 0.827  | 5.255   | 0.943   | 58.3    |
| 1400S250-68              | 0.0713                | 50               | 1.406                   | 4.78           | 35.743                 | 5.042   | 0.865                  | 0.784   | 33.565                 | 3.55                   | 106.29      | 93.79       | 218         | 2365     | 2365                 | 2.383                     | 34.118                | -1.257  | 0.827  | 5.255   | 0.943   | 47.3    |
| 1600S200-68 <sup>1</sup> | 0.0713                | 50               | 1.477                   | 5.03           | 45.291                 | 5.537   | 0.506                  | 0.585   | 40.523                 | 4.045                  | 121.11      | 96.27       | 0.0         | 2062     | 2062                 | 2.503                     | 27.155                | -0.862  | 0.584  | 5.634   | 0.977   | 37.1    |
| 1600S200-97              | 0.1017                | 50               | 2.084                   | 7.09           | 63.050                 | 5.500   | 0.670                  | 0.567   | 59.933                 | 6.500                  | 194.61      | 164.99      | 0.0         | 6043     | 6043                 | 7.186                     | 36.744                | -0.835  | 0.569  | 5.592   | 0.978   | 36.4    |
| 1600S200-118             | 0.1242                | 50               | 2.525                   | 8.59           | 75.601                 | 5.472   | 0.773                  | 0.553   | 74.084                 | 8.331                  | 249.44      | 221.86      | 0.0         | 11088    | 11088                | 12.981                    | 43.132                | -0.815  | 0.558  | 5.560   | 0.979   | 35.9    |
| 1600S250-68 <sup>1</sup> | 0.0713                | 50               | 1.549                   | 5.27           | 49.814                 | 5.672   | 0.889                  | 0.758   | 45.550                 | 4.092                  | 122.51      | 104.63      | 0.0         | 2062     | 2062                 | 2.624                     | 46.230                | -1.167  | 0.778  | 5.840   | 0.960</ |         |

## STRUCTURAL TRACK SECTION NOTES

### Section Property Table Notes

1. Web depth for track sections equals nominal depth plus 2 x design thickness plus bend radius.
2. Hems on non-structural track sections are ignored.
3. Effective properties include the strength increase from cold-work of forming per NASPEC section A7.2 where applicable. Where Allowable Moment,  $M_a$  is followed by <sup>\*/</sup>, a stress increase from cold-work of forming has been applied.
4. For deflection determination, use the effective moment of inertia. Effective moment of inertia is based on Procedure 1 of the NASPEC.
5. Section properties meet the 2009 and 2012 International Building Code.
6. Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.
7. Web-height to thickness ratio exceeds 260. Effective properties not available.



# STRUCTURAL TRACK SECTION PROPERTIES

| Section    | Gross Properties |                         |                |                        | Effective Properties Fy = 33 ksi |         |                        |         |                        |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |
|------------|------------------|-------------------------|----------------|------------------------|----------------------------------|---------|------------------------|---------|------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|            | Thickness (in)   | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> )           | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 250T125-33 | 0.0346           | 0.173                   | 0.59           | 0.192                  | 0.145                            | 1.054   | 0.027                  | 0.397   | 0.166                  | 0.103                  | 2.03        | 1024    |                                  |                        |             |         | 0.069                | 0.033                 | -0.76   | 0.456  | 1.358   | 0.687 |
| 250T125-43 | 0.0451           | 0.225                   | 0.77           | 0.25                   | 0.188                            | 1.055   | 0.035                  | 0.395   | 0.231                  | 0.147                  | 2.91        | 1356    |                                  |                        |             |         | 0.153                | 0.042                 | -0.755  | 0.453  | 1.356   | 0.69  |
| 250T125-54 | 0.0566           | 0.282                   | 0.96           | 0.318                  | 0.236                            | 1.062   | 0.043                  | 0.392   | 0.31                   | 0.203                  | 4.01        | 1692    | 0.297                            | 0.188                  | 5.64        | 2563    | 0.301                | 0.054                 | -0.749  | 0.449  | 1.357   | 0.696 |
| 250T125-68 | 0.0713           | 0.355                   | 1.21           | 0.408                  | 0.297                            | 1.072   | 0.054                  | 0.389   | 0.408                  | 0.281                  | 5.56        | 2111    | 0.402                            | 0.262                  | 7.85        | 3199    | 0.602                | 0.069                 | -0.74   | 0.444  | 1.36    | 0.704 |
| 250T125-97 | 0.1017           | 0.506                   | 1.72           | 0.604                  | 0.423                            | 1.092   | 0.074                  | 0.383   | 0.604                  | 0.423                  | 9.56        | 2954    | 0.604                            | 0.423                  | 12.67       | 4476    | 1.745                | 0.101                 | -0.724  | 0.434  | 1.365   | 0.719 |
| 250T150-33 | 0.0346           | 0.19                    | 0.65           | 0.221                  | 0.167                            | 1.079   | 0.045                  | 0.485   | 0.179                  | 0.107                  | 2.11        | 1024    |                                  |                        |             |         | 0.076                | 0.054                 | -0.973  | 0.573  | 1.532   | 0.596 |
| 250T150-43 | 0.0451           | 0.248                   | 0.84           | 0.289                  | 0.217                            | 1.08    | 0.058                  | 0.483   | 0.252                  | 0.154                  | 3.03        | 1356    |                                  |                        |             |         | 0.168                | 0.07                  | -0.968  | 0.57   | 1.529   | 0.599 |
| 250T150-54 | 0.0566           | 0.311                   | 1.06           | 0.368                  | 0.273                            | 1.088   | 0.072                  | 0.481   | 0.342                  | 0.213                  | 4.22        | 1692    | 0.325                            | 0.197                  | 5.89        | 2563    | 0.332                | 0.089                 | -0.961  | 0.566  | 1.529   | 0.605 |
| 250T150-68 | 0.0713           | 0.391                   | 1.33           | 0.472                  | 0.344                            | 1.099   | 0.089                  | 0.478   | 0.465                  | 0.299                  | 5.92        | 2111    | 0.445                            | 0.276                  | 8.27        | 3199    | 0.663                | 0.114                 | -0.953  | 0.561  | 1.531   | 0.613 |
| 250T150-97 | 0.1017           | 0.557                   | 1.9            | 0.701                  | 0.491                            | 1.121   | 0.124                  | 0.471   | 0.701                  | 0.491                  | 9.69        | 2954    | 0.701                            | 0.463                  | 13.86       | 4476    | 1.921                | 0.168                 | -0.935  | 0.55   | 1.534   | 0.629 |
| 250T200-33 | 0.0346           | 0.225                   | 0.76           | 0.28                   | 0.212                            | 1.117   | 0.097                  | 0.658   | 0.203                  | 0.112                  | 2.22        | 1024    |                                  |                        |             |         | 0.09                 | 0.118                 | -1.418  | 0.813  | 1.921   | 0.455 |
| 250T200-43 | 0.0451           | 0.293                   | 1              | 0.366                  | 0.275                            | 1.118   | 0.126                  | 0.657   | 0.288                  | 0.163                  | 3.21        | 1356    |                                  |                        |             |         | 0.198                | 0.153                 | -1.413  | 0.81   | 1.918   | 0.457 |
| 250T200-54 | 0.0566           | 0.367                   | 1.25           | 0.466                  | 0.346                            | 1.127   | 0.157                  | 0.654   | 0.396                  | 0.228                  | 4.51        | 1692    | 0.371                            | 0.209                  | 6.25        | 2563    | 0.392                | 0.195                 | -1.405  | 0.806  | 1.917   | 0.462 |
| 250T200-68 | 0.0713           | 0.462                   | 1.57           | 0.6                    | 0.437                            | 1.139   | 0.196                  | 0.652   | 0.548                  | 0.324                  | 6.41        | 2111    | 0.517                            | 0.296                  | 8.86        | 3199    | 0.783                | 0.251                 | -1.396  | 0.8    | 1.916   | 0.469 |
| 250T200-97 | 0.1017           | 0.659                   | 2.24           | 0.893                  | 0.626                            | 1.165   | 0.275                  | 0.646   | 0.893                  | 0.556                  | 10.99       | 2954    | 0.856                            | 0.51                   | 15.27       | 4476    | 2.271                | 0.374                 | -1.376  | 0.789  | 1.915   | 0.484 |
| 250T250-43 | 0.0451           | 0.338                   | 1.15           | 0.443                  | 0.333                            | 1.146   | 0.23                   | 0.826   | 0.318                  | 0.169                  | 3.34        | 1356    |                                  |                        |             |         | 0.229                | 0.283                 | -1.873  | 1.053  | 2.346   | 0.362 |
| 250T250-54 | 0.0566           | 0.424                   | 1.44           | 0.565                  | 0.419                            | 1.155   | 0.287                  | 0.824   | 0.44                   | 0.238                  | 4.7         | 1692    | 0.41                             | 0.217                  | 6.5         | 2563    | 0.453                | 0.361                 | -1.865  | 1.049  | 2.343   | 0.366 |
| 250T250-68 | 0.0713           | 0.534                   | 1.82           | 0.728                  | 0.53                             | 1.168   | 0.36                   | 0.821   | 0.616                  | 0.341                  | 6.74        | 2111    | 0.576                            | 0.31                   | 9.27        | 3199    | 0.904                | 0.466                 | -1.855  | 1.043  | 2.341   | 0.372 |
| 250T250-97 | 0.1017           | 0.761                   | 2.59           | 1.086                  | 0.761                            | 1.195   | 0.506                  | 0.815   | 1.028                  | 0.596                  | 11.79       | 2954    | 0.972                            | 0.541                  | 16.2        | 4476    | 2.622                | 0.696                 | -1.834  | 1.031  | 2.336   | 0.384 |
| 250T300-33 | 0.0346           | 0.294                   | 1              | 0.398                  | 0.301                            | 1.164   | 0.29                   | 0.993   |                        |                        |             |         |                                  |                        |             |         | 0.117                | 0.36                  | -2.349  | 1.301  | 2.803   | 0.298 |
| 250T300-43 | 0.0451           | 0.383                   | 1.3            | 0.521                  | 0.391                            | 1.166   | 0.376                  | 0.991   |                        |                        |             |         |                                  |                        |             |         | 0.26                 | 0.47                  | -2.343  | 1.299  | 2.798   | 0.299 |
| 250T300-54 | 0.0566           | 0.48                    | 1.63           | 0.664                  | 0.492                            | 1.176   | 0.47                   | 0.989   | 0.477                  | 0.245                  | 4.85        | 1692    | 0.443                            | 0.223                  | 6.69        | 2563    | 0.513                | 0.599                 | -2.335  | 1.294  | 2.795   | 0.302 |
| 250T300-68 | 0.0713           | 0.605                   | 2.06           | 0.856                  | 0.623                            | 1.189   | 0.589                  | 0.987   | 0.674                  | 0.353                  | 6.98        | 2111    | 0.626                            | 0.319                  | 9.56        | 3199    | 1.025                | 0.773                 | -2.324  | 1.288  | 2.791   | 0.307 |
| 250T300-97 | 0.1017           | 0.862                   | 2.93           | 1.279                  | 0.896                            | 1.218   | 0.83                   | 0.981   | 1.144                  | 0.625                  | 12.35       | 2954    | 1.072                            | 0.563                  | 16.86       | 4476    | 2.973                | 1.158                 | -2.303  | 1.276  | 2.784   | 0.316 |
| 350T125-33 | 0.0346           | 0.207                   | 0.71           | 0.405                  | 0.222                            | 1.397   | 0.03                   | 0.379   | 0.354                  | 0.165                  | 3.27        | 1024    |                                  |                        |             |         | 0.083                | 0.07                  | -0.668  | 0.414  | 1.594   | 0.824 |
| 350T125-43 | 0.0451           | 0.27                    | 0.92           | 0.528                  | 0.288                            | 1.397   | 0.038                  | 0.377   | 0.49                   | 0.233                  | 4.61        | 1739    |                                  |                        |             |         | 0.183                | 0.09                  | -0.663  | 0.412  | 1.592   | 0.826 |
| 350T125-54 | 0.0566           | 0.339                   | 1.15           | 0.668                  | 0.361                            | 1.404   | 0.048                  | 0.375   | 0.651                  | 0.317                  | 6.26        | 2392    | 0.626                            | 0.297                  | 8.89        | 3372    | 0.362                | 0.114                 | -0.658  | 0.408  | 1.595   | 0.83  |
| 350T125-68 | 0.0713           | 0.427                   | 1.45           | 0.851                  | 0.454                            | 1.412   | 0.059                  | 0.372   | 0.851                  | 0.433                  | 8.55        | 2994    | 0.839                            | 0.407                  | 12.18       | 4536    | 0.723                | 0.144                 | -0.65   | 0.403  | 1.599   | 0.835 |
| 350T125-97 | 0.1017           | 0.608                   | 2.07           | 1.243                  | 0.645                            | 1.43    | 0.081                  | 0.366   | 1.243                  | 0.645                  | 14.56       | 4213    | 1.243                            | 0.645                  | 19.3        | 6383    | 2.096                | 0.209                 | -0.636  | 0.394  | 1.607   | 0.844 |
| 350T150-33 | 0.0346           | 0.225                   | 0.76           | 0.461                  | 0.253                            | 1.432   | 0.049                  | 0.469   | 0.382                  | 0.171                  | 3.39        | 1024    |                                  |                        |             |         | 0.09                 | 0.114                 | -0.866  | 0.527  | 1.738   | 0.752 |
| 350T150-43 | 0.0451           | 0.293                   | 1              | 0.601                  | 0.328                            | 1.433   | 0.064                  | 0.467   | 0.531                  | 0.243                  | 4.8         | 1739    |                                  |                        |             |         | 0.198                | 0.148                 | -0.861  | 0.525  | 1.736   | 0.754 |
| 350T150-54 | 0.0566           | 0.367                   | 1.25           | 0.761                  | 0.412                            | 1.44    | 0.079                  | 0.465   | 0.712                  | 0.332                  | 6.57        | 2392    | 0.679                            | 0.31                   | 9.28        | 3372    | 0.392                | 0.187                 | -0.855  | 0.521  | 1.738   | 0.758 |
| 350T150-68 | 0.0713           | 0.462                   | 1.57           | 0.972                  | 0.518                            | 1.45    | 0.099                  | 0.462   | 0.957                  | 0.459                  | 9.07        | 2994    | 0.919                            | 0.428                  | 12.81       | 4536    | 0.783                | 0.238                 | -0.847  | 0.516  | 1.741   | 0.763 |
| 350T150-97 | 0.1017           | 0.659                   | 2.24           | 1.422                  | 0.738                            | 1.469   | 0.136                  | 0.455   | 1.422                  | 0.738                  | 14.58       | 4213    | 1.422                            | 0.701                  | 20.98       | 6383    | 2.271                | 0.346                 | -0.831  | 0.506  | 1.748   | 0.774 |
| 350T200-33 | 0.0346           | 0.259                   | 0.88           | 0.574                  | 0.315                            | 1.487   | 0.108                  | 0.647   | 0.428                  | 0.181                  | 3.57        | 1024    |                                  |                        |             |         | 0.103                | 0.249                 | -1.285  | 0.761  | 2.069   | 0.614 |
| 350T200-43 | 0.0451           | 0.338                   | 1.15           | 0.749                  | 0.409                            | 1.489   | 0.14                   | 0.645   | 0.6                    | 0.257                  | 5.09        | 1739    |                                  |                        |             |         | 0.229                | 0.323                 | -1.28   | 0.758  | 2.066   | 0.616 |
| 350T200-54 | 0.0566           | 0.424                   | 1.44           | 0.949                  | 0.513                            | 1.496   | 0.175                  | 0.642   | 0.814                  | 0.355                  | 7.01        | 2392    | 0.77                             | 0.329                  | 9.85        | 3372    | 0.453                | 0.409                 | -1.273  | 0.754  | 2.067   | 0.621 |
| 350T200-68 | 0.0713           | 0.534                   | 1.82           | 1.213                  | 0.647                            | 1.508   | 0.218                  | 0.639   | 1.112                  | 0.496                  | 9.8         | 2994    | 1.054                            | 0.458                  | 13.71       | 4536    | 0.904                | 0.522                 | -1.264  | 0.749  | 2.069   | 0.626 |
| 350T200-97 | 0.1017           | 0.761                   | 2.59           | 1.78                   | 0.923                            | 1.53    | 0.305                  | 0.633   | 1.779                  | 0.831                  | 16.41       | 4213    | 1.708                            | 0.769                  | 23.01       | 6383    | 2.622                | 0.765                 | -1.247  | 0.738  | 2.073   | 0.638 |
| 350T250-43 | 0.0451           | 0.383                   | 1.3            | 0.896                  | 0.49                             | 1.53    | 0.257                  | 0.819   | 0.659                  | 0.268                  | 5.29        | 1739    |                                  |                        |             |         | 0.26                 | 0.563                 | -1.719  | 0.996  | 2.443   | 0.505 |
| 350T250-54 | 0.0566           | 0.48                    | 1.63           | 1.137                  | 0.615                            | 1.538   | 0.321                  | 0.817   | 0.9                    | 0.371                  | 7.33        | 2392    | 0.846                            | 0.343                  | 10.26       | 3372    | 0.513                | 0.752                 | -1.712  | 0.992  | 2.442   | 0.509 |
| 350T250-68 | 0.0713           | 0.605                   | 2.06           | 1.454                  | 0.776                            | 1.55    | 0.401                  | 0.814   | 1.241                  | 0.522                  | 10.31       | 2994    | 1.168                            | 0.479                  | 14.35       | 4536    | 1.025                | 0.961                 | -1.703  | 0.987  | 2.443   | 0.514 |
| 350T250-97 | 0.1017           | 0.862                   | 2.93           | 2.139                  | 1.109                            | 1.575   | 0.563                  | 0.808   | 2.027                  | 0.889                  | 17.56       | 4213    | 1.924                            | 0.815                  | 24.39       | 6383    | 2.973                | 1.413                 | -1.684  | 0.975  | 2.443   | 0.525 |
| 350T300-33 | 0.0346           | 0.329                   | 1.12           | 0.799                  | 0.439                            | 1.56    | 0.324                  | 0.992   |                        |                        |             |         |                                  |                        |             |         | 0.131                | 0.75                  | -2.178  | 1.241  | 2.857   | 0.419 |
| 350T300-43 | 0.0451           | 0.428                   | 1.46           | 1.044                  | 0.57                             | 1.562   | 0.42                   | 0.991   |                        |                        |             |         |                                  |                        |             |         | 0.29                 | 0.976                 | -2.172  | 1.238  | 2.853   | 0.42  |
| 350T300-54 | 0.0566           | 0.537                   | 1.83           | 1.324                  | 0.716                            | 1.57    | 0.525                  | 0.989   | 0.974                  | 0.383                  | 7.57        | 2392    | 0.912                            | 0.353                  | 10.57       | 3372    | 0.573                | 1.238                 | -2.165  | 1.234  | 2.851   | 0.424 |
| 350T300-68 | 0.0713           | 0.676                   | 2.3            | 1.695                  | 0.904                            | 1.583   | 0.657                  | 0.986   | 1.352                  | 0.541                  | 10.69       | 2994    | 1.265                            | 0.495                  | 14.83       | 4536    | 1.146                | 1.585                 | -2.155  | 1.228  | 2.85    | 0.428 |
| 350T300-97 | 0.1017           | 0.964                   | 3.28           | 2.497                  | 1.295                            | 1.61    | 0.926                  | 0.98    | 2.242                  | 18.4                   | 0.931       | 4213    | 2.11                             | 0.848                  | 25.4        | 6383    | 3.323                | 2.336                 | -2.135  | 1.216  | 2.848   | 0.438 |

See notes located on page 17

# STRUCTURAL TRACK SECTION PROPERTIES

| Section     | Gross Properties |                         |                |                        |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |
|-------------|------------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|             | Thickness (in)   | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 350T400-68  | 0.0713           | 0.819                   | 2.79           | 2.177                  | 1.161                  | 1.631   | 1.427                  | 1.32    | 1.536                            | 0.568                  | 11.22       | 2994    | 1.427                            | 0.518                  | 15.52       | 4536    | 1.388                | 3.51                  | -3.085  | 1.717  | 3.731   | 0.316 |
| 362T125-33  | 0.0346           | 0.212                   | 0.72           | 0.438                  | 0.232                  | 1.438   | 0.03                   | 0.377   | 0.384                            | 0.174                  | 3.44        | 1024    |                                  |                        |             |         | 0.085                | 0.076                 | -0.658  | 0.409  | 1.626   | 0.836 |
| 362T125-43  | 0.0451           | 0.276                   | 0.94           | 0.571                  | 0.302                  | 1.439   | 0.039                  | 0.375   | 0.531                            | 0.245                  | 4.84        | 1739    |                                  |                        |             |         | 0.187                | 0.098                 | -0.654  | 0.407  | 1.625   | 0.838 |
| 362T125-54  | 0.0566           | 0.346                   | 1.18           | 0.723                  | 0.378                  | 1.445   | 0.048                  | 0.373   | 0.705                            | 0.332                  | 6.57        | 2480    | 0.678                            | 0.312                  | 9.34        | 3372    | 0.369                | 0.123                 | -0.648  | 0.404  | 1.627   | 0.841 |
| 362T125-68  | 0.0713           | 0.436                   | 1.48           | 0.921                  | 0.475                  | 1.454   | 0.06                   | 0.37    | 0.921                            | 0.453                  | 8.95        | 3104    | 0.907                            | 0.427                  | 12.78       | 4703    | 0.738                | 0.156                 | -0.641  | 0.399  | 1.631   | 0.846 |
| 362T125-97  | 0.1017           | 0.621                   | 2.11           | 1.343                  | 0.675                  | 1.471   | 0.082                  | 0.363   | 1.343                            | 0.675                  | 15.24       | 4370    | 1.343                            | 0.675                  | 20.2        | 6622    | 2.14                 | 0.226                 | -0.626  | 0.39   | 1.639   | 0.854 |
| 362T125-118 | 0.1242           | 0.757                   | 2.58           | 1.666                  | 0.821                  | 1.483   | 0.097                  | 0.358   |                                  |                        |             |         | 1.666                            | 0.821                  | 28.24       | 8008    | 3.894                | 0.278                 | -0.615  | 0.383  | 1.645   | 0.860 |
| 362T150-33  | 0.0346           | 0.229                   | 0.78           | 0.499                  | 0.264                  | 1.475   | 0.05                   | 0.467   | 0.414                            | 0.18                   | 3.56        | 1024    |                                  |                        |             |         | 0.091                | 0.124                 | -0.854  | 0.522  | 1.767   | 0.766 |
| 362T150-43  | 0.0451           | 0.298                   | 1.02           | 0.65                   | 0.343                  | 1.476   | 0.064                  | 0.465   | 0.574                            | 0.255                  | 5.04        | 1739    |                                  |                        |             |         | 0.202                | 0.16                  | -0.85   | 0.519  | 1.766   | 0.768 |
| 362T150-54  | 0.0566           | 0.374                   | 1.27           | 0.431                  | 1.483                  | 0.08    | 0.462                  | 0.769   | 0.349                            | 0.349                  | 2480        | 2480    | 0.735                            | 0.325                  | 9.74        | 3372    | 0.4                  | 0.202                 | -0.844  | 0.516  | 1.768   | 0.772 |
| 362T150-68  | 0.0713           | 0.471                   | 1.6            | 1.05                   | 0.542                  | 1.492   | 0.099                  | 0.459   | 1.034                            | 0.48                   | 9.49        | 3104    | 0.993                            | 0.449                  | 13.43       | 4703    | 0.799                | 0.257                 | -0.836  | 0.511  | 1.771   | 0.777 |
| 362T150-97  | 0.1017           | 0.672                   | 2.29           | 1.534                  | 0.771                  | 1.138   | 0.453                  | 1.534   | 0.771                            | 0.771                  | 4370        | 4370    | 1.534                            | 0.733                  | 21.94       | 6622    | 2.315                | 0.374                 | -0.82   | 0.501  | 1.778   | 0.787 |
| 362T150-118 | 0.1242           | 0.819                   | 2.79           | 1.907                  | 0.939                  | 1.525   | 0.165                  | 0.448   |                                  |                        |             |         | 1.907                            | 0.939                  | 31.65       | 8008    | 4.214                | 0.462                 | -0.808  | 0.494  | 1.784   | 0.795 |
| 362T200-33  | 0.0346           | 0.264                   | 0.9            | 0.619                  | 0.328                  | 1.532   | 0.11                   | 0.645   | 0.464                            | 0.19                   | 3.76        | 1024    |                                  |                        |             |         | 0.105                | 0.269                 | -1.27   | 0.754  | 2.092   | 0.631 |
| 362T200-43  | 0.0451           | 0.343                   | 1.17           | 0.808                  | 0.427                  | 1.534   | 0.142                  | 0.643   | 0.649                            | 0.27                   | 5.34        | 1739    |                                  |                        |             |         | 0.233                | 0.35                  | -1.265  | 0.752  | 2.09    | 0.633 |
| 362T200-54  | 0.0566           | 0.431                   | 1.47           | 1.024                  | 0.536                  | 1.541   | 0.177                  | 0.64    | 0.879                            | 0.372                  | 7.35        | 2480    | 0.832                            | 0.345                  | 10.34       | 3372    | 0.46                 | 0.442                 | -1.259  | 0.748  | 2.091   | 0.637 |
| 362T200-68  | 0.0713           | 0.543                   | 1.85           | 1.307                  | 0.675                  | 1.552   | 0.221                  | 0.638   | 1.199                            | 0.519                  | 10.26       | 3104    | 1.138                            | 0.48                   | 14.37       | 4703    | 0.919                | 0.564                 | -1.25   | 0.743  | 2.093   | 0.643 |
| 362T200-97  | 0.1017           | 0.773                   | 2.63           | 1.917                  | 0.963                  | 1.575   | 0.308                  | 0.631   | 1.915                            | 0.867                  | 17.14       | 4370    | 1.839                            | 0.803                  | 24.06       | 6622    | 2.666                | 0.825                 | -1.232  | 0.732  | 2.097   | 0.655 |
| 362T200-118 | 0.1242           | 0.944                   | 3.21           | 2.388                  | 1.176                  | 1.591   | 0.371                  | 0.627   |                                  |                        |             |         | 2.388                            | 1.072                  | 32.09       | 8008    | 4.852                | 1.026                 | -1.219  | 0.724  | 2.100   | 0.663 |
| 362T250-43  | 0.0451           | 0.389                   | 1.32           | 0.966                  | 0.51                   | 1.577   | 0.26                   | 0.818   | 0.713                            | 0.281                  | 5.56        | 1739    |                                  |                        |             |         | 0.263                | 0.641                 | -1.702  | 0.99   | 2.46    | 0.521 |
| 362T250-54  | 0.0566           | 0.487                   | 1.66           | 1.224                  | 0.641                  | 1.585   | 0.324                  | 0.816   | 0.971                            | 0.389                  | 7.69        | 2480    | 0.914                            | 0.36                   | 10.77       | 3372    | 0.521                | 0.812                 | -1.695  | 0.986  | 2.46    | 0.525 |
| 362T250-68  | 0.0713           | 0.614                   | 2.09           | 1.565                  | 0.808                  | 1.597   | 0.406                  | 0.813   | 1.337                            | 0.549                  | 10.79       | 3104    | 1.259                            | 0.502                  | 15.04       | 4703    | 1.04                 | 1.038                 | -1.686  | 0.98   | 2.46    | 0.53  |
| 362T250-97  | 0.1017           | 0.875                   | 2.98           | 2.3                    | 1.155                  | 1.621   | 0.57                   | 0.807   | 2.18                             | 0.928                  | 18.34       | 4370    | 2.069                            | 0.851                  | 25.49       | 6622    | 3.016                | 1.524                 | -1.667  | 0.969  | 2.461   | 0.541 |
| 362T250-118 | 0.1242           | 1.068                   | 3.63           | 2.868                  | 1.413                  | 1.639   | 0.687                  | 0.802   |                                  |                        |             |         | 2.732                            | 1.149                  | 34.41       | 8008    | 5.491                | 1.900                 | -1.653  | 0.961  | 2.462   | 0.549 |
| 362T300-33  | 0.0346           | 0.333                   | 1.13           | 0.861                  | 0.457                  | 1.608   | 0.327                  | 0.992   |                                  |                        |             |         |                                  |                        |             |         | 0.133                | 0.811                 | -2.159  | 1.234  | 2.869   | 0.434 |
| 362T300-43  | 0.0451           | 0.434                   | 1.48           | 1.124                  | 0.594                  | 1.61    | 0.425                  | 0.99    |                                  |                        |             |         |                                  |                        |             |         | 0.294                | 1.055                 | -2.153  | 1.231  | 2.865   | 0.435 |
| 362T300-54  | 0.0566           | 0.544                   | 1.85           | 1.425                  | 0.746                  | 1.618   | 0.531                  | 0.988   | 1.051                            | 0.402                  | 7.94        | 2480    | 0.985                            | 0.371                  | 11.11       | 3372    | 0.581                | 1.337                 | -2.146  | 1.227  | 2.863   | 0.439 |
| 362T300-68  | 0.0713           | 0.685                   | 2.33           | 1.823                  | 0.941                  | 1.631   | 0.665                  | 0.985   | 1.456                            | 0.566                  | 11.19       | 3104    | 1.364                            | 0.519                  | 15.55       | 4703    | 1.161                | 1.711                 | -2.136  | 1.221  | 2.862   | 0.443 |
| 362T300-97  | 0.1017           | 0.977                   | 3.32           | 2.682                  | 1.348                  | 1.657   | 0.937                  | 0.979   | 2.409                            | 0.972                  | 19.21       | 4370    | 2.268                            | 0.887                  | 26.54       | 6622    | 3.367                | 2.518                 | -2.116  | 1.209  | 2.86    | 0.453 |
| 362T300-118 | 0.1242           | 1.192                   | 4.06           | 3.349                  | 1.650                  | 1.676   | 1.133                  | 0.975   |                                  |                        |             |         | 3.022                            | 1.205                  | 36.09       | 8008    | 6.130                | 3.145                 | -2.101  | 1.201  | 2.859   | 0.460 |
| 362T350-118 | 0.1242           | 1.316                   | 4.48           | 3.830                  | 1.887                  | 1.706   | 1.724                  | 1.145   |                                  |                        |             |         | 3.277                            | 1.248                  | 37.37       | 8008    | 6.768                | 4.822                 | -2.560  | 1.444  | 3.282   | 0.392 |
| 362T400-68  | 0.0713           | 0.828                   | 2.82           | 2.339                  | 1.207                  | 1.681   | 1.444                  | 1.321   | 1.654                            | 0.595                  | 11.75       | 3104    | 1.537                            | 0.544                  | 16.28       | 4703    | 1.403                | 3.785                 | -3.063  | 1.709  | 3.735   | 0.328 |
| 362T400-97  | 0.1017           | 1.18                    | 4.02           | 3.447                  | 1.732                  | 1.709   | 2.042                  | 1.316   | 2.79                             | 1.033                  | 20.41       | 4213    | 2.599                            | 0.936                  | 28.02       | 6383    | 4.068                | 5.585                 | -3.041  | 1.697  | 3.729   | 0.335 |
| 362T400-97  | 0.1017           | 1.18                    | 4.02           | 3.447                  | 1.732                  | 1.709   | 2.042                  | 1.316   | 2.79                             | 1.033                  | 20.41       | 4370    | 2.599                            | 0.936                  | 28.02       | 6622    | 4.068                | 5.585                 | -3.041  | 1.697  | 3.729   | 0.335 |
| 400T125-33  | 0.0346           | 0.225                   | 0.76           | 0.549                  | 0.265                  | 1.563   | 0.031                  | 0.371   | 0.484                            | 0.201                  | 3.97        | 940     |                                  |                        |             |         | 0.09                 | 0.095                 | -0.63   | 0.396  | 1.725   | 0.867 |
| 400T125-43  | 0.0451           | 0.293                   | 1              | 0.716                  | 0.344                  | 1.563   | 0.04                   | 0.369   | 0.666                            | 0.282                  | 5.57        | 1739    |                                  |                        |             |         | 0.198                | 0.122                 | -0.626  | 0.394  | 1.724   | 0.868 |
| 400T125-54  | 0.0566           | 0.367                   | 1.25           | 0.904                  | 0.431                  | 1.569   | 0.049                  | 0.366   | 0.882                            | 0.381                  | 7.53        | 2739    | 0.849                            | 0.359                  | 10.74       | 3372    | 0.392                | 0.154                 | -0.621  | 0.39   | 1.727   | 0.871 |
| 400T125-68  | 0.0713           | 0.462                   | 1.57           | 1.15                   | 0.541                  | 1.577   | 0.061                  | 0.363   | 1.15                             | 0.517                  | 10.22       | 3435    | 1.134                            | 0.488                  | 14.62       | 5205    | 0.783                | 0.194                 | -0.614  | 0.386  | 1.731   | 0.874 |
| 400T125-97  | 0.1017           | 0.659                   | 2.24           | 1.673                  | 0.768                  | 1.594   | 0.084                  | 0.357   | 1.673                            | 0.768                  | 17.35       | 4842    | 1.673                            | 0.768                  | 23          | 7337    | 2.271                | 0.28                  | -0.6    | 0.377  | 1.74    | 0.881 |
| 400T125-118 | 0.1242           | 0.804                   | 2.74           | 2.071                  | 0.934                  | 1.605   | 0.100                  | 0.352   |                                  |                        |             |         | 2.071                            | 0.934                  | 32.14       | 8881    | 4.134                | 0.343                 | -0.589  | 0.370  | 1.746   | 0.886 |
| 400T150-33  | 0.0346           | 0.242                   | 0.82           | 0.622                  | 0.3                    | 1.603   | 0.051                  | 0.46    | 0.519                            | 0.208                  | 4.12        | 940     |                                  | 0.097                  | 0.155       | -0.821  | 0.507                | 1.859                 | 0.805   |        |         |       |
| 400T150-43  | 0.0451           | 0.315                   | 1.07           | 0.811                  | 0.39                   | 1.604   | 0.066                  | 0.458   | 0.719                            | 0.293                  | 5.8         | 1739    |                                  | 0.214                  | 0.2         | -0.817  | 0.504                | 1.857                 | 0.807   |        |         |       |
| 400T150-54  | 0.0566           | 0.396                   | 1.35           | 1.025                  | 0.489                  | 1.61    | 0.082                  | 0.456   | 0.96                             | 0.399                  | 7.89        | 2739    | 0.918                            | 0.374                  | 11.19       | 3372    | 0.422                | 0.252                 | -0.811  | 0.501  | 1.86    | 0.81  |
| 400T150-68  | 0.0713           | 0.498                   | 1.69           | 1.306                  | 0.615                  | 1.619   | 0.102                  | 0.453   | 1.286                            | 0.548                  | 10.82       | 3435    | 1.237                            | 0.513                  | 15.35       | 5205    | 0.844                | 0.32                  | -0.804  | 0.496  | 1.864   | 0.814 |
| 400T150-97  | 0.1017           | 0.71                    | 2.41           | 1.903                  | 0.874                  | 1.638   | 0.141                  | 0.447   | 1.903                            | 0.874                  | 17.27       | 4842    | 1.903                            | 0.832                  | 24.92       | 7337    | 2.447                | 0.463                 | -0.788  | 0.487  | 1.872   | 0.823 |
| 400T150-118 | 0.1242           | 0.866                   | 2.95           | 2.360                  | 1.064                  | 1.651   | 0.169                  | 0.442   |                                  |                        |             |         | 2.360                            | 1.064                  | 35.86       | 8881    | 4.453                | 0.572                 | -0.777  | 0.479  | 1.877   | 0.829 |
| 400T200-33  | 0.0346           | 0.277                   | 0.94           | 0.768                  | 0.371                  | 1.666   | 0.113                  | 0.639   | 0.581                            | 0.22                   | 4.34        | 940     |                                  | 0.11                   | 0.336       | -1.229  | 0.737                | 2.166                 | 0.678   |        |         |       |
| 400T200-43  | 0.0451           | 0.36                    | 1.23           | 1.002                  | 0.482                  | 1.668   | 0.146                  | 0.637   | 0.811                            | 0.311                  | 6.14        | 1739    |                                  | 0.244                  | 0.436       | -1.224  | 0.734                | 2.164                 | 0.68    |        |         |       |

See notes located on page 17

# STRUCTURAL TRACK SECTION PROPERTIES

| Section     | Thickness (in) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Gross Properties       |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |
|-------------|----------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|             |                |                         |                | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 400T200-54  | 0.0566         | 0.452                   | 1.54           | 1.268                  | 0.604                  | 1.675   | 0.182                  | 0.635   | 1.093                            | 0.426                  | 8.42        | 2739    | 1.037                            | 0.397                  | 11.88       | 3372    | 0.483                | 0.551                 | -1.217  | 0.73   | 2.165   | 0.684 |
| 400T200-68  | 0.0713         | 0.569                   | 1.94           | 1.617                  | 0.761                  | 1.685   | 0.227                  | 0.632   | 1.485                            | 0.591                  | 11.68       | 3435    | 1.412                            | 0.549                  | 16.42       | 5205    | 0.965                | 0.702                 | -1.209  | 0.725  | 2.168   | 0.689 |
| 400T200-97  | 0.1017         | 0.811                   | 2.76           | 2.363                  | 1.085                  | 1.707   | 0.317                  | 0.625   | 2.36                             | 0.981                  | 19.38       | 4842    | 2.268                            | 0.911                  | 27.28       | 7337    | 2.797                | 1.022                 | -1.192  | 0.715  | 2.173   | 0.699 |
| 400T200-118 | 0.1242         | 0.990                   | 3.37           | 2.937                  | 1.324                  | 1.722   | 0.381                  | 0.621   |                                  |                        |             |         | 2.937                            | 1.211                  | 36.25       | 8881    | 5.092                | 1.268                 | -1.179  | 0.707  | 2.177   | 0.707 |
| 400T250-43  | 0.0451         | 0.405                   | 1.38           | 1.193                  | 0.573                  | 1.715   | 0.268                  | 0.813   | 0.888                            | 0.324                  | 6.4         | 1739    |                                  | 0.275                  | 0.799       | -1.653  | 0.97                 | 2.517                 | 0.569   |        |         |       |
| 400T250-54  | 0.0566         | 0.509                   | 1.73           | 1.511                  | 0.72                   | 1.723   | 0.335                  | 0.811   | 1.205                            | 0.445                  | 8.8         | 2739    | 1.137                            | 0.413                  | 12.38       | 3372    | 0.543                | 1.011                 | -1.646  | 0.966  | 2.517   | 0.572 |
| 400T250-68  | 0.0713         | 0.641                   | 2.18           | 1.928                  | 0.907                  | 1.735   | 0.418                  | 0.808   | 1.652                            | 0.622                  | 12.28       | 3435    | 1.559                            | 0.574                  | 17.19       | 5205    | 1.086                | 1.289                 | -1.637  | 0.961  | 2.518   | 0.578 |
| 400T250-97  | 0.1017         | 0.913                   | 3.11           | 2.823                  | 1.296                  | 1.758   | 0.587                  | 0.802   | 2.679                            | 1.048                  | 20.72       | 4842    | 2.546                            | 0.965                  | 28.89       | 7337    | 3.148                | 1.886                 | -1.618  | 0.95   | 2.521   | 0.588 |
| 400T250-118 | 0.1242         | 1.114                   | 3.79           | 3.514                  | 1.585                  | 1.776   | 0.709                  | 0.798   |                                  |                        |             |         | 3.348                            | 1.297                  | 38.84       | 8881    | 5.730                | 2.345                 | -1.605  | 0.942  | 2.523   | 0.595 |
| 400T300-33  | 0.0346         | 0.346                   | 1.18           | 1.06                   | 0.512                  | 1.751   | 0.338                  | 0.989   |                                  |                        | 0.138       | 1.009   | -2.103                           | 1.213                  | 2.91        | 0.478   |                      |                       |         |        |         |       |
| 400T300-43  | 0.0451         | 0.451                   | 1.53           | 1.384                  | 0.665                  | 1.753   | 0.439                  | 0.987   |                                  |                        | 0.305       | 1.313   | -2.097                           | 1.21                   | 2.906       | 0.479   |                      |                       |         |        |         |       |
| 400T300-54  | 0.0566         | 0.565                   | 1.92           | 1.753                  | 0.835                  | 1.761   | 0.548                  | 0.985   | 1.302                            | 0.46                   | 9.09        | 2739    | 1.224                            | 0.426                  | 12.77       | 3372    | 0.604                | 1.662                 | -2.09   | 1.206  | 2.905   | 0.482 |
| 400T300-68  | 0.0713         | 0.712                   | 2.42           | 2.239                  | 1.054                  | 1.774   | 0.686                  | 0.982   | 1.797                            | 0.645                  | 12.74       | 3435    | 1.687                            | 0.594                  | 17.78       | 5205    | 1.206                | 2.122                 | -2.081  | 1.2    | 2.905   | 0.487 |
| 400T300-97  | 0.1017         | 1.015                   | 3.45           | 3.284                  | 1.508                  | 1.799   | 0.967                  | 0.976   | 2.953                            | 1.098                  | 21.7        | 4842    | 2.786                            | 1.005                  | 30.09       | 7337    | 3.499                | 3.111                 | -2.061  | 1.189  | 2.905   | 0.496 |
| 400T300-118 | 0.1242         | 1.239                   | 4.21           | 4.091                  | 1.845                  | 1.817   | 1.170                  | 0.972   |                                  |                        |             |         | 3.696                            | 1.360                  | 40.72       | 8881    | 6.369                | 3.875                 | -2.047  | 1.180  | 2.904   | 0.503 |
| 400T400-68  | 0.0713         | 0.854                   | 2.91           | 2.862                  | 1.347                  | 1.83    | 1.491                  | 1.321   | 2.038                            | 0.678                  | 13.39       | 3435    | 1.9                              | 0.622                  | 18.63       | 5205    | 1.448                | 4.68                  | -2.998  | 1.686  | 3.752   | 0.362 |
| 400T400-97  | 0.1017         | 1.218                   | 4.15           | 4.204                  | 1.93                   | 1.858   | 2.109                  | 1.316   | 3.413                            | 1.167                  | 23.06       | 4842    | 3.186                            | 1.062                  | 31.79       | 7337    | 4.2                  | 6.88                  | -2.977  | 1.674  | 3.747   | 0.369 |
| 550T300-43  | 0.0451         | 0.518                   | 1.76           | 2.755                  | 0.973                  | 2.306   | 0.485                  | 0.967   |                                  |                        | 0.351       | 2.687   | -1.904                           | 1.133                  | 3.143       | 0.633   |                      |                       |         |        |         |       |
| 550T300-54  | 0.0566         | 0.65                    | 2.21           | 3.479                  | 1.221                  | 2.313   | 0.606                  | 0.965   | 2.654                            | 0.723                  | 14.28       | 2739    | 2.526                            | 0.663                  | 19.84       | 2980    | 0.694                | 3.39                  | -1.898  | 1.129  | 3.144   | 0.636 |
| 550T300-68  | 0.0713         | 0.819                   | 2.79           | 4.424                  | 1.539                  | 2.324   | 0.758                  | 0.962   | 3.61                             | 0.996                  | 19.68       | 4347    | 3.417                            | 0.929                  | 27.8        | 5350    | 1.388                | 4.307                 | -1.889  | 1.123  | 3.146   | 0.639 |
| 550T300-97  | 0.1017         | 1.167                   | 3.97           | 6.43                   | 2.196                  | 2.347   | 1.068                  | 0.956   | 5.816                            | 1.654                  | 32.68       | 6730    | 5.516                            | 1.531                  | 45.83       | 10197   | 4.024                | 6.248                 | -1.871  | 1.113  | 3.15    | 0.647 |
| 550T400-68  | 0.0713         | 0.961                   | 3.27           | 5.573                  | 1.939                  | 2.408   | 1.655                  | 1.312   | 4.073                            | 1.049                  | 20.74       | 4347    | 3.834                            | 0.976                  | 29.21       | 5350    | 1.629                | 9.418                 | -2.766  | 1.6    | 3.895   | 0.496 |
| 550T400-97  | 0.1017         | 1.371                   | 4.66           | 8.113                  | 2.771                  | 2.433   | 2.339                  | 1.306   | 6.666                            | 1.759                  | 34.76       | 6730    | 6.265                            | 1.619                  | 48.49       | 10197   | 4.726                | 13.707                | -2.746  | 1.589  | 3.895   | 0.503 |
| 600T125-33  | 0.0346         | 0.294                   | 1              | 1.428                  | 0.465                  | 2.204   | 0.034                  | 0.339   | 1.258                            | 0.297                  | 5.87        | 622     |                                  | 0.117                  | 0.238       | -0.516  | 0.337                | 2.289                 | 0.949   |        |         |       |
| 600T125-43  | 0.0451         | 0.383                   | 1.3            | 1.861                  | 0.604                  | 2.205   | 0.044                  | 0.337   | 1.768                            | 0.461                  | 9.11        | 1377    |                                  | 0.26                   | 0.307       | -0.513  | 0.335                | 2.288                 | 0.95    |        |         |       |
| 600T125-54  | 0.0566         | 0.48                    | 1.63           | 2.344                  | 0.756                  | 2.209   | 0.054                  | 0.335   | 2.299                            | 0.666                  | 13.15       | 2728    | 2.241                            | 0.592                  | 17.73       | 2728    | 0.513                | 0.384                 | -0.508  | 0.332  | 2.291   | 0.951 |
| 600T125-68  | 0.0713         | 0.605                   | 2.06           | 2.969                  | 0.95                   | 2.215   | 0.067                  | 0.332   | 2.969                            | 0.916                  | 18.09       | 4347    | 2.934                            | 0.858                  | 25.69       | 5350    | 1.025                | 0.483                 | -0.503  | 0.329  | 2.296   | 0.952 |
| 600T125-97  | 0.1017         | 0.862                   | 2.93           | 4.281                  | 1.347                  | 2.228   | 0.092                  | 0.326   | 4.281                            | 1.347                  | 30.43*      | 7359    | 4.281                            | 1.347                  | 40.33       | 10885   | 2.973                | 0.685                 | -0.491  | 0.321  | 2.305   | 0.955 |
| 600T125-118 | 0.1242         | 1.052                   | 3.58           | 5.268                  | 1.637                  | 2.237   | 0.109                  | 0.321   | 5.268                            | 1.637                  | 37.94       | 8936    | 5.268                            | 1.637                  | 56.32       | 13539   | 5.411                | 0.832                 | -0.483  | 0.315  | 2.311   | 0.956 |
| 600T150-33  | 0.0346         | 0.311                   | 1.06           | 1.59                   | 0.517                  | 2.26    | 0.057                  | 0.426   | 1.334                            | 0.303                  | 5.99        | 622     |                                  | 0.124                  | 0.39        | -0.684  | 0.439                | 2.399                 | 0.919   |        |         |       |
| 600T150-43  | 0.0451         | 0.405                   | 1.38           | 2.072                  | 0.673                  | 2.261   | 0.073                  | 0.424   | 1.89                             | 0.474                  | 9.36        | 1377    |                                  | 0.275                  | 0.504       | -0.68   | 0.437                | 2.398                 | 0.92    |        |         |       |
| 600T150-54  | 0.0566         | 0.509                   | 1.73           | 2.611                  | 0.843                  | 2.266   | 0.091                  | 0.422   | 2.473                            | 0.689                  | 13.62       | 2728    | 2.4                              | 0.609                  | 18.24       | 2728    | 0.543                | 0.632                 | -0.675  | 0.434  | 2.401   | 0.921 |
| 600T150-68  | 0.0713         | 0.641                   | 2.18           | 3.309                  | 1.059                  | 2.273   | 0.113                  | 0.419   | 3.262                            | 0.963                  | 19.03       | 4347    | 3.162                            | 0.891                  | 26.68       | 5350    | 1.086                | 0.797                 | -0.669  | 0.43   | 2.406   | 0.923 |
| 600T150-97  | 0.1017         | 0.913                   | 3.11           | 4.778                  | 1.504                  | 2.288   | 0.156                  | 0.413   | 4.778                            | 1.504                  | 29.71       | 7359    | 4.778                            | 1.444                  | 43.23       | 10885   | 3.148                | 1.138                 | -0.656  | 0.421  | 2.415   | 0.926 |
| 600T150-118 | 0.1242         | 1.114                   | 3.79           | 5.886                  | 1.829                  | 2.298   | 0.186                  | 0.409   | 5.886                            | 1.829                  | 41.41       | 8936    | 5.886                            | 1.829                  | 61.64       | 13539   | 5.73                 | 1.389                 | -0.647  | 0.415  | 2.422   | 0.929 |
| 600T200-33  | 0.0346         | 0.346                   | 1.18           | 1.913                  | 0.622                  | 2.352   | 0.126                  | 0.604   | 1.542                            | 0.333                  | 6.59        | 622     |                                  | 0.138                  | 0.847       | -1.048  | 0.655                | 2.645                 | 0.843   |        |         |       |
| 600T200-43  | 0.0451         | 0.451                   | 1.53           | 2.494                  | 0.809                  | 2.353   | 0.163                  | 0.602   | 2.076                            | 0.565                  | 11.16       | 1377    |                                  | 0.305                  | 1.098       | -1.044  | 0.652                | 2.643                 | 0.844   |        |         |       |
| 600T200-54  | 0.0566         | 0.565                   | 1.92           | 3.145                  | 1.015                  | 2.359   | 0.203                  | 0.6     | 2.759                            | 0.759                  | 15          | 2728    | 2.641                            | 0.717                  | 21.48       | 2728    | 0.604                | 1.381                 | -1.038  | 0.649  | 2.646   | 0.846 |
| 600T200-68  | 0.0713         | 0.712                   | 2.42           | 3.99                   | 1.277                  | 2.367   | 0.254                  | 0.597   | 3.696                            | 1.034                  | 20.42       | 4347    | 3.54                             | 0.973                  | 29.12       | 5350    | 1.206                | 1.746                 | -1.031  | 0.644  | 2.65    | 0.849 |
| 600T200-97  | 0.1017         | 1.015                   | 3.45           | 5.773                  | 1.816                  | 2.385   | 0.354                  | 0.591   | 5.758                            | 1.667                  | 32.95       | 7359    | 5.558                            | 1.568                  | 46.94       | 10885   | 3.499                | 2.51                  | -1.016  | 0.635  | 2.659   | 0.854 |
| 600T200-118 | 0.1242         | 1.239                   | 4.21           | 7.122                  | 2.214                  | 2.398   | 0.426                  | 0.586   | 7.122                            | 2.17                   | 42.88       | 8936    | 7.122                            | 2.051                  | 61.42       | 13539   | 6.369                | 3.083                 | -1.006  | 0.628  | 2.665   | 0.858 |
| 600T250-43  | 0.0451         | 0.496                   | 1.69           | 2.916                  | 0.946                  | 2.425   | 0.303                  | 0.781   | 2.269                            | 0.563                  | 11.13       | 1377    |                                  | 0.336                  | 2.004       | -1.436  | 0.878                | 2.925                 | 0.759   |        |         |       |
| 600T250-54  | 0.0566         | 0.622                   | 2.12           | 3.678                  | 1.187                  | 2.432   | 0.377                  | 0.779   | 3.014                            | 0.793                  | 15.68       | 2728    | 2.881                            | 0.732                  | 21.92       | 2728    | 0.664                | 2.523                 | -1.43   | 0.874  | 2.927   | 0.761 |
| 600T250-68  | 0.0713         | 0.783                   | 2.67           | 4.67                   | 1.495                  | 2.442   | 0.472                  | 0.776   | 4.065                            | 1.085                  | 21.45       | 4347    | 3.871                            | 1.017                  | 30.46       | 5350    | 1.327                | 3.198                 | -1.422  | 0.869  | 2.93    | 0.764 |
| 600T250-97  | 0.1017         | 1.116                   | 3.8            | 6.767                  | 2.129                  | 2.462   | 0.662                  | 0.77    | 6.441                            | 1.775                  | 35.08       | 7359    | 6.157                            | 1.656                  | 49.58       | 10885   | 3.849                | 4.616                 | -1.406  | 0.859  | 2.938   | 0.771 |
| 600T250-118 | 0.1242         | 1.363                   | 4.64           | 8.359                  | 2.598                  | 2.477   | 0.798                  | 0.765   | 8.306                            | 2.343                  | 46.3        | 8936    | 7.99                             | 2.188                  | 65.51       | 13539   | 7.008                | 5.686                 | -1.394  | 0.852  | 2.943   | 0.776 |
| 600T300-33  | 0.0346         | 0.415                   | 1.41           | 2.559                  | 0.833                  | 2.483   | 0.384                  | 0.962   |                                  | 0.166                  | 2.52        | -1.853  | 1.112                            | 3.244                  | 0.674       |         |                      |                       |         |        |         |       |
| 600T300-43  | 0.0451         | 0.541                   | 1.84           | 3.337                  | 1.083                  | 2.484   | 0.498                  | 0.96    |                                  | 0.367                  | 3.275       | -1.848  | 1.109                            | 3.242                  | 0.675       |         |                      |                       |         |        |         |       |

See notes located on page 17



# STRUCTURAL TRACK SECTION PROPERTIES

| Section                 | Gross Properties |                         |                |                        |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |
|-------------------------|------------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|                         | Thickness (in)   | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 600T300-54              | 0.0566           | 0.679                   | 2.31           | 4.212                  | 1.359                  | 2.492   | 0.622                  | 0.957   | 3.239                            | 0.821                  | 16.22       | 2728    | 3.108                            | 0.722                  | 21.61       | 2728    | 0.725                | 4.129                 | -1.842  | 1.105  | 3.243   | 0.677 |
| 600T300-68              | 0.0713           | 0.854                   | 2.91           | 5.35                   | 1.712                  | 2.502   | 0.778                  | 0.954   | 4.389                            | 1.126                  | 22.25       | 4347    | 4.164                            | 1.053                  | 31.53       | 5350    | 1.448                | 5.239                 | -1.834  | 1.1    | 3.246   | 0.681 |
| 600T300-97              | 0.1017           | 1.218                   | 4.15           | 7.762                  | 2.442                  | 2.524   | 1.096                  | 0.948   | 7.034                            | 1.857                  | 36.69       | 7359    | 6.681                            | 1.724                  | 51.62       | 10885   | 4.2                  | 7.582                 | -1.816  | 1.089  | 3.251   | 0.688 |
| 600T300-118             | 0.1242           | 1.487                   | 5.06           | 9.595                  | 2.982                  | 2.54    | 1.325                  | 0.944   | 9.157                            | 2.471                  | 48.82       | 8936    | 8.734                            | 2.291                  | 68.59       | 13539   | 7.646                | 9.359                 | -1.803  | 1.082  | 3.255   | 0.693 |
| 600T400-68              | 0.0713           | 0.997                   | 3.39           | 6.711                  | 2.148                  | 2.594   | 1.702                  | 1.306   | 4.943                            | 1.187                  | 23.45       | 4347    | 4.665                            | 1.107                  | 33.15       | 5350    | 1.69                 | 11.435                | -2.697  | 1.573  | 3.964   | 0.537 |
| 600T400-97              | 0.1017           | 1.422                   | 4.84           | 9.751                  | 3.068                  | 2.619   | 2.405                  | 1.301   | 8.042                            | 1.975                  | 39.03       | 7359    | 7.574                            | 1.824                  | 54.62       | 10885   | 4.901                | 16.604                | -2.678  | 1.562  | 3.965   | 0.544 |
| 600T400-118             | 0.1242           | 1.735                   | 5.91           | 12.068                 | 3.751                  | 2.637   | 2.916                  | 1.296   | 10.593                           | 2.651                  | 52.39       | 8936    | 9.994                            | 2.439                  | 73.03       | 13539   | 8.924                | 20.542                | -2.664  | 1.554  | 3.966   | 0.549 |
| 725T125-27 <sup>1</sup> | 0.0283           | 0.276                   | 0.94           | 1.855                  | 0.502                  | 2.593   | 0.029                  | 0.323   | 1.471                            | 0.258                  | 5.09        | 281     |                                  | 0.074                  | 0.301       | -0.467  | 0.31                 | 2.654                 | 0.969   |        |         |       |
| 725T125-30 <sup>1</sup> | 0.0312           | 0.304                   | 1.03           | 2.045                  | 0.553                  | 2.593   | 0.032                  | 0.323   | 1.688                            | 0.306                  | 6.04        | 377     |                                  | 0.099                  | 0.33        | -0.466  | 0.31                 | 2.654                 | 0.969   |        |         |       |
| 725T125-33 <sup>1</sup> | 0.0346           | 0.337                   | 1.15           | 2.268                  | 0.613                  | 2.593   | 0.035                  | 0.322   | 1.946                            | 0.365                  | 7.22        | 514     |                                  | 0.135                  | 0.365       | -0.465  | 0.309                | 2.654                 | 0.969   |        |         |       |
| 725T125-43              | 0.0451           | 0.439                   | 1.49           | 2.955                  | 0.797                  | 2.593   | 0.045                  | 0.32    | 2.763                            | 0.573                  | 11.32       | 1137    |                                  | 0.298                  | 0.471       | -0.462  | 0.307                | 2.654                 | 0.97    |        |         |       |
| 725T125-54              | 0.0566           | 0.551                   | 1.88           | 3.718                  | 0.998                  | 2.597   | 0.056                  | 0.318   | 3.666                            | 0.837                  | 16.54       | 2252    |                                  | 0.737                  | 22.06       | 2252    | 0.589                | 0.589                 | -0.458  | 0.304  | 2.656   | 0.97  |
| 725T125-68              | 0.0713           | 0.694                   | 2.36           | 4.702                  | 1.254                  | 2.603   | 0.069                  | 0.315   | 4.702                            | 1.198                  | 23.68       | 4347    | 4.667                            | 1.081                  | 32.37       | 4516    | 1.176                | 0.738                 | -0.452  | 0.301  | 2.661   | 0.971 |
| 725T125-97              | 0.1017           | 0.989                   | 3.37           | 6.761                  | 1.778                  | 2.614   | 0.095                  | 0.31    | 6.761                            | 1.778                  | 40.15       | 8843    | 6.761                            | 1.778                  | 53.23       | 10885   | 3.411                | 1.042                 | -0.442  | 0.293  | 2.669   | 0.973 |
| 725T125-118             | 0.1242           | 1.208                   | 4.11           | 8.303                  | 2.161                  | 2.622   | 0.113                  | 0.305   | 8.303                            | 2.161                  | 50.08       | 10857   | 8.303                            | 2.161                  | 74.33       | 16235   | 6.209                | 1.262                 | -0.434  | 0.288  | 2.675   | 0.974 |
| 725T150-27 <sup>1</sup> | 0.0283           | 0.29                    | 0.99           | 2.047                  | 0.554                  | 2.656   | 0.048                  | 0.409   | 1.546                            | 0.262                  | 5.17        | 281     |                                  | 0.077                  | 0.493       | -0.623  | 0.407                | 2.759                 | 0.949   |        |         |       |
| 725T150-30 <sup>1</sup> | 0.0312           | 0.32                    | 1.09           | 2.256                  | 0.611                  | 2.656   | 0.053                  | 0.408   | 1.776                            | 0.311                  | 6.14        | 377     |                                  | 0.104                  | 0.543       | -0.622  | 0.406                | 2.759                 | 0.949   |        |         |       |
| 725T150-33 <sup>1</sup> | 0.0346           | 0.355                   | 1.21           | 2.502                  | 0.677                  | 2.657   | 0.059                  | 0.407   | 2.053                            | 0.372                  | 7.36        | 514     |                                  | 0.141                  | 0.601       | -0.62   | 0.406                | 2.758                 | 0.949   |        |         |       |
| 725T150-43              | 0.0451           | 0.462                   | 1.57           | 3.26                   | 0.88                   | 2.657   | 0.076                  | 0.406   | 2.934                            | 0.587                  | 11.6        | 1137    |                                  | 0.313                  | 0.777       | -0.617  | 0.403                | 2.758                 | 0.95    |        |         |       |
| 725T150-54              | 0.0566           | 0.579                   | 1.97           | 4.104                  | 1.102                  | 2.661   | 0.094                  | 0.403   | 3.923                            | 0.864                  | 17.07       | 2252    | 3.732                            | 0.756                  | 22.63       | 2252    | 0.619                | 0.972                 | -0.612  | 0.401  | 2.761   | 0.951 |
| 725T150-68              | 0.0713           | 0.73                    | 2.48           | 5.194                  | 1.385                  | 2.668   | 0.117                  | 0.401   | 5.129                            | 1.251                  | 24.71       | 4347    | 5.002                            | 1.118                  | 33.48       | 4516    | 1.237                | 1.222                 | -0.607  | 0.397  | 2.765   | 0.952 |
| 725T150-97              | 0.1017           | 1.04                    | 3.54           | 7.477                  | 1.966                  | 2.681   | 0.162                  | 0.395   | 7.477                            | 1.966                  | 38.85       | 8843    | 7.477                            | 1.895                  | 56.75       | 10885   | 3.586                | 1.735                 | -0.595  | 0.389  | 2.774   | 0.954 |
| 725T150-118             | 0.1242           | 1.27                    | 4.32           | 9.19                   | 2.392                  | 2.69    | 0.193                  | 0.39    | 9.19                             | 2.392                  | 54.14       | 10857   | 9.19                             | 2.392                  | 80.59       | 16235   | 6.529                | 2.112                 | -0.586  | 0.383  | 2.781   | 0.956 |
| 725T200-33 <sup>1</sup> | 0.0346           | 0.389                   | 1.32           | 2.971                  | 0.803                  | 2.763   | 0.132                  | 0.583   | 2.465                            | 0.4                    | 7.91        | 514     |                                  | 0.155                  | 1.307       | -0.962  | 0.612                | 2.983                 | 0.896   |        |         |       |
| 725T200-43              | 0.0451           | 0.507                   | 1.73           | 3.872                  | 1.045                  | 2.764   | 0.171                  | 0.581   | 3.307                            | 0.678                  | 13.39       | 1137    |                                  | 0.344                  | 1.695       | -0.958  | 0.61                 | 2.982                 | 0.897   |        |         |       |
| 725T200-54              | 0.0566           | 0.636                   | 2.16           | 4.877                  | 1.31                   | 2.769   | 0.213                  | 0.579   | 4.319                            | 1.007                  | 19.9        | 2252    | 4.188                            | 0.881                  | 26.37       | 2252    | 0.679                | 2.127                 | -0.953  | 0.607  | 2.985   | 0.898 |
| 725T200-68              | 0.0713           | 0.801                   | 2.73           | 6.178                  | 1.647                  | 2.777   | 0.266                  | 0.576   | 5.749                            | 1.359                  | 26.86       | 4347    | 5.526                            | 1.287                  | 38.54       | 4516    | 1.357                | 2.684                 | -0.946  | 0.602  | 2.99    | 0.9   |
| 725T200-97              | 0.1017           | 1.142                   | 3.89           | 8.908                  | 2.342                  | 2.793   | 0.371                  | 0.57    | 8.881                            | 2.166                  | 42.8        | 8843    | 8.593                            | 2.048                  | 61.33       | 10885   | 3.937                | 3.839                 | -0.933  | 0.594  | 2.999   | 0.903 |
| 725T200-118             | 0.1242           | 1.394                   | 4.74           | 10.965                 | 2.854                  | 2.805   | 0.445                  | 0.565   | 10.965                           | 2.802                  | 55.37       | 10857   | 10.965                           | 2.662                  | 79.69       | 16235   | 7.167                | 4.698                 | -0.923  | 0.587  | 3.006   | 0.906 |
| 725T250-43              | 0.0451           | 0.552                   | 1.88           | 4.484                  | 1.21                   | 2.85    | 0.318                  | 0.759   | 3.602                            | 0.673                  | 13.3        | 1137    |                                  | 0.374                  | 3.092       | -1.33   | 0.828                | 3.235                 | 0.831   |        |         |       |
| 725T250-54              | 0.0566           | 0.693                   | 2.36           | 5.65                   | 1.517                  | 2.856   | 0.397                  | 0.757   | 4.693                            | 1.052                  | 20.78       | 2252    | 4.564                            | 0.874                  | 26.16       | 2252    | 0.74                 | 3.887                 | -1.324  | 0.825  | 3.238   | 0.833 |
| 725T250-68              | 0.0713           | 0.872                   | 2.97           | 7.161                  | 1.91                   | 2.865   | 0.496                  | 0.754   | 6.285                            | 1.426                  | 28.17       | 4347    | 6.011                            | 1.345                  | 40.28       | 4516    | 1.478                | 4.914                 | -1.317  | 0.82   | 3.242   | 0.835 |
| 725T250-97              | 0.1017           | 1.244                   | 4.23           | 10.34                  | 2.719                  | 2.884   | 0.696                  | 0.748   | 9.863                            | 2.3                    | 45.45       | 8843    | 9.457                            | 2.159                  | 64.65       | 10885   | 4.287                | 7.061                 | -1.302  | 0.811  | 3.251   | 0.84  |
| 725T250-118             | 0.1242           | 1.518                   | 5.17           | 12.74                  | 3.316                  | 2.897   | 0.839                  | 0.744   | 12.655                           | 3.014                  | 59.56       | 10857   | 12.2                             | 2.831                  | 84.76       | 16235   | 7.806                | 8.667                 | -1.291  | 0.804  | 3.257   | 0.843 |
| 725T300-54              | 0.0566           | 0.749                   | 2.55           | 6.424                  | 1.725                  | 2.928   | 0.657                  | 0.936   | 5.034                            | 1.075                  | 21.25       | 2252    | 4.905                            | 0.868                  | 25.99       | 2252    | 0.8                  | 6.354                 | -1.718  | 1.05   | 3.521   | 0.762 |
| 725T300-68              | 0.0713           | 0.944                   | 3.21           | 8.145                  | 2.172                  | 2.938   | 0.822                  | 0.933   | 6.761                            | 1.478                  | 29.21       | 4347    | 6.444                            | 1.392                  | 41.68       | 4516    | 1.599                | 8.044                 | -1.71   | 1.046  | 3.525   | 0.765 |
| 725T300-97              | 0.1017           | 1.345                   | 4.58           | 11.772                 | 3.095                  | 2.958   | 1.157                  | 0.927   | 10.717                           | 2.403                  | 47.49       | 8843    | 10.216                           | 2.246                  | 67.26       | 10885   | 4.638                | 11.589                | -1.693  | 1.035  | 3.532   | 0.77  |
| 725T300-118             | 0.1242           | 1.642                   | 5.59           | 14.515                 | 3.778                  | 2.973   | 1.398                  | 0.923   | 13.873                           | 3.173                  | 62.7        | 10857   | 13.268                           | 2.96                   | 88.64       | 16235   | 8.445                | 14.256                | -1.681  | 1.028  | 3.538   | 0.774 |
| 725T400-68              | 0.0713           | 1.086                   | 3.7            | 10.112                 | 2.697                  | 3.051   | 1.805                  | 1.289   | 7.582                            | 1.559                  | 30.81       | 4347    | 7.256                            | 1.379                  | 41.29       | 4516    | 1.841                | 17.505                | -2.542  | 1.51   | 4.175   | 0.629 |
| 725T400-97              | 0.1017           | 1.549                   | 5.27           | 14.635                 | 3.848                  | 3.074   | 2.55                   | 1.283   | 12.177                           | 2.556                  | 50.51       | 8843    | 11.522                           | 2.378                  | 71.19       | 10885   | 5.339                | 25.302                | -2.524  | 1.5    | 4.18    | 0.635 |
| 725T400-118             | 0.1242           | 1.891                   | 6.43           | 18.064                 | 4.701                  | 3.091   | 3.092                  | 1.279   | 15.935                           | 3.402                  | 67.22       | 10857   | 15.091                           | 3.151                  | 94.35       | 16235   | 9.722                | 31.2                  | -2.511  | 1.492  | 4.183   | 0.64  |
| 800T125-30 <sup>3</sup> | 0.0312           | 0.328                   | 1.11           | 2.611                  | 0.339                  | 2.824   | 0.032                  | 0.314   | 2.113                            | 0.339                  | 6.71        | 341     | -                                | -                      | -           | -       | 0.106                | 0.413                 | -0.44   | -      | 2.875   | 0.977 |
| 800T125-33 <sup>3</sup> | 0.0346           | 0.363                   | 1.24           | 2.895                  | 0.407                  | 2.824   | 0.036                  | 0.313   | 2.441                            | 0.407                  | 8.03        | 465     | -                                | -                      | -           | -       | 0.145                | 0.456                 | -0.439  | -      | 2.875   | 0.977 |
| 800T125-43              | 0.0451           | 0.473                   | 1.61           | 3.773                  | 0.64                   | 2.824   | 0.046                  | 0.311   | 3.484                            | 0.64                   | 12.65       | 1030    | -                                | -                      | -           | -       | 0.321                | 0.589                 | -0.436  | -      | 2.874   | 0.977 |
| 800T125-54              | 0.0566           | 0.594                   | 2.02           | 4.745                  | 0.94                   | 2.827   | 0.057                  | 0.309   | 4.668                            | 0.94                   | 18.58       | 2039    | 4.426                            | 0.824                  | 24.66       | 2039    | 0.634                | 0.735                 | -0.432  | -      | 2.877   | 0.977 |
| 800T125-68              | 0.0713           | 0.748                   | 2.54           | 5.998                  | 1.356                  | 2.833   | 0.07                   | 0.306   | 5.998                            | 1.356                  | 26.8        | 4087    | 5.956                            | 1.216                  | 36.39       | 4087    | 1.267                | 0.92                  | -0.427  | -      | 2.881   | 0.978 |
| 800T125-97              | 0.1017           | 1.066                   | 3.63           | 8.613                  | 2.062                  | 2.843   | 0.096                  | 0.301   | 8.613                            | 2.062                  | 40.74       | 8843    | 8.613                            | 2.062                  | 61.72       | 10885   | 3.674                | 1.296                 | -0.417  | -      | 2.889   | 0.979 |
| 800T125-118             | 0.1242           | 1.301                   | 4.43           | 10.569                 | 2.506                  | 2.85    | 0.114                  | 0.297   | 10.569                           | 2.506                  | 58.08       | 12009   | 10.569                           | 2.506                  | 86.21       | 16235   | 6.688                | 1.567                 | -0.41   | 0.274  | 2.895   | 0.98  |
| 800T150-33 <sup>1</sup> | 0.0346           | 0.38                    | 1.29           | 3.18                   | 0.781                  | 2.891   | 0.06                   | 0.397   | 2.569                            | 2.569                  | 0.414       | 8.18    |                                  | 0.152                  | 0.751       | -0.588  | 0.388                | 2.977                 | 0.961   |        |         |       |
| 800T150-43              | 0.0451           | 0.496                   | 1.69           | 4.144                  | 1.015                  | 2.891   | 0.077                  | 0.395   | 3.689                            | 0.655                  | 12.95       | 1030    |                                  | 0.336                  | 0.972       | -0.584  | 0.386                | 2.976                 | 0.961   |        |         |       |
| 800T150-54              | 0.0566           | 0.622                   | 2.12           | 5.214                  | 1.272                  | 2.896   | 0.096                  | 0.393   | 4.976                            | 0.969                  | 19.15       | 2039    | 4.692                            | 0.844                  | 25.27       | 2039    | 0.664                | 1.215                 | -0.58   | 0.383  | 2.979   | 0.962 |
| 800T150-68              | 0.0713           | 0.783                   | 2.67           | 6.594                  | 1.599                  | 2.902   | 0.119                  | 0.39    | 6.527                            | 1.412                  |             |         |                                  |                        |             |         |                      |                       |         |        |         |       |

# STRUCTURAL TRACK SECTION PROPERTIES

| Section                  | Gross Properties |                         |                |                        |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |  |
|--------------------------|------------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|--|
|                          | Thickness (in)   | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |  |
| 800T200-33 <sup>1</sup>  | 0.0346           | 0.415                   | 1.41           | 3.749                  | 0.921                  | 3.005   | 0.135                  | 0.571   | 2.788                            | 0.424                  | 2.788       | 8.37    |                                  | 0.166                  | 1.638       | -0.917  | 0.589                | 3.194                 | 0.918   |        |         |       |  |
| 800T200-43               | 0.0451           | 0.541                   | 1.84           | 4.887                  | 1.197                  | 3.006   | 0.175                  | 0.569   | 4.043                            | 0.676                  | 13.35       | 1030    |                                  | 0.367                  | 2.124       | -0.913  | 0.587                | 3.193                 | 0.918   |        |         |       |  |
| 800T200-54               | 0.0566           | 0.679                   | 2.31           | 6.152                  | 1.501                  | 3.011   | 0.218                  | 0.567   | 5.505                            | 1.009                  | 19.93       | 2039    | 5.149                            | 0.871                  | 26.09       | 2039    | 0.725                | 2.664                 | -0.908  | 0.584  | 3.196   | 0.919 |  |
| 800T200-68               | 0.0713           | 0.854                   | 2.91           | 7.786                  | 1.888                  | 3.019   | 0.272                  | 0.564   | 7.306                            | 1.49                   | 29.45       | 4087    | 7.051                            | 1.31                   | 39.22       | 4087    | 1.448                | 3.357                 | -0.902  | 0.58   | 3.201   | 0.921 |  |
| 800T200-97               | 0.1017           | 1.218                   | 4.15           | 11.212                 | 2.683                  | 3.034   | 0.379                  | 0.558   | 11.176                           | 2.491                  | 49.22       | 8843    | 10.833                           | 2.347                  | 70.27       | 10885   | 4.2                  | 4.792                 | -0.889  | 0.571  | 3.21    | 0.923 |  |
| 800T200-118              | 0.1242           | 1.487                   | 5.06           | 13.785                 | 3.269                  | 3.045   | 0.455                  | 0.553   | 13.785                           | 3.212                  | 63.48       | 12009   | 13.785                           | 3.059                  | 91.59       | 16235   | 7.646                | 5.854                 | -0.879  | 0.565  | 3.217   | 0.925 |  |
| 800T250-43               | 0.0451           | 0.586                   | 1.99           | 5.629                  | 1.38                   | 3.1     | 0.326                  | 0.746   | 4.593                            | 0.739                  | 14.6        | 1030    |                                  | 0.397                  | 3.877       | -1.274  | 0.801                | 3.433                 | 0.862   |        |         |       |  |
| 800T250-54               | 0.0566           | 0.735                   | 2.5            | 7.09                   | 1.73                   | 3.106   | 0.407                  | 0.744   | 5.948                            | 1.193                  | 23.57       | 2039    | 5.816                            | 0.959                  | 28.71       | 2039    | 0.785                | 4.87                  | -1.268  | 0.798  | 3.436   | 0.864 |  |
| 800T250-68               | 0.0713           | 0.926                   | 3.15           | 8.978                  | 2.177                  | 3.114   | 0.509                  | 0.741   | 7.917                            | 1.648                  | 32.57       | 4087    | 7.588                            | 1.56                   | 46.72       | 4087    | 1.569                | 6.151                 | -1.261  | 0.793  | 3.441   | 0.866 |  |
| 800T250-97               | 0.1017           | 1.32                    | 4.49           | 12.944                 | 3.098                  | 3.132   | 0.713                  | 0.735   | 12.361                           | 2.641                  | 52.19       | 8843    | 11.872                           | 2.487                  | 74.47       | 10885   | 4.55                 | 8.818                 | -1.247  | 0.784  | 3.45    | 0.869 |  |
| 800T250-118              | 0.1242           | 1.611                   | 5.48           | 15.93                  | 3.777                  | 3.144   | 0.86                   | 0.731   | 15.822                           | 3.448                  | 68.14       | 12009   | 15.272                           | 3.248                  | 97.26       | 16235   | 8.285                | 10.807                | -1.236  | 0.777  | 3.457   | 0.872 |  |
| 800T300-33 <sup>1</sup>  | 0.0346           | 0.484                   | 1.65           | 4.887                  | 1.2                    | 3.177   | 0.416                  | 0.927   |                                  |                        | 0.193       | 4.872   | -1.662                           | 1.026                  | 3.703       | 0.799   |                      |                       |         |        |         |       |  |
| 800T300-43               | 0.0451           | 0.631                   | 2.15           | 6.372                  | 1.562                  | 3.178   | 0.54                   | 0.925   |                                  |                        | 0.428       | 6.33    | -1.657                           | 1.024                  | 3.702       | 0.8     |                      |                       |         |        |         |       |  |
| 800T300-54               | 0.0566           | 0.792                   | 2.69           | 8.028                  | 1.958                  | 3.184   | 0.675                  | 0.923   | 6.396                            | 1.178                  | 23.28       | 2039    | 6.237                            | 0.956                  | 28.62       | 2039    | 0.845                | 7.96                  | -1.652  | 1.02   | 3.704   | 0.801 |  |
| 800T300-68               | 0.0713           | 0.997                   | 3.39           | 10.171                 | 2.466                  | 3.194   | 0.844                  | 0.92    | 8.497                            | 1.709                  | 33.76       | 4087    | 8.16                             | 1.548                  | 46.36       | 4087    | 1.69                 | 10.067                | -1.644  | 1.015  | 3.708   | 0.803 |  |
| 800T300-97               | 0.1017           | 1.422                   | 4.84           | 14.676                 | 3.513                  | 3.213   | 1.188                  | 0.914   | 13.395                           | 2.757                  | 54.49       | 8843    | 12.794                           | 2.586                  | 77.43       | 10885   | 4.901                | 14.472                | -1.628  | 1.006  | 3.716   | 0.808 |  |
| 800T300-118              | 0.1242           | 1.735                   | 5.91           | 18.074                 | 4.286                  | 3.227   | 1.436                  | 0.91    | 17.291                           | 3.626                  | 71.65       | 12009   | 16.563                           | 3.394                  | 101.63      | 16235   | 8.924                | 17.775                | -1.617  | 0.998  | 3.722   | 0.811 |  |
| 800T400-68               | 0.0713           | 1.14                    | 3.88           | 12.555                 | 3.044                  | 3.319   | 1.859                  | 1.277   | 9.505                            | 1.802                  | 35.62       | 4087    | 9.18                             | 1.52                   | 45.51       | 4087    | 1.931                | 21.882                | -2.458  | 1.475  | 4.323   | 0.677 |  |
| 800T400-97               | 0.1017           | 1.625                   | 5.53           | 18.141                 | 4.342                  | 3.341   | 2.626                  | 1.271   | 15.169                           | 2.932                  | 57.93       | 8843    | 14.387                           | 2.737                  | 81.95       | 10885   | 5.602                | 31.564                | -2.441  | 1.464  | 4.329   | 0.682 |  |
| 800T400-118              | 0.1242           | 1.984                   | 6.75           | 22.363                 | 5.303                  | 3.357   | 3.184                  | 1.267   | 19.784                           | 3.885                  | 76.76       | 12009   | 18.774                           | 3.612                  | 108.14      | 16235   | 10.201               | 38.863                | -2.428  | 1.457  | 4.333   | 0.686 |  |
| 925T125-43 <sup>1</sup>  | 0.0451           | 0.53                    | 1.8            | 5.436                  | 1.155                  | 3.204   | 0.047                  | 0.297   | 4.902                            | 0.752                  | 14.86       | 890     |                                  | 0.359                  | 0.817       | -0.399  | 0.27                 | 3.243                 | 0.985   |        |         |       |  |
| 925T125-54               | 0.0566           | 0.664                   | 2.26           | 6.834                  | 1.447                  | 3.207   | 0.058                  | 0.296   | 6.607                            | 1.112                  | 21.98       | 1761    | 6.228                            | 0.968                  | 28.99       | 1761    | 0.709                | 1.018                 | -0.395  | 0.268  | 3.245   | 0.985 |  |
| 925T125-68               | 0.0713           | 0.837                   | 2.85           | 8.632                  | 1.817                  | 3.212   | 0.072                  | 0.293   | 8.632                            | 1.621                  | 32.04       | 3528    | 8.429                            | 1.44                   | 43.11       | 3528    | 1.418                | 1.273                 | -0.391  | 0.265  | 3.249   | 0.986 |  |
| 925T125-97               | 0.1017           | 1.193                   | 4.06           | 12.377                 | 2.577                  | 3.221   | 0.099                  | 0.288   | 12.377                           | 2.577                  | 58.21       | 8843    | 12.377                           | 2.495                  | 74.71       | 10291   | 4.112                | 1.787                 | -0.381  | 0.258  | 3.257   | 0.986 |  |
| 925T125-118              | 0.1242           | 1.456                   | 4.95           | 15.171                 | 3.133                  | 3.228   | 0.117                  | 0.283   | 15.171                           | 3.133                  | 72.61       | 13189   | 15.171                           | 3.133                  | 107.78      | 16235   | 7.487                | 2.156                 | -0.375  | 0.254  | 3.262   | 0.987 |  |
| 925T150-43 <sup>1</sup>  | 0.0451           | 0.552                   | 1.88           | 5.931                  | 1.26                   | 3.278   | 0.079                  | 0.379   | 5.17                             | 0.769                  | 15.19       | 890     |                                  | 0.374                  | 1.351       | -0.538  | 0.359                | 3.343                 | 0.974   |        |         |       |  |
| 925T150-54               | 0.0566           | 0.693                   | 2.36           | 7.458                  | 1.579                  | 3.281   | 0.099                  | 0.377   | 7.013                            | 1.144                  | 22.61       | 1761    | 6.575                            | 0.991                  | 29.66       | 1761    | 0.74                 | 1.688                 | -0.534  | 0.357  | 3.346   | 0.975 |  |
| 925T150-68               | 0.0713           | 0.872                   | 2.97           | 9.424                  | 1.984                  | 3.287   | 0.122                  | 0.374   | 9.362                            | 1.683                  | 33.26       | 3528    | 8.962                            | 1.484                  | 44.42       | 3528    | 1.478                | 2.117                 | -0.529  | 0.353  | 3.35    | 0.975 |  |
| 925T150-97               | 0.1017           | 1.244                   | 4.23           | 13.526                 | 2.816                  | 3.298   | 0.169                  | 0.369   | 13.526                           | 2.816                  | 55.65       | 8843    | 13.526                           | 2.636                  | 78.91       | 10291   | 4.287                | 2.99                  | -0.518  | 0.346  | 3.359   | 0.976 |  |
| 925T150-118              | 0.1242           | 1.518                   | 5.17           | 16.59                  | 3.426                  | 3.306   | 0.202                  | 0.365   | 16.59                            | 3.426                  | 77.55       | 13189   | 16.59                            | 3.426                  | 115.44      | 16235   | 7.806                | 3.624                 | -0.511  | 0.341  | 3.365   | 0.977 |  |
| 925T200-43 <sup>1</sup>  | 0.0451           | 0.597                   | 2.03           | 6.92                   | 1.471                  | 3.404   | 0.18                   | 0.55    | 5.628                            | 0.791                  | 15.64       | 890     |                                  | 0.405                  | 2.962       | -0.848  | 0.553                | 3.551                 | 0.943   |        |         |       |  |
| 925T200-54               | 0.0566           | 0.749                   | 2.55           | 8.706                  | 1.843                  | 3.409   | 0.225                  | 0.547   | 7.706                            | 1.188                  | 23.47       | 1761    | 7.168                            | 1.021                  | 30.57       | 1761    | 0.8                  | 3.711                 | -0.843  | 0.55   | 3.554   | 0.944 |  |
| 925T200-68               | 0.0713           | 0.944                   | 3.21           | 11.009                 | 2.318                  | 3.416   | 0.28                   | 0.545   | 10.412                           | 1.769                  | 34.95       | 3528    | 9.868                            | 1.544                  | 46.22       | 3528    | 1.599                | 4.671                 | -0.837  | 0.546  | 3.559   | 0.945 |  |
| 925T200-97               | 0.1017           | 1.345                   | 4.58           | 15.822                 | 3.294                  | 3.429   | 0.391                  | 0.539   | 15.769                           | 3.075                  | 60.76       | 8843    | 15.362                           | 2.805                  | 83.99       | 10291   | 4.638                | 6.647                 | -0.825  | 0.538  | 3.568   | 0.947 |  |
| 925T200-118              | 0.1242           | 1.642                   | 5.59           | 19.428                 | 4.012                  | 3.439   | 0.469                  | 0.534   | 19.428                           | 3.948                  | 78.01       | 13189   | 19.423                           | 3.773                  | 112.98      | 16235   | 8.445                | 8.102                 | -0.816  | 0.532  | 3.575   | 0.948 |  |
| 925T250-43 <sup>1</sup>  | 0.0451           | 0.642                   | 2.19           | 7.909                  | 1.681                  | 3.509   | 0.338                  | 0.725   | 6.597                            | 0.849                  | 16.79       | 890     |                                  | 0.435                  | 5.414       | -1.191  | 0.76                 | 3.776                 | 0.901   |        |         |       |  |
| 925T250-54               | 0.0566           | 0.806                   | 2.74           | 9.954                  | 2.107                  | 3.515   | 0.421                  | 0.723   | 8.526                            | 1.356                  | 26.79       | 1761    | 8.343                            | 1.101                  | 32.97       | 1761    | 0.861                | 6.795                 | -1.186  | 0.757  | 3.779   | 0.902 |  |
| 925T250-68               | 0.0713           | 1.015                   | 3.45           | 12.593                 | 2.651                  | 3.523   | 0.526                  | 0.72    | 11.182                           | 2.049                  | 40.5        | 3528    | 10.855                           | 1.781                  | 53.33       | 3528    | 1.72                 | 8.569                 | -1.179  | 0.752  | 3.784   | 0.903 |  |
| 925T250-97               | 0.1017           | 1.447                   | 4.92           | 18.119                 | 3.772                  | 3.539   | 0.738                  | 0.714   | 17.337                           | 3.252                  | 64.26       | 8843    | 16.692                           | 3.077                  | 92.13       | 10291   | 4.989                | 12.249                | -1.166  | 0.744  | 3.794   | 0.906 |  |
| 925T250-118              | 0.1242           | 1.767                   | 6.01           | 22.266                 | 4.598                  | 3.55    | 0.89                   | 0.71    | 22.112                           | 4.224                  | 83.47       | 13189   | 21.385                           | 3.997                  | 119.66      | 16235   | 9.083                | 14.98                 | -1.156  | 0.737  | 3.801   | 0.908 |  |
| 925T300-54               | 0.0566           | 0.862                   | 2.93           | 11.202                 | 2.371                  | 3.604   | 0.7                    | 0.901   | 9.136                            | 1.349                  | 26.66       | 1761    | 8.919                            | 1.102                  | 33.01       | 1761    | 0.921                | 11.108                | -1.553  | 0.973  | 4.026   | 0.851 |  |
| 925T300-68               | 0.0713           | 1.086                   | 3.7            | 14.178                 | 2.985                  | 3.613   | 0.877                  | 0.898   | 11.961                           | 2.123                  | 41.96       | 3528    | 11.637                           | 1.771                  | 53.01       | 3528    | 1.841                | 14.029                | -1.546  | 0.969  | 4.031   | 0.853 |  |
| 925T300-97               | 0.1017           | 1.549                   | 5.27           | 20.416                 | 4.251                  | 3.631   | 1.233                  | 0.892   | 18.708                           | 3.391                  | 67.01       | 8843    | 17.92                            | 3.197                  | 95.71       | 10291   | 5.339                | 20.111                | -1.531  | 0.959  | 4.04    | 0.856 |  |
| 925T300-118              | 0.1242           | 1.891                   | 6.43           | 25.104                 | 5.184                  | 3.644   | 1.49                   | 0.888   | 24.053                           | 4.434                  | 87.62       | 13189   | 23.094                           | 4.17                   | 124.86      | 16235   | 9.722                | 24.648                | -1.52   | 0.952  | 4.047   | 0.859 |  |
| 925T400-68               | 0.0713           | 1.229                   | 4.18           | 17.347                 | 3.652                  | 3.757   | 1.939                  | 1.256   | 13.385                           | 2.165                  | 42.78       | 3528    | 13.032                           | 1.754                  | 52.51       | 3528    | 2.082                | 30.465                | -2.332  | 1.42   | 4.597   | 0.743 |  |
| 925T400-97               | 0.1017           | 1.752                   | 5.96           | 25.009                 | 5.207                  | 3.778   | 2.739                  | 1.25    | 21.076                           | 3.603                  | 71.19       | 8843    | 20.059                           | 3.382                  | 101.25      | 10291   | 6.041                | 43.823                | -2.315  | 1.409  | 4.604   | 0.747 |  |
| 925T400-118              | 0.1242           | 2.139                   | 7.28           | 30.781                 | 6.357                  | 3.793   | 3.32                   | 1.246   | 27.357                           | 4.744                  | 93.75       | 13189   | 26.039                           | 4.434                  | 132.75      | 16235   | 10.999               | 53.847                | -2.303  | 1.402  | 4.609   | 0.75  |  |
| 1000T125-33 <sup>1</sup> | 0.0346           | 0.432                   | 1.47           | 5.089                  | 1.003                  | 3.431   | 0.037                  | 0.292   |                                  |                        | 0.173       | 0.754   | -0.382                           | 0.26                   | 3.464       | 0.988   |                      |                       |         |        |         |       |  |

See notes located on page 17

# STRUCTURAL TRACK SECTION PROPERTIES

| Section                  | Gross Properties |                         |                |                        |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |  |
|--------------------------|------------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|--|
|                          | Thickness (in)   | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |  |
| 1000T125-43 <sup>1</sup> | 0.0451           | 0.563                   | 1.92           | 6.63                   | 1.305                  | 3.431   | 0.047                  | 0.29    | 5.886                            | 0.819                  | 16.19       | 822     |                                  |                        |             |         |                      |                       |         |        |         |       |  |
| 1000T125-54              | 0.0566           | 0.707                   | 2.41           | 8.333                  | 1.634                  | 3.434   | 0.059                  | 0.288   | 7.96                             | 1.216                  | 24.03       | 1628    | 7.479                            | 1.055                  | 31.59       | 1628    | 0.755                | 1.212                 | -0.376  | 0.256  | 3.466   | 0.988 |  |
| 1000T125-68              | 0.0713           | 0.89                    | 3.03           | 10.522                 | 2.053                  | 3.438   | 0.073                  | 0.286   | 10.452                           | 1.781                  | 35.19       | 3261    | 10.155                           | 1.575                  | 47.15       | 3261    | 1.508                | 1.515                 | -0.372  | 0.253  | 3.47    | 0.989 |  |
| 1000T125-97              | 0.1017           | 1.269                   | 4.32           | 15.077                 | 2.912                  | 3.447   | 0.1                    | 0.28    | 15.077                           | 2.907                  | 57.44       | 8843    | 15.077                           | 2.753                  | 82.42       | 9507    | 4.375                | 2.123                 | -0.363  | 0.247  | 3.477   | 0.989 |  |
| 1000T125-118             | 0.1242           | 1.549                   | 5.27           | 18.471                 | 3.54                   | 3.453   | 0.118                  | 0.276   | 18.471                           | 3.54                   | 82.05       | 13189   | 18.471                           | 3.535                  | 105.85      | 16235   | 7.966                | 2.558                 | -0.357  | 0.243  | 3.482   | 0.99  |  |
| 1000T150-33 <sup>1</sup> | 0.0346           | 0.45                    | 1.53           | 5.531                  | 1.09                   | 3.507   | 0.062                  | 0.372   |                                  |                        | 0.179       | 1.247   | -0.516                           | 0.347                  | 3.565       | 0.979   |                      |                       |         |        |         |       |  |
| 1000T150-43 <sup>1</sup> | 0.0451           | 0.586                   | 1.99           | 7.207                  | 1.419                  | 3.507   | 0.08                   | 0.37    | 6.195                            | 0.837                  | 16.54       | 822     |                                  | 0.397                  | 1.612       | -0.513  | 0.345                | 3.564                 | 0.979   |        |         |       |  |
| 1000T150-54              | 0.0566           | 0.735                   | 2.5            | 9.061                  | 1.777                  | 3.511   | 0.1                    | 0.368   | 8.43                             | 1.249                  | 24.69       | 1628    | 7.88                             | 1.079                  | 32.29       | 1628    | 0.785                | 2.013                 | -0.509  | 0.342  | 3.567   | 0.98  |  |
| 1000T150-68              | 0.0713           | 0.926                   | 3.15           | 11.445                 | 2.233                  | 3.516   | 0.124                  | 0.366   | 11.342                           | 1.846                  | 36.48       | 3261    | 10.774                           | 1.621                  | 48.53       | 3261    | 1.569                | 2.522                 | -0.505  | 0.339  | 3.571   | 0.98  |  |
| 1000T150-97              | 0.1017           | 1.32                    | 4.49           | 16.413                 | 3.17                   | 3.526   | 0.171                  | 0.36    | 16.413                           | 3.165                  | 62.54       | 8843    | 16.413                           | 2.902                  | 86.9        | 9507    | 4.55                 | 3.557                 | -0.495  | 0.332  | 3.579   | 0.981 |  |
| 1000T150-118             | 0.1242           | 1.611                   | 5.48           | 20.121                 | 3.857                  | 3.534   | 0.204                  | 0.356   | 20.121                           | 3.857                  | 87.3        | 13189   | 20.121                           | 3.852                  | 115.32      | 16235   | 8.285                | 4.307                 | -0.488  | 0.328  | 3.585   | 0.982 |  |
| 1000T200-33 <sup>1</sup> | 0.0346           | 0.484                   | 1.65           | 6.416                  | 1.265                  | 3.64    | 0.142                  | 0.541   |                                  |                        | 0.193       | 2.732   | -0.817                           | 0.536                  | 3.769       | 0.953   |                      |                       |         |        |         |       |  |
| 1000T200-43 <sup>1</sup> | 0.0451           | 0.631                   | 2.15           | 8.361                  | 1.646                  | 3.64    | 0.183                  | 0.539   | 6.722                            | 0.861                  | 17.01       | 822     |                                  | 0.428                  | 3.54        | -0.813  | 0.534                | 3.769                 | 0.953   |        |         |       |  |
| 1000T200-54              | 0.0566           | 0.792                   | 2.69           | 10.516                 | 2.062                  | 3.645   | 0.228                  | 0.537   | 9.231                            | 1.295                  | 25.6        | 1628    | 8.56                             | 1.111                  | 33.26       | 1628    | 0.845                | 4.434                 | -0.809  | 0.531  | 3.772   | 0.954 |  |
| 1000T200-68              | 0.0713           | 0.997                   | 3.39           | 13.292                 | 2.594                  | 3.651   | 0.284                  | 0.534   | 12.551                           | 1.936                  | 38.26       | 3261    | 11.82                            | 1.684                  | 50.42       | 3261    | 1.69                 | 5.576                 | -0.803  | 0.527  | 3.776   | 0.955 |  |
| 1000T200-97              | 0.1017           | 1.422                   | 4.84           | 19.087                 | 3.686                  | 3.664   | 0.397                  | 0.528   | 19.031                           | 3.427                  | 67.72       | 8843    | 18.583                           | 3.081                  | 92.25       | 9507    | 4.901                | 7.924                 | -0.791  | 0.519  | 3.786   | 0.956 |  |
| 1000T200-118             | 0.1242           | 1.735                   | 5.91           | 23.422                 | 4.489                  | 3.674   | 0.476                  | 0.524   | 23.422                           | 4.42                   | 87.35       | 13189   | 23.422                           | 4.208                  | 125.99      | 16235   | 8.924                | 9.649                 | -0.783  | 0.514  | 3.793   | 0.957 |  |
| 1000T250-43 <sup>1</sup> | 0.0451           | 0.676                   | 2.3            | 9.515                  | 1.873                  | 3.751   | 0.344                  | 0.713   | 7.172                            | 0.876                  | 17.32       | 822     |                                  | 0.458                  | 6.477       | -1.147  | 0.737                | 3.987                 | 0.917   |        |         |       |  |
| 1000T250-54              | 0.0566           | 0.848                   | 2.89           | 11.972                 | 2.348                  | 3.757   | 0.429                  | 0.711   | 9.913                            | 1.326                  | 26.2        | 1628    | 9.141                            | 1.132                  | 33.89       | 1628    | 0.906                | 8.125                 | -1.142  | 0.734  | 3.99    | 0.918 |  |
| 1000T250-68              | 0.0713           | 1.068                   | 3.64           | 15.138                 | 2.954                  | 3.764   | 0.536                  | 0.708   | 13.578                           | 1.997                  | 39.46       | 3261    | 12.708                           | 1.726                  | 51.68       | 3261    | 1.81                 | 10.24                 | -1.135  | 0.73   | 3.995   | 0.919 |  |
| 1000T250-97              | 0.1017           | 1.523                   | 5.18           | 21.76                  | 4.202                  | 3.78    | 0.751                  | 0.702   | 20.871                           | 3.596                  | 71.05       | 8843    | 20.254                           | 3.201                  | 95.84       | 9507    | 5.252                | 14.617                | -1.122  | 0.721  | 4.005   | 0.921 |  |
| 1000T250-118             | 0.1242           | 1.86                    | 6.33           | 26.723                 | 5.122                  | 3.791   | 0.905                  | 0.698   | 26.538                           | 4.721                  | 93.29       | 13189   | 25.721                           | 4.422                  | 132.38      | 16235   | 9.562                | 17.858                | -1.112  | 0.715  | 4.012   | 0.923 |  |
| 1000T300-33 <sup>1</sup> | 0.0346           | 0.553                   | 1.88           | 8.184                  | 1.613                  | 3.845   | 0.441                  | 0.892   |                                  |                        | 0.221       | 8.147   | -1.509                           | 0.953                  | 4.226       | 0.872   |                      |                       |         |        |         |       |  |
| 1000T300-43 <sup>1</sup> | 0.0451           | 0.721                   | 2.45           | 10.669                 | 2.1                    | 3.846   | 0.572                  | 0.891   |                                  |                        | 0.489       | 10.582  | -1.505                           | 0.95                   | 4.225       | 0.873   |                      |                       |         |        |         |       |  |
| 1000T300-43 <sup>1</sup> | 0.0451           | 0.721                   | 2.45           | 10.669                 | 2.1                    | 3.846   | 0.572                  | 0.891   |                                  |                        |             |         |                                  |                        |             |         | 0.489                | 10.582                | -1.505  | 0.95   | 4.225   | 0.873 |  |
| 1000T300-54              | 0.0566           | 0.905                   | 3.08           | 13.427                 | 2.633                  | 3.852   | 0.714                  | 0.888   | 11.083                           | 1.452                  | 28.69       | 1628    | 10.826                           | 1.191                  | 35.65       | 1628    | 0.966                | 13.289                | -1.5    | 0.947  | 4.228   | 0.874 |  |
| 1000T300-68              | 0.0713           | 1.14                    | 3.88           | 16.985                 | 3.314                  | 3.86    | 0.893                  | 0.885   | 14.416                           | 2.377                  | 46.96       | 3261    | 14.106                           | 1.904                  | 57.01       | 3261    | 1.931                | 16.771                | -1.493  | 0.943  | 4.233   | 0.876 |  |
| 1000T300-68              | 0.0713           | 1.14                    | 3.88           | 16.985                 | 3.314                  | 3.86    | 0.893                  | 0.885   | 14.416                           | 2.377                  | 46.96       | 3261    | 14.106                           | 1.904                  | 57.01       | 3261    | 1.931                | 16.771                | -1.493  | 0.943  | 4.233   | 0.876 |  |
| 1000T300-97              | 0.1017           | 1.625                   | 5.53           | 24.434                 | 4.719                  | 3.878   | 1.257                  | 0.879   | 22.441                           | 3.798                  | 75.04       | 8843    | 21.53                            | 3.589                  | 107.45      | 9507    | 5.602                | 24.009                | -1.478  | 0.934  | 4.242   | 0.879 |  |
| 1000T300-118             | 0.1242           | 1.984                   | 6.75           | 30.024                 | 5.755                  | 3.89    | 1.519                  | 0.875   | 28.792                           | 4.95                   | 97.82       | 13189   | 27.68                            | 4.668                  | 139.76      | 16235   | 10.201               | 29.395                | -1.468  | 0.927  | 4.249   | 0.881 |  |
| 1000T400-68              | 0.0713           | 1.282                   | 4.36           | 20.678                 | 4.035                  | 4.016   | 1.982                  | 1.243   | 16.172                           | 2.33                   | 46.04       | 3261    | 15.757                           | 1.894                  | 56.72       | 3261    | 2.173                | 36.414                | -2.262  | 1.388  | 4.774   | 0.775 |  |
| 1000T400-97              | 0.1017           | 1.828                   | 6.22           | 29.781                 | 5.751                  | 4.036   | 2.799                  | 1.237   | 25.207                           | 4.032                  | 79.68       | 8843    | 24.036                           | 3.795                  | 113.63      | 9507    | 6.304                | 52.31                 | -2.246  | 1.378  | 4.782   | 0.779 |  |
| 1000T400-97              | 0.1017           | 1.828                   | 6.22           | 29.781                 | 5.751                  | 4.036   | 2.799                  | 1.237   | 25.207                           | 4.032                  | 79.68       | 8843    | 24.036                           | 3.795                  | 113.63      | 9507    | 6.304                | 52.31                 | -2.246  | 1.378  | 4.782   | 0.779 |  |
| 1000T400-118             | 0.1242           | 2.232                   | 7.6            | 36.626                 | 7.02                   | 4.051   | 3.392                  | 1.233   | 32.638                           | 5.292                  | 104.58      | 13189   | 31.116                           | 4.96                   | 148.5       | 16235   | 11.478               | 64.212                | -2.234  | 1.371  | 4.787   | 0.782 |  |
| 1200T125-97              | 0.1017           | 1.472                   | 5.01           | 24.078                 | 3.897                  | 4.044   | 0.102                  | 0.263   | 24.078                           | 3.69                   | 72.92       | 7902    | 23.751                           | 3.442                  | 103.06      | 7902    | 5.076                | 3.171                 | -0.322  | 0.222  | 4.065   | 0.994 |  |
| 1200T125-118             | 0.1242           | 1.798                   | 6.12           | 29.472                 | 4.74                   | 4.049   | 0.121                  | 0.259   | 29.472                           | 4.74                   | 93.67       | 13189   | 29.472                           | 4.49                   | 134.44      | 14434   | 9.243                | 3.812                 | -0.316  | 0.218  | 4.07    | 0.994 |  |
| 1200T150-33 <sup>1</sup> | 0.0346           | 0.519                   | 1.77           | 8.782                  | 1.446                  | 4.114   | 0.064                  | 0.351   |                                  |                        |             |         |                                  |                        |             |         | 0.207                | 1.881                 | -0.461  | 0.314  | 4.155   | 0.988 |  |
| 1200T150-43 <sup>1</sup> | 0.0451           | 0.676                   | 2.3            | 11.442                 | 1.882                  | 4.114   | 0.083                  | 0.35    |                                  |                        |             |         |                                  |                        |             |         | 0.458                | 2.431                 | -0.458  | 0.312  | 4.154   | 0.988 |  |
| 1200T150-54 <sup>1</sup> | 0.0566           | 0.848                   | 2.89           | 14.378                 | 2.357                  | 4.117   | 0.103                  | 0.348   | 12.962                           | 1.53                   | 30.23       | 1354    | 12.02                            | 1.313                  | 39.31       | 1354    | 0.906                | 3.033                 | -0.454  | 0.31   | 4.156   | 0.988 |  |
| 1200T150-68              | 0.0713           | 1.068                   | 3.64           | 18.148                 | 2.963                  | 4.121   | 0.127                  | 0.345   | 17.568                           | 2.281                  | 45.08       | 2713    | 16.566                           | 1.987                  | 59.48       | 2713    | 1.81                 | 3.795                 | -0.45   | 0.307  | 4.16    | 0.988 |  |
| 1200T150-97              | 0.1017           | 1.523                   | 5.18           | 25.987                 | 4.206                  | 4.13    | 0.176                  | 0.34    | 25.987                           | 3.996                  | 78.97       | 7902    | 25.719                           | 3.616                  | 108.27      | 7902    | 5.252                | 5.335                 | -0.441  | 0.301  | 4.168   | 0.989 |  |
| 1200T150-118             | 0.1242           | 1.86                    | 6.33           | 31.825                 | 5.119                  | 4.137   | 0.21                   | 0.336   | 31.825                           | 5.119                  | 101.15      | 13189   | 31.825                           | 4.865                  | 145.66      | 14434   | 9.562                | 6.444                 | -0.435  | 0.296  | 4.173   | 0.989 |  |
| 1200T200-33 <sup>1</sup> | 0.0346           | 0.553                   | 1.88           | 10.051                 | 1.655                  | 4.261   | 0.146                  | 0.514   |                                  |                        |             |         |                                  |                        |             |         | 0.221                | 4.143                 | -0.737  | 0.491  | 4.355   | 0.971 |  |
| 1200T200-43 <sup>1</sup> | 0.0451           | 0.721                   | 2.45           | 13.097                 | 2.154                  | 4.262   | 0.189                  | 0.512   |                                  |                        |             |         |                                  |                        |             |         | 0.489                | 5.366                 | -0.734  | 0.489  | 4.355   | 0.972 |  |
| 1200T200-54 <sup>1</sup> | 0.0566           | 0.905                   | 3.08           | 16.464                 | 2.699                  | 4.265   | 0.236                  | 0.51    | 14.078                           | 1.582                  | 31.26       | 1354    | 12.962                           | 1.35                   | 40.41       | 1354    | 0.966                | 6.714                 | -0.73   | 0.487  | 4.357   | 0.972 |  |
| 1200T200-68              | 0.0713           | 1.14                    | 3.88           | 20.791                 | 3.395                  | 4.271   | 0.294                  | 0.508   | 19.277                           | 2.383                  | 47.09       | 2713    | 18.026                           | 2.058                  | 61.62       | 2713    | 1.931                | 8.431                 | -0.725  | 0.483  | 4.362   | 0.972 |  |
| 1200T200-97              | 0.1017           | 1.625                   | 5.53           | 29.805                 | 4.824                  | 4.283   | 0.41                   | 0.502   | 29.805                           | 4.298                  | 84.93       | 7902    | 28.959                           | 3.819                  | 114.35      | 7902    | 5.602                | 11.945                | -0.714  | 0.476  | 4.371   | 0.973 |  |
| 1200T200-118             | 0.1242           | 1.984                   | 6.75           | 36.53                  | 5.876                  | 4.291   | 0.492                  | 0.498   | 36.53                            | 5.794                  | 114.5       | 13189   | 36.53                            | 5.278                  | 158.02      | 14434   | 10.201               | 14.513                | -0.706  | 0.471  | 4.377   | 0.974 |  |

See notes located on page 17



# STRUCTURAL TRACK SECTION PROPERTIES

| Section                  | Thickness (in) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Gross Properties       |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         |                        | Effective Properties Fy = 50 ksi |             |         |                      | Torsional Properties  |         |        |         |       |
|--------------------------|----------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|------------------------|----------------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|                          |                |                         |                | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> )           | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 1200T250-54 <sup>1</sup> | 0.0566         | 0.962                   | 3.27           | 18.55                  | 3.041                  | 4.392   | 0.445                  | 0.681   | 15.021                           | 1.617                  | 31.95       | 1354    | 13.756                 | 1.374                            | 41.14       | 1354    | 1.027                | 12.339                | -1.039  | 0.68   | 4.565   | 0.948 |
| 1200T250-68              | 0.0713         | 1.211                   | 4.12           | 23.435                 | 3.826                  | 4.399   | 0.556                  | 0.678   | 20.72                            | 2.451                  | 48.44       | 2713    | 19.255                 | 2.106                            | 63.04       | 2713    | 2.052                | 15.529                | -1.033  | 0.676  | 4.569   | 0.949 |
| 1200T250-97              | 0.1017         | 1.727                   | 5.88           | 33.623                 | 5.442                  | 4.413   | 0.78                   | 0.672   | 32.479                           | 4.489                  | 88.7        | 7902    | 31.31                  | 3.954                            | 118.37      | 7902    | 5.953                | 22.101                | -1.021  | 0.668  | 4.579   | 0.95  |
| 1200T250-118             | 0.1242         | 2.108                   | 7.17           | 41.236                 | 6.632                  | 4.423   | 0.94                   | 0.668   | 40.963                           | 6.138                  | 121.28      | 13189   | 39.954                 | 5.519                            | 165.24      | 14434   | 10.839               | 26.943                | -1.013  | 0.662  | 4.586   | 0.951 |
| 1200T300-33 <sup>1</sup> | 0.0346         | 0.623                   | 2.12           | 12.588                 | 2.073                  | 4.496   | 0.46                   | 0.859   |                                  |                        |             |         |                        |                                  |             |         | 0.248                | 12.405                | -1.384  | 0.889  | 4.782   | 0.916 |
| 1200T300-43 <sup>1</sup> | 0.0451         | 0.811                   | 2.76           | 16.408                 | 2.698                  | 4.497   | 0.597                  | 0.857   |                                  |                        |             |         |                        |                                  |             |         | 0.55                 | 16.11                 | -1.38   | 0.887  | 4.781   | 0.917 |
| 1200T300-54 <sup>1</sup> | 0.0566         | 1.018                   | 3.46           | 20.636                 | 3.383                  | 4.502   | 0.745                  | 0.855   | 15.856                           | 1.641                  | 32.44       | 1354    | 14.451                 | 1.391                            | 41.65       | 1354    | 1.087                | 20.211                | -1.375  | 0.884  | 4.784   | 0.917 |
| 1200T300-68              | 0.0713         | 1.282                   | 4.36           | 26.079                 | 4.258                  | 4.51    | 0.932                  | 0.852   | 21.991                           | 2.501                  | 49.41       | 2713    | 20.338                 | 2.14                             | 64.06       | 2713    | 2.173                | 25.471                | -1.369  | 0.88   | 4.789   | 0.918 |
| 1200T300-97              | 0.1017         | 1.828                   | 6.22           | 37.441                 | 6.06                   | 4.525   | 1.31                   | 0.847   | 34.841                           | 4.629                  | 91.46       | 7902    | 33.377                 | 4.051                            | 121.3       | 7902    | 6.304                | 36.357                | -1.355  | 0.871  | 4.799   | 0.92  |
| 1200T300-118             | 0.1242         | 2.232                   | 7.6            | 45.941                 | 7.389                  | 4.537   | 1.583                  | 0.842   | 44.194                           | 6.386                  | 126.18      | 13189   | 42.885                 | 5.695                            | 170.51      | 14434   | 11.478               | 44.42                 | -1.346  | 0.865  | 4.806   | 0.922 |
| 1200T400-68              | 0.0713         | 1.425                   | 4.85           | 31.366                 | 5.121                  | 4.692   | 2.08                   | 1.208   | 25.284                           | 2.769                  | 54.71       | 2713    | 24.674                 | 2.27                             | 67.95       | 2713    | 2.415                | 55.338                | -2.098  | 1.311  | 5.279   | 0.842 |
| 1200T400-97              | 0.1017         | 2.032                   | 6.91           | 45.077                 | 7.296                  | 4.71    | 2.936                  | 1.202   | 38.563                           | 5.274                  | 104.22      | 7902    | 37.171                 | 4.725                            | 141.46      | 7902    | 7.005                | 79.27                 | -2.082  | 1.301  | 5.288   | 0.845 |
| 1200T400-118             | 0.1242         | 2.481                   | 8.44           | 55.352                 | 8.903                  | 4.724   | 3.559                  | 1.198   | 49.649                           | 6.871                  | 135.78      | 13189   | 47.518                 | 6.48                             | 194.02      | 14434   | 12.755               | 97.107                | -2.071  | 1.294  | 5.295   | 0.847 |
| 1350T125-54 <sup>1</sup> | 0.0566         | 0.905                   | 3.08           | 18.15                  | 2.65                   | 4.479   | 0.061                  | 0.259   | 16.262                           | 1.698                  | 33.55       | 1203    | 15.078                 | 1.459                            | 43.69       | 1203    | 0.966                | 2.362                 | -0.307  | 0.214  | 4.497   | 0.995 |
| 1350T125-68              | 0.0713         | 1.14                    | 3.88           | 22.894                 | 3.33                   | 4.482   | 0.075                  | 0.257   | 21.58                            | 2.526                  | 49.91       | 2409    | 20.753                 | 2.203                            | 65.96       | 2409    | 1.931                | 2.944                 | -0.303  | 0.211  | 4.5     | 0.995 |
| 1350T125-97              | 0.1017         | 1.625                   | 5.53           | 32.74                  | 4.726                  | 4.489   | 0.103                  | 0.252   | 32.677                           | 4.282                  | 84.62       | 7014    | 31.658                 | 3.961                            | 118.59      | 7014    | 5.602                | 4.105                 | -0.296  | 0.206  | 4.505   | 0.996 |
| 1350T125-118             | 0.1242         | 1.984                   | 6.75           | 40.054                 | 5.749                  | 4.493   | 0.123                  | 0.249   | 40.054                           | 5.577                  | 110.2       | 12808   | 39.969                 | 5.212                            | 156.05      | 12808   | 10.201               | 4.928                 | -0.291  | 0.202  | 4.51    | 0.996 |
| 1350T150-54 <sup>1</sup> | 0.0566         | 0.933                   | 3.18           | 19.467                 | 2.842                  | 4.567   | 0.104                  | 0.334   | 17.098                           | 1.74                   | 34.38       | 1203    | 15.773                 | 1.489                            | 44.57       | 1203    | 0.997                | 3.947                 | -0.421  | 0.289  | 4.599   | 0.992 |
| 1350T150-68              | 0.0713         | 1.175                   | 4              | 24.562                 | 3.573                  | 4.571   | 0.129                  | 0.332   | 23.293                           | 2.608                  | 51.53       | 2409    | 21.855                 | 2.261                            | 67.68       | 2409    | 1.992                | 4.933                 | -0.417  | 0.286  | 4.602   | 0.992 |
| 1350T150-97              | 0.1017         | 1.676                   | 5.7            | 35.144                 | 5.073                  | 4.579   | 0.179                  | 0.327   | 35.067                           | 4.624                  | 91.38       | 7014    | 34.16                  | 4.153                            | 124.33      | 7014    | 5.778                | 6.924                 | -0.408  | 0.281  | 4.609   | 0.992 |
| 1350T150-118             | 0.1242         | 2.046                   | 6.96           | 43.016                 | 6.174                  | 4.585   | 0.213                  | 0.323   | 43.016                           | 6                      | 118.55      | 12808   | 42.912                 | 5.631                            | 168.58      | 12808   | 10.52                | 8.353                 | -0.402  | 0.276  | 4.614   | 0.992 |
| 1350T200-54 <sup>1</sup> | 0.0566         | 0.99                    | 3.37           | 22.1                   | 3.227                  | 4.725   | 0.24                   | 0.493   | 18.481                           | 1.797                  | 35.5        | 1203    | 16.933                 | 1.529                            | 45.78       | 1203    | 1.057                | 8.769                 | -0.68   | 0.458  | 4.799   | 0.98  |
| 1350T200-68              | 0.0713         | 1.247                   | 4.24           | 27.896                 | 4.058                  | 4.73    | 0.299                  | 0.49    | 25.437                           | 2.719                  | 53.72       | 2409    | 23.666                 | 2.339                            | 70.02       | 2409    | 2.113                | 11.002                | -0.675  | 0.455  | 4.803   | 0.98  |
| 1350T200-97              | 0.1017         | 1.778                   | 6.05           | 39.954                 | 5.767                  | 4.741   | 0.418                  | 0.485   | 39.954                           | 4.955                  | 97.91       | 7014    | 38.298                 | 4.374                            | 130.95      | 7014    | 6.128                | 15.561                | -0.666  | 0.448  | 4.812   | 0.981 |
| 1350T200-118             | 0.1242         | 2.17                    | 7.38           | 48.938                 | 7.024                  | 4.749   | 0.501                  | 0.481   | 48.938                           | 6.745                  | 133.29      | 12808   | 48.938                 | 6.084                            | 182.17      | 12808   | 11.159               | 18.883                | -0.658  | 0.443  | 4.818   | 0.981 |
| 1350T250-54 <sup>1</sup> | 0.0566         | 1.046                   | 3.56           | 24.733                 | 3.611                  | 4.862   | 0.455                  | 0.66    | 19.647                           | 1.834                  | 36.25       | 1203    | 17.905                 | 1.556                            | 46.57       | 1203    | 1.117                | 16.152                | -0.974  | 0.644  | 5.002   | 0.962 |
| 1350T250-68              | 0.0713         | 1.318                   | 4.48           | 31.231                 | 4.543                  | 4.868   | 0.569                  | 0.657   | 27.222                           | 2.792                  | 55.18       | 2409    | 25.18                  | 2.39                             | 71.56       | 2409    | 2.233                | 20.311                | -0.969  | 0.64   | 5.007   | 0.963 |
| 1350T250-97              | 0.1017         | 1.879                   | 6.39           | 44.764                 | 6.461                  | 4.881   | 0.797                  | 0.651   | 43.449                           | 5.161                  | 101.99      | 7014    | 41.227                 | 4.519                            | 135.3       | 7014    | 6.479                | 28.858                | -0.957  | 0.633  | 5.016   | 0.964 |
| 1350T250-118             | 0.1242         | 2.294                   | 7.81           | 54.86                  | 7.874                  | 4.89    | 0.961                  | 0.647   | 54.611                           | 7.112                  | 140.55      | 12808   | 53.395                 | 6.346                            | 189.99      | 12808   | 11.797               | 35.137                | -0.949  | 0.627  | 5.023   | 0.964 |
| 1350T300-54 <sup>1</sup> | 0.0566         | 1.103                   | 3.75           | 27.366                 | 3.996                  | 4.981   | 0.764                  | 0.832   | 20.668                           | 1.862                  | 36.79       | 1203    | 18.754                 | 1.574                            | 47.14       | 1203    | 1.178                | 26.494                | -1.295  | 0.842  | 5.213   | 0.938 |
| 1350T300-68              | 0.0713         | 1.389                   | 4.73           | 34.566                 | 5.028                  | 4.988   | 0.955                  | 0.829   | 28.793                           | 2.846                  | 56.23       | 2409    | 26.515                 | 2.427                            | 72.67       | 2409    | 2.354                | 33.361                | -1.289  | 0.838  | 5.218   | 0.939 |
| 1350T300-97              | 0.1017         | 1.981                   | 6.74           | 49.574                 | 7.156                  | 5.003   | 1.343                  | 0.824   | 46.466                           | 5.312                  | 104.97      | 7014    | 43.8                   | 4.624                            | 138.45      | 7014    | 6.829                | 47.541                | -1.276  | 0.83   | 5.228   | 0.94  |
| 1350T300-118             | 0.1242         | 2.419                   | 8.23           | 60.782                 | 8.724                  | 5.013   | 1.623                  | 0.819   | 58.718                           | 7.381                  | 145.84      | 12808   | 57.131                 | 6.535                            | 195.67      | 12808   | 12.436               | 58.014                | -1.267  | 0.824  | 5.235   | 0.941 |
| 1350T400-68              | 0.0713         | 1.532                   | 5.21           | 41.236                 | 5.998                  | 5.188   | 2.141                  | 1.182   | 33.862                           | 3.099                  | 61.24       | 2409    | 33.002                 | 2.552                            | 76.41       | 2409    | 2.596                | 72.561                | -1.99   | 1.258  | 5.681   | 0.877 |
| 1350T400-97              | 0.1017         | 2.184                   | 7.43           | 59.194                 | 8.544                  | 5.206   | 3.023                  | 1.176   | 51.002                           | 6.297                  | 124.44      | 7014    | 49.671                 | 5.259                            | 157.45      | 7014    | 7.531                | 103.775               | -1.976  | 1.249  | 5.691   | 0.879 |
| 1350T400-118             | 0.1242         | 2.667                   | 9.08           | 72.626                 | 10.424                 | 5.218   | 3.663                  | 1.172   | 65.435                           | 8.167                  | 161.38      | 12808   | 62.783                 | 7.733                            | 231.52      | 12808   | 13.713               | 126.976               | -1.965  | 1.243  | 5.698   | 0.881 |
| 1400T125-54 <sup>1</sup> | 0.0566         | 0.933                   | 3.18           | 19.977                 | 2.814                  | 4.627   | 0.061                  | 0.256   | 17.725                           | 1.767                  | 34.91       | 1160    | 16.407                 | 1.517                            | 45.42       | 1160    | 0.997                | 2.559                 | -0.299  | 0.209  | 4.643   | 0.996 |
| 1400T125-68              | 0.0713         | 1.175                   | 4              | 25.196                 | 3.536                  | 4.63    | 0.076                  | 0.254   | 23.552                           | 2.632                  | 52.01       | 2322    | 22.62                  | 2.293                            | 68.64       | 2322    | 1.992                | 3.189                 | -0.296  | 0.206  | 4.646   | 0.996 |
| 1400T125-97              | 0.1017         | 1.676                   | 5.7            | 36.024                 | 5.019                  | 4.636   | 0.104                  | 0.249   | 35.775                           | 4.48                   | 88.53       | 6761    | 34.588                 | 4.134                            | 123.76      | 6761    | 5.778                | 4.445                 | -0.289  | 0.201  | 4.652   | 0.996 |
| 1400T125-118             | 0.1242         | 2.046                   | 6.96           | 44.068                 | 6.106                  | 4.641   | 0.123                  | 0.245   | 44.068                           | 5.853                  | 115.67      | 12344   | 43.752                 | 5.453                            | 163.27      | 12344   | 10.52                | 5.334                 | -0.284  | 0.197  | 4.656   | 0.996 |
| 1400T150-54 <sup>1</sup> | 0.0566         | 0.962                   | 3.27           | 21.392                 | 3.013                  | 4.717   | 0.105                  | 0.33    | 18.62                            | 1.81                   | 35.76       | 1160    | 17.153                 | 1.547                            | 46.33       | 1160    | 1.027                | 4.28                  | -0.41   | 0.283  | 4.746   | 0.993 |
| 1400T150-68              | 0.0713         | 1.211                   | 4.12           | 26.987                 | 3.788                  | 4.721   | 0.13                   | 0.327   | 25.409                           | 2.717                  | 53.68       | 2322    | 23.803                 | 2.352                            | 70.42       | 2322    | 2.052                | 5.349                 | -0.407  | 0.28   | 4.749   | 0.993 |
| 1400T150-97              | 0.1017         | 1.727                   | 5.88           | 38.607                 | 5.379                  | 4.729   | 0.18                   | 0.322   | 38.34                            | 4.834                  | 95.52       | 6761    | 37.285                 | 4.332                            | 129.69      | 6761    | 5.953                | 7.503                 | -0.399  | 0.275  | 4.756   | 0.993 |
| 1400T150-118             | 0.1242         | 2.108                   | 7.17           | 47.247                 | 6.546                  | 4.734   | 0.214                  | 0.319   | 47.247                           | 6.291                  | 124.31      | 12344   | 46.911                 | 5.886                            | 176.24      | 12344   | 10.839               | 9.048                 | -0.393  | 0.27   | 4.761   | 0.993 |
| 1400T200-54 <sup>1</sup> | 0.0566         | 1.018                   | 3.46           | 24.221                 | 3.412                  | 4.878   | 0.242                  | 0.487   | 20.098                           | 1.868                  | 36.92       | 1160    | 18.387                 | 1.589                            | 47.56       | 1160    | 1.087                | 9.52                  | -0.665  | 0.449  | 4.947   | 0.982 |
| 1400T200-68              | 0.0713         | 1.282                   | 4.36           | 30.571                 | 4.291                  | 4.883   | 0.301                  | 0.485   | 27.707                           | 2.83                   | 55.93       | 2322    | 25.738                 | 2.432                            | 72.81       | 2322    | 2.173                | 11.942                | -0.661  | 0.446  | 4.951   | 0.982 |
| 1400T200-97              | 0.1017         | 1.828                   | 6.22           | 43.773                 | 6.098                  | 4.893   | 0.42                   | 0.479   | 43.679                           | 5.174                  | 102.24      | 6761    | 41.749                 | 4.559                            | 136.48      | 6761    | 6.304                | 16.883                | -0.651  | 0.439  | 4.959   | 0.983 |
| 1400T200-118             | 0.1242         | 2.232                   | 7.6            | 53.606                 | 7.427                  | 4.9     | 0.504                  | 0.475   | 53.606                           | 7.062                  | 139.54      | 12344   | 53.453                 | 6.354                            | 190.23      | 12344   | 11.478               | 20.479                | -0.644  | 0.434  | 4.965   | 0.983 |

See notes located on page 17

# STRUCTURAL TRACK SECTION PROPERTIES

| Section                    | Thickness (in) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Gross Properties       |                        |         |                        |         | Effective Properties Fy = 33 ksi |                        |             |         | Effective Properties Fy = 50 ksi |                        |             |         | Torsional Properties |                       |         |        |         |       |
|----------------------------|----------------|-------------------------|----------------|------------------------|------------------------|---------|------------------------|---------|----------------------------------|------------------------|-------------|---------|----------------------------------|------------------------|-------------|---------|----------------------|-----------------------|---------|--------|---------|-------|
|                            |                |                         |                | Ixx (in <sup>4</sup> ) | Sxx (in <sup>3</sup> ) | Rx (in) | Iyy (in <sup>4</sup> ) | Ry (in) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | Ixx (in <sup>4</sup> )           | Sxx (in <sup>3</sup> ) | MaFy (in-k) | Va (lb) | J (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 1400T250-54 <sup>1</sup>   | 0.0566         | 1.075                   | 3.66           | 27.051                 | 3.811                  | 5.017   | 0.458                  | 0.653   | 21.342                           | 1.907                  | 37.68       | 1160    | 19.421                           | 1.616                  | 48.38       | 1160    | 1.148                | 17.55                 | -0.954  | 0.633  | 5.149   | 0.966 |
| 1400T250-68 <sup>1</sup>   | 0.0713         | 1.354                   | 4.61           | 34.154                 | 4.794                  | 5.023   | 0.573                  | 0.65    | 29.615                           | 2.906                  | 57.42       | 2322    | 27.352                           | 2.485                  | 74.4        | 2322    | 2.294                | 22.063                | -0.949  | 0.629  | 5.153   | 0.966 |
| 1400T250-97                | 0.1017         | 1.93                    | 6.57           | 48.939                 | 6.818                  | 5.036   | 0.803                  | 0.645   | 47.449                           | 5.386                  | 106.42      | 6761    | 44.883                           | 4.708                  | 140.94      | 6761    | 6.654                | 31.333                | -0.938  | 0.622  | 5.163   | 0.967 |
| 1400T250-118               | 0.1242         | 2.356                   | 8.02           | 59.964                 | 8.308                  | 5.044   | 0.967                  | 0.641   | 59.734                           | 7.438                  | 146.99      | 12344   | 58.277                           | 6.622                  | 198.25      | 12344   | 12.117               | 38.137                | -0.93   | 0.616  | 5.169   | 0.968 |
| 1400T300-54 <sup>1</sup>   | 0.0566         | 1.131                   | 3.85           | 29.881                 | 4.209                  | 5.139   | 0.769                  | 0.825   | 22.429                           | 1.935                  | 38.24       | 1160    | 20.324                           | 1.635                  | 48.96       | 1160    | 1.208                | 28.8                  | -1.271  | 0.829  | 5.358   | 0.944 |
| 1400T300-68                | 0.0713         | 1.425                   | 4.85           | 37.737                 | 5.297                  | 5.146   | 0.962                  | 0.822   | 31.291                           | 2.961                  | 58.5        | 2322    | 28.775                           | 2.523                  | 75.54       | 2322    | 2.415                | 36.257                | -1.265  | 0.825  | 5.363   | 0.944 |
| 1400T300-97                | 0.1017         | 2.032                   | 6.91           | 54.105                 | 7.538                  | 5.16    | 1.353                  | 0.816   | 50.615                           | 5.54                   | 109.48      | 6761    | 47.633                           | 4.815                  | 144.17      | 6761    | 7.005                | 51.644                | -1.252  | 0.817  | 5.373   | 0.946 |
| 1400T300-118               | 0.1242         | 2.481                   | 8.44           | 66.323                 | 9.189                  | 5.171   | 1.635                  | 0.812   | 64.159                           | 7.713                  | 152.42      | 12344   | 62.201                           | 6.816                  | 204.06      | 12344   | 12.755               | 62.998                | -1.243  | 0.811  | 5.38    | 0.947 |
| 1400T400-68                | 0.0713         | 1.567                   | 5.33           | 44.903                 | 6.302                  | 5.352   | 2.16                   | 1.174   | 37.078                           | 3.21                   | 63.43       | 2322    | 35.376                           | 2.647                  | 79.24       | 2322    | 2.656                | 78.896                | -1.957  | 1.242  | 5.818   | 0.887 |
| 1400T400-97                | 0.1017         | 2.235                   | 7.61           | 64.437                 | 8.977                  | 5.369   | 3.049                  | 1.168   | 55.644                           | 6.656                  | 131.52      | 6761    | 54.354                           | 5.437                  | 162.79      | 6761    | 7.706                | 112.783               | -1.943  | 1.233  | 5.828   | 0.889 |
| 1400T400-118               | 0.1242         | 2.729                   | 9.29           | 79.041                 | 10.951                 | 5.382   | 3.695                  | 1.164   | 71.315                           | 8.62                   | 170.34      | 12344   | 68.478                           | 8.172                  | 244.66      | 12344   | 14.032               | 137.951               | -1.932  | 1.226  | 5.835   | 0.89  |
| 1600T125-54 <sup>1,2</sup> | 0.0566         | 1.046                   | 3.56           | 28.485                 | 3.517                  | 5.217   | 0.062                  | 0.243   |                                  |                        |             |         |                                  |                        |             |         | 1.117                | 3.432                 | -0.272  | 0.191  | 5.230   | 0.997 |
| 1600T125-68 <sup>1</sup>   | 0.0713         | 1.318                   | 4.48           | 35.916                 | 4.421                  | 5.220   | 0.077                  | 0.241   |                                  |                        |             |         | 31.004                           | 2.651                  | 79.37       | 2030    | 2.233                | 4.273                 | -0.268  | 0.189  | 5.233   | 0.997 |
| 1600T125-97                | 0.1017         | 1.879                   | 6.39           | 51.322                 | 6.276                  | 5.226   | 0.105                  | 0.237   |                                  |                        |             |         | 47.830                           | 4.825                  | 144.47      | 5908    | 6.479                | 5.945                 | -0.262  | 0.184  | 5.238   | 0.997 |
| 1600T125-118               | 0.1242         | 2.294                   | 7.81           | 62.755                 | 7.637                  | 5.230   | 0.125                  | 0.233   |                                  |                        |             |         | 60.930                           | 6.420                  | 192.21      | 10783   | 11.797               | 7.126                 | -0.257  | 0.181  | 5.241   | 0.998 |
| 1600T150-54 <sup>1,2</sup> | 0.0566         | 1.075                   | 3.66           | 30.328                 | 3.745                  | 5.312   | 0.106                  | 0.314   |                                  |                        |             |         |                                  |                        |             |         | 1.148                | 5.757                 | -0.374  | 0.260  | 5.335   | 0.995 |
| 1600T150-68 <sup>1</sup>   | 0.0713         | 1.354                   | 4.61           | 38.249                 | 4.708                  | 5.316   | 0.132                  | 0.312   |                                  |                        |             |         | 32.537                           | 2.717                  | 81.34       | 2030    | 2.294                | 7.188                 | -0.371  | 0.258  | 5.338   | 0.995 |
| 1600T150-97                | 0.1017         | 1.930                   | 6.57           | 54.681                 | 6.686                  | 5.323   | 0.182                  | 0.307   |                                  |                        |             |         | 51.382                           | 5.047                  | 151.11      | 5908    | 6.654                | 10.066                | -0.363  | 0.253  | 5.344   | 0.995 |
| 1600T150-118               | 0.1242         | 2.356                   | 8.02           | 66.886                 | 8.140                  | 5.328   | 0.217                  | 0.304   |                                  |                        |             |         | 65.023                           | 6.911                  | 206.91      | 10783   | 12.117               | 12.124                | -0.358  | 0.249  | 5.348   | 0.996 |
| 1600T200-54 <sup>1,2</sup> | 0.0566         | 1.131                   | 3.85           | 34.015                 | 4.200                  | 5.483   | 0.246                  | 0.467   |                                  |                        |             |         |                                  |                        |             |         | 1.208                | 12.864                | -0.612  | 0.417  | 5.537   | 0.988 |
| 1600T200-68 <sup>1</sup>   | 0.0713         | 1.425                   | 4.85           | 42.914                 | 5.282                  | 5.488   | 0.307                  | 0.464   |                                  |                        |             |         | 35.009                           | 2.805                  | 83.99       | 2030    | 2.415                | 16.123                | -0.607  | 0.414  | 5.541   | 0.988 |
| 1600T200-97                | 0.1017         | 2.032                   | 6.91           | 61.398                 | 7.508                  | 5.497   | 0.428                  | 0.459   |                                  |                        |             |         | 57.292                           | 5.298                  | 158.62      | 5908    | 7.005                | 22.755                | -0.598  | 0.408  | 5.549   | 0.988 |
| 1600T200-118               | 0.1242         | 2.481                   | 8.44           | 75.146                 | 9.145                  | 5.504   | 0.514                  | 0.455   |                                  |                        |             |         | 73.613                           | 7.433                  | 222.53      | 10783   | 12.755               | 27.568                | -0.592  | 0.403  | 5.554   | 0.989 |

See notes located on page 17

## LIMITING WALL HEIGHTS - STRUCTURAL NOTES

### Curtain Wall Limiting Height Table Notes:

1. Listed lateral loads are ASD level pressures
2. Lateral loads have not been modified for strength checks.
3. Listed Lateral loads have been multiplied by 0.7 for deflection determination per IBC Table 1604.3, footnote f.
4. Flexural strength taken as the minimum of local buckling and distortional buckling allowable moments.
5. For distortional buckling allowable moment,  $k_0 = 0$ .
6. Moment of inertia for deflection is calculated at the maximum service level stress for the height listed. Note that this value may be higher than the effective  $I_{xx}$  listed in section property tables.
7. Limiting heights based on continuous support of each flange over the full length of the stud.
8. Limiting heights are based on steel properties only (non-composite).
9. Web crippling check based on 1 inch end bearing. Where listed limiting heights are followed by "e", web stiffeners are required.
10. Shear and web crippling capacity have not been reduced for punch-outs.



# LIMITING WALL HEIGHTS - STRUCTURAL

| Section    | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 350S137-33 | 33       | 12              | 22'7"  | 17'11" | 15'8"  | 14'0"  | 12'3"  | 10'4"  | 12'2"  | 11'2"  | 9'5"   | 10'10" | 10'4"  | 8'9"   | 9'11"  | 9'9"   | 8'2"   | 9'2"   | 9'2"   | 7'9"   | 8'7"e  | 8'7"e  | 7'5"   | 7'8"e  | 7'8"e  | 6'11"e |
| 350S137-33 | 33       | 16              | 20'7"  | 16'4"  | 14'3"  | 12'2"  | 11'2"  | 9'5"   | 10'6"  | 10'1"  | 8'6"   | 9'5"   | 9'5"   | 7'11"  | 8'7"e  | 8'7"e  | 7'5"   | 7'11"e | 7'11"e | 7'1"   | 7'5"e  | 7'5"e  | 6'9"e  | 6'8"e  | 6'8"e  | 6'3"e  |
| 350S137-33 | 33       | 24              | 17'2"  | 14'3"  | 12'5"  | 9'11"  | 9'9"   | 8'2"   | 8'7"e  | 8'7"e  | 7'5"   | 7'8"e  | 7'8"e  | 6'11"e | 7'0"e  | 7'0"e  | 6'6"e  | 6'6"e  | 6'6"e  | 6'2"e  | 6'1"e  | 6'1"e  | 5'11"e | 5'5"e  | 5'5"e  | 5'5"e  |
| 350S137-43 | 33       | 12              | 24'7"  | 19'6"  | 17'1"  | 15'3"  | 13'4"  | 11'3"  | 13'10" | 12'1"  | 10'2"  | 12'9"  | 11'3"  | 9'6"   | 11'7"  | 10'7"  | 8'11"  | 10'9"  | 10'1"  | 8'6"   | 10'1"  | 9'7"   | 8'1"   | 9'0"   | 8'11"  | 7'6"   |
| 350S137-43 | 33       | 16              | 22'4"  | 17'9"  | 15'6"  | 13'10" | 12'1"  | 10'2"  | 12'4"  | 11'0"  | 9'3"   | 11'0"  | 10'2"  | 8'7"   | 10'1"  | 9'7"   | 8'1"   | 9'4"   | 9'1"   | 7'8"   | 8'9"   | 8'9"   | 7'4"   | 7'9"   | 8'11"  | 6'10"  |
| 350S137-43 | 33       | 24              | 19'6"  | 15'6"  | 13'6"  | 11'7"  | 10'7"  | 8'11"  | 10'1"  | 9'7"   | 8'1"   | 9'0"   | 8'11"  | 7'6"   | 8'3"   | 8'3"   | 7'1"   | 7'7"   | 7'7"   | 6'9"   | 7'1"e  | 7'1"e  | 6'5"   | 6'4"e  | 6'4"e  | 6'0"e  |
| 350S137-54 | 50       | 12              | 26'4"  | 20'11" | 18'3"  | 16'4"  | 14'3"  | 12'0"  | 14'10" | 12'11" | 10'11" | 13'9"  | 12'0"  | 10'2"  | 12'11" | 11'4"  | 9'7"   | 12'4"  | 10'9"  | 9'1"   | 11'9"  | 10'3"  | 8'8"   | 10'11" | 9'7"   | 8'1"   |
| 350S137-54 | 50       | 16              | 23'11" | 19'0"  | 16'7"  | 14'10" | 12'11" | 10'11" | 13'6"  | 11'9"  | 9'11"  | 12'6"  | 10'11" | 9'3"   | 11'9"  | 10'3"  | 8'8"   | 11'2"  | 9'9"   | 8'3"   | 10'8"  | 9'4"   | 7'11"  | 9'11"  | 8'8"   | 7'4"   |
| 350S137-54 | 50       | 24              | 20'11" | 16'7"  | 14'6"  | 12'11" | 11'4"  | 9'7"   | 11'9"  | 10'3"  | 8'8"   | 10'11" | 9'7"   | 8'1"   | 10'3"  | 9'0"   | 7'7"   | 9'9"   | 8'6"   | 7'2"   | 9'4"   | 8'2"   | 6'11"  | 8'7"   | 7'7"   | 6'5"   |
| 350S137-68 | 50       | 12              | 28'2"  | 22'4"  | 19'6"  | 17'5"  | 15'3"  | 12'10" | 15'10" | 13'10" | 11'8"  | 14'8"  | 12'10" | 10'10" | 13'10" | 12'1"  | 10'2"  | 13'2"  | 11'6"  | 9'8"   | 12'7"  | 11'0"  | 9'3"   | 11'8"  | 10'2"  | 8'7"   |
| 350S137-68 | 50       | 16              | 25'7"  | 20'3"  | 17'9"  | 15'10" | 13'10" | 11'8"  | 14'5"  | 12'7"  | 10'7"  | 13'4"  | 11'8"  | 9'10"  | 12'7"  | 11'0"  | 9'3"   | 11'11" | 10'5"  | 8'10"  | 11'5"  | 10'0"  | 8'5"   | 10'7"  | 9'3"   | 7'10"  |
| 350S137-68 | 50       | 24              | 22'4"  | 17'9"  | 15'6"  | 13'10" | 12'1"  | 10'2"  | 12'7"  | 11'0"  | 9'3"   | 11'8"  | 10'2"  | 8'7"   | 11'0"  | 9'7"   | 8'1"   | 10'5"  | 9'1"   | 7'8"   | 10'0"  | 8'9"   | 7'4"   | 9'3"   | 8'1"   | 6'10"  |
| 350S162-33 | 33       | 12              | 23'9"  | 18'10" | 16'5"  | 14'8"  | 12'10" | 10'10" | 13'0"  | 11'8"  | 9'10"  | 11'8"  | 10'10" | 9'2"   | 10'8"  | 10'2"  | 8'7"   | 9'10"e | 9'8"e  | 8'2"   | 9'2"e  | 9'2"e  | 7'10"  | 8'3"e  | 8'3"e  | 7'3"e  |
| 350S162-33 | 33       | 16              | 21'7"  | 17'1"  | 14'11" | 13'0"  | 11'8"  | 9'10"  | 11'3"  | 10'7"  | 8'11"  | 10'1"e | 9'10"  | 8'4"   | 9'2"e  | 9'2"e  | 7'10"  | 8'6"e  | 8'6"e  | 7'5"e  | 8'0"e  | 8'0"e  | 7'1"e  | 7'2"e  | 7'2"e  | 6'7"e  |
| 350S162-33 | 33       | 24              | 18'5"  | 14'11" | 13'1"  | 10'8"  | 10'2"  | 8'7"   | 9'2"e  | 9'2"e  | 7'10"  | 8'3"e  | 8'3"e  | 7'3"e  | 7'6"e  | 7'6"e  | 6'10"e | 7'0"e  | 7'0"e  | 6'6"e  | 6'6"e  | 6'6"e  | 6'2"e  | 5'10"e | 5'10"e | 5'9"e  |
| 350S162-43 | 33       | 12              | 25'10" | 20'6"  | 17'11" | 16'0"  | 14'0"  | 11'9"  | 14'6"  | 12'8"  | 10'8"  | 13'6"  | 11'9"  | 9'11"  | 12'6"  | 11'1"  | 9'4"   | 11'7"  | 10'6"  | 8'11"  | 10'10" | 10'1"  | 8'6"   | 9'8"   | 9'4"   | 7'11"  |
| 350S162-43 | 33       | 16              | 23'5"  | 18'7"  | 16'3"  | 14'6"  | 12'8"  | 10'8"  | 13'2"  | 11'6"  | 9'9"   | 11'10" | 10'8"  | 9'0"   | 10'10" | 10'1"  | 8'6"   | 10'0"  | 9'7"   | 8'1"   | 9'5"   | 9'2"   | 7'9"   | 8'5"e  | 8'5"e  | 7'2"   |
| 350S162-43 | 33       | 24              | 20'6"  | 16'3"  | 14'2"  | 12'6"  | 11'1"  | 9'4"   | 10'10" | 10'1"  | 8'6"   | 9'8"   | 9'4"   | 7'11"  | 8'10"  | 8'10"  | 7'5"   | 8'2"e  | 8'2"e  | 7'1"   | 7'8"e  | 7'8"e  | 6'9"   | 6'10"e | 6'10"e | 6'3"e  |
| 350S162-54 | 50       | 12              | 27'8"  | 21'11" | 19'2"  | 17'1"  | 15'0"  | 12'7"  | 15'7"  | 13'7"  | 11'6"  | 14'5"  | 12'7"  | 10'8"  | 13'7"  | 11'10" | 10'0"  | 12'11" | 11'3"  | 9'6"   | 12'4"  | 10'9"  | 9'1"   | 11'6"  | 10'0"  | 8'5"   |
| 350S162-54 | 50       | 16              | 25'1"  | 19'11" | 17'5"  | 15'7"  | 13'7"  | 11'6"  | 14'2"  | 12'4"  | 10'5"  | 13'1"  | 11'6"  | 9'8"   | 12'4"  | 10'9"  | 9'1"   | 11'9"  | 10'3"  | 8'8"   | 11'3"  | 9'10"  | 8'3"   | 10'5"  | 9'1"   | 7'8"   |
| 350S162-54 | 50       | 24              | 21'11" | 17'5"  | 15'2"  | 13'7"  | 11'10" | 10'0"  | 12'4"  | 10'9"  | 9'1"   | 11'6"  | 10'0"  | 8'5"   | 10'9"  | 9'5"   | 7'11"  | 10'3"  | 8'11"  | 7'7"   | 9'10"  | 8'7"   | 7'3"   | 9'1"   | 7'11"  | 6'8"   |
| 350S162-68 | 50       | 12              | 29'7"  | 23'5"  | 20'6"  | 18'4"  | 16'0"  | 13'6"  | 16'8"  | 14'6"  | 12'3"  | 15'5"  | 13'6"  | 11'5"  | 14'6"  | 12'8"  | 10'9"  | 13'10" | 12'1"  | 10'2"  | 13'3"  | 11'6"  | 9'9"   | 12'3"  | 10'9"  | 9'0"   |
| 350S162-68 | 50       | 16              | 26'10" | 21'4"  | 18'7"  | 16'8"  | 14'6"  | 12'3"  | 15'1"  | 13'3"  | 11'2"  | 14'0"  | 12'3"  | 10'4"  | 13'3"  | 11'6"  | 9'9"   | 12'7"  | 11'0"  | 9'3"   | 12'0"  | 10'6"  | 8'10"  | 11'2"  | 9'9"   | 8'3"   |
| 350S162-68 | 50       | 24              | 23'5"  | 18'7"  | 16'3"  | 14'6"  | 12'8"  | 10'9"  | 13'3"  | 11'6"  | 9'9"   | 12'3"  | 10'9"  | 9'0"   | 11'6"  | 10'1"  | 8'6"   | 11'0"  | 9'7"   | 8'1"   | 10'6"  | 9'2"   | 7'9"   | 9'9"   | 8'6"   | 7'2"   |
| 350S200-33 | 33       | 12              | 25'0"  | 19'10" | 17'4"  | 15'6"  | 13'7"  | 11'5"  | 13'8"  | 12'4"  | 10'5"  | 12'2"  | 11'5"  | 9'8"   | 11'2"e | 10'9"  | 9'1"   | 10'4"e | 10'3"e | 8'7"   | 9'8"e  | 9'8"e  | 8'3"   | 8'8"e  | 8'8"e  | 7'8"e  |
| 350S200-33 | 33       | 16              | 22'9"  | 18'1"  | 15'9"  | 13'8"  | 12'4"  | 10'5"  | 11'10" | 11'2"  | 9'5"   | 10'7"e | 10'5"e | 8'9"   | 9'8"e  | 9'8"e  | 8'3"   | 8'11"e | 8'11"e | 7'10"e | 8'4"e  | 8'4"e  | 7'6"e  | 7'6"e  | 7'6"e  | 6'11"e |
| 350S200-33 | 33       | 24              | 19'4"  | 15'9"  | 13'9"  | 11'2"e | 10'9"  | 9'1"   | 9'8"e  | 9'8"e  | 8'3"   | 8'8"e  | 8'8"e  | 7'8"e  | 7'11"e | 7'11"e | 7'2"e  | 7'4"e  | 7'4"e  | 6'10"e | 6'10"e | 6'10"e | 6'7"e  | 6'1"e  | 6'1"e  | 6'1"e  |
| 350S200-43 | 33       | 12              | 27'3"  | 21'7"  | 18'11" | 16'11" | 14'9"  | 12'5"  | 15'4"  | 13'5"  | 11'4"  | 14'3"  | 12'5"  | 10'6"  | 13'5"  | 11'9"  | 9'11"  | 12'5"  | 11'1"  | 9'5"   | 11'7"  | 10'8"  | 9'0"   | 10'5"  | 9'11"  | 8'4"   |
| 350S200-43 | 33       | 16              | 24'9"  | 19'8"  | 17'2"  | 15'4"  | 13'5"  | 11'4"  | 13'11" | 12'2"  | 10'3"  | 12'9"  | 11'4"  | 9'6"   | 11'7"  | 10'8"  | 9'0"   | 10'9"  | 10'1"  | 8'6"   | 10'1"  | 9'8"   | 8'2"   | 9'0"e  | 9'0"e  | 7'7"   |
| 350S200-43 | 33       | 24              | 21'7"  | 17'2"  | 15'0"  | 13'5"  | 11'9"  | 9'11"  | 11'7"  | 10'8"  | 9'0"   | 10'5"  | 9'11"  | 8'4"   | 9'6"e  | 9'4"e  | 7'10"  | 8'9"e  | 8'9"e  | 7'5"   | 8'3"e  | 8'3"e  | 7'1"e  | 7'4"e  | 7'4"e  | 6'7"e  |
| 350S200-54 | 50       | 12              | 29'2"  | 23'2"  | 20'3"  | 18'1"  | 15'10" | 13'4"  | 16'5"  | 14'4"  | 12'1"  | 15'3"  | 13'4"  | 11'3"  | 14'4"  | 12'7"  | 10'7"  | 13'8"  | 11'11" | 10'1"  | 13'1"  | 11'5"  | 9'7"   | 12'1"  | 10'7"  | 8'11"  |
| 350S200-54 | 50       | 16              | 26'6"  | 21'1"  | 18'5"  | 16'5"  | 14'4"  | 12'1"  | 14'11" | 13'1"  | 11'0"  | 13'10" | 12'1"  | 10'3"  | 13'1"  | 11'5"  | 9'7"   | 12'5"  | 10'10" | 9'2"   | 11'10" | 10'4"  | 8'9"   | 11'0"  | 9'7"   | 8'1"   |
| 350S200-54 | 50       | 24              | 23'2"  | 18'5"  | 16'1"  | 14'4"  | 12'7"  | 10'7"  | 13'1"  | 11'5"  | 9'7"   | 12'1"  | 10'7"  | 8'11"  | 11'5"  | 10'0"  | 8'5"   | 10'10" | 9'6"   | 8'0"   | 10'4"  | 9'1"   | 7'8"   | 9'7"   | 8'5"   | 7'1"   |
| 350S200-68 | 50       | 12              | 31'3"  | 24'10" | 21'8"  | 19'5"  | 16'11" | 14'3"  | 17'7"  | 15'5"  | 13'0"  | 16'4"  | 14'3"  | 12'1"  | 15'5"  | 13'5"  | 11'4"  | 14'7"  | 12'9"  | 10'9"  | 14'0"  | 12'3"  | 10'4"  | 13'0"  | 11'4"  | 9'7"   |
| 350S200-68 | 50       | 16              | 28'5"  | 22'7"  | 19'8"  | 17'7"  | 15'5"  | 13'0"  | 16'0"  | 14'0"  | 11'9"  | 14'10" | 13'0"  | 10'11" | 14'0"  | 12'3"  | 10'4"  | 13'3"  | 11'7"  | 9'9"   | 12'8"  | 11'1"  | 9'4"   | 11'9"  | 10'4"  | 8'8"   |
| 350S200-68 | 50       | 24              | 24'10" | 19'8"  | 17'3"  | 15'5"  | 13'5"  | 11'4"  | 14'0"  | 12'3"  | 10'4"  | 13'0"  | 11'4"  | 9'7"   | 12'3"  | 10'8"  | 9'0"   | 11'7"  | 10'2"  | 8'7"   | 11'1"  | 9'8"   | 8'2"   | 10'4"  | 9'0"   | 7'7"   |
| 362S137-33 | 33       | 12              | 23'3"  | 18'5"  | 16'1"  | 14'3"  | 12'7"  | 10'7"  | 12'4"  | 11'5"  | 9'8"   | 11'1"  | 10'7"  | 8'11"  | 10'1"  | 10'0"  | 8'5"   | 9'4"   | 9'4"   | 8'0"   | 8'9"e  | 8'9"e  | 7'8"   | 7'10"e | 7'10"e | 7'1"e  |
| 362S137-33 | 33       | 16              | 21'1"  | 16'9"  | 14'8"  | 12'4"  | 11'5"  | 9'8"   | 10'9"  | 10'5"  | 8'9"   | 9'7"   | 9'7"   | 8'2"   | 8'9"e  | 8'9"e  | 7'8"   | 8'1"e  | 8'1"e  | 7'3"e  | 7'7"e  | 7'7"e  | 6'11"e | 6'9"e  | 6'9"e  | 6'5"e  |
| 362S137-33 | 33       | 24              | 17'6"  | 14'8"  | 12'10" | 10'1"  | 10'0"  | 8'5"   | 8'9"e  | 8'9"e  | 7'8"   | 7'10"e | 7'10"e | 7'1"e  | 7'2"e  | 7'2"e  | 6'8"e  | 6'7"e  | 6'7"e  | 6'4"e  | 6'2"e  | 6'2"e  | 6'1"e  | 5'6"e  | 5'6"e  | 5'6"e  |
| 362S137-43 | 33       | 12              | 25'3"  | 20'1"  | 17'6"  | 15'8"  | 13'8"  | 11'7"  | 14'3"  | 12'5"  | 10'6"  | 13'0"  | 11'7"  | 9'9"   | 11'10" | 10'10" | 9'2"   | 11'0"  | 10'4"  | 8'8"   | 10'3"  | 9'10"  | 8'4"   | 9'2"   | 9'2"   | 7'9"   |
| 362S137-43 | 33       | 16              | 23'0"  | 18'3"  | 15'11" | 14'3"  | 12'5"  | 10'6"  | 12'7"  | 11'4"  | 9'6"   | 11'3"  | 10'6"  | 8'10"  | 10'3"  | 9'10"  | 8'4"   | 9'6"   | 9'5"   | 7'11"  | 8'11"  | 8'11"  | 7'7"   | 7'11"  | 7'11"  | 7'0"   |
| 362S137-43 | 33       | 24              | 20'1"  | 15'11" | 13'11" | 11'10" | 10'10" | 9'2"   | 10'3"  | 9'10"  | 8'4"   | 9'2"   | 9'2"   | 7'9"   | 8'5"   | 8'5"   | 7'3"   | 7'9"   | 7'9"   | 6'11"  | 7'3"e  | 7'3"e  | 6'7"   | 6'6"e  | 6'6"e  | 6'2"e  |
| 362S137-54 | 50       | 12              | 27'1"  | 21'6"  | 18'9"  | 16'9"  | 14'8"  | 12'4"  | 15'3"  | 13'4"  | 11'3"  | 14'2"  | 12'4"  | 10'5"  | 13'4"  | 11'8"  | 9'10"  | 12'8"  | 11'1"  | 9'4"   | 12'1"  | 10'7"  | 8'11"  | 11'3"  | 9'10"  | 8'3"   |
| 362S137-54 | 50       | 16              | 24'7"  | 19'6"  | 17'1"  | 15'3"  | 13'4"  | 11'3"  | 13'10" | 12'1"  | 10'2"  | 12'10" | 11'3"  | 9'6"   | 12'1"  | 10'7"  | 8'11"  | 11'6"  | 10'0"  | 8'6"   | 11'0"  | 9'7"   | 8'1"   | 10'2"  | 8'11"  | 7'6"   |
| 362S137-54 | 50       | 24              | 21'6"  | 17'1"  | 14'11" | 13'4"  | 11'8"  | 9'10"  | 12'1"  | 10'7"  | 8'11"  | 11'3"  | 9'10"  | 8'3"   | 10'7"  | 9'3"   | 7'9"   | 10'0"  | 8'9"   | 7'5"   | 9'7"   | 8'5"   | 7'1"   | 8'9"   | 7'9"   | 6'7"   |
| 362S137-68 | 50       | 12              | 28'11" | 22'11" | 20'1"  | 17'11" | 15'8"  | 13'2"  | 16'3"  | 14'3"  | 12'0"  | 15'1"  | 13'2"  | 11'2"  | 14'3"  | 12'5"  | 10'6"  | 13'6"  | 11'10" | 9'11"  | 12'11" | 11'4"  | 9'6"   | 12'0"  | 10'6"  | 8'10"  |
| 362S137-68 | 50       | 16              | 26'3"  | 20'10" | 18'3"  | 16'3"  | 14'3"  | 12'0"  | 14'10" | 12'11" | 10'11" | 13'9"  | 12'0"  | 10'1"  | 12'11" | 11'4"  | 9'6"   | 12'3"  | 10'9"  | 9'1"   | 11'9"  | 10'3"  | 8'8"   | 10'11" | 9'6"   | 8'0"   |

See notes located on page 26

# LIMITING WALL HEIGHTS - STRUCTURAL

| Section     | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|-------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 362S162-33  | 33       | 12              | 24'4"  | 19'4"  | 16'11" | 15'1"  | 13'2"  | 11'1"  | 13'3"  | 12'0"  | 10'1"  | 11'11" | 11'1"  | 9'5"   | 10'10" | 10'6"  | 8'10"  | 10'0"  | 9'11"  | 8'5"   | 9'5"   | 9'5"   | 8'0"   | 8'5"   | 8'5"   | 7'5"   |
| 362S162-33  | 33       | 16              | 22'2"  | 17'7"  | 15'4"  | 13'3"  | 12'0"  | 10'1"  | 11'6"  | 10'11" | 9'2"   | 10'3"  | 10'1"  | 8'6"   | 9'5"   | 9'5"   | 8'0"   | 8'8"   | 8'8"   | 7'7"   | 8'2"   | 8'2"   | 7'3"   | 7'3"   | 7'3"   | 6'9"   |
| 362S162-33  | 33       | 24              | 18'9"  | 15'4"  | 13'5"  | 10'10" | 10'6"  | 8'10"  | 9'5"   | 9'5"   | 8'0"   | 8'5"   | 8'5"   | 7'5"   | 7'8"   | 7'8"   | 7'0"   | 7'1"   | 7'1"   | 6'8"   | 6'8"   | 6'8"   | 6'4"   | 5'11"  | 5'11"  | 5'11"  |
| 362S162-43  | 33       | 12              | 26'6"  | 21'0"  | 18'4"  | 16'5"  | 14'4"  | 12'1"  | 14'11" | 13'0"  | 11'0"  | 13'10" | 12'1"  | 10'2"  | 12'9"  | 11'5"  | 9'7"   | 11'10" | 10'10" | 9'1"   | 11'1"  | 10'4"  | 8'9"   | 9'11"  | 9'7"   | 8'1"   |
| 362S162-43  | 33       | 16              | 24'1"  | 19'1"  | 16'8"  | 14'11" | 13'0"  | 11'0"  | 13'7"  | 11'10" | 10'0"  | 12'1"  | 11'0"  | 9'3"   | 11'1"  | 10'4"  | 8'9"   | 10'3"  | 9'10"  | 8'3"   | 9'7"   | 9'5"   | 7'11"  | 8'7"   | 8'7"   | 7'4"   |
| 362S162-43  | 33       | 24              | 21'0"  | 16'8"  | 14'7"  | 12'9"  | 11'5"  | 9'7"   | 11'1"  | 10'4"  | 8'9"   | 9'11"  | 9'7"   | 8'1"   | 9'0"   | 9'0"   | 7'7"   | 8'4"   | 8'4"   | 7'3"   | 7'10"  | 7'10"  | 6'11"  | 7'0"   | 7'0"   | 6'5"   |
| 362S162-54  | 50       | 12              | 28'5"  | 22'6"  | 19'8"  | 17'7"  | 15'4"  | 13'0"  | 16'0"  | 14'0"  | 11'9"  | 14'10" | 13'0"  | 10'11" | 14'0"  | 12'2"  | 10'3"  | 13'3"  | 11'7"  | 9'9"   | 12'8"  | 11'1"  | 9'4"   | 11'9"  | 10'3"  | 8'8"   |
| 362S162-54  | 50       | 16              | 25'10" | 20'6"  | 17'11" | 16'0"  | 14'0"  | 11'9"  | 14'6"  | 12'8"  | 10'8"  | 13'6"  | 11'9"  | 9'11"  | 12'8"  | 11'1"  | 9'4"   | 12'1"  | 10'6"  | 8'11"  | 11'6"  | 10'1"  | 8'6"   | 10'8"  | 9'4"   | 7'11"  |
| 362S162-54  | 50       | 24              | 22'6"  | 17'11" | 15'7"  | 14'0"  | 12'2"  | 10'3"  | 12'8"  | 11'1"  | 9'4"   | 11'9"  | 10'3"  | 8'8"   | 11'1"  | 9'8"   | 8'2"   | 10'6"  | 9'2"   | 7'9"   | 10'1"  | 8'10"  | 7'5"   | 9'4"   | 8'2"   | 6'11"  |
| 362S162-68  | 50       | 12              | 30'4"  | 24'1"  | 21'1"  | 18'10" | 16'5"  | 13'10" | 17'1"  | 14'11" | 12'7"  | 15'11" | 13'10" | 11'8"  | 14'11" | 13'1"  | 11'0"  | 14'2"  | 12'5"  | 10'5"  | 13'7"  | 11'10" | 10'0"  | 12'7"  | 11'0"  | 9'3"   |
| 362S162-68  | 50       | 16              | 27'7"  | 21'11" | 19'2"  | 17'1"  | 14'11" | 12'7"  | 15'6"  | 13'7"  | 11'5"  | 14'5"  | 12'7"  | 10'8"  | 13'7"  | 11'10" | 10'0"  | 12'11" | 11'3"  | 9'6"   | 12'4"  | 10'9"  | 9'1"   | 11'5"  | 10'9"  | 8'5"   |
| 362S162-68  | 50       | 24              | 24'1"  | 19'2"  | 16'9"  | 14'11" | 13'1"  | 11'0"  | 13'7"  | 11'10" | 10'0"  | 12'7"  | 11'0"  | 9'3"   | 11'10" | 10'4"  | 8'9"   | 11'3"  | 9'10"  | 8'4"   | 10'9"  | 9'5"   | 7'11"  | 10'0"  | 8'0"   | 7'4"   |
| 362S200-33  | 33       | 12              | 25'9"  | 20'5"  | 17'10" | 15'11" | 13'11" | 11'9"  | 13'11" | 12'8"  | 10'8"  | 12'5"  | 11'9"  | 9'11"  | 11'4"  | 11'1"  | 9'4"   | 10'6"  | 10'6"  | 8'10"  | 9'10"  | 9'10"  | 8'6"   | 8'10"  | 8'10"  | 7'10"  |
| 362S200-33  | 33       | 16              | 23'4"  | 18'7"  | 16'2"  | 13'11" | 12'8"  | 10'8"  | 12'1"  | 11'6"  | 9'8"   | 10'9"  | 10'8"  | 9'0"   | 9'10"  | 9'10"  | 8'6"   | 9'1"   | 9'1"   | 8'1"   | 8'6"   | 8'6"   | 7'8"   | 7'7"   | 7'7"   | 7'2"   |
| 362S200-33  | 33       | 24              | 19'8"  | 16'2"  | 14'2"  | 11'4"  | 11'1"  | 9'4"   | 9'10"  | 9'10"  | 8'6"   | 8'10"  | 8'10"  | 7'10"  | 8'0"   | 8'0"   | 7'5"   | 7'5"   | 7'5"   | 7'0"   | 7'0"   | 7'0"   | 6'9"   | 6'3"   | 6'3"   | 6'3"   |
| 362S200-43  | 33       | 12              | 28'0"  | 22'3"  | 19'5"  | 17'4"  | 15'2"  | 12'9"  | 15'9"  | 13'9"  | 11'7"  | 14'8"  | 12'9"  | 10'9"  | 13'8"  | 12'0"  | 10'2"  | 12'8"  | 11'5"  | 9'8"   | 11'10" | 10'11" | 9'3"   | 10'7"  | 10'2"  | 8'7"   |
| 362S200-43  | 33       | 16              | 25'5"  | 20'2"  | 17'8"  | 15'9"  | 13'9"  | 11'7"  | 14'4"  | 12'6"  | 10'7"  | 13'0"  | 11'7"  | 9'10"  | 11'10" | 10'11" | 9'3"   | 11'0"  | 10'5"  | 8'9"   | 10'3"  | 9'11"  | 8'4"   | 9'2"   | 9'2"   | 7'9"   |
| 362S200-43  | 33       | 24              | 22'3"  | 17'8"  | 15'5"  | 13'8"  | 12'0"  | 10'2"  | 11'10" | 10'11" | 9'3"   | 10'7"  | 10'2"  | 8'7"   | 9'8"   | 9'7"   | 8'1"   | 9'0"   | 9'0"   | 7'8"   | 8'5"   | 8'5"   | 7'4"   | 7'6"   | 7'6"   | 6'9"   |
| 362S200-54  | 50       | 12              | 30'0"  | 23'10" | 20'10" | 18'7"  | 16'3"  | 13'8"  | 16'11" | 14'9"  | 12'5"  | 15'8"  | 13'8"  | 11'7"  | 14'9"  | 12'11" | 10'10" | 14'0"  | 12'3"  | 10'4"  | 13'5"  | 11'9"  | 9'11"  | 12'5"  | 10'10" | 9'2"   |
| 362S200-54  | 50       | 16              | 27'3"  | 21'8"  | 18'11" | 16'11" | 14'9"  | 12'5"  | 15'4"  | 13'5"  | 11'4"  | 14'3"  | 12'5"  | 10'6"  | 13'5"  | 11'9"  | 9'11"  | 12'9"  | 11'2"  | 9'5"   | 12'2"  | 10'8"  | 9'0"   | 11'4"  | 9'11"  | 8'4"   |
| 362S200-54  | 50       | 24              | 23'10" | 18'11" | 16'6"  | 14'9"  | 12'11" | 10'10" | 13'5"  | 11'9"  | 9'11"  | 12'5"  | 10'10" | 9'2"   | 11'9"  | 10'3"  | 8'8"   | 11'2"  | 9'9"   | 8'2"   | 10'8"  | 9'4"   | 7'10"  | 9'11"  | 8'8"   | 7'3"   |
| 362S200-68  | 50       | 12              | 32'2"  | 25'6"  | 22'3"  | 19'11" | 17'5"  | 14'8"  | 18'1"  | 15'10" | 13'4"  | 16'10" | 14'8"  | 12'5"  | 15'10" | 13'10" | 11'8"  | 15'0"  | 13'1"  | 11'1"  | 14'4"  | 12'7"  | 10'7"  | 13'4"  | 11'8"  | 9'10"  |
| 362S200-68  | 50       | 16              | 29'2"  | 23'2"  | 20'3"  | 18'1"  | 15'10" | 13'4"  | 16'5"  | 14'4"  | 12'1"  | 15'3"  | 13'4"  | 11'3"  | 14'4"  | 12'7"  | 10'7"  | 13'8"  | 11'11" | 10'1"  | 13'1"  | 11'5"  | 9'7"   | 12'1"  | 10'7"  | 8'11"  |
| 362S200-68  | 50       | 24              | 25'6"  | 20'3"  | 17'8"  | 15'10" | 13'10" | 11'8"  | 14'4"  | 12'7"  | 10'7"  | 13'4"  | 11'8"  | 9'10"  | 12'7"  | 11'0"  | 9'3"   | 11'11" | 10'5"  | 8'9"   | 11'5"  | 9'11"  | 8'5"   | 10'7"  | 9'3"   | 7'10"  |
| 362S250-54  | 50       | 12              | 31'8"  | 25'2"  | 21'11" | 19'7"  | 17'2"  | 14'5"  | 17'10" | 15'7"  | 13'2"  | 16'7"  | 14'5"  | 12'2"  | 15'7"  | 13'7"  | 11'6"  | 14'10" | 12'11" | 10'11" | 14'2"  | 12'4"  | 10'5"  | 13'2"  | 11'6"  | 9'8"   |
| 362S250-54  | 50       | 16              | 28'9"  | 22'10" | 19'11" | 17'10" | 15'7"  | 13'2"  | 16'2"  | 14'2"  | 11'11" | 15'0"  | 13'2"  | 11'1"  | 14'2"  | 12'4"  | 10'5"  | 13'5"  | 11'9"  | 9'11"  | 12'10" | 11'3"  | 9'6"   | 11'11" | 10'5"  | 8'10"  |
| 362S250-54  | 50       | 24              | 25'2"  | 19'11" | 17'5"  | 15'7"  | 13'7"  | 11'6"  | 14'2"  | 12'4"  | 10'5"  | 13'2"  | 11'6"  | 9'8"   | 12'4"  | 10'10" | 9'1"   | 11'9"  | 10'3"  | 8'8"   | 11'3"  | 9'10"  | 8'3"   | 10'2"  | 9'1"   | 7'8"   |
| 362S250-68  | 50       | 12              | 33'11" | 26'11" | 23'6"  | 21'0"  | 18'4"  | 15'6"  | 19'1"  | 16'8"  | 14'1"  | 17'9"  | 15'6"  | 13'1"  | 16'8"  | 14'7"  | 12'4"  | 15'10" | 13'10" | 11'8"  | 15'2"  | 13'3"  | 11'2"  | 14'1"  | 12'4"  | 10'4"  |
| 362S250-68  | 50       | 16              | 30'10" | 24'6"  | 21'5"  | 19'1"  | 16'8"  | 14'1"  | 17'4"  | 15'2"  | 12'10" | 16'1"  | 14'1"  | 11'11" | 15'2"  | 13'3"  | 11'2"  | 14'5"  | 12'7"  | 10'7"  | 13'9"  | 12'0"  | 10'2"  | 12'10" | 11'2"  | 9'5"   |
| 362S250-68  | 50       | 24              | 26'11" | 21'5"  | 18'8"  | 16'8"  | 14'7"  | 12'4"  | 15'2"  | 13'3"  | 11'2"  | 14'1"  | 12'4"  | 10'4"  | 13'3"  | 11'7"  | 9'9"   | 12'7"  | 11'0"  | 9'3"   | 12'0"  | 10'6"  | 8'10"  | 11'2"  | 9'9"   | 8'3"   |
| 362S250-97  | 50       | 12              | 37'7"  | 29'10" | 26'1"  | 23'4"  | 20'4"  | 17'2"  | 21'2"  | 18'6"  | 15'7"  | 19'8"  | 17'2"  | 14'6"  | 18'6"  | 16'2"  | 13'8"  | 17'7"  | 15'4"  | 12'11" | 16'10" | 14'8"  | 12'5"  | 15'7"  | 13'8"  | 11'6"  |
| 362S250-97  | 50       | 16              | 34'2"  | 27'1"  | 23'8"  | 21'2"  | 18'6"  | 15'7"  | 19'3"  | 16'10" | 14'2"  | 17'10" | 15'7"  | 13'2"  | 16'10" | 14'8"  | 12'5"  | 16'0"  | 13'11" | 11'9"  | 15'3"  | 13'4"  | 11'3"  | 14'2"  | 12'5"  | 10'5"  |
| 362S250-97  | 50       | 24              | 29'10" | 23'8"  | 20'8"  | 18'6"  | 16'2"  | 13'8"  | 16'10" | 14'8"  | 12'5"  | 15'7"  | 13'8"  | 11'6"  | 14'8"  | 12'10" | 10'10" | 13'11" | 12'2"  | 10'3"  | 13'4"  | 11'8"  | 9'10"  | 12'5"  | 10'10" | 9'1"   |
| 362S250-118 | 50       | 12              |        |        |        | 24'7"  | 21'6"  | 18'2"  | 22'4"  | 19'6"  | 16'6"  | 20'9"  | 18'2"  | 15'4"  | 19'6"  | 17'1"  | 14'5"  | 18'7"  | 16'2"  | 13'8"  | 17'9"  | 15'6"  | 13'1"  | 16'10" | 14'9"  | 12'5"  |
| 362S250-118 | 50       | 16              |        |        |        | 22'4"  | 19'6"  | 16'6"  | 20'4"  | 17'9"  | 15'0"  | 18'10" | 16'6"  | 13'11" | 17'9"  | 15'6"  | 13'1"  | 16'10" | 14'9"  | 12'5"  | 16'1"  | 14'1"  | 11'11" |        |        |        |
| 362S250-118 | 50       | 24              |        |        |        | 19'6"  | 17'1"  | 14'5"  | 17'9"  | 15'6"  | 13'1"  | 16'6"  | 14'5"  | 12'2"  | 15'6"  | 13'7"  | 11'5"  | 14'9"  | 12'10" | 10'10" | 14'1"  | 12'4"  | 10'5"  |        |        |        |
| 362S300-54  | 50       | 12              | 33'2"  | 26'4"  | 23'0"  | 20'7"  | 17'11" | 15'2"  | 18'8"  | 16'4"  | 13'9"  | 17'4"  | 15'2"  | 12'9"  | 16'4"  | 14'3"  | 12'0"  | 15'6"  | 13'6"  | 11'5"  | 14'10" | 12'11" | 10'11" | 13'9"  | 12'0"  | 10'2"  |
| 362S300-54  | 50       | 16              | 30'2"  | 23'11" | 20'11" | 18'8"  | 16'4"  | 13'9"  | 17'0"  | 14'10" | 12'6"  | 15'9"  | 13'9"  | 11'7"  | 14'10" | 12'11" | 10'11" | 14'1"  | 12'4"  | 10'4"  | 13'6"  | 11'9"  | 9'11"  | 12'6"  | 10'11" | 9'3"   |
| 362S300-54  | 50       | 24              | 26'4"  | 20'11" | 18'3"  | 16'4"  | 14'3"  | 12'0"  | 14'10" | 12'11" | 10'11" | 13'9"  | 12'0"  | 10'2"  | 12'11" | 11'4"  | 9'6"   | 12'3"  | 10'9"  | 9'1"   | 11'6"  | 10'3"  | 8'8"   | 10'3"  | 9'6"   | 8'1"   |
| 362S300-68  | 50       | 12              | 35'7"  | 28'3"  | 24'8"  | 22'1"  | 19'3"  | 16'3"  | 20'0"  | 17'6"  | 14'9"  | 18'7"  | 16'3"  | 13'8"  | 17'6"  | 15'3"  | 12'11" | 16'7"  | 14'6"  | 12'3"  | 15'11" | 13'11" | 11'9"  | 14'9"  | 12'11" | 10'10" |
| 362S300-68  | 50       | 16              | 32'4"  | 25'8"  | 22'5"  | 20'0"  | 17'6"  | 14'9"  | 18'2"  | 15'11" | 13'5"  | 16'11" | 14'9"  | 12'5"  | 15'11" | 13'11" | 11'9"  | 15'1"  | 13'2"  | 11'2"  | 14'5"  | 12'7"  | 10'8"  | 13'5"  | 11'9"  | 9'11"  |
| 362S300-68  | 50       | 24              | 28'3"  | 22'5"  | 19'7"  | 17'6"  | 15'3"  | 12'11" | 15'11" | 13'11" | 11'9"  | 14'9"  | 12'11" | 10'10" | 13'11" | 12'2"  | 10'3"  | 13'2"  | 11'6"  | 9'9"   | 12'7"  | 11'0"  | 9'4"   | 11'9"  | 10'3"  | 8'8"   |
| 362S300-97  | 50       | 12              | 39'5"  | 31'4"  | 27'4"  | 24'5"  | 21'4"  | 18'0"  | 22'3"  | 19'5"  | 16'4"  | 20'8"  | 18'0"  | 15'2"  | 19'5"  | 16'11" | 14'4"  | 18'5"  | 16'1"  | 13'7"  | 17'8"  | 15'5"  | 13'0"  | 16'4"  | 14'4"  | 12'1"  |
| 362S300-97  | 50       | 16              | 35'10" | 28'5"  | 24'10" | 22'3"  | 19'5"  | 16'4"  | 20'2"  | 17'8"  | 14'10" | 18'9"  | 16'4"  | 13'10" | 17'8"  | 15'5"  | 13'0"  | 16'9"  | 14'8"  | 12'4"  | 16'0"  | 14'0"  | 11'10" | 14'10" | 13'0"  | 11'0"  |
| 362S300-97  | 50       | 24              | 31'4"  | 24'10" | 21'9"  | 19'5"  | 16'11" | 14'4"  | 17'8"  | 15'5"  | 13'0"  | 16'4"  | 14'4"  | 12'1"  | 15'5"  | 13'5"  | 11'4"  | 14'8"  | 12'9"  | 10'9"  | 14'0"  | 12'3"  | 10'4"  | 13'0"  | 11'4"  | 9'7"   |
| 362S300-118 | 50       | 12              |        |        |        | 25'10" | 22'7"  | 19'1"  | 23'6"  | 20'6"  | 17'4"  | 21'10" | 19'1"  | 16'1"  | 20'6"  | 17'11" | 15'1"  | 19'6"  | 17'0"  | 14'4"  | 18'8"  | 16'3"  | 13'9"  |        |        |        |
| 362S300-118 | 50       | 16              |        |        |        | 23'6"  | 20'6"  | 17'4"  | 21'4"  | 18'8"  | 15'9"  | 19'10" | 17'4"  | 14'7"  | 18'8"  | 16'3"  | 13'9"  | 17'9"  | 15'6"  | 13'1"  | 16'11" | 14'10" | 12'6"  |        |        |        |
| 362S300-118 | 50       | 24              |        |        |        | 20'6"  | 17'11" | 15'1"  | 18'8"  | 16'3"  | 13'9"  | 17'4"  | 15'1"  | 12'9"  | 16'3"  | 14'3"  | 12'0"  | 15'6"  | 13'6"  | 11'5"  | 14'10" | 12'11" | 10'11" |        |        |        |



# LIMITING WALL HEIGHTS - STRUCTURAL

| Section     | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|-------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 400S200-68  | 50       | 16              | 31'6"  | 25'0"  | 21'10" | 19'6"  | 17'1"  | 14'5"  | 17'9"  | 15'6"  | 13'1"  | 16'6"  | 14'5"  | 12'2"  | 15'6"  | 13'6"  | 11'5"  | 14'9"  | 12'10" | 10'10" | 14'1"  | 12'4"  | 10'4"  | 13'1"  | 11'5"  | 9'8"   |
| 400S200-68  | 50       | 24              | 27'6"  | 21'10" | 19'1"  | 17'1"  | 14'11" | 12'7"  | 15'6"  | 13'6"  | 11'5"  | 14'5"  | 12'7"  | 10'7"  | 13'6"  | 11'10" | 10'0"  | 12'10" | 11'3"  | 9'6"   | 12'4"  | 10'9"  | 9'1"   | 11'5"  | 10'0"  | 8'5"   |
| 400S250-54  | 50       | 12              | 34'1"  | 27'1"  | 23'8"  | 21'2"  | 18'6"  | 15'7"  | 19'2"  | 16'9"  | 14'2"  | 17'10" | 15'7"  | 13'2"  | 16'9"  | 14'8"  | 12'4"  | 15'11" | 13'11" | 11'9"  | 15'3"  | 13'4"  | 11'3"  | 14'2"  | 12'4"  | 10'5"  |
| 400S250-54  | 50       | 16              | 31'0"  | 24'7"  | 21'6"  | 19'2"  | 16'9"  | 14'2"  | 17'5"  | 15'3"  | 12'10" | 16'2"  | 14'2"  | 11'11" | 15'3"  | 13'4"  | 11'3"  | 14'6"  | 12'8"  | 10'8"  | 13'10" | 12'1"  | 10'2"  | 12'10" | 11'3"  | 9'6"   |
| 400S250-54  | 50       | 24              | 27'1"  | 21'6"  | 18'9"  | 16'9"  | 12'8"  | 15'3"  | 13'4"  | 11'3"  | 14'2"  | 12'4"  | 10'5"  | 13'4"  | 11'8"  | 9'10"  | 12'8"  | 11'1"  | 9'4"   | 12'0"  | 10'7"  | 8'11"  | 10'9"  | 10'9"  | 9'10"  | 8'3"   |
| 400S250-68  | 50       | 12              | 36'7"  | 29'0"  | 25'4"  | 22'8"  | 19'10" | 16'8"  | 20'7"  | 18'0"  | 15'2"  | 19'1"  | 16'8"  | 14'1"  | 18'0"  | 15'9"  | 13'3"  | 17'1"  | 14'11" | 12'7"  | 16'4"  | 14'3"  | 12'0"  | 15'2"  | 13'3"  | 11'2"  |
| 400S250-68  | 50       | 16              | 33'3"  | 26'4"  | 23'0"  | 20'7"  | 18'0"  | 15'2"  | 18'8"  | 16'4"  | 13'9"  | 17'4"  | 15'2"  | 12'10" | 16'4"  | 14'3"  | 12'0"  | 15'6"  | 13'7"  | 11'5"  | 14'10" | 13'0"  | 10'11" | 13'9"  | 12'0"  | 10'2"  |
| 400S250-68  | 50       | 24              | 29'0"  | 23'0"  | 20'1"  | 18'0"  | 15'9"  | 13'3"  | 16'4"  | 14'3"  | 12'0"  | 15'2"  | 13'3"  | 11'2"  | 14'3"  | 12'6"  | 10'6"  | 13'7"  | 11'10" | 10'0"  | 13'0"  | 11'4"  | 9'7"   | 12'0"  | 10'6"  | 8'10"  |
| 400S250-97  | 50       | 12              | 40'7"  | 32'2"  | 28'1"  | 25'2"  | 21'11" | 18'6"  | 22'10" | 19'11" | 16'10" | 21'2"  | 18'6"  | 15'7"  | 19'11" | 17'5"  | 14'8"  | 18'11" | 16'7"  | 14'0"  | 18'1"  | 15'10" | 13'4"  | 16'10" | 14'8"  | 12'5"  |
| 400S250-97  | 50       | 16              | 36'10" | 29'3"  | 25'6"  | 22'10" | 19'11" | 16'10" | 20'9"  | 18'1"  | 15'3"  | 19'3"  | 16'10" | 14'2"  | 18'1"  | 15'10" | 13'4"  | 17'3"  | 15'0"  | 12'8"  | 16'6"  | 14'5"  | 12'2"  | 15'3"  | 13'4"  | 11'3"  |
| 400S250-97  | 50       | 24              | 32'2"  | 25'6"  | 22'4"  | 19'11" | 17'5"  | 14'8"  | 18'1"  | 15'10" | 13'4"  | 16'10" | 14'8"  | 12'5"  | 15'10" | 13'10" | 11'8"  | 15'0"  | 13'2"  | 11'1"  | 14'5"  | 12'7"  | 10'7"  | 13'4"  | 11'8"  | 9'10"  |
| 400S250-118 | 50       | 12              |        |        |        | 26'7"  | 23'2"  | 19'7"  | 24'1"  | 21'1"  | 17'9"  | 22'5"  | 19'7"  | 16'6"  | 21'1"  | 18'5"  | 15'6"  | 20'0"  | 17'6"  | 14'9"  | 19'2"  | 16'9"  | 14'1"  |        |        |        |
| 400S250-118 | 50       | 16              |        |        |        | 24'1"  | 21'1"  | 17'9"  | 21'11" | 19'2"  | 16'2"  | 20'4"  | 17'9"  | 15'0"  | 19'2"  | 16'9"  | 14'1"  | 18'2"  | 15'11" | 13'5"  | 17'5"  | 15'2"  | 12'10" |        |        |        |
| 400S250-118 | 50       | 24              |        |        |        | 21'1"  | 18'5"  | 15'6"  | 19'2"  | 16'9"  | 14'1"  | 17'9"  | 15'6"  | 13'1"  | 16'9"  | 14'7"  | 12'4"  | 15'11" | 13'11" | 11'8"  | 15'2"  | 13'3"  | 11'2"  |        |        |        |
| 400S300-54  | 50       | 12              | 35'8"  | 28'4"  | 24'9"  | 22'1"  | 19'4"  | 16'4"  | 20'1"  | 17'7"  | 14'10" | 18'8"  | 16'4"  | 13'9"  | 17'7"  | 15'4"  | 12'11" | 16'8"  | 14'7"  | 12'3"  | 15'11" | 13'11" | 11'9"  | 14'10" | 12'11" | 10'11" |
| 400S300-54  | 50       | 16              | 32'5"  | 25'9"  | 22'6"  | 20'1"  | 17'7"  | 14'10" | 18'3"  | 15'11" | 13'5"  | 16'11" | 14'10" | 12'6"  | 15'11" | 13'11" | 11'9"  | 15'2"  | 13'3"  | 11'2"  | 14'6"  | 12'8"  | 10'8"  | 13'4"  | 11'9"  | 9'11"  |
| 400S300-54  | 50       | 24              | 28'4"  | 22'6"  | 19'8"  | 17'7"  | 15'4"  | 12'11" | 15'11" | 13'11" | 11'9"  | 14'10" | 12'11" | 10'11" | 13'11" | 12'2"  | 10'3"  | 13'0"  | 11'7"  | 9'9"   | 12'2"  | 11'1"  | 9'4"   | 10'10" | 10'3"  | 8'8"   |
| 400S300-68  | 50       | 12              | 38'3"  | 30'5"  | 26'7"  | 23'9"  | 20'9"  | 17'6"  | 21'7"  | 18'10" | 15'11" | 20'0"  | 17'6"  | 14'9"  | 18'10" | 16'5"  | 13'11" | 17'11" | 15'8"  | 13'2"  | 17'1"  | 14'11" | 12'7"  | 15'11" | 13'11" | 11'8"  |
| 400S300-68  | 50       | 16              | 34'9"  | 27'7"  | 24'1"  | 21'7"  | 18'10" | 15'11" | 19'7"  | 17'1"  | 14'5"  | 18'2"  | 15'11" | 13'5"  | 17'1"  | 14'11" | 12'7"  | 16'3"  | 14'2"  | 12'0"  | 15'7"  | 13'7"  | 11'5"  | 14'5"  | 12'7"  | 10'8"  |
| 400S300-68  | 50       | 24              | 30'5"  | 24'1"  | 21'1"  | 18'10" | 16'5"  | 13'11" | 17'1"  | 14'11" | 12'7"  | 15'11" | 13'11" | 11'8"  | 14'11" | 13'1"  | 11'0"  | 14'2"  | 12'5"  | 10'6"  | 13'7"  | 11'10" | 10'0"  | 12'7"  | 11'0"  | 9'3"   |
| 400S300-97  | 50       | 12              | 42'6"  | 33'9"  | 29'6"  | 26'4"  | 23'0"  | 19'5"  | 23'11" | 20'11" | 17'8"  | 22'3"  | 19'5"  | 16'4"  | 20'11" | 18'3"  | 15'5"  | 19'10" | 17'4"  | 14'8"  | 19'0"  | 16'7"  | 14'0"  | 17'8"  | 15'5"  | 13'0"  |
| 400S300-97  | 50       | 16              | 38'7"  | 30'8"  | 26'9"  | 23'11" | 20'11" | 17'8"  | 21'9"  | 19'0"  | 16'0"  | 20'2"  | 17'8"  | 14'10" | 19'0"  | 16'7"  | 14'0"  | 18'1"  | 15'9"  | 13'4"  | 17'3"  | 15'1"  | 12'9"  | 16'0"  | 14'0"  | 11'10" |
| 400S300-97  | 50       | 24              | 33'9"  | 26'9"  | 23'5"  | 20'11" | 18'3"  | 15'5"  | 19'0"  | 16'7"  | 14'0"  | 17'8"  | 15'5"  | 13'0"  | 16'7"  | 14'6"  | 12'3"  | 15'9"  | 13'9"  | 11'7"  | 15'1"  | 13'2"  | 11'1"  | 14'0"  | 12'3"  | 10'4"  |
| 400S300-118 | 50       | 12              |        |        |        | 27'10" | 24'4"  | 20'6"  | 25'4"  | 22'1"  | 18'8"  | 23'6"  | 20'6"  | 17'4"  | 22'1"  | 19'4"  | 16'4"  | 21'0"  | 18'4"  | 15'6"  | 20'1"  | 17'7"  | 14'10" |        |        |        |
| 400S300-118 | 50       | 16              |        |        |        | 25'4"  | 22'1"  | 18'8"  | 23'0"  | 20'1"  | 16'11" | 21'4"  | 18'8"  | 15'9"  | 20'1"  | 17'7"  | 14'10" | 19'1"  | 16'8"  | 14'1"  | 18'3"  | 15'11" | 13'5"  |        |        |        |
| 400S300-118 | 50       | 24              |        |        |        | 22'1"  | 19'4"  | 16'4"  | 20'1"  | 17'7"  | 14'10" | 18'8"  | 16'4"  | 13'9"  | 17'7"  | 15'4"  | 12'11" | 16'8"  | 14'7"  | 12'3"  | 15'11" | 13'11" | 11'9"  |        |        |        |
| 400S350-54  | 50       | 12              |        |        |        | 23'3"  | 20'4"  | 17'2"  | 21'1"  | 18'5"  | 15'7"  | 19'7"  | 17'2"  | 14'5"  | 18'5"  | 16'1"  | 13'7"  | 17'6"  | 15'4"  | 12'11" | 16'9"  | 14'8"  | 12'4"  |        |        |        |
| 400S350-54  | 50       | 16              |        |        |        | 21'1"  | 18'5"  | 15'7"  | 19'2"  | 16'9"  | 14'2"  | 17'10" | 15'7"  | 13'2"  | 16'9"  | 14'8"  | 12'4"  | 15'11" | 13'11" | 11'9"  | 15'3"  | 13'4"  | 11'3"  |        |        |        |
| 400S350-54  | 50       | 24              |        |        |        | 18'5"  | 16'1"  | 13'7"  | 16'9"  | 14'8"  | 12'4"  | 15'7"  | 13'7"  | 11'6"  | 14'8"  | 12'10" | 10'9"  | 13'11" | 12'2"  | 10'3"  | 13'3"  | 11'7"  | 9'10"  |        |        |        |
| 400S350-68  | 50       | 12              |        |        |        | 25'0"  | 21'10" | 18'5"  | 22'8"  | 19'10" | 16'9"  | 21'1"  | 18'5"  | 15'6"  | 19'10" | 17'4"  | 14'7"  | 18'10" | 16'5"  | 13'10" | 18'0"  | 15'9"  | 13'3"  |        |        |        |
| 400S350-68  | 50       | 16              |        |        |        | 22'8"  | 19'10" | 16'9"  | 20'7"  | 18'0"  | 15'2"  | 19'2"  | 16'9"  | 14'1"  | 18'0"  | 15'9"  | 13'3"  | 17'1"  | 14'11" | 12'7"  | 16'4"  | 14'3"  | 12'1"  |        |        |        |
| 400S350-68  | 50       | 24              |        |        |        | 19'10" | 17'4"  | 14'7"  | 18'0"  | 15'9"  | 13'3"  | 16'9"  | 14'7"  | 12'4"  | 15'9"  | 13'9"  | 11'7"  | 14'11" | 13'1"  | 11'0"  | 14'3"  | 12'6"  | 10'6"  |        |        |        |
| 400S350-97  | 50       | 12              |        |        |        | 27'9"  | 24'3"  | 20'5"  | 25'3"  | 22'0"  | 18'7"  | 23'5"  | 20'5"  | 17'3"  | 22'0"  | 19'3"  | 16'3"  | 20'11" | 18'3"  | 15'5"  | 20'0"  | 17'6"  | 14'9"  |        |        |        |
| 400S350-97  | 50       | 16              |        |        |        | 25'3"  | 22'0"  | 18'7"  | 22'11" | 20'0"  | 16'11" | 21'3"  | 18'7"  | 15'8"  | 20'0"  | 17'6"  | 14'9"  | 19'0"  | 16'7"  | 14'0"  | 18'2"  | 15'11" | 13'5"  |        |        |        |
| 400S350-97  | 50       | 24              |        |        |        | 22'0"  | 19'3"  | 16'3"  | 20'0"  | 17'6"  | 14'9"  | 18'7"  | 16'3"  | 13'8"  | 17'6"  | 15'3"  | 12'11" | 16'7"  | 14'6"  | 12'3"  | 15'11" | 13'10" | 11'8"  |        |        |        |
| 400S350-118 | 50       | 12              |        |        |        | 29'5"  | 25'8"  | 21'8"  | 26'8"  | 23'4"  | 19'8"  | 24'9"  | 21'8"  | 18'3"  | 23'4"  | 20'4"  | 17'2"  | 22'2"  | 19'4"  | 16'4"  | 21'2"  | 18'6"  | 15'7"  |        |        |        |
| 400S350-118 | 50       | 16              |        |        |        | 26'8"  | 23'4"  | 19'8"  | 24'3"  | 21'2"  | 17'10" | 22'6"  | 19'8"  | 16'7"  | 21'2"  | 18'6"  | 15'7"  | 20'2"  | 17'7"  | 14'10" | 19'3"  | 16'10" | 14'2"  |        |        |        |
| 400S350-118 | 50       | 24              |        |        |        | 23'4"  | 20'4"  | 17'2"  | 21'2"  | 18'6"  | 15'7"  | 19'8"  | 17'2"  | 14'6"  | 18'6"  | 16'2"  | 13'8"  | 17'7"  | 15'4"  | 12'11" | 16'10" | 14'8"  | 12'5"  |        |        |        |
| 550S137-33  | 33       | 12              | 31'7"  | 25'7"  | 22'5"  | 18'3"  | 17'6"  | 14'9"  | 15'10" | 15'10" | 13'5"  | 14'2"  | 14'2"  | 12'5"  | 12'11" | 12'11" | 11'8"  | 11'11" | 11'11" | 11'1"  | 11'2"  | 11'2"  | 10'8"  | 10'0"  | 10'0"  | 9'10"  |
| 550S137-33  | 33       | 16              | 27'4"  | 23'3"  | 20'4"  | 15'10" | 15'10" | 13'5"  | 13'8"  | 13'8"  | 12'2"  | 12'3"  | 12'3"  | 11'4"  | 11'2"  | 11'2"  | 10'8"  | 10'4"  | 10'4"  | 10'1"  | 9'8"   | 9'8"   | 9'8"   | 8'8"   | 8'8"   | 8'8"   |
| 550S137-33  | 33       | 24              | 22'4"  | 20'4"  | 17'9"  | 12'11" | 12'11" | 11'8"  | 11'2"  | 11'2"  | 10'8"  | 10'0"  | 10'0"  | 9'10"  | 9'1"   | 9'1"   | 9'1"   | 8'5"   | 8'5"   | 8'5"   | 7'11"  | 7'11"  | 7'11"  | 7'1"   | 7'1"   | 7'1"   |
| 550S137-43  | 33       | 12              | 35'2"  | 27'11" | 24'4"  | 21'9"  | 19'0"  | 16'1"  | 19'8"  | 17'3"  | 14'7"  | 17'7"  | 16'1"  | 13'6"  | 16'1"  | 15'1"  | 12'9"  | 14'10" | 14'4"  | 12'1"  | 13'11" | 13'9"  | 11'7"  | 12'5"  | 12'5"  | 10'9"  |
| 550S137-43  | 33       | 16              | 31'11" | 25'4"  | 22'2"  | 19'8"  | 17'3"  | 14'7"  | 17'0"  | 15'8"  | 13'3"  | 15'3"  | 14'7"  | 12'4"  | 13'11" | 13'9"  | 11'7"  | 12'10" | 12'10" | 11'0"  | 12'0"  | 12'0"  | 10'6"  | 10'9"  | 10'9"  | 9'9"   |
| 550S137-43  | 33       | 24              | 27'10" | 22'2"  | 19'4"  | 16'1"  | 15'1"  | 12'9"  | 13'11" | 13'9"  | 11'7"  | 12'5"  | 12'5"  | 10'9"  | 11'4"  | 11'4"  | 10'1"  | 10'6"  | 10'6"  | 9'7"   | 9'10"  | 9'10"  | 9'2"   | 8'10"  | 8'10"  | 8'6"   |
| 550S137-54  | 50       | 12              | 37'8"  | 29'11" | 26'1"  | 23'4"  | 20'5"  | 17'2"  | 21'3"  | 18'6"  | 15'8"  | 19'8"  | 17'2"  | 14'6"  | 18'6"  | 16'2"  | 13'8"  | 17'7"  | 15'5"  | 13'0"  | 16'10" | 14'9"  | 12'5"  | 15'8"  | 13'8"  | 11'6"  |
| 550S137-54  | 50       | 16              | 34'3"  | 27'2"  | 23'9"  | 21'3"  | 18'6"  | 15'8"  | 19'3"  | 16'10" | 14'2"  | 17'11" | 15'8"  | 13'2"  | 16'10" | 14'9"  | 12'5"  | 16'0"  | 14'0"  | 11'9"  | 15'4"  | 13'4"  | 11'3"  | 14'2"  | 12'5"  | 10'6"  |
| 550S137-54  | 50       | 24              | 29'11" | 23'9"  | 20'9"  | 18'6"  | 16'2"  | 13'8"  | 16'10" | 14'9"  | 12'5"  | 15'8"  | 13'8"  | 11'6"  | 14'9"  | 12'10" | 10'10" | 14'0"  | 12'2"  | 10'4"  | 13'2"  | 11'8"  | 9'10"  | 11'10" | 10'10" | 9'2"   |

See notes located on page 26



# LIMITING WALL HEIGHTS - STRUCTURAL

| Section    | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 550S137-68 | 50       | 12              | 40'4"  | 32'0"  | 28'0"  | 25'0"  | 21'10" | 18'5"  | 22'9"  | 19'10" | 16'9"  | 21'1"  | 18'5"  | 15'6"  | 19'10" | 17'4"  | 14'7"  | 18'10" | 16'6"  | 13'11" | 18'0"  | 15'9"  | 13'3"  | 16'9"  | 14'7"  | 12'4"  |
| 550S137-68 | 50       | 16              | 36'8"  | 29'1"  | 25'5"  | 22'9"  | 19'10" | 16'9"  | 20'8"  | 18'0"  | 15'2"  | 19'2"  | 16'9"  | 14'1"  | 18'0"  | 15'9"  | 13'3"  | 17'2"  | 15'0"  | 12'7"  | 16'5"  | 14'4"  | 12'1"  | 15'2"  | 13'3"  | 11'2"  |
| 550S137-68 | 50       | 24              | 32'0"  | 25'5"  | 22'2"  | 19'10" | 17'4"  | 14'7"  | 18'0"  | 15'9"  | 13'3"  | 16'9"  | 14'7"  | 12'4"  | 15'9"  | 13'9"  | 11'7"  | 15'0"  | 13'1"  | 11'0"  | 14'4"  | 12'6"  | 10'7"  | 13'3"  | 11'7"  | 9'9"   |
| 550S162-33 | 33       | 12              | 33'8"  | 26'9"  | 23'4"  | 19'7"  | 18'3"  | 15'5"  | 16'11" | 16'7"  | 14'0"  | 15'2"  | 15'2"  | 13'0"  | 13'10" | 13'10" | 12'3"  | 12'10" | 12'10" | 11'7"  | 12'0"  | 12'0"  | 11'1"  | 10'9"  | 10'9"  | 10'4"  |
| 550S162-33 | 33       | 16              | 29'4"  | 24'4"  | 21'3"  | 16'11" | 16'7"  | 14'0"  | 14'8"  | 14'8"  | 12'8"  | 13'2"  | 13'2"  | 11'9"  | 12'0"  | 12'0"  | 11'1"  | 11'1"  | 11'1"  | 10'6"  | 10'5"  | 10'5"  | 10'1"  | 9'3"   | 9'3"   | 9'3"   |
| 550S162-33 | 33       | 24              | 24'0"  | 21'3"  | 18'6"  | 13'10" | 13'10" | 12'3"  | 12'0"  | 12'0"  | 11'1"  | 10'9"  | 10'9"  | 10'4"  | 9'9"   | 9'9"   | 9'8"   | 9'1"   | 9'1"   | 9'1"   | 8'6"   | 8'6"   | 8'6"   | 7'7"   | 7'7"   | 7'7"   |
| 550S162-43 | 33       | 12              | 36'8"  | 29'1"  | 25'5"  | 22'9"  | 19'10" | 16'9"  | 20'8"  | 18'1"  | 15'3"  | 18'9"  | 16'9"  | 14'2"  | 17'1"  | 15'9"  | 13'4"  | 15'10" | 15'0"  | 12'8"  | 14'10" | 14'4"  | 12'1"  | 13'3"  | 13'3"  | 11'3"  |
| 550S162-43 | 33       | 16              | 33'4"  | 26'5"  | 23'1"  | 20'8"  | 18'1"  | 15'3"  | 18'1"  | 16'5"  | 13'10" | 16'3"  | 15'3"  | 12'10" | 14'10" | 14'4"  | 12'1"  | 13'8"  | 13'7"  | 11'6"  | 12'10" | 12'10" | 11'0"  | 11'6"  | 11'6"  | 10'2"  |
| 550S162-43 | 33       | 24              | 29'1"  | 23'1"  | 20'2"  | 17'1"  | 15'9"  | 13'4"  | 14'10" | 14'4"  | 12'1"  | 13'3"  | 13'3"  | 11'3"  | 12'1"  | 12'1"  | 10'7"  | 11'2"  | 11'2"  | 10'0"  | 10'6"  | 10'6"  | 9'7"   | 9'4"   | 9'4"   | 8'11"  |
| 550S162-54 | 50       | 12              | 39'4"  | 31'3"  | 27'3"  | 24'5"  | 21'4"  | 18'0"  | 22'2"  | 19'4"  | 16'4"  | 20'7"  | 18'0"  | 15'2"  | 19'4"  | 16'11" | 14'3"  | 18'5"  | 16'1"  | 13'7"  | 17'7"  | 15'4"  | 13'0"  | 16'4"  | 14'3"  | 12'0"  |
| 550S162-54 | 50       | 16              | 35'9"  | 28'5"  | 24'9"  | 22'2"  | 19'4"  | 16'4"  | 20'2"  | 17'7"  | 14'10" | 18'8"  | 16'4"  | 13'9"  | 17'7"  | 15'4"  | 13'0"  | 16'8"  | 14'7"  | 12'4"  | 16'0"  | 14'0"  | 11'9"  | 14'10" | 13'0"  | 10'11" |
| 550S162-54 | 50       | 24              | 31'3"  | 24'9"  | 21'8"  | 19'4"  | 16'11" | 14'3"  | 17'7"  | 15'4"  | 13'0"  | 16'4"  | 14'3"  | 12'0"  | 15'4"  | 13'5"  | 11'4"  | 14'7"  | 12'9"  | 10'9"  | 14'0"  | 12'2"  | 10'3"  | 12'6"  | 11'4"  | 9'7"   |
| 550S162-68 | 50       | 12              | 42'2"  | 33'6"  | 29'3"  | 26'2"  | 22'10" | 19'3"  | 23'9"  | 20'9"  | 17'6"  | 22'1"  | 19'3"  | 16'3"  | 20'9"  | 18'2"  | 15'3"  | 19'9"  | 17'3"  | 14'6"  | 18'10" | 16'6"  | 13'11" | 17'6"  | 15'3"  | 12'11" |
| 550S162-68 | 50       | 16              | 38'4"  | 30'5"  | 26'7"  | 23'9"  | 20'9"  | 17'6"  | 21'7"  | 18'10" | 15'11" | 20'0"  | 17'6"  | 14'9"  | 18'10" | 16'6"  | 13'11" | 17'11" | 15'8"  | 13'2"  | 17'2"  | 15'0"  | 12'7"  | 15'11" | 13'11" | 11'9"  |
| 550S162-68 | 50       | 24              | 33'6"  | 26'7"  | 23'3"  | 20'9"  | 18'2"  | 15'3"  | 18'10" | 16'6"  | 13'11" | 17'6"  | 15'3"  | 12'11" | 16'6"  | 14'5"  | 12'2"  | 15'8"  | 13'8"  | 11'6"  | 15'0"  | 13'1"  | 11'0"  | 13'11" | 12'2"  | 10'3"  |
| 550S200-33 | 33       | 12              | 35'5"  | 28'1"  | 24'7"  | 20'10" | 19'2"  | 16'2"  | 18'1"  | 17'5"  | 14'8"  | 16'2"  | 16'2"  | 13'8"  | 14'9"  | 14'9"  | 12'10" | 13'8"  | 13'8"  | 12'2"  | 12'9"  | 12'9"  | 11'8"  | 11'5"  | 11'5"  | 10'10" |
| 550S200-33 | 33       | 16              | 31'4"  | 25'6"  | 22'4"  | 18'1"  | 17'5"  | 14'8"  | 15'8"  | 15'8"  | 13'4"  | 14'0"  | 14'0"  | 12'5"  | 12'9"  | 12'9"  | 11'8"  | 11'10" | 11'10" | 11'1"  | 11'1"  | 11'1"  | 10'7"  | 9'11"  | 9'11"  | 9'10"  |
| 550S200-33 | 33       | 24              | 25'7"  | 22'4"  | 19'6"  | 14'9"  | 14'9"  | 12'10" | 12'9"  | 12'9"  | 11'8"  | 11'5"  | 11'5"  | 10'10" | 10'5"  | 10'5"  | 10'2"  | 9'8"   | 9'8"   | 9'8"   | 9'0"   | 9'0"   | 9'0"   | 8'1"   | 8'1"   | 8'1"   |
| 550S200-43 | 33       | 12              | 38'7"  | 30'7"  | 26'9"  | 23'11" | 20'11" | 17'7"  | 21'7"  | 19'0"  | 16'0"  | 19'4"  | 17'7"  | 14'10" | 17'7"  | 16'7"  | 14'0"  | 16'4"  | 15'9"  | 13'3"  | 15'3"  | 15'1"  | 12'8"  | 13'8"  | 13'8"  | 11'10" |
| 550S200-43 | 33       | 16              | 35'1"  | 27'10" | 24'4"  | 21'7"  | 19'0"  | 16'0"  | 18'8"  | 17'3"  | 14'6"  | 16'9"  | 16'0"  | 13'6"  | 15'3"  | 15'1"  | 12'8"  | 14'1"  | 14'1"  | 12'1"  | 13'3"  | 13'3"  | 11'6"  | 11'10" | 11'10" | 10'9"  |
| 550S200-43 | 33       | 24              | 30'6"  | 24'4"  | 21'3"  | 17'7"  | 16'7"  | 14'0"  | 15'3"  | 15'1"  | 12'8"  | 13'8"  | 13'8"  | 11'10" | 12'5"  | 12'5"  | 11'1"  | 11'6"  | 11'6"  | 10'6"  | 10'9"  | 10'9"  | 10'1"  | 9'8"   | 9'8"   | 9'4"   |
| 550S200-54 | 50       | 12              | 41'5"  | 32'10" | 28'8"  | 25'8"  | 22'5"  | 18'11" | 23'4"  | 20'4"  | 17'2"  | 21'8"  | 18'11" | 15'11" | 20'4"  | 17'10" | 15'0"  | 19'4"  | 16'11" | 14'3"  | 18'6"  | 16'2"  | 13'8"  | 17'2"  | 15'0"  | 12'8"  |
| 550S200-54 | 50       | 16              | 37'7"  | 29'10" | 26'1"  | 23'4"  | 20'4"  | 17'2"  | 21'2"  | 18'6"  | 15'7"  | 19'8"  | 17'2"  | 14'6"  | 18'6"  | 16'2"  | 13'8"  | 17'7"  | 15'4"  | 12'11" | 16'10" | 14'8"  | 12'5"  | 15'7"  | 13'8"  | 11'6"  |
| 550S200-54 | 50       | 24              | 32'10" | 26'1"  | 22'9"  | 20'4"  | 17'10" | 15'0"  | 18'6"  | 16'2"  | 13'8"  | 17'2"  | 15'0"  | 12'8"  | 16'2"  | 14'1"  | 11'11" | 15'4"  | 13'5"  | 11'4"  | 14'5"  | 12'10" | 10'10" | 12'10" | 11'11" | 10'1"  |
| 550S200-68 | 50       | 12              | 44'5"  | 35'3"  | 30'10" | 27'6"  | 24'1"  | 20'3"  | 25'0"  | 21'10" | 18'5"  | 23'3"  | 20'3"  | 17'1"  | 21'10" | 19'1"  | 16'1"  | 20'9"  | 18'2"  | 15'3"  | 19'10" | 17'4"  | 14'8"  | 18'5"  | 16'1"  | 13'7"  |
| 550S200-68 | 50       | 16              | 40'4"  | 32'0"  | 28'0"  | 25'0"  | 21'10" | 18'5"  | 22'9"  | 19'10" | 16'9"  | 21'1"  | 18'5"  | 15'7"  | 19'10" | 17'4"  | 14'8"  | 18'10" | 16'6"  | 13'11" | 18'0"  | 15'9"  | 13'3"  | 16'9"  | 14'8"  | 12'4"  |
| 550S200-68 | 50       | 24              | 35'3"  | 28'0"  | 24'5"  | 21'10" | 19'1"  | 16'1"  | 19'10" | 17'4"  | 14'8"  | 18'5"  | 16'1"  | 13'7"  | 17'4"  | 15'2"  | 12'9"  | 16'6"  | 14'5"  | 12'2"  | 15'9"  | 13'9"  | 11'7"  | 14'8"  | 12'9"  | 10'9"  |
| 550S250-54 | 50       | 12              | 43'5"  | 34'6"  | 30'1"  | 26'11" | 23'6"  | 19'10" | 24'6"  | 21'4"  | 18'0"  | 22'8"  | 19'10" | 16'9"  | 21'4"  | 18'8"  | 15'9"  | 20'4"  | 17'9"  | 14'11" | 19'5"  | 17'0"  | 14'4"  | 18'0"  | 15'9"  | 13'3"  |
| 550S250-54 | 50       | 16              | 39'6"  | 31'4"  | 27'4"  | 24'6"  | 21'4"  | 18'0"  | 22'3"  | 19'5"  | 16'5"  | 20'8"  | 18'0"  | 15'2"  | 19'5"  | 17'0"  | 14'4"  | 18'5"  | 16'1"  | 13'7"  | 17'8"  | 15'5"  | 13'0"  | 16'2"  | 14'4"  | 12'1"  |
| 550S250-54 | 50       | 24              | 34'6"  | 27'4"  | 23'11" | 21'4"  | 18'8"  | 15'9"  | 19'5"  | 17'0"  | 14'4"  | 18'0"  | 15'9"  | 13'3"  | 17'0"  | 14'10" | 12'6"  | 15'9"  | 14'1"  | 11'10" | 14'9"  | 13'6"  | 11'4"  | 13'2"  | 12'6"  | 10'6"  |
| 550S250-68 | 50       | 12              | 46'8"  | 37'0"  | 32'4"  | 28'11" | 25'3"  | 21'4"  | 26'3"  | 22'11" | 19'4"  | 24'4"  | 21'4"  | 18'0"  | 22'11" | 20'0"  | 16'11" | 21'9"  | 19'0"  | 16'1"  | 20'10" | 18'2"  | 15'4"  | 19'4"  | 16'11" | 14'3"  |
| 550S250-68 | 50       | 16              | 42'4"  | 33'7"  | 29'4"  | 26'3"  | 22'11" | 19'4"  | 23'10" | 20'10" | 17'7"  | 22'2"  | 19'4"  | 16'4"  | 20'10" | 18'2"  | 15'4"  | 19'10" | 17'4"  | 14'7"  | 18'11" | 16'6"  | 13'11" | 17'7"  | 15'4"  | 12'11" |
| 550S250-68 | 50       | 24              | 37'0"  | 29'4"  | 25'8"  | 22'11" | 20'0"  | 16'11" | 20'10" | 18'2"  | 15'4"  | 19'4"  | 16'11" | 14'3"  | 18'2"  | 15'11" | 13'5"  | 17'4"  | 15'1"  | 12'9"  | 16'6"  | 14'5"  | 12'2"  | 15'4"  | 13'5"  | 11'4"  |
| 550S250-97 | 50       | 12              | 51'10" | 41'1"  | 35'11" | 32'1"  | 28'1"  | 23'8"  | 29'2"  | 25'6"  | 21'6"  | 27'1"  | 23'8"  | 19'11" | 25'6"  | 22'3"  | 18'9"  | 24'3"  | 21'2"  | 17'10" | 23'2"  | 20'3"  | 17'1"  | 21'6"  | 18'9"  | 15'10" |
| 550S250-97 | 50       | 16              | 47'1"  | 37'4"  | 32'8"  | 29'2"  | 25'6"  | 21'6"  | 26'6"  | 23'2"  | 19'6"  | 24'7"  | 21'6"  | 18'2"  | 23'2"  | 20'3"  | 17'1"  | 22'0"  | 19'3"  | 16'2"  | 21'0"  | 18'5"  | 15'6"  | 19'6"  | 17'1"  | 14'5"  |
| 550S250-97 | 50       | 24              | 41'1"  | 32'8"  | 28'6"  | 25'6"  | 22'3"  | 18'9"  | 23'2"  | 20'3"  | 17'1"  | 21'6"  | 18'9"  | 15'10" | 20'3"  | 17'8"  | 14'11" | 19'3"  | 16'9"  | 14'2"  | 18'5"  | 16'1"  | 13'7"  | 17'1"  | 14'11" | 12'7"  |
| 550S300-54 | 50       | 12              | 45'4"  | 35'11" | 31'5"  | 28'1"  | 24'6"  | 20'8"  | 25'6"  | 22'3"  | 18'10" | 23'8"  | 20'8"  | 17'5"  | 22'3"  | 19'6"  | 16'5"  | 21'2"  | 18'6"  | 15'7"  | 20'3"  | 17'8"  | 14'11" | 18'10" | 16'5"  | 13'10" |
| 550S300-54 | 50       | 16              | 41'2"  | 32'8"  | 28'6"  | 25'6"  | 22'3"  | 18'10" | 23'2"  | 20'3"  | 17'1"  | 21'6"  | 18'10" | 15'10" | 20'3"  | 17'8"  | 14'11" | 19'3"  | 16'10" | 14'2"  | 18'4"  | 16'1"  | 13'7"  | 16'5"  | 14'11" | 12'7"  |
| 550S300-54 | 50       | 24              | 35'11" | 28'6"  | 24'11" | 22'3"  | 19'6"  | 16'5"  | 20'3"  | 17'8"  | 14'11" | 18'10" | 16'5"  | 13'10" | 17'4"  | 15'5"  | 13'0"  | 16'0"  | 14'8"  | 12'5"  | 15'0"  | 14'0"  | 11'10" | 13'5"  | 13'0"  | 11'0"  |
| 550S300-68 | 50       | 12              | 48'8"  | 38'7"  | 33'9"  | 30'2"  | 26'4"  | 22'3"  | 27'5"  | 23'11" | 20'2"  | 25'5"  | 22'3"  | 18'9"  | 23'11" | 20'11" | 17'8"  | 22'9"  | 19'10" | 16'9"  | 21'9"  | 19'0"  | 16'0"  | 20'2"  | 17'8"  | 14'10" |
| 550S300-68 | 50       | 16              | 44'2"  | 35'1"  | 30'8"  | 27'5"  | 23'11" | 20'2"  | 24'11" | 21'9"  | 18'4"  | 23'1"  | 20'2"  | 17'0"  | 21'9"  | 19'0"  | 16'0"  | 20'8"  | 18'1"  | 15'3"  | 19'9"  | 17'3"  | 14'7"  | 18'4"  | 16'0"  | 13'6"  |
| 550S300-68 | 50       | 24              | 38'7"  | 30'8"  | 26'9"  | 23'11" | 20'11" | 17'8"  | 21'9"  | 19'0"  | 16'0"  | 20'2"  | 17'8"  | 14'10" | 19'0"  | 16'7"  | 14'0"  | 18'1"  | 15'9"  | 13'4"  | 17'3"  | 15'1"  | 12'9"  | 15'8"  | 14'0"  | 11'10" |
| 550S300-97 | 50       | 12              | 54'1"  | 42'11" | 37'6"  | 33'7"  | 29'4"  | 24'9"  | 30'6"  | 26'7"  | 22'5"  | 28'4"  | 24'9"  | 20'10" | 26'7"  | 23'3"  | 19'7"  | 25'3"  | 22'1"  | 18'8"  | 24'2"  | 21'2"  | 17'10" | 22'5"  | 19'7"  | 16'7"  |
| 550S300-97 | 50       | 16              | 49'2"  | 39'0"  | 34'1"  | 30'6"  | 26'7"  | 22'5"  | 27'8"  | 24'2"  | 20'5"  | 25'8"  | 22'5"  | 18'11" | 24'2"  | 21'2"  | 17'10" | 23'0"  | 20'1"  | 16'11" | 22'0"  | 19'2"  | 16'2"  | 20'5"  | 17'10" | 15'0"  |
| 550S300-97 | 50       | 24              | 42'11" | 34'1"  | 29'9"  | 26'7"  | 23'3"  | 19'7"  | 24'2"  | 21'2"  | 17'10" | 22'5"  | 19'7"  | 16'7"  | 21'2"  | 18'6"  | 15'7"  | 20'1"  | 17'6"  | 14'9"  | 19'2"  | 16'9"  | 14'2"  | 17'10" | 15'7"  | 13'2"  |
| 600S137-33 | 33       | 12              | 33'0"  | 27'6"  | 24'0"  | 19'1"  | 18'9"  | 15'10" | 16'6"  | 16'6"  | 14'4"  | 14'9"  | 14'9"  | 13'4"  | 13'6"  | 13'6"  | 12'7"  | 12'6"  | 12'6"  | 11'11" | 11'8"  | 11'8"  | 11'5"  | 10'5"  | 10'5"  | 10'5"  |
| 600S137-33 | 33       | 16              | 28'7"  | 24'11" | 21'10" | 16'6"  | 16'6"  | 14'4"  | 14'4"  | 14'4"  | 13'1"  | 12'10" | 12'10" | 12'1"  | 11'8"  | 11'8"  | 11'5"  | 10'10" | 10'10" | 10'10" | 10'1"  | 10'1"  |        |        |        |        |

# LIMITING WALL HEIGHTS - STRUCTURAL

| Section     | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|-------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 600S137-33  | 33       | 24              | 23'4"  | 21'9"  | 19'1"  | 13'6"  | 13'6"  | 12'7"  | 11'8"  | 11'8"  | 11'5"  | 10'5"  | 10'5"  | 10'5"  | 9'6"   | 9'6"   | 9'6"   | 8'10"  | 8'10"  | 8'10"  | 8'3"   | 8'3"   | 8'3"   | 7'5"   | 7'5"   | 7'5"   |
| 600S137-43  | 33       | 12              | 37'8"  | 29'11" | 26'2"  | 22'11" | 20'5"  | 17'3"  | 19'10" | 18'6"  | 15'8"  | 17'9"  | 17'3"  | 14'6"  | 16'2"  | 16'2"  | 13'8"  | 15'0"  | 15'0"  | 13'0"  | 14'0"  | 14'0"  | 12'5"  | 12'7"  | 12'7"  | 11'6"  |
| 600S137-43  | 33       | 16              | 34'3"  | 27'2"  | 23'9"  | 19'10" | 18'6"  | 15'8"  | 17'2"  | 16'10" | 14'2"  | 15'5"  | 15'5"  | 13'2"  | 14'0"  | 14'0"  | 12'5"  | 13'0"  | 13'0"  | 11'9"  | 12'2"  | 12'2"  | 11'3"  | 10'10" | 10'10" | 10'6"  |
| 600S137-43  | 33       | 24              | 28'1"  | 23'9"  | 20'9"  | 16'2"  | 16'2"  | 13'8"  | 14'0"  | 14'0"  | 12'5"  | 12'7"  | 12'7"  | 11'6"  | 11'6"  | 11'6"  | 10'10" | 10'7"  | 10'7"  | 10'4"  | 9'11"  | 9'11"  | 9'10"  | 8'11"  | 8'11"  | 8'11"  |
| 600S137-54  | 50       | 12              | 40'5"  | 32'1"  | 28'0"  | 25'1"  | 21'11" | 18'5"  | 22'9"  | 19'11" | 16'9"  | 21'2"  | 18'5"  | 15'7"  | 19'11" | 17'4"  | 14'8"  | 18'11" | 16'6"  | 13'11" | 18'1"  | 15'9"  | 13'4"  | 16'9"  | 14'8"  | 12'4"  |
| 600S137-54  | 50       | 16              | 36'9"  | 29'2"  | 25'6"  | 22'9"  | 19'11" | 16'9"  | 20'8"  | 18'1"  | 15'3"  | 19'2"  | 16'9"  | 14'2"  | 18'1"  | 15'9"  | 13'4"  | 17'2"  | 15'0"  | 12'8"  | 16'4"  | 14'4"  | 12'1"  | 14'7"  | 13'4"  | 11'3"  |
| 600S137-54  | 50       | 24              | 32'1"  | 25'6"  | 22'3"  | 19'11" | 17'4"  | 14'8"  | 18'1"  | 15'9"  | 13'4"  | 16'9"  | 14'8"  | 12'4"  | 15'4"  | 13'9"  | 11'8"  | 14'3"  | 13'1"  | 11'1"  | 13'4"  | 12'6"  | 10'7"  | 11'11" | 11'8"  | 9'10"  |
| 600S137-68  | 50       | 12              | 43'4"  | 34'4"  | 30'0"  | 26'10" | 23'5"  | 19'9"  | 24'5"  | 21'4"  | 18'0"  | 22'8"  | 19'9"  | 16'8"  | 21'4"  | 18'7"  | 15'8"  | 20'3"  | 17'8"  | 14'11" | 19'4"  | 16'11" | 14'3"  | 18'0"  | 15'8"  | 13'3"  |
| 600S137-68  | 50       | 16              | 39'4"  | 31'3"  | 27'3"  | 24'5"  | 21'4"  | 18'0"  | 22'2"  | 19'4"  | 16'4"  | 20'7"  | 18'0"  | 15'2"  | 19'4"  | 16'11" | 14'3"  | 18'5"  | 16'1"  | 13'7"  | 17'7"  | 15'4"  | 12'11" | 16'4"  | 14'3"  | 12'0"  |
| 600S137-68  | 50       | 24              | 34'4"  | 27'3"  | 23'10" | 21'4"  | 18'7"  | 15'8"  | 19'4"  | 16'11" | 14'3"  | 18'0"  | 15'8"  | 13'3"  | 16'11" | 14'9"  | 12'5"  | 16'1"  | 14'0"  | 11'10" | 15'4"  | 13'5"  | 11'4"  | 13'11" | 12'5"  | 10'6"  |
| 600S137-97  | 50       | 12              | 47'11" | 38'0"  | 33'2"  | 29'8"  | 25'11" | 21'10" | 27'0"  | 23'7"  | 19'10" | 25'0"  | 21'10" | 18'5"  | 23'7"  | 20'7"  | 17'4"  | 22'5"  | 19'7"  | 16'6"  | 21'5"  | 18'8"  | 15'9"  | 19'10" | 17'4"  | 14'8"  |
| 600S137-97  | 50       | 16              | 43'6"  | 34'6"  | 30'2"  | 27'0"  | 23'7"  | 19'10" | 24'6"  | 21'5"  | 18'1"  | 22'9"  | 19'10" | 16'9"  | 21'5"  | 18'8"  | 15'9"  | 20'4"  | 17'9"  | 15'0"  | 19'5"  | 17'0"  | 14'4"  | 18'1"  | 15'9"  | 13'4"  |
| 600S137-97  | 50       | 24              | 38'0"  | 30'2"  | 26'4"  | 23'7"  | 20'7"  | 17'4"  | 21'5"  | 18'8"  | 15'9"  | 19'10" | 17'4"  | 14'8"  | 18'8"  | 16'4"  | 13'9"  | 17'9"  | 15'6"  | 13'1"  | 17'0"  | 14'10" | 12'6"  | 15'9"  | 13'9"  | 11'7"  |
| 600S162-33  | 33       | 12              | 35'6"  | 28'8"  | 25'0"  | 20'6"  | 19'6"  | 16'6"  | 17'9"  | 17'9"  | 15'0"  | 15'11" | 15'11" | 13'11" | 14'6"  | 14'6"  | 13'1"  | 13'5"  | 13'5"  | 12'5"  | 12'7"  | 12'7"  | 11'11" | 11'3"  | 11'3"  | 11'0"  |
| 600S162-33  | 33       | 16              | 30'9"  | 26'0"  | 22'9"  | 17'9"  | 17'9"  | 15'0"  | 15'5"  | 15'5"  | 13'7"  | 13'9"  | 13'9"  | 12'8"  | 12'7"  | 12'7"  | 11'11" | 11'8"  | 11'8"  | 11'3"  | 10'11" | 10'11" | 10'10" | 9'9"   | 9'9"   | 9'9"   |
| 600S162-33  | 33       | 24              | 25'1"  | 22'9"  | 19'10" | 14'6"  | 14'6"  | 13'1"  | 12'7"  | 12'7"  | 11'11" | 11'3"  | 11'3"  | 10'3"  | 10'3"  | 10'3"  | 11'0"  | 9'6"   | 9'6"   | 9'6"   | 8'11"  | 8'11"  | 8'11"  | 7'11"  | 7'11"  | 7'11"  |
| 600S162-43  | 33       | 12              | 39'4"  | 31'2"  | 27'3"  | 24'4"  | 21'3"  | 17'11" | 21'11" | 19'4"  | 16'4"  | 19'8"  | 17'11" | 15'2"  | 17'11" | 16'11" | 14'3"  | 16'7"  | 16'1"  | 13'6"  | 15'6"  | 15'4"  | 12'11" | 13'11" | 13'11" | 12'0"  |
| 600S162-43  | 33       | 16              | 35'9"  | 28'4"  | 24'9"  | 21'11" | 19'4"  | 16'4"  | 19'0"  | 17'7"  | 14'10" | 17'0"  | 16'4"  | 13'9"  | 15'6"  | 15'4"  | 12'11" | 14'4"  | 14'4"  | 12'4"  | 13'5"  | 13'5"  | 11'9"  | 12'0"  | 12'0"  | 10'11" |
| 600S162-43  | 33       | 24              | 31'1"  | 24'9"  | 21'8"  | 17'11" | 16'11" | 14'3"  | 15'6"  | 15'4"  | 12'11" | 13'11" | 13'11" | 12'0"  | 12'8"  | 12'8"  | 11'4"  | 11'9"  | 11'9"  | 10'9"  | 11'0"  | 11'0"  | 10'3"  | 9'10"  | 9'10"  | 9'6"   |
| 600S162-54  | 50       | 12              | 42'2"  | 33'6"  | 29'3"  | 26'2"  | 22'10" | 19'3"  | 23'9"  | 20'9"  | 17'6"  | 22'1"  | 19'3"  | 16'3"  | 20'9"  | 18'1"  | 15'3"  | 19'8"  | 17'3"  | 14'6"  | 18'10" | 16'6"  | 13'11" | 17'6"  | 15'3"  | 12'11" |
| 600S162-54  | 50       | 16              | 38'4"  | 30'5"  | 26'7"  | 23'9"  | 20'9"  | 17'6"  | 23'9"  | 18'10" | 15'11" | 20'0"  | 17'6"  | 14'9"  | 18'10" | 16'6"  | 13'11" | 17'11" | 15'8"  | 13'2"  | 17'2"  | 15'0"  | 12'7"  | 15'11" | 13'11" | 11'9"  |
| 600S162-54  | 50       | 24              | 33'6"  | 26'7"  | 23'3"  | 20'9"  | 18'1"  | 15'3"  | 18'10" | 16'6"  | 13'11" | 17'6"  | 15'3"  | 12'11" | 16'6"  | 14'5"  | 12'2"  | 15'8"  | 13'8"  | 11'6"  | 14'8"  | 13'1"  | 11'0"  | 13'2"  | 12'2"  | 10'3"  |
| 600S162-68  | 50       | 12              | 45'3"  | 35'11" | 31'4"  | 28'0"  | 24'6"  | 20'8"  | 25'6"  | 22'3"  | 18'9"  | 23'8"  | 20'8"  | 17'5"  | 22'3"  | 19'5"  | 16'5"  | 21'2"  | 18'5"  | 15'7"  | 20'2"  | 17'8"  | 14'11" | 18'9"  | 16'5"  | 13'10" |
| 600S162-68  | 50       | 16              | 41'1"  | 32'7"  | 28'6"  | 25'6"  | 22'3"  | 18'9"  | 23'2"  | 20'2"  | 17'1"  | 21'6"  | 18'9"  | 15'10" | 20'2"  | 17'8"  | 14'11" | 19'2"  | 16'9"  | 14'2"  | 18'4"  | 16'0"  | 13'6"  | 17'1"  | 14'11" | 12'7"  |
| 600S162-68  | 50       | 24              | 35'11" | 28'6"  | 24'11" | 22'3"  | 19'5"  | 16'5"  | 20'2"  | 17'8"  | 14'11" | 18'9"  | 16'5"  | 13'10" | 17'8"  | 15'5"  | 13'0"  | 16'9"  | 14'8"  | 12'4"  | 16'0"  | 14'0"  | 11'10" | 14'11" | 13'0"  | 11'0"  |
| 600S162-97  | 50       | 12              | 50'1"  | 39'9"  | 34'9"  | 31'1"  | 27'2"  | 22'11" | 28'3"  | 24'8"  | 20'9"  | 26'2"  | 22'11" | 19'4"  | 24'8"  | 21'6"  | 18'2"  | 23'5"  | 20'5"  | 17'3"  | 22'5"  | 19'7"  | 16'6"  | 20'9"  | 18'2"  | 15'4"  |
| 600S162-97  | 50       | 16              | 45'6"  | 36'2"  | 31'7"  | 28'3"  | 24'8"  | 20'9"  | 25'8"  | 22'5"  | 18'11" | 23'10" | 20'9"  | 17'6"  | 22'5"  | 19'7"  | 16'6"  | 21'3"  | 18'7"  | 15'8"  | 20'4"  | 17'9"  | 15'0"  | 18'11" | 16'6"  | 13'11" |
| 600S162-97  | 50       | 24              | 39'9"  | 31'7"  | 27'7"  | 24'8"  | 21'6"  | 18'2"  | 22'5"  | 19'7"  | 16'6"  | 20'9"  | 18'2"  | 15'4"  | 19'7"  | 17'1"  | 14'5"  | 18'7"  | 16'3"  | 13'8"  | 17'9"  | 15'6"  | 13'1"  | 16'6"  | 14'5"  | 12'2"  |
| 600S162-118 | 50       | 12              |        |        |        | 32'10" | 28'8"  | 24'2"  | 29'10" | 26'0"  | 21'11" | 27'8"  | 24'2"  | 20'5"  | 26'0"  | 22'9"  | 19'2"  | 24'9"  | 21'7"  | 18'3"  | 23'8"  | 20'8"  | 17'5"  |        |        |        |
| 600S162-118 | 50       | 16              |        |        |        | 29'10" | 26'0"  | 21'11" | 27'1"  | 23'8"  | 19'11" | 25'2"  | 21'11" | 18'6"  | 23'8"  | 20'8"  | 17'5"  | 22'6"  | 19'8"  | 16'7"  | 21'6"  | 18'9"  | 15'10" |        |        |        |
| 600S162-118 | 50       | 24              |        |        |        | 26'0"  | 22'9"  | 19'2"  | 23'8"  | 20'8"  | 17'5"  | 21'11" | 19'2"  | 16'2"  | 20'8"  | 18'1"  | 15'3"  | 19'8"  | 17'2"  | 14'6"  | 18'9"  | 16'5"  | 13'10" |        |        |        |
| 600S200-33  | 33       | 12              | 37'11" | 30'1"  | 26'3"  | 21'10" | 20'6"  | 17'4"  | 18'11" | 18'8"  | 15'9"  | 16'11" | 16'11" | 14'7"  | 15'6"  | 15'6"  | 13'9"  | 14'4"  | 14'4"  | 13'1"  | 13'5"  | 13'5"  | 12'6"  | 12'0"  | 12'0"  | 11'7"  |
| 600S200-33  | 33       | 16              | 32'10" | 27'4"  | 23'10" | 18'11" | 18'8"  | 15'9"  | 16'5"  | 16'5"  | 14'3"  | 14'8"  | 14'8"  | 13'3"  | 13'5"  | 13'5"  | 12'6"  | 12'5"  | 12'5"  | 11'10" | 11'7"  | 11'7"  | 11'4"  | 10'4"  | 10'4"  | 10'4"  |
| 600S200-33  | 33       | 24              | 26'9"  | 23'10" | 20'10" | 15'6"  | 15'6"  | 13'9"  | 13'5"  | 13'5"  | 12'6"  | 12'0"  | 12'0"  | 11'7"  | 10'11" | 10'11" | 10'11" | 10'1"  | 10'1"  | 10'1"  | 9'6"   | 9'6"   | 9'6"   | 8'6"   | 8'6"   | 8'6"   |
| 600S200-43  | 33       | 12              | 41'3"  | 32'9"  | 28'7"  | 25'7"  | 22'4"  | 18'10" | 22'8"  | 20'4"  | 17'2"  | 20'3"  | 18'10" | 15'11" | 18'6"  | 17'9"  | 15'0"  | 17'1"  | 16'10" | 14'3"  | 16'0"  | 16'0"  | 13'7"  | 14'4"  | 14'4"  | 12'7"  |
| 600S200-43  | 33       | 16              | 37'6"  | 29'9"  | 26'0"  | 22'8"  | 20'4"  | 17'2"  | 19'7"  | 18'5"  | 15'7"  | 17'7"  | 17'2"  | 14'5"  | 16'0"  | 16'0"  | 13'7"  | 14'10" | 14'10" | 12'11" | 13'10" | 13'10" | 12'4"  | 12'5"  | 12'5"  | 11'6"  |
| 600S200-43  | 33       | 24              | 32'0"  | 26'0"  | 22'9"  | 18'6"  | 17'9"  | 15'0"  | 16'0"  | 16'0"  | 13'7"  | 14'4"  | 14'4"  | 12'7"  | 13'1"  | 13'1"  | 11'11" | 12'1"  | 12'1"  | 11'3"  | 11'4"  | 11'4"  | 10'9"  | 10'2"  | 10'2"  | 10'0"  |
| 600S200-54  | 50       | 12              | 44'4"  | 35'2"  | 30'9"  | 27'6"  | 24'0"  | 20'3"  | 24'11" | 21'10" | 18'5"  | 23'2"  | 20'3"  | 17'1"  | 21'10" | 19'1"  | 16'1"  | 20'9"  | 18'1"  | 15'3"  | 19'10" | 17'4"  | 14'7"  | 18'5"  | 16'1"  | 13'7"  |
| 600S200-54  | 50       | 16              | 40'3"  | 32'0"  | 27'11" | 24'11" | 21'10" | 18'5"  | 22'8"  | 19'10" | 16'8"  | 21'1"  | 18'5"  | 15'6"  | 19'10" | 17'4"  | 14'7"  | 18'10" | 16'5"  | 13'10" | 18'0"  | 15'9"  | 13'3"  | 16'7"  | 14'7"  | 12'4"  |
| 600S200-54  | 50       | 24              | 35'2"  | 27'11" | 24'5"  | 21'10" | 19'1"  | 16'1"  | 19'10" | 17'4"  | 14'7"  | 18'5"  | 16'1"  | 13'7"  | 17'4"  | 15'1"  | 12'9"  | 16'2"  | 14'4"  | 12'1"  | 15'1"  | 13'9"  | 11'7"  | 13'6"  | 12'9"  | 10'9"  |
| 600S200-68  | 50       | 12              | 47'7"  | 37'9"  | 33'0"  | 29'6"  | 25'9"  | 21'9"  | 26'9"  | 23'5"  | 19'9"  | 24'10" | 21'9"  | 18'4"  | 23'5"  | 20'5"  | 17'3"  | 22'3"  | 19'5"  | 16'4"  | 21'3"  | 18'7"  | 15'8"  | 19'9"  | 17'3"  | 14'6"  |
| 600S200-68  | 50       | 16              | 43'2"  | 34'3"  | 29'11" | 26'9"  | 23'5"  | 19'9"  | 24'4"  | 21'3"  | 17'11" | 22'7"  | 19'9"  | 16'8"  | 21'3"  | 18'7"  | 15'8"  | 20'2"  | 17'8"  | 14'11" | 19'4"  | 16'10" | 14'3"  | 17'11" | 15'8"  | 13'2"  |
| 600S200-68  | 50       | 24              | 37'9"  | 29'11" | 26'2"  | 23'5"  | 20'5"  | 17'3"  | 21'3"  | 18'7"  | 15'8"  | 19'9"  | 17'3"  | 14'6"  | 18'7"  | 16'3"  | 13'8"  | 17'8"  | 15'5"  | 13'0"  | 16'10" | 14'9"  | 12'5"  | 15'8"  | 13'8"  | 11'6"  |
| 600S200-97  | 50       | 12              | 52'10" | 41'11" | 36'7"  | 32'9"  | 28'7"  | 24'1"  | 29'9"  | 26'0"  | 21'11" | 27'7"  | 24'1"  | 20'4"  | 26'0"  | 22'8"  | 19'2"  | 24'8"  | 21'7"  | 18'2"  | 23'7"  | 20'7"  | 17'5"  | 21'11" | 19'2"  | 16'2"  |
| 600S200-97  | 50       | 16              | 48'0"  | 38'1"  | 33'3"  | 29'9"  | 26'0"  | 21'11" | 27'0"  | 23'7"  | 19'11" | 25'1"  | 21'11" | 18'6"  | 23'7"  | 20'7"  | 17'5"  | 22'5"  | 19'7"  | 16'6"  | 21'5"  | 18'9"  | 15'10" | 19'11" | 17'5"  | 14'8"  |
| 600S200-97  | 50       | 24              | 41'11" | 33'3"  | 29'1"  | 26'0"  | 22'8"  | 19'2"  | 23'7"  | 20'7"  | 17'5"  | 21'11" | 19'2"  | 16'2"  | 20'7"  | 18'0"  | 15'2"  | 19'7"  | 17'1"  | 14'5"  | 18'9"  | 16'4"  | 13'10" | 17'5"  | 15'2"  | 12'10" |
| 600S200-118 | 50       | 12              |        |        |        | 34'7"  | 30'3"  | 25'6"  | 31'5"  | 27'6"  | 23'2"  | 29'2"  | 25'6"  | 21'6"  | 27'6"  | 24'0"  | 20'3"  | 26'1"  | 22'10" | 19'3"  | 25'0"  | 21'10" | 18'5"  |        |        |        |

See notes located on page 26

# LIMITING WALL HEIGHTS - STRUCTURAL

| Section     | Fy (ksi) | Spacing (in) oc | 5 psf   |        |         | 15 psf  |         |         | 20 psf  |         |        | 25 psf  |         |         | 30 psf  |         |         | 35 psf |        |         | 40 psf |        |        | 50 psf  |         |         |
|-------------|----------|-----------------|---------|--------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|--------|--------|---------|--------|--------|--------|---------|---------|---------|
|             |          |                 | L/120   | L/240  | L/360   | L/240   | L/360   | L/600   | L/240   | L/360   | L/600  | L/240   | L/360   | L/600   | L/240   | L/360   | L/600   | L/240  | L/360  | L/600   | L/240  | L/360  | L/600  | L/240   | L/360   | L/600   |
| 600S200-118 | 50       | 16              |         |        |         | 31'5"   | 27'6"   | 23'2"   | 28'7"   | 25'0"   | 21'1"  | 26'6"   | 23'2"   | 19'7"   | 25'0"   | 21'10"  | 18'5"   | 23'9"  | 20'9"  | 17'6"   | 22'8"  | 19'10" | 16'9"  |         |         |         |
| 600S200-118 | 50       | 24              |         |        |         | 27'6"   | 24'0"   | 20'3"   | 25'0"   | 21'10"  | 18'5"  | 23'2"   | 20'3"   | 17'1"   | 21'10"  | 19'1"   | 16'1"   | 20'9"  | 18'1"  | 15'3"   | 19'10" | 17'4"  | 14'7"  |         |         |         |
| 600S250-54  | 50       | 12              | 46'5"   | 36'10" | 32'2"   | 28'9"   | 25'2"   | 21'2"   | 26'2"   | 22'10"  | 19'3"  | 24'3"   | 21'2"   | 17'11"  | 22'10"  | 19'11"  | 16'10"  | 21'8"  | 18'11" | 16'0"   | 20'9"  | 18'2"  | 15'4"  | 19'3"   | 16'10"  | 14'2"   |
| 600S250-54  | 50       | 16              | 42'2"   | 33'6"  | 29'3"   | 26'2"   | 22'10"  | 19'3"   | 23'9"   | 20'9"   | 17'6"  | 22'1"   | 19'3"   | 16'3"   | 20'9"   | 18'2"   | 15'4"   | 19'9"  | 17'3"  | 14'6"   | 20'9"  | 16'6"  | 13'11" | 16'11"  | 15'4"   | 12'11"  |
| 600S250-54  | 50       | 24              | 36'10"  | 29'3"  | 25'7"   | 22'10"  | 19'11"  | 16'10"  | 20'9"   | 18'2"   | 15'4"  | 19'3"   | 16'10"  | 14'2"   | 17'10"  | 15'10"  | 13'4"   | 16'6"  | 15'1"  | 12'8"   | 15'6"e | 14'5"  | 12'2"  | 13'10"e | 13'4"e  | 11'3"   |
| 600S250-68  | 50       | 12              | 49'10"  | 39'7"  | 34'7"   | 30'11"  | 27'0"   | 22'9"   | 28'1"   | 24'6"   | 20'8"  | 26'1"   | 22'9"   | 19'2"   | 24'6"   | 21'5"   | 18'1"   | 23'4"  | 20'4"  | 17'2"   | 22'3"  | 19'6"  | 16'5"  | 20'8"   | 18'1"   | 15'3"   |
| 600S250-68  | 50       | 16              | 45'4"   | 35'11" | 31'5"   | 28'1"   | 24'6"   | 20'8"   | 25'6"   | 22'3"   | 18'10" | 23'8"   | 20'8"   | 17'5"   | 22'3"   | 19'6"   | 16'5"   | 21'2"  | 18'6"  | 15'7"   | 20'3"  | 17'8"  | 14'11" | 18'10"  | 16'5"   | 13'10"  |
| 600S250-68  | 50       | 24              | 39'7"   | 31'5"  | 27'5"   | 24'6"   | 21'5"   | 18'1"   | 22'3"   | 19'6"   | 16'5"  | 20'8"   | 18'1"   | 15'3"   | 19'6"   | 17'0"   | 14'4"   | 18'6"  | 16'2"  | 13'8"   | 17'8"  | 15'5"  | 13'0"  | 16'2"   | 14'4"   | 12'1"   |
| 600S250-97  | 50       | 12              | 55'5"   | 44'0"  | 38'5"   | 34'4"   | 30'0"   | 25'4"   | 31'3"   | 27'3"   | 23'0"  | 29'0"   | 25'4"   | 21'4"   | 27'3"   | 23'10"  | 20'1"   | 25'11" | 22'8"  | 19'1"   | 24'9"  | 21'8"  | 18'3"  | 23'0"   | 20'1"   | 16'11"  |
| 600S250-97  | 50       | 16              | 50'4"   | 40'0"  | 34'11"  | 31'3"   | 27'3"   | 23'0"   | 28'4"   | 24'9"   | 20'11" | 26'4"   | 23'0"   | 19'5"   | 24'9"   | 21'8"   | 18'3"   | 23'6"  | 20'7"  | 17'4"   | 22'6"  | 19'8"  | 16'7"  | 20'11"  | 18'3"   | 15'5"   |
| 600S250-97  | 50       | 24              | 44'0"   | 34'11" | 30'6"   | 27'3"   | 23'10"  | 20'1"   | 24'9"   | 21'8"   | 18'3"  | 23'0"   | 20'1"   | 16'11"  | 21'8"   | 18'11"  | 15'11"  | 20'7"  | 18'0"  | 15'2"   | 19'8"  | 17'2"  | 14'6"  | 18'3"   | 15'11"  | 13'5"   |
| 600S250-118 | 50       | 12              |         |        |         | 36'5"   | 31'9"   | 26'10"  | 33'1"   | 28'11"  | 24'4"  | 30'8"   | 26'10"  | 22'7"   | 28'11"  | 25'3"   | 21'3"   | 27'5"  | 24'0"  | 20'3"   | 26'3"  | 22'11" | 19'4"  |         |         |         |
| 600S250-118 | 50       | 16              |         |        |         | 33'1"   | 28'11"  | 24'4"   | 30'0"   | 26'3"   | 22'2"  | 27'11"  | 24'4"   | 20'7"   | 26'3"   | 22'11"  | 19'4"   | 24'11" | 21'9"  | 18'4"   | 23'10" | 20'10" | 17'7"  |         |         |         |
| 600S250-118 | 50       | 24              |         |        |         | 28'11"  | 25'3"   | 21'3"   | 26'3"   | 22'11"  | 19'4"  | 24'4"   | 21'3"   | 17'11"  | 22'11"  | 20'0"   | 16'11"  | 21'9"  | 19'0"  | 16'0"   | 20'10" | 18'2"  | 15'4"  |         |         |         |
| 600S300-54  | 50       | 12              | 48'5"   | 38'5"  | 33'7"   | 30'0"   | 26'2"   | 22'1"   | 27'3"   | 23'10"  | 20'1"  | 25'4"   | 22'1"   | 18'8"   | 23'10"  | 20'10"  | 17'6"   | 22'7"  | 19'9"  | 16'8"   | 21'7"  | 18'11" | 15'11" | 19'10"  | 17'6"   | 14'9"   |
| 600S300-54  | 50       | 16              | 43'11"  | 34'11" | 30'6"   | 27'3"   | 23'10"  | 20'1"   | 24'9"   | 21'7"   | 18'3"  | 23'0"   | 20'1"   | 16'11"  | 21'7"   | 18'11"  | 15'11"  | 20'6"  | 17'11" | 15'2"   | 19'3"  | 17'2"  | 14'6"  | 17'3"   | 15'11"  | 13'5"   |
| 600S300-54  | 50       | 24              | 38'4"   | 30'6"  | 26'8"   | 23'10"  | 20'10"  | 17'6"   | 21'7"   | 18'11"  | 15'11" | 19'10"  | 17'6"   | 14'9"   | 18'2"   | 16'6"   | 13'11"  | 16'10" | 15'8"  | 13'3"   | 15'9"e | 15'0"e | 12'8"  | 14'1"e  | 13'11"e | 11'9"   |
| 600S300-68  | 50       | 12              | 52'0"   | 41'3"  | 36'0"   | 32'3"   | 28'2"   | 23'9"   | 29'3"   | 25'7"   | 21'7"  | 27'2"   | 23'9"   | 20'0"   | 25'7"   | 22'4"   | 18'10"  | 24'3"  | 21'3"  | 17'11"  | 23'3"  | 20'4"  | 17'1"  | 21'7"   | 18'10"  | 15'11"  |
| 600S300-68  | 50       | 16              | 47'3"   | 37'6"  | 32'9"   | 29'3"   | 25'7"   | 21'7"   | 26'7"   | 23'3"   | 19'7"  | 24'8"   | 21'7"   | 18'2"   | 23'3"   | 20'4"   | 17'1"   | 22'1"  | 19'3"  | 16'3"   | 21'1"  | 18'5"  | 15'7"  | 19'7"   | 17'1"   | 14'5"   |
| 600S300-68  | 50       | 24              | 41'3"   | 32'9"  | 28'7"   | 25'7"   | 22'4"   | 18'10"  | 23'3"   | 20'4"   | 17'1"  | 21'7"   | 18'10"  | 15'11"  | 20'4"   | 17'9"   | 14'11"  | 19'3"  | 16'10" | 14'2"   | 18'5"  | 16'1"  | 13'7"  | 16'5"   | 14'11"  | 12'7"   |
| 600S300-97  | 50       | 12              | 57'10"  | 45'11" | 40'1"   | 35'10"  | 31'4"   | 26'5"   | 32'7"   | 28'5"   | 24'0"  | 30'3"   | 26'5"   | 22'3"   | 28'5"   | 24'10"  | 21'0"   | 27'0"  | 23'7"  | 19'11"  | 25'10" | 22'7"  | 19'1"  | 24'0"   | 21'0"   | 17'8"   |
| 600S300-97  | 50       | 16              | 52'7"   | 41'9"  | 36'5"   | 32'7"   | 28'5"   | 24'0"   | 29'7"   | 25'10"  | 21'10" | 27'6"   | 24'0"   | 20'3"   | 25'10"  | 22'7"   | 19'1"   | 24'7"  | 21'5"  | 18'1"   | 23'6"  | 20'6"  | 17'4"  | 21'10"  | 19'1"   | 16'1"   |
| 600S300-97  | 50       | 24              | 45'11"  | 36'5"  | 31'10"  | 28'5"   | 24'10"  | 21'0"   | 25'10"  | 22'7"   | 19'1"  | 24'0"   | 21'0"   | 17'8"   | 22'7"   | 19'9"   | 16'8"   | 21'5"  | 18'9"  | 15'10"  | 20'6"  | 17'11" | 15'1"  | 19'1"   | 16'8"   | 14'0"   |
| 600S300-118 | 50       | 12              |         |        |         | 38'0"   | 33'2"   | 28'0"   | 34'6"   | 30'2"   | 25'5"  | 32'1"   | 28'0"   | 23'7"   | 30'2"   | 26'4"   | 22'3"   | 28'8"  | 25'0"  | 21'1"   | 27'5"  | 23'11" | 20'2"  |         |         |         |
| 600S300-118 | 50       | 16              |         |        |         | 34'6"   | 30'2"   | 25'5"   | 31'4"   | 27'5"   | 23'1"  | 29'1"   | 25'5"   | 21'5"   | 27'5"   | 23'11"  | 20'2"   | 26'0"  | 22'9"  | 19'2"   | 24'11" | 21'9"  | 18'4"  |         |         |         |
| 600S300-118 | 50       | 24              |         |        |         | 30'2"   | 26'4"   | 22'3"   | 27'5"   | 23'11"  | 20'2"  | 25'5"   | 22'3"   | 18'9"   | 23'11"  | 20'11"  | 17'8"   | 22'9"  | 19'10" | 16'9"   | 21'9"  | 19'0"  | 16'0"  |         |         |         |
| 600S350-54  | 50       | 12              |         |        |         | 31'6"   | 27'7"   | 23'3"   | 28'8"   | 25'0"   | 21'1"  | 26'7"   | 23'3"   | 19'7"   | 25'0"   | 21'10"  | 18'5"   | 23'9"  | 20'9"  | 17'6"   | 22'9"  | 19'10" | 16'9"  |         |         |         |
| 600S350-54  | 50       | 16              |         |        |         | 28'8"   | 25'0"   | 21'1"   | 26'0"   | 22'9"   | 19'2"  | 24'2"   | 21'1"   | 17'10"  | 22'9"   | 19'10"  | 16'9"   | 21'7"  | 18'10" | 15'11"  | 20'8"  | 18'1"  | 15'3"  |         |         |         |
| 600S350-54  | 50       | 24              |         |        |         | 25'0"   | 21'10"  | 18'5"   | 22'9"   | 19'10"  | 16'9"  | 21'1"   | 18'5"   | 15'7"   | 19'10"  | 17'4"   | 14'8"   | 18'8"e | 16'6"  | 13'11"  | 17'5"e | 15'9"e | 13'4"  |         |         |         |
| 600S350-68  | 50       | 12              |         |        |         | 33'11"  | 29'7"   | 25'0"   | 30'10"  | 26'11"  | 22'8"  | 28'7"   | 25'0"   | 21'1"   | 26'11"  | 23'6"   | 19'10"  | 25'7"  | 22'4"  | 18'10"  | 24'5"  | 21'4"  | 18'0"  |         |         |         |
| 600S350-68  | 50       | 16              |         |        |         | 30'10"  | 26'11"  | 22'8"   | 28'0"   | 24'5"   | 20'7"  | 26'0"   | 22'8"   | 19'2"   | 24'5"   | 21'4"   | 18'0"   | 23'3"  | 20'3"  | 17'1"   | 22'2"  | 19'5"  | 16'4"  |         |         |         |
| 600S350-68  | 50       | 24              |         |        |         | 26'11"  | 23'6"   | 19'10"  | 24'5"   | 21'4"   | 18'0"  | 22'8"   | 19'10"  | 16'9"   | 21'4"   | 18'8"   | 15'9"   | 20'3"  | 17'9"  | 14'11"  | 19'5"  | 16'11" | 14'4"  |         |         |         |
| 600S350-97  | 50       | 12              |         |        |         | 37'9"   | 33'0"   | 27'10"  | 34'4"   | 30'0"   | 25'3"  | 31'10"  | 27'10"  | 23'6"   | 30'0"   | 26'2"   | 22'1"   | 28'6"  | 24'11" | 21'0"   | 27'3"  | 23'10" | 20'1"  |         |         |         |
| 600S350-97  | 50       | 16              |         |        |         | 34'4"   | 30'0"   | 25'3"   | 31'2"   | 27'3"   | 23'0"  | 28'11"  | 25'3"   | 21'4"   | 27'3"   | 23'10"  | 20'1"   | 25'10" | 22'7"  | 19'1"   | 24'9"  | 21'7"  | 18'3"  |         |         |         |
| 600S350-97  | 50       | 24              |         |        |         | 30'0"   | 26'2"   | 22'1"   | 27'3"   | 23'10"  | 20'1"  | 25'3"   | 22'1"   | 18'8"   | 23'10"  | 20'9"   | 17'6"   | 22'7"  | 19'9"  | 16'8"   | 21'7"  | 18'11" | 15'11" |         |         |         |
| 600S350-118 | 50       | 12              |         |        |         | 40'1"   | 35'0"   | 29'6"   | 36'5"   | 31'10"  | 26'10" | 33'10"  | 29'6"   | 24'11"  | 31'10"  | 27'9"   | 23'5"   | 30'3"  | 26'5"  | 22'3"   | 28'11" | 25'3"  | 21'3"  |         |         |         |
| 600S350-118 | 50       | 16              |         |        |         | 36'5"   | 31'10"  | 26'10"  | 33'1"   | 28'11"  | 24'4"  | 30'8"   | 26'10"  | 22'7"   | 28'11"  | 25'3"   | 21'3"   | 27'5"  | 24'0"  | 20'3"   | 26'3"  | 22'11" | 19'4"  |         |         |         |
| 600S350-118 | 50       | 24              |         |        |         | 31'10"  | 27'9"   | 23'5"   | 28'11"  | 25'3"   | 21'3"  | 26'10"  | 23'5"   | 19'9"   | 25'3"   | 22'1"   | 18'7"   | 24'0"  | 20'11" | 17'8"   | 22'11" | 20'0"  | 16'11" |         |         |         |
| 800S137-33  | 33       | 12              | 37'10"e | 34'3"e | 30'2"e  | 21'10"e | 21'10"e | 19'11"e | 18'11"e | 18'11"e | 18'0"e | 16'11"e | 16'11"e | 16'9"e  | 15'5"e  | 15'5"e  | 15'5"e  | 14'3"e | 14'3"e | 14'3"e  | 13'4"e | 13'4"e | 13'4"e | 11'11"e | 11'11"e | 11'11"e |
| 800S137-33  | 33       | 16              | 32'9"e  | 31'1"e | 27'4"e  | 18'11"e | 18'11"e | 18'0"e  | 16'4"e  | 16'4"e  | 16'4"e | 14'8"e  | 14'8"e  | 14'8"e  | 13'4"e  | 13'4"e  | 13'4"e  | 12'4"e | 12'4"e | 12'4"e  | 11'7"e | 11'7"e | 11'7"e | 10'4"e  | 10'4"e  | 10'4"e  |
| 800S137-33  | 33       | 24              | 26'9"e  | 26'9"e | 23'10"e | 15'5"e  | 15'5"e  | 15'5"e  | 13'4"e  | 13'4"e  | 13'4"e | 11'11"e | 11'11"e | 11'11"e | 10'11"e | 10'11"e | 10'11"e | 10'1"e | 10'1"e | 10'1"e  | 9'5"e  | 9'5"e  | 9'5"e  | 8'5"e   | 8'5"e   | 8'5"e   |
| 800S137-43  | 33       | 12              | 45'10"  | 37'10" | 33'1"   | 26'6"   | 25'10"  | 21'9"   | 22'11"  | 22'11"  | 19'9"  | 20'6"e  | 20'6"e  | 18'4"   | 18'9"e  | 18'9"e  | 17'3"e  | 17'4"e | 17'4"e | 16'5"e  | 16'3"e | 16'3"e | 15'8"e | 14'6"e  | 14'6"e  | 14'6"e  |
| 800S137-43  | 33       | 16              | 39'9"   | 34'4"  | 30'0"   | 22'11"  | 22'11"  | 19'9"   | 19'10"e | 19'10"e | 18'0"  | 17'9"e  | 17'9"e  | 16'8"e  | 16'3"e  | 16'3"e  | 15'8"e  | 15'0"e | 15'0"e | 14'11"e | 14'1"e | 14'1"e | 14'1"e | 12'7"e  | 12'7"e  | 12'7"e  |
| 800S137-43  | 33       | 24              | 32'5"   | 29'11" | 26'3"   | 18'9"e  | 18'9"e  | 17'3"e  | 16'3"e  | 16'3"e  | 15'8"e | 14'6"e  | 14'6"e  | 14'6"e  | 13'3"e  | 13'3"e  | 13'3"e  | 12'3"e | 12'3"e | 12'3"e  | 11'6"e | 11'6"e | 11'6"e | 10'3"e  | 10'3"e  | 10'3"e  |
| 800S137-54  | 50       | 12              | 51'2"   | 40'7"  | 35'6"   | 31'9"   | 27'8"   | 23'4"   | 28'10"  | 25'2"   | 21'3"  | 26'9"   | 23'4"   | 19'9"   | 25'2"   | 22'0"   | 18'7"   | 23'3"  | 20'11" | 17'7"   | 21'9"  | 20'0"  | 16'10" | 19'6"   | 18'7"   | 15'8"   |
| 800S137-54  | 50       | 16              | 46'5"   | 36'11" | 32'3"   | 28'10"  | 25'2"   | 21'3"   | 26'2"   | 22'10"  | 19'3"  | 23'10"  | 21'     |         |         |         |         |        |        |         |        |        |        |         |         |         |

# LIMITING WALL HEIGHTS - STRUCTURAL

| Section     | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |        |        |
|-------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  |
| 800S137-68  | 50       | 12              | 54'11" | 43'7"  | 38'1"  | 34'0"  | 29'9"  | 25'1"  | 30'11" | 27'0"  | 22'9"  | 28'8"  | 25'1"  | 21'2"  | 27'0"  | 23'7"  | 19'11" | 25'8"  | 22'5"  | 18'11" | 24'6"  | 21'5"  | 18'1"  | 22'9"  | 19'11" | 16'9"  |
| 800S137-68  | 50       | 16              | 49'10" | 39'7"  | 34'7"  | 30'11" | 27'0"  | 22'9"  | 28'1"  | 24'6"  | 20'8"  | 26'1"  | 22'9"  | 19'2"  | 24'6"  | 21'5"  | 18'1"  | 23'4"  | 20'4"  | 17'2"  | 22'3"  | 19'6"  | 16'5"  | 19'11" | 18'1"  | 15'3"  |
| 800S137-68  | 50       | 24              | 43'7"  | 34'7"  | 30'2"  | 27'0"  | 23'7"  | 19'11" | 24'6"  | 21'5"  | 18'1"  | 22'9"  | 19'11" | 16'9"  | 21'0"  | 18'9"  | 15'9"  | 19'5"  | 17'9"  | 15'0"  | 18'2"  | 17'0"  | 14'4"  | 16'3"  | 15'9"  | 13'4"  |
| 800S137-97  | 50       | 12              | 60'10" | 48'4"  | 42'2"  | 37'9"  | 32'11" | 27'10" | 34'3"  | 29'11" | 25'3"  | 31'10" | 27'10" | 23'5"  | 29'11" | 26'2"  | 22'1"  | 28'5"  | 24'10" | 20'11" | 27'2"  | 23'9"  | 20'1"  | 25'3"  | 22'1"  | 18'7"  |
| 800S137-97  | 50       | 16              | 55'4"  | 43'11" | 38'4"  | 34'3"  | 29'11" | 25'3"  | 31'2"  | 27'2"  | 22'11" | 28'11" | 25'3"  | 21'4"  | 27'2"  | 23'9"  | 20'1"  | 25'10" | 22'7"  | 19'0"  | 24'9"  | 21'7"  | 18'3"  | 22'11" | 20'1"  | 16'11" |
| 800S137-97  | 50       | 24              | 48'4"  | 38'4"  | 33'6"  | 29'11" | 26'2"  | 22'1"  | 27'2"  | 23'9"  | 20'1"  | 25'3"  | 22'1"  | 18'7"  | 23'9"  | 20'9"  | 17'6"  | 22'7"  | 19'9"  | 16'8"  | 21'7"  | 18'10" | 15'11" | 20'1"  | 17'6"  | 14'9"  |
| 800S162-33  | 33       | 12              | 41'0"  | 35'8"  | 31'4"  | 23'8"  | 23'8"  | 20'8"  | 20'6"  | 20'6"  | 18'9"  | 18'4"  | 18'4"  | 17'5"  | 16'9"  | 16'9"  | 16'4"  | 15'6"  | 15'6"  | 15'6"  | 14'6"  | 14'6"  | 14'6"  | 13'0"  | 13'0"  | 13'0"  |
| 800S162-33  | 33       | 16              | 35'6"  | 32'4"  | 28'5"  | 20'6"  | 20'6"  | 18'9"  | 17'9"  | 17'9"  | 17'0"  | 15'11" | 15'11" | 15'9"  | 14'6"  | 14'6"  | 14'6"  | 13'5"  | 13'5"  | 13'5"  | 12'7"  | 12'7"  | 12'7"  | 11'3"  | 11'3"  | 11'3"  |
| 800S162-33  | 33       | 24              | 29'0"  | 28'2"  | 24'9"  | 16'9"  | 16'9"  | 16'4"  | 14'6"  | 14'6"  | 14'6"  | 13'0"  | 13'0"  | 13'0"  | 11'10" | 11'10" | 11'10" | 10'11" | 10'11" | 10'11" | 10'3"  | 10'3"  | 10'3"  | 9'2"   | 9'2"   | 9'2"   |
| 800S162-43  | 33       | 12              | 49'2"  | 39'4"  | 34'4"  | 28'6"  | 26'10" | 22'7"  | 24'9"  | 24'4"  | 20'7"  | 22'1"  | 22'1"  | 19'1"  | 20'2"  | 20'2"  | 17'11" | 18'8"  | 18'8"  | 17'1"  | 17'6"  | 17'6"  | 16'4"  | 15'8"  | 15'8"  | 15'2"  |
| 800S162-43  | 33       | 16              | 42'10" | 35'8"  | 31'2"  | 24'9"  | 24'4"  | 20'7"  | 21'5"  | 21'5"  | 18'8"  | 19'2"  | 19'2"  | 17'4"  | 17'6"  | 17'6"  | 16'4"  | 16'2"  | 16'2"  | 15'6"  | 15'2"  | 15'2"  | 14'10" | 13'6"  | 13'6"  |        |
| 800S162-43  | 33       | 24              | 34'11" | 31'1"  | 27'3"  | 20'2"  | 20'2"  | 17'11" | 17'6"  | 17'6"  | 16'4"  | 15'8"  | 15'8"  | 15'2"  | 14'3"  | 14'3"  | 14'3"  | 13'3"  | 13'3"  | 13'3"  | 12'4"  | 12'4"  | 12'4"  | 11'1"  | 11'1"  | 11'1"  |
| 800S162-54  | 50       | 12              | 53'2"  | 42'3"  | 36'10" | 33'0"  | 28'10" | 24'3"  | 29'11" | 26'2"  | 22'1"  | 27'10" | 24'3"  | 20'6"  | 26'2"  | 22'10" | 19'3"  | 24'10" | 21'9"  | 18'4"  | 23'5"  | 20'9"  | 17'6"  | 20'11" | 19'3"  | 16'3"  |
| 800S162-54  | 50       | 16              | 48'4"  | 38'4"  | 33'6"  | 29'11" | 26'2"  | 22'1"  | 27'3"  | 23'9"  | 20'1"  | 25'3"  | 22'1"  | 18'7"  | 23'5"  | 20'9"  | 17'6"  | 21'8"  | 19'9"  | 16'8"  | 20'3"  | 18'10" | 15'11" | 18'1"  | 17'6"  | 14'9"  |
| 800S162-54  | 50       | 24              | 42'1"  | 33'6"  | 29'3"  | 26'2"  | 22'10" | 19'3"  | 23'5"  | 20'9"  | 17'6"  | 20'11" | 19'3"  | 16'3"  | 19'1"  | 18'2"  | 15'4"  | 17'8"  | 17'3"  | 14'6"  | 16'6"  | 16'6"  | 13'11" | 14'9"  | 14'9"  | 12'11" |
| 800S162-68  | 50       | 12              | 57'1"  | 45'4"  | 39'7"  | 35'4"  | 30'11" | 26'1"  | 32'2"  | 28'1"  | 23'8"  | 29'10" | 26'1"  | 22'0"  | 28'1"  | 24'6"  | 20'8"  | 26'8"  | 23'4"  | 19'8"  | 25'6"  | 22'3"  | 18'10" | 23'8"  | 20'8"  | 17'5"  |
| 800S162-68  | 50       | 16              | 51'10" | 41'2"  | 35'11" | 32'2"  | 28'1"  | 23'8"  | 29'2"  | 25'6"  | 21'6"  | 27'1"  | 23'8"  | 20'0"  | 25'6"  | 22'3"  | 18'10" | 24'3"  | 21'2"  | 17'10" | 23'2"  | 20'3"  | 17'1"  | 21'3"  | 18'10" | 15'10" |
| 800S162-68  | 50       | 24              | 45'4"  | 35'11" | 31'5"  | 28'1"  | 24'6"  | 20'8"  | 25'6"  | 22'3"  | 18'10" | 23'8"  | 20'8"  | 17'5"  | 22'3"  | 19'6"  | 16'5"  | 20'9"  | 18'6"  | 15'7"  | 19'5"  | 17'8"  | 14'11" | 17'4"  | 16'5"  | 13'10" |
| 800S162-97  | 50       | 12              | 63'5"  | 50'4"  | 43'11" | 39'3"  | 34'4"  | 28'11" | 35'8"  | 31'2"  | 26'4"  | 33'2"  | 28'11" | 24'5"  | 31'2"  | 27'3"  | 23'0"  | 29'7"  | 25'11" | 21'10" | 28'4"  | 24'9"  | 20'10" | 26'4"  | 23'0"  | 19'5"  |
| 800S162-97  | 50       | 16              | 57'7"  | 45'9"  | 39'11" | 35'8"  | 31'2"  | 26'4"  | 32'5"  | 28'4"  | 23'11" | 30'1"  | 26'4"  | 22'2"  | 28'4"  | 24'9"  | 20'10" | 26'11" | 23'6"  | 19'10" | 25'9"  | 22'6"  | 19'0"  | 23'11" | 20'10" | 17'7"  |
| 800S162-97  | 50       | 24              | 50'4"  | 39'11" | 34'11" | 31'2"  | 27'3"  | 23'0"  | 28'4"  | 24'9"  | 20'10" | 26'4"  | 23'0"  | 19'5"  | 24'9"  | 21'7"  | 18'3"  | 23'6"  | 20'6"  | 17'4"  | 22'6"  | 19'8"  | 16'7"  | 20'10" | 18'3"  | 15'5"  |
| 800S162-118 | 50       | 12              |        |        |        | 41'7"  | 36'4"  | 30'8"  | 37'9"  | 33'0"  | 27'10" | 35'1"  | 30'8"  | 25'10" | 33'0"  | 28'10" | 24'4"  | 31'4"  | 27'5"  | 23'1"  | 30'0"  | 26'2"  | 22'1"  |        |        |        |
| 800S162-118 | 50       | 16              |        |        |        | 37'9"  | 33'0"  | 27'10" | 34'4"  | 30'0"  | 25'3"  | 31'10" | 27'10" | 23'6"  | 30'0"  | 26'2"  | 22'1"  | 28'6"  | 24'10" | 21'0"  | 27'3"  | 23'9"  | 20'1"  |        |        |        |
| 800S162-118 | 50       | 24              |        |        |        | 33'0"  | 28'10" | 24'4"  | 30'0"  | 26'2"  | 22'1"  | 27'10" | 24'4"  | 20'6"  | 26'2"  | 22'11" | 19'4"  | 24'10" | 21'9"  | 18'4"  | 23'9"  | 20'9"  | 17'6"  |        |        |        |
| 800S200-33  | 33       | 12              | 44'0"  | 37'9"  | 33'0"  | 25'5"  | 25'5"  | 21'8"  | 22'0"  | 22'0"  | 19'9"  | 19'8"  | 19'8"  | 18'4"  | 18'0"  | 18'0"  | 17'3"  | 16'8"  | 16'8"  | 16'4"  | 15'7"  | 15'7"  | 15'7"  | 13'11" | 13'11" | 13'11" |
| 800S200-33  | 33       | 16              | 38'1"  | 34'3"  | 29'11" | 22'0"  | 22'0"  | 19'9"  | 19'1"  | 19'1"  | 17'11" | 17'1"  | 17'1"  | 16'8"  | 15'7"  | 15'7"  | 15'7"  | 14'5"  | 14'5"  | 14'5"  | 13'6"  | 13'6"  | 13'6"  | 12'1"  | 12'1"  | 12'1"  |
| 800S200-33  | 33       | 24              | 31'1"  | 29'11" | 26'2"  | 18'0"  | 18'0"  | 17'3"  | 15'7"  | 15'7"  | 15'7"  | 13'11" | 13'11" | 13'11" | 12'8"  | 12'8"  | 12'8"  | 11'9"  | 11'9"  | 11'9"  | 11'0"  | 11'0"  | 11'0"  | 9'6"   | 9'6"   | 9'6"   |
| 800S200-43  | 33       | 12              | 51'10" | 41'1"  | 35'11" | 30'6"  | 28'1"  | 23'8"  | 26'5"  | 25'6"  | 21'6"  | 23'8"  | 23'8"  | 19'11" | 21'7"  | 21'7"  | 18'9"  | 20'0"  | 20'0"  | 17'10" | 18'8"  | 18'8"  | 17'1"  | 16'9"  | 16'9"  | 15'10" |
| 800S200-43  | 33       | 16              | 45'10" | 37'4"  | 32'8"  | 26'5"  | 25'6"  | 21'6"  | 22'11" | 22'11" | 19'6"  | 20'6"  | 20'6"  | 18'2"  | 18'8"  | 18'8"  | 17'1"  | 17'4"  | 17'4"  | 16'2"  | 16'2"  | 16'2"  | 14'6"  | 14'6"  | 14'5"  |        |
| 800S200-43  | 33       | 24              | 37'5"  | 32'8"  | 28'6"  | 21'7"  | 21'7"  | 18'9"  | 18'8"  | 18'8"  | 17'1"  | 16'9"  | 16'9"  | 15'10" | 15'3"  | 15'3"  | 14'11" | 14'2"  | 14'2"  | 14'2"  | 13'3"  | 13'3"  | 13'3"  | 11'10" | 11'10" | 11'10" |
| 800S200-54  | 50       | 12              | 55'8"  | 44'2"  | 38'7"  | 34'6"  | 30'2"  | 25'5"  | 31'4"  | 27'5"  | 23'1"  | 29'1"  | 25'5"  | 21'5"  | 27'5"  | 23'11" | 20'2"  | 26'0"  | 22'9"  | 19'2"  | 24'10" | 21'9"  | 18'4"  | 22'4"  | 20'2"  | 17'0"  |
| 800S200-54  | 50       | 16              | 50'7"  | 40'2"  | 35'1"  | 31'4"  | 27'5"  | 23'1"  | 28'6"  | 24'10" | 21'0"  | 26'5"  | 23'1"  | 19'6"  | 24'10" | 21'9"  | 18'4"  | 23'1"  | 20'8"  | 17'5"  | 21'7"  | 19'9"  | 16'8"  | 19'4"  | 18'4"  | 15'5"  |
| 800S200-54  | 50       | 24              | 44'2"  | 35'1"  | 30'8"  | 27'5"  | 23'11" | 20'2"  | 24'10" | 21'9"  | 18'4"  | 22'4"  | 20'2"  | 17'0"  | 20'5"  | 19'0"  | 16'0"  | 18'10" | 18'0"  | 15'2"  | 17'8"  | 17'3"  | 14'7"  | 15'9"  | 15'9"  | 13'6"  |
| 800S200-68  | 50       | 12              | 59'9"  | 47'5"  | 41'5"  | 37'0"  | 32'4"  | 27'4"  | 33'8"  | 29'5"  | 24'10" | 31'3"  | 27'4"  | 23'0"  | 29'5"  | 25'8"  | 21'8"  | 27'11" | 24'5"  | 20'7"  | 26'9"  | 23'4"  | 19'8"  | 24'10" | 21'8"  | 18'3"  |
| 800S200-68  | 50       | 16              | 54'4"  | 43'1"  | 37'8"  | 33'8"  | 29'5"  | 24'10" | 30'7"  | 26'9"  | 22'6"  | 28'5"  | 24'10" | 20'11" | 26'9"  | 23'4"  | 19'8"  | 25'4"  | 22'2"  | 18'8"  | 24'3"  | 21'2"  | 17'11" | 22'6"  | 19'8"  | 16'7"  |
| 800S200-68  | 50       | 24              | 47'5"  | 37'8"  | 32'11" | 29'5"  | 25'8"  | 21'8"  | 26'9"  | 23'4"  | 19'8"  | 24'10" | 21'8"  | 18'3"  | 23'4"  | 20'5"  | 17'2"  | 22'2"  | 19'4"  | 16'4"  | 21'2"  | 18'6"  | 15'7"  | 19'1"  | 17'2"  | 14'6"  |
| 800S200-97  | 50       | 12              | 66'6"  | 52'9"  | 46'1"  | 41'2"  | 36'0"  | 30'4"  | 37'5"  | 32'8"  | 27'7"  | 34'9"  | 30'4"  | 25'7"  | 32'8"  | 28'7"  | 24'1"  | 31'1"  | 27'2"  | 22'11" | 29'9"  | 25'11" | 21'11" | 27'7"  | 24'1"  | 20'4"  |
| 800S200-97  | 50       | 16              | 60'5"  | 47'11" | 41'11" | 37'5"  | 32'8"  | 27'7"  | 34'0"  | 29'9"  | 25'1"  | 31'7"  | 27'7"  | 23'3"  | 29'9"  | 25'11" | 21'11" | 28'3"  | 24'8"  | 20'10" | 27'0"  | 23'7"  | 19'11" | 25'1"  | 21'11" | 18'6"  |
| 800S200-97  | 50       | 24              | 52'9"  | 41'11" | 36'7"  | 32'8"  | 28'7"  | 24'1"  | 29'9"  | 25'11" | 21'11" | 27'7"  | 24'1"  | 20'4"  | 25'11" | 22'8"  | 19'1"  | 24'8"  | 21'6"  | 18'2"  | 23'7"  | 20'7"  | 17'5"  | 21'11" | 19'1"  | 16'2"  |
| 800S200-118 | 50       | 12              |        |        |        | 43'8"  | 38'2"  | 32'2"  | 39'8"  | 34'8"  | 29'3"  | 36'10" | 32'2"  | 27'1"  | 34'8"  | 30'3"  | 25'6"  | 32'11" | 28'9"  | 24'3"  | 31'6"  | 27'6"  | 23'2"  |        |        |        |
| 800S200-118 | 50       | 16              |        |        |        | 39'8"  | 34'8"  | 29'3"  | 36'0"  | 31'6"  | 26'7"  | 33'5"  | 29'3"  | 24'8"  | 31'6"  | 27'6"  | 23'2"  | 29'11" | 26'1"  | 22'0"  | 28'7"  | 25'0"  | 21'1"  |        |        |        |
| 800S200-118 | 50       | 24              |        |        |        | 34'8"  | 30'3"  | 25'6"  | 31'6"  | 27'6"  | 23'2"  | 29'3"  | 25'6"  | 21'6"  | 27'6"  | 24'0"  | 20'3"  | 26'1"  | 22'10" | 19'3"  | 25'0"  | 21'10" | 18'5"  |        |        |        |
| 800S250-54  | 50       | 12              | 58'1"  | 46'1"  | 40'3"  | 36'0"  | 31'5"  | 26'6"  | 32'8"  | 28'7"  | 24'1"  | 30'4"  | 26'6"  | 22'4"  | 28'7"  | 24'11" | 21'1"  | 27'2"  | 23'8"  | 20'0"  | 25'6"  | 22'8"  | 19'1"  | 22'10" | 21'1"  | 17'9"  |
| 800S250-54  | 50       | 16              | 52'9"  | 41'10" | 36'7"  | 32'8"  | 28'7"  | 24'1"  | 29'8"  | 25'11" | 21'11" | 27'7"  | 24'1"  | 20'4"  | 25'6"  | 22'8"  | 19'1"  | 23'8"  | 21'6"  | 18'2"  | 22'1"  | 20'7"  | 17'4"  | 19'9"  | 19'1"  | 16'2"  |
| 800S250-54  | 50       | 24              | 46'1"  | 36'7"  | 31'11" | 28'7"  | 24'11" | 21'1"  | 25'6"  | 22'8"  | 19'1"  | 22'10" | 21'1"  | 17'9"  | 20'10" | 19'10" | 16'8"  | 19'4"  | 18'10" | 15'10" | 18'1"  | 18'0"  | 15'2"  | 16'2"  | 16'2"  | 14'1"  |
| 800S250-68  | 50       | 12              | 62'5"  | 49'6"  | 43'3"  | 38'8"  | 33'9"  | 28'6"  | 35'2"  | 30'8"  | 25'11" | 32'7"  | 28'6"  | 24'0"  | 30'8"  | 26'10" | 22'7"  | 29'2"  | 25'6"  | 21'6"  | 27'11" | 24'4"  | 20'7"  | 25'11" | 22'7"  | 19'1"  |
| 800S250-68  | 50       | 16              | 56'8"  | 45'0"  | 39'4"  | 35'2"  | 30'8"  | 25'11" | 31'11" | 27'11" | 23'6"  | 29'8"  | 25'11" | 21'10" | 27'11" | 24'4"  | 20'7"  | 26'6"  | 23'2"  | 19'6"  | 25'4"  | 22'2"  | 18'8"  | 23'2"  | 20'7"  | 17'4"  |

See notes located on page 26



# LIMITING WALL HEIGHTS - STRUCTURAL

| Section      | Fy (ksi) | Spacing (in) oc | 5 psf  |        |        | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |         |        | 40 psf  |         |        | 50 psf  |         |        |
|--------------|----------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---------|---------|--------|---------|---------|--------|
|              |          |                 | L/120  | L/240  | L/360  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360   | L/600  | L/240   | L/360   | L/600  | L/240   | L/360   | L/600  |
| 800S250-68   | 50       | 24              | 49'6"  | 39'4"  | 34'4"  | 30'8"  | 26'10" | 22'7"  | 27'11" | 24'4"  | 20'7"  | 25'11" | 22'7"  | 19'1"  | 24'4"  | 21'3"  | 17'11" | 22'8"  | 20'3"   | 17'1"  | 21'2"   | 19'4"   | 16'4"  | 18'11"e | 17'11"e | 15'2"  |
| 800S250-97   | 50       | 12              | 69'6"  | 55'2"  | 48'2"  | 43'1"  | 37'7"  | 31'9"  | 39'1"  | 34'2"  | 28'10" | 36'4"  | 31'9"  | 26'9"  | 34'2"  | 29'10" | 25'2"  | 32'6"  | 28'4"   | 23'11" | 31'1"   | 27'2"   | 22'11" | 28'10"  | 25'2"   | 21'3"  |
| 800S250-97   | 50       | 16              | 63'1"  | 50'1"  | 43'9"  | 39'1"  | 34'2"  | 28'10" | 35'7"  | 31'1"  | 26'2"  | 33'0"  | 28'10" | 24'4"  | 31'1"  | 27'2"  | 22'11" | 29'6"  | 25'9"   | 21'9"  | 28'3"   | 24'8"   | 20'9"  | 26'2"   | 22'11"  | 19'4"  |
| 800S250-97   | 50       | 24              | 55'2"  | 43'9"  | 38'3"  | 34'2"  | 29'10" | 25'2"  | 31'1"  | 27'2"  | 22'11" | 28'10" | 25'2"  | 21'3"  | 27'2"  | 23'8"  | 20'0"  | 25'9"  | 22'6"   | 19'0"  | 24'8"   | 21'6"   | 18'2"  | 22'11"  | 20'0"   | 16'10" |
| 800S250-118  | 50       | 12              |        |        |        | 45'8"  | 39'11" | 33'8"  | 41'6"  | 36'3"  | 30'7"  | 37'8"  | 32'11" | 27'9"  | 35'0"  | 30'7"  | 25'9"  | 32'11" | 28'9"   | 24'3"  | 34'5"   | 30'1"   | 25'4"  | 32'11"  | 28'9"   | 24'3"  |
| 800S250-118  | 50       | 16              |        |        |        | 41'6"  | 36'3"  | 30'7"  | 37'8"  | 32'11" | 27'9"  | 35'0"  | 30'7"  | 25'9"  | 32'11" | 28'9"  | 24'3"  | 31'3"  | 27'4"   | 23'1"  | 29'11"  | 26'2"   | 22'0"  |         |         |        |
| 800S250-118  | 50       | 24              |        |        |        | 36'3"  | 31'8"  | 26'8"  | 32'11" | 28'9"  | 24'3"  | 30'7"  | 26'8"  | 22'6"  | 28'9"  | 25'1"  | 21'2"  | 27'4"  | 23'10"  | 20'2"  | 26'2"   | 22'10"  | 19'3"  |         |         |        |
| 800S300-54   | 50       | 12              | 60'4"  | 47'10" | 41'10" | 37'4"  | 32'8"  | 27'6"  | 33'11" | 29'8"  | 25'0"  | 31'6"  | 27'6"  | 23'3"  | 29'8"  | 25'11" | 21'10" | 27'8"  | 24'7"   | 20'9"  | 25'11"  | 23'6"   | 19'10" | 23'2"e  | 21'10"  | 18'5"  |
| 800S300-54   | 50       | 16              | 54'9"  | 43'6"  | 38'0"  | 33'11" | 29'8"  | 25'0"  | 30'10" | 26'11" | 22'9"  | 28'4"  | 25'0"  | 21'1"  | 25'11" | 23'6"  | 19'10" | 24'0"  | 22'4"   | 18'10" | 22'5"e  | 21'5"   | 18'0"  | 20'1"e  | 19'10"e | 16'9"  |
| 800S300-54   | 50       | 24              | 47'8"  | 38'0"  | 33'2"  | 29'8"  | 25'11" | 21'10" | 25'11" | 23'6"  | 19'10" | 23'2"e | 21'10" | 18'5"  | 21'2"e | 20'7"e | 17'4"  | 19'7"e | 19'6"e  | 16'6"e | 18'4"e  | 18'4"e  | 15'9"e | 16'5"e  | 16'5"e  | 14'8"e |
| 800S300-68   | 50       | 12              | 64'10" | 51'5"  | 44'11" | 40'2"  | 35'1"  | 29'7"  | 36'6"  | 31'11" | 26'11" | 33'11" | 29'7"  | 25'0"  | 31'11" | 27'10" | 23'6"  | 30'3"  | 26'5"   | 22'4"  | 29'0"   | 25'4"   | 21'4"  | 26'11"  | 23'6"   | 19'10" |
| 800S300-68   | 50       | 16              | 58'11" | 46'9"  | 40'10" | 36'6"  | 31'11" | 26'11" | 33'2"  | 29'0"  | 24'5"  | 30'9"  | 26'11" | 22'8"  | 29'0"  | 25'4"  | 21'4"  | 27'6"  | 24'0"   | 20'3"  | 26'4"   | 23'0"   | 19'5"  | 23'7"   | 21'4"   | 18'0"  |
| 800S300-68   | 50       | 24              | 51'5"  | 40'10" | 35'8"  | 31'11" | 27'10" | 23'6"  | 29'0"  | 25'4"  | 21'4"  | 26'11" | 23'6"  | 19'10" | 24'10" | 22'1"  | 18'8"  | 23'0"  | 21'0"   | 17'9"  | 21'6"   | 20'1"   | 16'11" | 19'3"e  | 18'8"e  | 15'9"  |
| 800S300-97   | 50       | 12              | 72'3"  | 57'4"  | 50'1"  | 44'9"  | 39'1"  | 33'0"  | 40'8"  | 35'6"  | 30'0"  | 37'9"  | 33'0"  | 27'10" | 35'6"  | 31'1"  | 26'2"  | 33'9"  | 29'6"   | 24'10" | 32'3"   | 28'2"   | 23'9"  | 30'0"   | 26'2"   | 22'1"  |
| 800S300-97   | 50       | 16              | 65'8"  | 52'1"  | 45'6"  | 40'8"  | 35'6"  | 30'0"  | 37'0"  | 32'3"  | 27'3"  | 34'4"  | 30'0"  | 25'3"  | 32'3"  | 28'2"  | 23'9"  | 30'8"  | 26'10"  | 22'7"  | 29'4"   | 25'8"   | 21'7"  | 27'3"   | 23'9"   | 20'1"  |
| 800S300-97   | 50       | 24              | 57'4"  | 45'6"  | 39'9"  | 35'6"  | 31'1"  | 26'2"  | 32'3"  | 28'2"  | 23'9"  | 30'0"  | 26'2"  | 22'1"  | 28'2"  | 24'8"  | 20'9"  | 26'10" | 23'5"   | 19'9"  | 25'8"   | 22'5"   | 18'11" | 23'9"   | 20'9"   | 17'6"  |
| 800S300-118  | 50       | 12              |        |        |        | 47'6"  | 41'6"  | 35'0"  | 43'2"  | 37'8"  | 31'10" | 40'1"  | 35'0"  | 29'6"  | 37'8"  | 32'11" | 27'9"  | 35'10" | 31'3"   | 26'5"  | 34'3"   | 29'11"  | 25'3"  |         |         |        |
| 800S300-118  | 50       | 16              |        |        |        | 43'2"  | 37'8"  | 31'10" | 39'3"  | 34'3"  | 28'11" | 36'5"  | 31'10" | 26'10" | 34'3"  | 29'11" | 25'3"  | 32'6"  | 28'5"   | 24'0"  | 31'1"   | 27'2"   | 22'11" |         |         |        |
| 800S300-118  | 50       | 24              |        |        |        | 37'8"  | 32'11" | 27'9"  | 34'3"  | 29'11" | 25'3"  | 31'10" | 27'9"  | 23'5"  | 29'11" | 26'2"  | 22'1"  | 28'5"  | 24'10"  | 20'11" | 27'2"   | 23'9"   | 20'0"  |         |         |        |
| 800S350-54   | 50       | 12              |        |        |        | 39'3"  | 34'3"  | 28'11" | 35'8"  | 31'2"  | 26'3"  | 33'1"  | 28'11" | 24'5"  | 31'2"  | 27'3"  | 22'11" | 29'7"  | 25'10"  | 21'10" | 28'4"   | 24'9"   | 20'10" |         |         |        |
| 800S350-54   | 50       | 16              |        |        |        | 35'8"  | 31'2"  | 26'3"  | 32'5"  | 28'4"  | 23'10" | 30'1"  | 26'3"  | 22'2"  | 28'4"  | 24'9"  | 20'10" | 26'8"e | 23'6"   | 19'10" | 24'11"e | 22'6"e  | 18'11" |         |         |        |
| 800S350-54   | 50       | 24              |        |        |        | 31'2"  | 27'3"  | 22'11" | 28'4"  | 24'9"  | 20'10" | 25'9"e | 22'11" | 19'4"  | 23'6"e | 21'7"e | 18'3"  | 21'9"e | 20'6"e  | 17'4"e | 20'4"e  | 19'7"e  | 16'7"e |         |         |        |
| 800S350-68   | 50       | 12              |        |        |        | 42'3"  | 36'10" | 31'1"  | 38'4"  | 33'6"  | 28'3"  | 35'7"  | 31'1"  | 26'3"  | 33'6"  | 29'3"  | 24'8"  | 31'10" | 27'10"  | 23'5"  | 30'5"   | 26'7"   | 22'5"  |         |         |        |
| 800S350-68   | 50       | 16              |        |        |        | 38'4"  | 33'6"  | 28'3"  | 34'10" | 30'5"  | 25'8"  | 32'4"  | 28'3"  | 23'10" | 30'5"  | 26'7"  | 22'5"  | 28'11" | 25'3"   | 21'4"  | 27'8"   | 24'2"   | 20'5"  |         |         |        |
| 800S350-68   | 50       | 24              |        |        |        | 33'6"  | 29'3"  | 24'8"  | 30'5"  | 26'7"  | 22'5"  | 28'3"  | 24'8"  | 20'10" | 26'7"  | 23'3"  | 19'7"  | 25'3"e | 22'1"   | 18'7"  | 23'10"e | 21'1"   | 17'10" |         |         |        |
| 800S350-97   | 50       | 12              |        |        |        | 47'1"  | 41'2"  | 34'8"  | 42'10" | 37'5"  | 31'6"  | 39'9"  | 34'8"  | 29'3"  | 37'5"  | 32'8"  | 27'7"  | 35'6"  | 31'0"   | 26'2"  | 34'0"   | 29'8"   | 25'0"  |         |         |        |
| 800S350-97   | 50       | 16              |        |        |        | 42'10" | 37'5"  | 31'6"  | 38'11" | 34'0"  | 28'8"  | 36'1"  | 31'6"  | 26'7"  | 34'0"  | 29'8"  | 25'0"  | 32'3"  | 28'2"   | 23'9"  | 30'10"  | 27'0"   | 22'9"  |         |         |        |
| 800S350-97   | 50       | 24              |        |        |        | 37'5"  | 32'8"  | 27'7"  | 34'0"  | 29'8"  | 25'0"  | 31'6"  | 27'7"  | 23'3"  | 29'8"  | 25'11" | 21'10" | 28'2"  | 24'7"   | 20'9"  | 27'0"   | 23'7"   | 19'10" |         |         |        |
| 800S350-118  | 50       | 12              |        |        |        | 50'0"  | 43'8"  | 36'10" | 45'5"  | 39'8"  | 33'6"  | 42'2"  | 36'10" | 31'1"  | 39'8"  | 34'8"  | 29'3"  | 37'9"  | 32'11"  | 27'9"  | 36'1"   | 31'6"   | 26'7"  |         |         |        |
| 800S350-118  | 50       | 16              |        |        |        | 45'5"  | 39'8"  | 33'6"  | 41'3"  | 36'1"  | 30'5"  | 38'4"  | 33'6"  | 28'3"  | 36'1"  | 31'6"  | 26'7"  | 34'3"  | 29'11"  | 25'3"  | 32'9"   | 28'8"   | 24'2"  |         |         |        |
| 800S350-118  | 50       | 24              |        |        |        | 39'8"  | 34'8"  | 29'3"  | 36'1"  | 31'6"  | 26'7"  | 33'6"  | 29'3"  | 24'8"  | 31'6"  | 27'6"  | 23'3"  | 29'11" | 26'2"   | 22'1"  | 28'8"   | 25'0"   | 21'1"  |         |         |        |
| 1000S162-118 | 50       | 12              |        |        |        | 50'1"  | 43'9"  | 36'11" | 45'6"  | 39'9"  | 33'7"  | 42'3"  | 36'11" | 31'2"  | 39'9"  | 34'9"  | 29'4"  | 37'9"  | 33'0"   | 27'10" | 36'2"   | 31'7"   | 26'8"  |         |         |        |
| 1000S162-118 | 50       | 16              |        |        |        | 45'6"  | 39'9"  | 33'7"  | 41'5"  | 36'2"  | 30'6"  | 38'5"  | 33'7"  | 28'4"  | 36'2"  | 31'7"  | 26'8"  | 34'4"  | 30'0"   | 25'4"  | 32'10"  | 28'8"   | 24'2"  |         |         |        |
| 1000S162-118 | 50       | 24              |        |        |        | 39'9"  | 34'9"  | 29'4"  | 36'2"  | 31'7"  | 26'8"  | 33'7"  | 29'4"  | 24'9"  | 31'7"  | 27'7"  | 23'3"  | 30'0"  | 26'2"   | 22'1"  | 28'8"   | 25'1"   | 21'2"  |         |         |        |
| 1000S200-118 | 50       | 12              |        |        |        | 52'5"  | 45'9"  | 38'7"  | 47'7"  | 41'7"  | 35'1"  | 44'2"  | 38'7"  | 32'7"  | 41'7"  | 36'4"  | 30'8"  | 39'6"  | 34'6"   | 29'1"  | 37'9"   | 33'0"   | 27'10" |         |         |        |
| 1000S200-118 | 50       | 16              |        |        |        | 47'7"  | 41'7"  | 35'1"  | 43'3"  | 37'9"  | 31'10" | 40'2"  | 35'1"  | 29'7"  | 37'9"  | 33'0"  | 27'10" | 35'11" | 31'4"   | 26'5"  | 34'4"   | 30'0"   | 25'4"  |         |         |        |
| 1000S200-118 | 50       | 24              |        |        |        | 41'7"  | 36'4"  | 30'8"  | 37'9"  | 33'0"  | 27'10" | 35'1"  | 30'8"  | 25'10" | 33'0"  | 28'10" | 24'4"  | 31'4"  | 27'5"   | 23'1"  | 30'0"   | 26'2"   | 22'1"  |         |         |        |
| 1000S250-118 | 50       | 12              |        |        |        | 54'7"  | 47'8"  | 40'3"  | 49'7"  | 43'4"  | 36'7"  | 46'1"  | 40'3"  | 33'11" | 43'4"  | 37'10" | 31'11" | 41'2"  | 36'0"   | 30'4"  | 39'5"   | 34'5"   | 29'0"  |         |         |        |
| 1000S250-118 | 50       | 16              |        |        |        | 49'7"  | 43'4"  | 36'7"  | 45'1"  | 39'5"  | 33'3"  | 41'10" | 36'7"  | 30'10" | 39'5"  | 34'5"  | 29'0"  | 37'5"  | 32'8"   | 27'7"  | 35'9"   | 31'3"   | 26'4"  |         |         |        |
| 1000S250-118 | 50       | 24              |        |        |        | 43'4"  | 37'10" | 31'11" | 39'5"  | 34'5"  | 29'0"  | 36'7"  | 31'11" | 26'11" | 34'5"  | 30'1"  | 25'4"  | 32'8"  | 28'7"   | 24'1"  | 31'3"   | 27'4"   | 23'0"  |         |         |        |
| 1000S300-118 | 50       | 12              |        |        |        | 56'8"  | 49'6"  | 41'9"  | 51'6"  | 44'11" | 37'11" | 47'9"  | 41'9"  | 35'2"  | 44'11" | 39'3"  | 33'2"  | 42'8"  | 37'4"   | 31'6"  | 40'10"  | 35'8"   | 30'1"  |         |         |        |
| 1000S300-118 | 50       | 16              |        |        |        | 51'6"  | 44'11" | 37'11" | 46'9"  | 40'10" | 34'5"  | 43'5"  | 37'11" | 32'0"  | 40'10" | 35'8"  | 30'1"  | 38'10" | 33'11"  | 28'7"  | 37'1"   | 32'5"   | 27'4"  |         |         |        |
| 1000S300-118 | 50       | 24              |        |        |        | 44'11" | 39'3"  | 33'2"  | 40'10" | 35'8"  | 30'1"  | 37'11" | 33'2"  | 27'11" | 35'8"  | 31'2"  | 26'3"  | 33'11" | 29'7"   | 25'0"  | 32'5"   | 28'4"   | 23'11" |         |         |        |
| 1000S350-54  | 50       | 12              |        |        |        | 46'7"  | 40'9"  | 34'4"  | 42'4"  | 37'0"  | 31'2"  | 39'4"  | 34'4"  | 29'0"  | 37'0"e | 32'4"e | 27'3"  | 34'8"e | 30'8"   | 25'11" | 32'5"e  | 29'4"e  | 24'9"  |         |         |        |
| 1000S350-54  | 50       | 16              |        |        |        | 42'4"  | 37'0"  | 31'2"  | 38'6"  | 33'7"  | 28'4"  | 35'6"e | 31'2"  | 26'4"  | 32'5"e | 29'4"e | 24'9"  | 30'0"e | 27'11"e | 23'6"  | 28'1"e  | 26'8"e  | 22'6"e |         |         |        |
| 1000S350-54  | 50       | 24              |        |        |        | 37'0"e | 32'4"  | 27'3"  | 32'5"e | 29'4"e | 24'9"  | 29'0"e | 27'3"e | 23'0"e | 26'5"e | 25'8"e | 21'8"e | 24'6"e | 24'4"e  | 20'7"e | 22'11"e | 22'11"e | 19'8"e |         |         |        |
| 1000S350-68  | 50       | 12              |        |        |        | 50'2"  | 43'10" | 36'11" | 45'7"  | 39'10" | 33'7"  | 42'4"  | 36'11" | 31'2"  | 39'10" | 34'9"  | 29'4"  | 37'10" | 33'0"   | 27'10" | 36'2"   | 31'7"   | 26'8"  |         |         |        |

See notes located on page 26

# LIMITING WALL HEIGHTS - STRUCTURAL

| Section      | Fy (ksi) | Spacing (in) oc | 5 psf |       |       | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
|--------------|----------|-----------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|-------|--------|-------|-------|---|--------|---|-------|---|--------|---|
|              |          |                 | L/120 | L/240 | L/360 | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360 | L/600  |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-68  | 50       | 16              |       |       |       | 45'7"  | 39'10" | 33'7"  | 41'5"  | 36'2"  | 30'6"  | 38'5"  | 33'7"  | 28'4"  | 36'2"  | 31'7"  | 26'8"  | 34'4"  | 30'0"  | 25'4"  | 32'10" | e      | 28'8"  | 24'3"  |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-68  | 50       | 24              |       |       |       | 39'10" | 34'9"  | 29'4"  | 36'2"  | 31'7"  | 26'8"  | 33'7"  | 29'4"  | 24'9"  | 31'0"  | e      | 27'7"  | 23'3"  | 28'9"  | e      | 26'3"  | e      | 22'1"  | 26'10" | e     | 25'1"  | e     | 21'2"  |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-97  | 50       | 12              |       |       |       | 56'0"  | 48'11" | 41'3"  | 50'11" | 44'5"  | 37'6"  | 47'3"  | 41'3"  | 34'10" | 44'5"  | 38'10" | 32'9"  | 42'3"  | 36'11" | 31'1"  | 40'5"  | 35'3"  | 29'9"  | 38'4"  | 33'6" | 28'3"  | 36'8" | 32'1"  | 27'0"  |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-97  | 50       | 16              |       |       |       | 50'11" | 44'5"  | 37'6"  | 46'3"  | 40'5"  | 34'1"  | 42'11" | 37'6"  | 31'8"  | 40'5"  | 35'3"  | 29'9"  | 38'4"  | 33'6"  | 28'3"  | 36'8"  | 32'1"  | 27'0"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-97  | 50       | 24              |       |       |       | 44'5"  | 38'10" | 32'9"  | 40'5"  | 35'3"  | 29'9"  | 37'6"  | 32'9"  | 27'8"  | 35'3"  | 30'10" | 26'0"  | 33'6"  | 29'3"  | 24'8"  | 32'1"  | 28'0"  | 23'7"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-118 | 50       | 12              |       |       |       | 59'6"  | 52'0"  | 43'10" | 54'1"  | 47'3"  | 39'10" | 50'2"  | 43'10" | 37'0"  | 47'3"  | 41'3"  | 34'10" | 44'10" | 39'2"  | 33'1"  | 42'11" | 37'6"  | 31'7"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-118 | 50       | 16              |       |       |       | 54'1"  | 47'3"  | 39'10" | 49'2"  | 42'11" | 36'2"  | 45'7"  | 39'10" | 33'7"  | 42'11" | 37'6"  | 31'7"  | 40'9"  | 35'7"  | 30'0"  | 39'0"  | 34'1"  | 28'9"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1000S350-118 | 50       | 24              |       |       |       | 47'3"  | 41'3"  | 34'10" | 42'11" | 37'6"  | 31'7"  | 39'10" | 34'10" | 29'4"  | 37'6"  | 32'9"  | 27'8"  | 35'7"  | 31'1"  | 26'3"  | 34'1"  | 29'9"  | 25'1"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S162-118 | 50       | 12              |       |       |       | 58'7"  | 51'2"  | 43'2"  | 53'2"  | 46'6"  | 39'2"  | 49'5"  | 43'2"  | 36'5"  | 46'6"  | 40'7"  | 34'3"  | 44'2"  | 38'7"  | 32'6"  | 42'3"  | 36'11" | 31'1"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S162-118 | 50       | 16              |       |       |       | 53'2"  | 46'6"  | 39'2"  | 48'4"  | 42'3"  | 35'7"  | 44'10" | 39'2"  | 33'1"  | 42'3"  | 36'11" | 31'1"  | 40'1"  | 35'0"  | 29'7"  | 38'4"  | 33'6"  | 28'3"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S162-118 | 50       | 24              |       |       |       | 46'6"  | 40'7"  | 34'3"  | 42'3"  | 36'11" | 31'1"  | 39'2"  | 34'3"  | 28'11" | 36'11" | 32'3"  | 27'2"  | 35'0"  | 30'7"  | 25'10" | 33'6"  | 29'3"  | 24'8"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S200-118 | 50       | 12              |       |       |       | 61'0"  | 53'3"  | 44'11" | 55'5"  | 48'5"  | 40'10" | 51'5"  | 44'11" | 37'11" | 48'5"  | 42'4"  | 35'8"  | 46'0"  | 40'2"  | 33'11" | 44'0"  | 38'5"  | 32'5"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S200-118 | 50       | 16              |       |       |       | 55'5"  | 48'5"  | 40'10" | 50'4"  | 44'0"  | 37'1"  | 46'9"  | 40'10" | 34'5"  | 44'0"  | 38'5"  | 32'5"  | 41'9"  | 36'6"  | 30'9"  | 40'0"  | 34'11" | 29'5"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S200-118 | 50       | 24              |       |       |       | 48'5"  | 42'4"  | 35'8"  | 44'0"  | 38'5"  | 32'5"  | 40'10" | 35'8"  | 30'1"  | 38'5"  | 33'7"  | 28'4"  | 36'6"  | 31'11" | 26'11" | 34'11" | 30'6"  | 25'9"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S250-118 | 50       | 12              |       |       |       | 63'4"  | 55'4"  | 46'8"  | 57'7"  | 50'3"  | 42'5"  | 53'5"  | 46'8"  | 39'4"  | 50'3"  | 43'11" | 37'1"  | 47'9"  | 41'9"  | 35'2"  | 45'8"  | 39'11" | 33'8"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S250-118 | 50       | 16              |       |       |       | 57'7"  | 50'3"  | 42'5"  | 52'4"  | 45'8"  | 38'6"  | 48'7"  | 42'5"  | 35'9"  | 45'8"  | 39'11" | 33'8"  | 43'5"  | 37'11" | 32'0"  | 41'6"  | 36'3"  | 30'7"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S250-118 | 50       | 24              |       |       |       | 50'3"  | 43'11" | 37'1"  | 45'8"  | 39'11" | 33'8"  | 42'5"  | 37'1"  | 31'3"  | 39'11" | 34'10" | 29'5"  | 37'11" | 33'1"  | 27'11" | 36'3"  | 31'8"  | 26'9"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S300-118 | 50       | 12              |       |       |       | 65'7"  | 57'3"  | 48'4"  | 59'7"  | 52'0"  | 43'11" | 55'3"  | 48'4"  | 40'9"  | 52'0"  | 45'5"  | 38'4"  | 49'5"  | 43'2"  | 36'5"  | 47'3"  | 41'4"  | 34'10" |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S300-118 | 50       | 16              |       |       |       | 59'7"  | 52'0"  | 43'11" | 54'1"  | 47'3"  | 39'10" | 50'3"  | 43'11" | 37'0"  | 47'3"  | 41'4"  | 34'10" | 44'11" | 39'3"  | 33'1"  | 42'11" | 37'6"  | 31'8"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S300-118 | 50       | 24              |       |       |       | 52'0"  | 45'5"  | 38'4"  | 47'3"  | 41'4"  | 34'10" | 43'11" | 38'4"  | 32'4"  | 41'4"  | 36'1"  | 30'5"  | 39'3"  | 34'3"  | 28'11" | 37'6"  | 32'9"  | 27'8"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-54  | 50       | 12              |       |       |       | 53'9"  | e      | 46'11" | e      | 39'7"  | e      | 48'10" | e      | 42'8"  | e      | 36'0"  | e      | 45'0"  | e      | 39'7"  | e      | 33'5"  | e      | 41'1"  | e     | 37'3"  | e     | 31'5"  | e      | 38'0"  | e     | 29'10" | e     | 35'7" | e | 33'10" | e | 28'7" | e |        |   |
| 1200S350-54  | 50       | 16              |       |       |       | 48'10" | e      | 42'8"  | e      | 36'0"  | e      | 43'7"  | e      | 38'9"  | e      | 32'8"  | e      | 39'0"  | e      | 36'0"  | e      | 30'4"  | e      | 35'7"  | e     | 33'10" | e     | 28'7"  | e      | 32'11" | e     | 32'2"  | e     | 27'1" | e | 30'10" | e | 30'9" | e | 25'11" | e |
| 1200S350-54  | 50       | 24              |       |       |       | 41'1"  | e      | 37'3"  | e      | 31'5"  | e      | 35'7"  | e      | 33'10" | e      | 28'7"  | e      | 31'10" | e      | 31'5"  | e      | 26'6"  | e      | 29'1"  | e     | 29'1"  | e     | 24'11" | e      | 26'11" | e     | 26'11" | e     | 23'8" | e | 25'2"  | e | 25'2" | e | 22'8"  | e |
| 1200S350-68  | 50       | 12              |       |       |       | 57'10" | 50'6"  | 42'7"  | 52'7"  | 45'11" | 38'9"  | 48'9"  | 42'7"  | 35'11" | 45'11" | 40'1"  | 33'10" | 43'7"  | 38'1"  | 32'2"  | 41'9"  | 36'5"  | 30'9"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-68  | 50       | 16              |       |       |       | 52'7"  | 45'11" | 38'9"  | 47'9"  | 41'9"  | 35'2"  | 44'4"  | 38'9"  | 32'8"  | 41'9"  | 36'5"  | 30'9"  | 38'9"  | 34'7"  | 29'2"  | 36'3"  | 33'1"  | 27'11" |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-68  | 50       | 24              |       |       |       | 45'11" | 40'1"  | 33'10" | 41'9"  | 36'5"  | 30'9"  | 37'5"  | 33'10" | e      | 28'6"  | 34'2"  | e      | 31'10" | e      | 26'10" | 31'7"  | e      | 30'3"  | e      | 25'6" | e      | 29'7" | e      | 28'11" | e      | 24'5" | e      | 24'5" | e     |   |        |   |       |   |        |   |
| 1200S350-97  | 50       | 12              |       |       |       | 64'8"  | 56'6"  | 47'8"  | 58'9"  | 51'4"  | 43'3"  | 54'6"  | 47'8"  | 40'2"  | 51'4"  | 44'10" | 37'10" | 48'9"  | 42'7"  | 35'11" | 46'7"  | 40'9"  | 34'4"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-97  | 50       | 16              |       |       |       | 58'9"  | 51'4"  | 43'3"  | 53'4"  | 46'7"  | 39'4"  | 49'6"  | 43'3"  | 36'6"  | 46'7"  | 40'9"  | 34'4"  | 44'3"  | 38'8"  | 32'8"  | 42'4"  | 37'0"  | 31'2"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-97  | 50       | 24              |       |       |       | 51'4"  | 44'10" | 37'10" | 46'7"  | 40'9"  | 34'4"  | 43'3"  | 37'10" | 31'11" | 40'9"  | 35'7"  | 30'0"  | 38'8"  | 33'10" | 28'6"  | 37'0"  | 32'4"  | 27'3"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-118 | 50       | 12              |       |       |       | 68'9"  | 60'0"  | 50'8"  | 62'5"  | 54'7"  | 46'0"  | 58'0"  | 50'8"  | 42'9"  | 54'7"  | 47'8"  | 40'2"  | 51'10" | 45'3"  | 38'2"  | 49'7"  | 43'4"  | 36'6"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-118 | 50       | 16              |       |       |       | 62'5"  | 54'7"  | 46'0"  | 56'9"  | 49'7"  | 41'10" | 52'8"  | 46'0"  | 38'10" | 49'7"  | 43'4"  | 36'6"  | 47'1"  | 41'2"  | 34'8"  | 45'0"  | 39'4"  | 33'2"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1200S350-118 | 50       | 24              |       |       |       | 54'7"  | 47'8"  | 40'2"  | 49'7"  | 43'4"  | 36'6"  | 46'0"  | 40'2"  | 33'11" | 43'4"  | 37'10" | 31'11" | 41'2"  | 35'11" | 30'4"  | 39'4"  | 34'4"  | 29'0"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S162-118 | 50       | 12              |       |       |       | 66'11" | 58'5"  | 49'3"  | 60'9"  | 53'1"  | 44'9"  | 56'5"  | 49'3"  | 41'7"  | 53'1"  | 46'5"  | 39'1"  | 50'5"  | 44'1"  | 37'2"  | 48'3"  | 42'2"  | 35'6"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S162-118 | 50       | 16              |       |       |       | 60'9"  | 53'1"  | 44'9"  | 55'3"  | 48'3"  | 40'8"  | 51'3"  | 44'9"  | 37'9"  | 48'3"  | 42'2"  | 35'6"  | 45'10" | 40'0"  | 33'9"  | 43'10" | 38'3"  | 32'3"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S162-118 | 50       | 24              |       |       |       | 53'1"  | 46'5"  | 39'1"  | 48'3"  | 42'2"  | 35'6"  | 44'9"  | 39'1"  | 33'0"  | 42'2"  | 36'10" | 31'1"  | 40'0"  | 35'0"  | 29'6"  | 37'10" | 33'5"  | 28'2"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S200-118 | 50       | 12              |       |       |       | 69'6"  | 60'8"  | 51'2"  | 63'1"  | 55'2"  | 46'6"  | 58'7"  | 51'2"  | 43'2"  | 55'2"  | 48'2"  | 40'8"  | 52'5"  | 45'9"  | 38'7"  | 50'1"  | 43'9"  | 36'11" |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S200-118 | 50       | 16              |       |       |       | 63'1"  | 55'2"  | 46'6"  | 57'4"  | 50'1"  | 42'3"  | 53'3"  | 46'6"  | 39'3"  | 50'1"  | 43'9"  | 36'11" | 47'7"  | 41'7"  | 35'1"  | 45'6"  | 39'9"  | 33'6"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S200-118 | 50       | 24              |       |       |       | 55'2"  | 48'2"  | 40'8"  | 50'1"  | 43'9"  | 36'11" | 46'6"  | 40'8"  | 34'3"  | 43'9"  | 38'3"  | 32'3"  | 41'7"  | 36'4"  | 30'8"  | 39'9"  | 34'9"  | 29'4"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S250-118 | 50       | 12              |       |       |       | 71'11" | 62'10" | 53'0"  | 65'5"  | 57'1"  | 48'2"  | 60'8"  | 53'0"  | 44'9"  | 57'1"  | 49'11" | 42'1"  | 54'3"  | 47'5"  | 40'0"  | 51'11" | 45'4"  | 38'3"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S250-118 | 50       | 16              |       |       |       | 65'5"  | 57'1"  | 48'2"  | 59'5"  | 51'11" | 43'9"  | 55'2"  | 48'2"  | 40'8"  | 51'11" | 45'4"  | 38'3"  | 49'3"  | 43'1"  | 36'4"  | 47'2"  | 41'2"  | 34'9"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S250-118 | 50       | 24              |       |       |       | 57'1"  | 49'11" | 42'1"  | 51'11" | 45'4"  | 38'3"  | 48'2"  | 42'1"  | 35'6"  | 45'4"  | 39'7"  | 33'5"  | 43'1"  | 37'7"  | 31'9"  | 41'2"  | 36'0"  | 30'4"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S300-118 | 50       | 12              |       |       |       | 74'3"  | 64'11" | 54'9"  | 67'6"  | 59'0"  | 49'9"  | 62'8"  | 54'9"  | 46'2"  | 59'0"  | 51'6"  | 43'5"  | 56'0"  | 48'11" | 41'3"  | 53'7"  | 46'10" | 39'6"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S300-118 | 50       | 16              |       |       |       | 67'6"  | 59'0"  | 49'9"  | 61'4"  | 53'7"  | 45'2"  | 56'11" | 49'9"  | 41'11" | 53'7"  | 46'10" | 39'6"  | 50'11" | 44'5"  | 37'6"  | 48'8"  | 42'6"  | 35'10" |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S300-118 | 50       | 24              |       |       |       | 59'0"  | 51'6"  | 43'5"  | 53'7"  | 46'10" | 39'6"  | 49'9"  | 43'5"  | 36'8"  | 46'10" | 40'11" | 34'6"  | 44'5"  | 38'10" | 32'9"  | 42'6"  | 37'2"  | 31'4"  |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |
| 1400S350-54  | 50       | 12              |       |       |       | 60'8"  | e      | 53'0"  | e      | 44'9"  | e      | 54'3"  | e      | 48'2"  | e      | 40'8"  | e      | 48'6"  | e      | 44'9"  | e      | 37'9"  | e      | 44'3"  | e     | 42'1"  | e     | 35'6"  | e      | 41'0"  | e     | 40'0"  | e     | 33'9" | e | 38'4"  | e | 38'3" | e | 32'3"  | e |
| 1400S350-54  | 50       | 16              |       |       |       | 54'3"  | e      | 48'2"  | e      | 40'8"  | e      | 47'0"  | e      | 43'9"  | e      | 36'11" | e      | 42'0"  | e      | 40     |        |        |        |        |       |        |       |        |        |        |       |        |       |       |   |        |   |       |   |        |   |

# LIMITING WALL HEIGHTS - STRUCTURAL

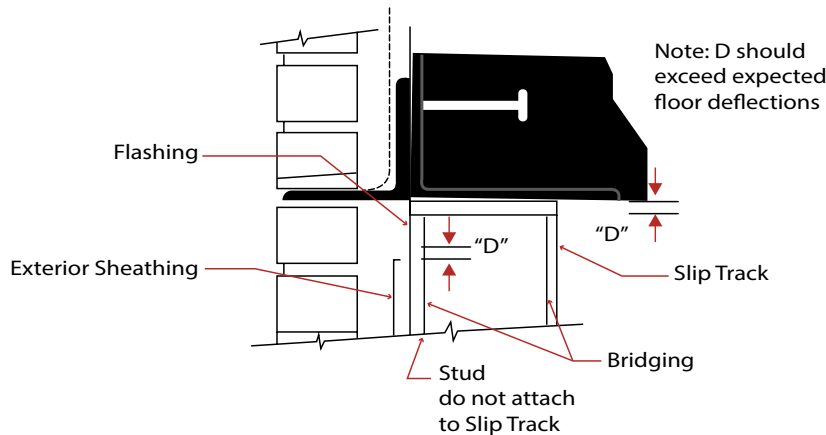
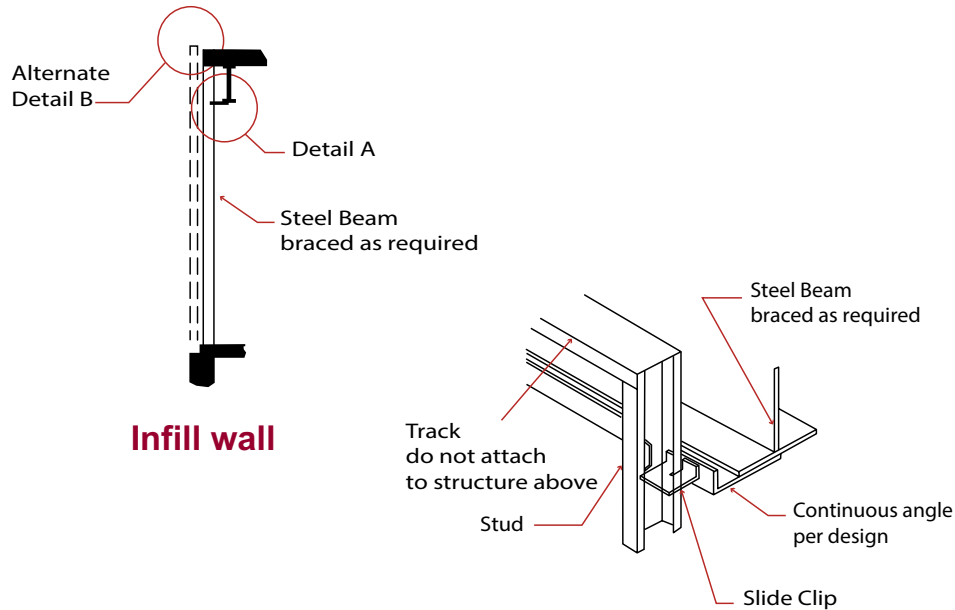
| Section      | Fy (ksi) | Spacing (in) oc | 5 psf |       |       | 15 psf |        |        | 20 psf |        |        | 25 psf |        |        | 30 psf |        |        | 35 psf |        |        | 40 psf |        |        | 50 psf |       |       |
|--------------|----------|-----------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
|              |          |                 | L/120 | L/240 | L/360 | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360  | L/600  | L/240  | L/360 | L/600 |
| 1400S350-68  | 50       | 12              |       |       |       | 65'4"  | 57'1"  | 48'2"  | 59'5"  | 51'10" | 43'9"  | 55'1"  | 48'2"  | 40'7"  | 51'10" | 45'4"  | 38'3"  | 48'4"  | 43'1"  | 36'4"  | 45'2"  | 41'2"  | 34'9"  |        |       |       |
| 1400S350-68  | 50       | 16              |       |       |       | 59'5"  | 51'10" | 43'9"  | 53'11" | 47'2"  | 39'9"  | 49'6"  | 43'9"  | 36'11" | 45'2"  | 41'2"  | 34'9"  | 41'10" | 39'1"  | 33'0"  | 39'2"  | 37'5"  | 31'7"  |        |       |       |
| 1400S350-68  | 50       | 24              |       |       |       | 51'10" | 45'4"  | 38'3"  | 45'2"  | 41'2"  | 34'9"  | 40'5"  | 38'3"  | 32'3"  | 36'11" | 36'0"  | 30'4"  | 34'2"  | 34'2"  | 28'10" | 31'11" | 31'11" | 27'7"  |        |       |       |
| 1400S350-97  | 50       | 12              |       |       |       | 73'1"  | 63'10" | 53'10" | 66'5"  | 58'0"  | 48'11" | 61'8"  | 53'10" | 45'5"  | 58'0"  | 50'8"  | 42'9"  | 55'1"  | 48'2"  | 40'7"  | 52'8"  | 46'0"  | 38'10" |        |       |       |
| 1400S350-97  | 50       | 16              |       |       |       | 66'5"  | 58'0"  | 48'11" | 60'4"  | 52'8"  | 44'5"  | 56'0"  | 48'11" | 41'3"  | 52'8"  | 46'0"  | 38'10" | 50'1"  | 43'9"  | 36'11" | 47'11" | 41'10" | 35'3"  |        |       |       |
| 1400S350-97  | 50       | 24              |       |       |       | 58'0"  | 50'8"  | 42'9"  | 52'8"  | 46'0"  | 38'10" | 48'11" | 42'9"  | 36'11" | 46'0"  | 40'3"  | 33'11" | 43'9"  | 38'2"  | 32'3"  | 40'11" | 36'6"  | 30'10" |        |       |       |
| 1400S350-118 | 50       | 12              |       |       |       | 77'9"  | 67'11" | 57'3"  | 70'7"  | 61'8"  | 52'0"  | 65'7"  | 57'3"  | 48'4"  | 61'8"  | 53'11" | 45'5"  | 58'7"  | 51'2"  | 43'2"  | 56'1"  | 49'0"  | 41'4"  |        |       |       |
| 1400S350-118 | 50       | 16              |       |       |       | 70'7"  | 61'8"  | 52'0"  | 64'2"  | 56'1"  | 47'3"  | 59'7"  | 52'0"  | 43'11" | 56'1"  | 49'0"  | 41'4"  | 53'3"  | 46'6"  | 39'3"  | 50'11" | 44'6"  | 37'6"  |        |       |       |
| 1400S350-118 | 50       | 24              |       |       |       | 61'8"  | 53'11" | 45'5"  | 56'1"  | 49'0"  | 41'4"  | 52'0"  | 45'5"  | 38'4"  | 49'0"  | 42'9"  | 36'11" | 46'6"  | 40'8"  | 34'3"  | 44'6"  | 38'10" | 32'9"  |        |       |       |
| 1600S200-68  | 50       | 12              |       |       |       | 64'7"  | 56'10" | 48'4"  | 56'8"  | 51'6"  | 43'10" | 50'8"  | 47'8"  | 40'7"  | 46'3"  | 44'10" | 38'2"  | 42'10" | 42'6"  | 36'2"  | 40'1"  | 40'1"  | 34'7"  |        |       |       |
| 1600S200-68  | 50       | 16              |       |       |       | 56'8"  | 51'6"  | 43'10" | 49'1"  | 46'8"  | 39'9"  | 43'11" | 43'3"  | 36'10" | 40'1"  | 40'1"  | 34'7"  | 37'1"  | 37'1"  | 32'10" | 34'8"  | 34'8"  | 31'4"  |        |       |       |
| 1600S200-68  | 50       | 24              |       |       |       | 46'3"  | 44'10" | 38'2"  | 40'1"  | 40'1"  | 34'7"  | 35'10" | 35'10" | 32'0"  | 32'8"  | 30'1"  | 30'3"  | 30'3"  | 28'7"  | 28'4"  | 28'4"  | 27'3"  |        |        |       |       |
| 1600S200-97  | 50       | 12              |       |       |       | 73'3"  | 64'0"  | 54'0"  | 66'7"  | 58'2"  | 49'1"  | 61'10" | 54'0"  | 45'7"  | 58'1"  | 50'10" | 42'10" | 55'2"  | 48'3"  | 40'9"  | 52'5"  | 46'2"  | 38'11" |        |       |       |
| 1600S200-97  | 50       | 16              |       |       |       | 66'7"  | 58'2"  | 49'1"  | 60'6"  | 52'10" | 44'7"  | 56'1"  | 49'1"  | 41'5"  | 52'5"  | 46'2"  | 38'11" | 48'7"  | 43'10" | 37'0"  | 45'5"  | 41'11" | 35'5"  |        |       |       |
| 1600S200-97  | 50       | 24              |       |       |       | 58'1"  | 50'10" | 42'10" | 52'5"  | 46'2"  | 38'11" | 46'11" | 42'10" | 36'2"  | 42'10" | 40'4"  | 34'0"  | 39'8"  | 38'3"  | 32'4"  | 37'1"  | 36'7"  | 30'11" |        |       |       |
| 1600S200-118 | 50       | 12              |       |       |       | 77'10" | 68'0"  | 57'4"  | 70'9"  | 61'10" | 52'1"  | 65'8"  | 57'4"  | 48'5"  | 61'10" | 54'0"  | 45'6"  | 58'8"  | 51'3"  | 43'3"  | 56'2"  | 49'1"  | 41'4"  |        |       |       |
| 1600S200-118 | 50       | 16              |       |       |       | 70'9"  | 61'10" | 52'1"  | 64'3"  | 56'2"  | 47'4"  | 59'8"  | 52'1"  | 44'0"  | 56'2"  | 49'1"  | 41'4"  | 53'4"  | 46'7"  | 39'4"  | 51'0"  | 44'7"  | 37'7"  |        |       |       |
| 1600S200-118 | 50       | 24              |       |       |       | 61'10" | 54'0"  | 45'6"  | 56'2"  | 49'1"  | 41'4"  | 52'1"  | 45'6"  | 38'5"  | 49'1"  | 42'10" | 36'2"  | 46'0"  | 40'8"  | 34'4"  | 43'0"  | 38'11" | 32'10" |        |       |       |
| 1600S250-68  | 50       | 12              |       |       |       | 66'10" | 58'9"  | 49'11" | 59'1"  | 53'3"  | 45'3"  | 52'10" | 49'4"  | 41'11" | 48'3"  | 46'5"  | 39'5"  | 44'8"  | 44'0"  | 37'5"  | 41'9"  | 41'9"  | 35'9"  |        |       |       |
| 1600S250-68  | 50       | 16              |       |       |       | 59'1"  | 53'3"  | 45'3"  | 51'2"  | 48'3"  | 41'0"  | 45'9"  | 44'9"  | 38'0"  | 41'9"  | 41'9"  | 35'9"  | 38'8"  | 38'8"  | 33'11" | 36'2"  | 36'2"  | 32'5"  |        |       |       |
| 1600S250-68  | 50       | 24              |       |       |       | 48'3"  | 46'5"  | 39'5"  | 41'9"  | 41'9"  | 35'9"  | 37'4"  | 37'4"  | 33'2"  | 34'1"  | 34'1"  | 31'2"  | 31'7"  | 31'7"  | 29'6"  | 29'6"  | 29'6"  | 28'3"  |        |       |       |
| 1600S250-97  | 50       | 12              |       |       |       | 75'8"  | 66'2"  | 55'9"  | 68'9"  | 60'1"  | 50'8"  | 63'10" | 55'9"  | 47'1"  | 60'1"  | 52'6"  | 44'3"  | 57'0"  | 49'10" | 42'1"  | 54'6"  | 47'8"  | 40'3"  |        |       |       |
| 1600S250-97  | 50       | 16              |       |       |       | 68'9"  | 60'1"  | 50'8"  | 62'6"  | 54'7"  | 46'0"  | 57'11" | 50'8"  | 42'9"  | 54'6"  | 47'8"  | 40'3"  | 50'6"  | 45'4"  | 38'2"  | 47'3"  | 43'4"  | 36'7"  |        |       |       |
| 1600S250-97  | 50       | 24              |       |       |       | 60'1"  | 52'6"  | 44'3"  | 54'6"  | 47'8"  | 40'3"  | 48'10" | 44'3"  | 37'4"  | 44'7"  | 41'8"  | 35'2"  | 41'3"  | 39'7"  | 33'5"  | 38'7"  | 37'10" | 31'11" |        |       |       |
| 1600S250-118 | 50       | 12              |       |       |       | 80'6"  | 70'3"  | 59'3"  | 73'1"  | 63'10" | 53'10" | 67'10" | 59'3"  | 50'0"  | 63'10" | 55'9"  | 47'1"  | 60'8"  | 53'0"  | 44'8"  | 58'0"  | 50'8"  | 42'9"  |        |       |       |
| 1600S250-118 | 50       | 16              |       |       |       | 73'1"  | 63'10" | 53'10" | 66'5"  | 58'0"  | 48'11" | 61'8"  | 53'10" | 45'5"  | 58'0"  | 50'8"  | 42'9"  | 55'1"  | 48'2"  | 40'7"  | 52'9"  | 46'1"  | 38'10" |        |       |       |
| 1600S250-118 | 50       | 24              |       |       |       | 63'10" | 55'9"  | 47'1"  | 58'0"  | 50'8"  | 42'9"  | 53'10" | 47'1"  | 39'8"  | 50'8"  | 44'3"  | 37'4"  | 47'10" | 42'1"  | 35'6"  | 44'9"  | 40'3"  | 33'11" |        |       |       |
| 1600S300-68  | 50       | 12              |       |       |       | 68'11" | 60'7"  | 51'5"  | 60'8"  | 54'11" | 46'7"  | 54'4"  | 50'11" | 43'3"  | 49'7"  | 47'10" | 40'8"  | 45'11" | 45'5"  | 38'7"  | 42'11" | 42'11" | 36'10" |        |       |       |
| 1600S300-68  | 50       | 16              |       |       |       | 60'8"  | 54'11" | 46'7"  | 52'7"  | 49'9"  | 42'3"  | 47'0"  | 46'2"  | 39'2"  | 42'11" | 42'11" | 36'10" | 39'9"  | 39'9"  | 35'0"  | 37'2"  | 37'2"  | 33'5"  |        |       |       |
| 1600S300-68  | 50       | 24              |       |       |       | 49'7"  | 47'10" | 40'8"  | 42'11" | 42'11" | 36'10" | 38'5"  | 38'5"  | 34'2"  | 35'1"  | 35'1"  | 32'1"  | 32'5"  | 32'5"  | 30'5"  | 30'4"  | 30'4"  | 29'1"  |        |       |       |
| 1600S300-97  | 50       | 12              |       |       |       | 78'0"  | 68'1"  | 57'5"  | 70'10" | 61'11" | 52'2"  | 65'9"  | 57'5"  | 48'5"  | 61'11" | 54'1"  | 45'7"  | 58'9"  | 51'4"  | 43'4"  | 56'0"  | 49'1"  | 41'5"  |        |       |       |
| 1600S300-97  | 50       | 16              |       |       |       | 70'10" | 61'11" | 52'2"  | 64'4"  | 56'3"  | 47'5"  | 59'9"  | 52'2"  | 44'0"  | 56'0"  | 49'1"  | 41'5"  | 51'10" | 46'8"  | 39'4"  | 48'6"  | 44'7"  | 37'8"  |        |       |       |
| 1600S300-97  | 50       | 24              |       |       |       | 61'11" | 54'1"  | 45'7"  | 56'0"  | 49'1"  | 41'5"  | 50'1"  | 45'7"  | 38'5"  | 45'9"  | 42'11" | 36'2"  | 42'4"  | 40'9"  | 34'5"  | 39'7"  | 38'11" | 32'11" |        |       |       |
| 1600S300-118 | 50       | 12              |       |       |       | 82'11" | 72'5"  | 61'1"  | 75'4"  | 65'10" | 55'6"  | 69'11" | 61'1"  | 51'6"  | 65'10" | 57'6"  | 48'6"  | 62'6"  | 54'7"  | 46'1"  | 59'9"  | 52'3"  | 44'1"  |        |       |       |
| 1600S300-118 | 50       | 16              |       |       |       | 75'4"  | 65'10" | 55'6"  | 68'5"  | 59'9"  | 50'5"  | 63'6"  | 55'6"  | 46'10" | 59'9"  | 52'3"  | 44'1"  | 56'9"  | 49'7"  | 41'10" | 54'4"  | 47'5"  | 40'0"  |        |       |       |
| 1600S300-118 | 50       | 24              |       |       |       | 65'10" | 57'6"  | 48'6"  | 59'9"  | 52'3"  | 44'1"  | 55'6"  | 48'6"  | 40'11" | 52'3"  | 45'7"  | 38'6"  | 49'1"  | 43'4"  | 36'7"  | 45'11" | 41'5"  | 35'0"  |        |       |       |
| 1600S350-68  | 50       | 12              |       |       |       | 72'1"  | 63'3"  | 53'7"  | 65'4"  | 57'4"  | 48'8"  | 60'7"  | 53'2"  | 45'1"  | 55'7"  | 50'0"  | 42'5"  | 51'5"  | 47'5"  | 40'3"  | 48'2"  | 45'4"  | 38'6"  |        |       |       |
| 1600S350-68  | 50       | 16              |       |       |       | 65'4"  | 57'4"  | 48'8"  | 58'11" | 52'0"  | 44'2"  | 52'9"  | 48'3"  | 40'11" | 48'2"  | 45'4"  | 38'6"  | 44'7"  | 43'0"  | 36'6"  | 41'8"  | 41'1"  | 34'11" |        |       |       |
| 1600S350-68  | 50       | 24              |       |       |       | 55'7"  | 50'0"  | 42'5"  | 48'2"  | 45'4"  | 38'6"  | 43'1"  | 42'0"  | 35'8"  | 39'4"  | 39'4"  | 33'6"  | 36'5"  | 36'5"  | 31'10" | 34'0"  | 34'0"  | 30'5"  |        |       |       |
| 1600S350-97  | 50       | 12              |       |       |       | 81'4"  | 71'1"  | 59'11" | 73'11" | 64'7"  | 54'6"  | 68'7"  | 59'11" | 50'7"  | 64'7"  | 56'5"  | 47'7"  | 61'4"  | 53'7"  | 45'2"  | 58'8"  | 51'3"  | 43'3"  |        |       |       |
| 1600S350-97  | 50       | 16              |       |       |       | 73'11" | 64'7"  | 54'6"  | 67'2"  | 58'8"  | 49'6"  | 62'4"  | 54'6"  | 45'11" | 58'8"  | 51'3"  | 43'3"  | 55'8"  | 48'8"  | 41'1"  | 53'2"  | 46'7"  | 39'3"  |        |       |       |
| 1600S350-97  | 50       | 24              |       |       |       | 64'7"  | 56'5"  | 47'7"  | 58'8"  | 51'3"  | 43'3"  | 54'5"  | 47'7"  | 40'2"  | 50'7"  | 44'9"  | 37'9"  | 46'10" | 42'6"  | 35'10" | 43'10" | 40'8"  | 34'4"  |        |       |       |
| 1600S350-118 | 50       | 12              |       |       |       | 86'7"  | 75'7"  | 63'9"  | 78'8"  | 68'8"  | 57'11" | 73'0"  | 63'9"  | 53'10" | 68'8"  | 60'0"  | 50'7"  | 65'3"  | 57'0"  | 48'1"  | 62'5"  | 54'6"  | 46'0"  |        |       |       |
| 1600S350-118 | 50       | 16              |       |       |       | 78'8"  | 68'8"  | 57'11" | 71'5"  | 62'5"  | 52'8"  | 66'4"  | 57'11" | 48'11" | 62'5"  | 54'6"  | 46'0"  | 59'4"  | 51'10" | 43'8"  | 56'9"  | 49'7"  | 41'9"  |        |       |       |
| 1600S350-118 | 50       | 24              |       |       |       | 68'8"  | 60'0"  | 50'7"  | 62'5"  | 54'6"  | 46'0"  | 57'11" | 50'7"  | 42'8"  | 54'6"  | 47'8"  | 40'2"  | 51'10" | 45'3"  | 38'2"  | 49'7"  | 43'3"  | 36'6"  |        |       |       |

See notes located on page 26

# CURTAIN WALL CONSTRUCTION

## Infill allowing for vertical movement

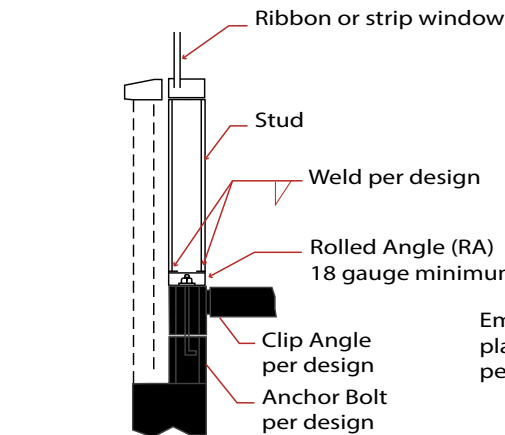
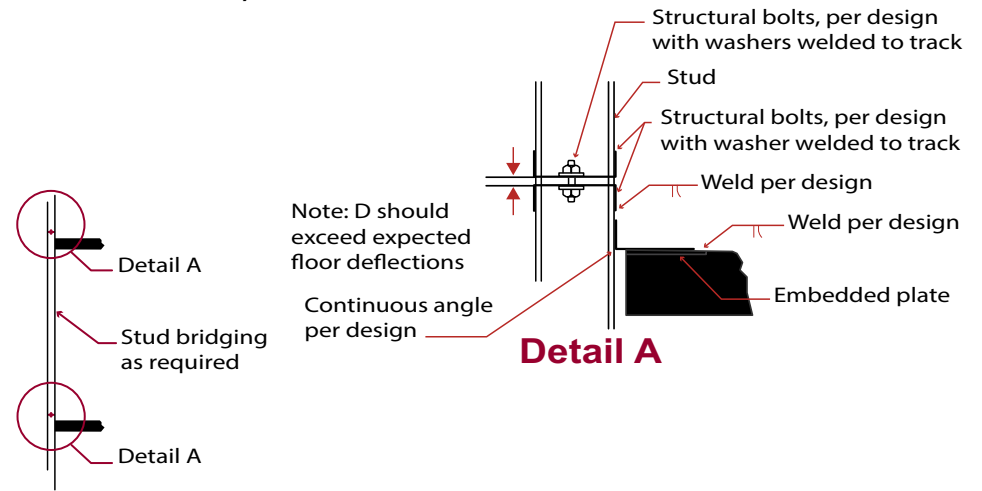
Provision for vertical movement of the building structure without transfer of compressive loads to the exterior curtain wall, is frequently desirable. The details on the following pages are applicable for attaching all types of steel studs, whether they are installed as individual components, as prefabricated framing assemblies or prefinished panels with exterior facing in place.



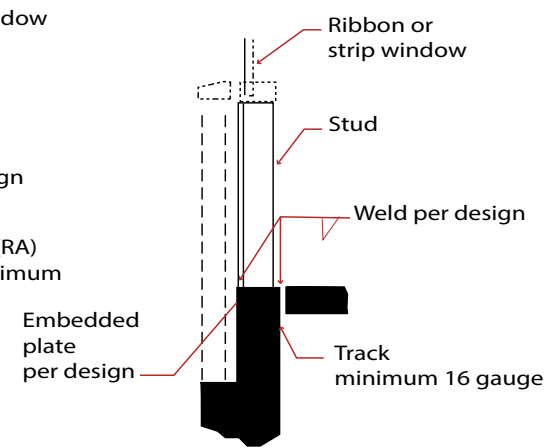
**Alternative Detail B**

## Full height, by passing primary frame with provision for vertical movement

### Stud wall (base connection to resist overturning due to lateral forces)



**Masonry Construction**



**C.I.P. Concrete Construction**

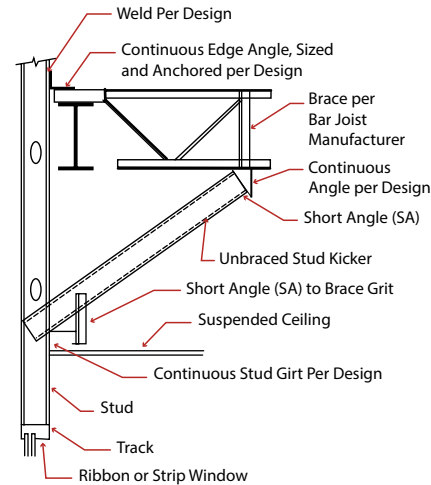
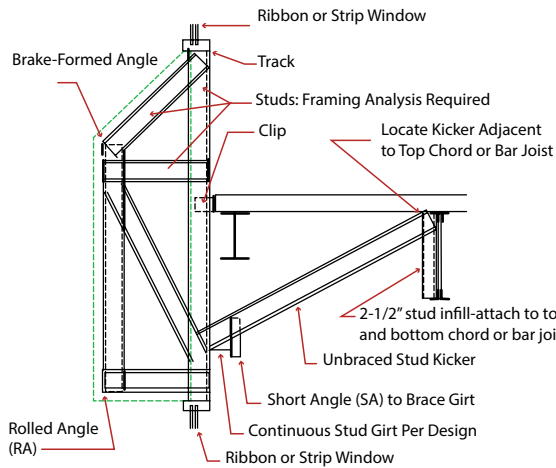


# CURTAIN WALL CONSTRUCTION

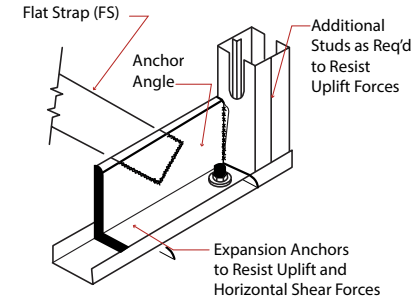
## Spandrel Conditions

### Designer Note:

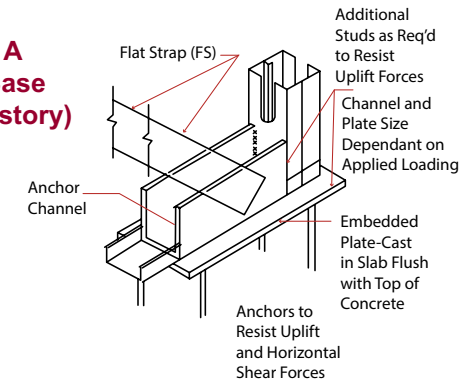
1. As spandrel walls must be rigidly attached to the primary frame, designer must allow for vertical movements in the construction of the window head.
2. Fire safing required in stud cavity where necessary.



## Detail A - Anchorage at Base (1 to 2-story only)



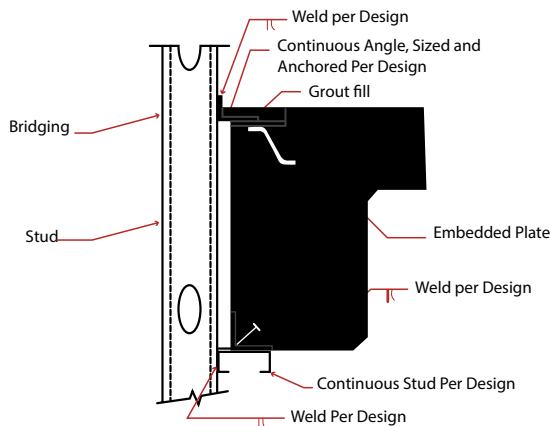
## Alternate detail A Anchorage at Base (greater than 2-story)



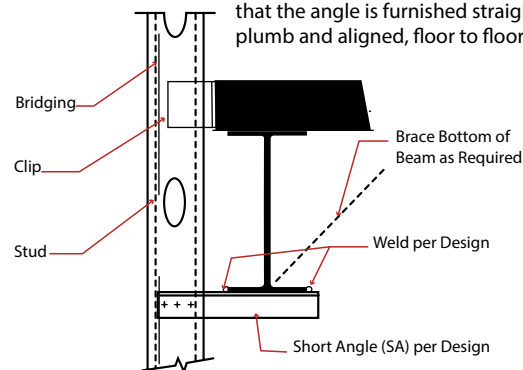
## Recessed Window with Diagonal Kicker

### Designer Note:

Continuous edge angle sized and attached per design (studs may attach directly to the edge angle, however extreme care must be taken to assure that the angle is furnished straight and attached plumb and aligned, floor to floor).

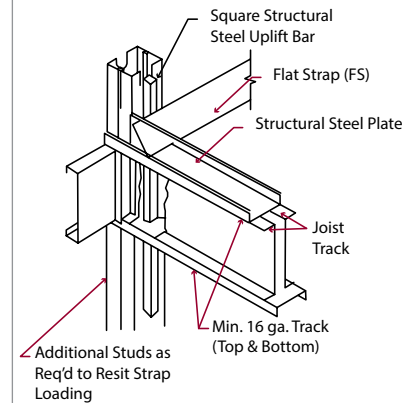


## C.I.P. Concrete Construction

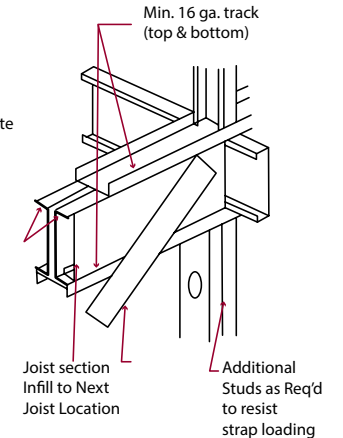


## C.I.P. Concrete Construction

## Detail B - Anchorage at Intermediate Floors



## Detail C - Attachment at Top



## ALLOWABLE AXIAL LOAD TABLES - NOTES

### Combined Loading Allowable Axial Load Table Notes:

1. Allowable axial loads listed in kips (1 kip = 1000 lb).
2. Allowable axial loads determined in accordance with section C5 of the AISI S100 based on the axial load passing through the centroid of the effective section.
3. Listed lateral pressures and axial loads have not been modified for strength checks based on wind/earthquake or multiple transient loads.
4. Listed lateral loads are ASD level pressures
5. Allowable axial loads based on bracing  $K_y L_y = K_t L_t = 48$  inches.
6. Distortional buckling allowable moment and allowable axial load are based on  $k_0 = 0$ .
7. Superscripts represent exceeded deflection: 1 = L/120 exceeded; 2 = L/240 exceeded; 3 = L/360 exceeded; 6 = L/600 exceeded; 7 = L/720 exceeded.
8. Lateral pressures > 5 psf have been multiplied by 0.7 for deflection checks per IBC Table 1604.3, footnote f.
9. Studs are assumed to be adequately braced to develop full allowable moment.
10. Check end reactions for web crippling
11. All tables based on simple (single) span condition.

# ALLOWABLE AXIAL LOAD TABLES - 5 PSF LATERAL LOAD

| Wall Ht. (ft.) | Spacing (in) o.c. | 350S137-mils (Fy) |          |          |          |          |          |          |          | 350S162-mils (Fy) |          |          |          |          |          |          |          | 350S200-mils (Fy) |          |          |          |          |          |          |          | 350S250-mils (Fy) |          |          |          | 350S300-mils (Fy) |          |          |          |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|-------------------|----------|----------|----------|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) |
| 8              | 12                | 1.44              | 2.07     | 2.73     | 3.16     | 3.56     | 4.13     | 5.08     | 5.98     | 1.81              | 2.56     | 3.35     | 3.97     | 4.3      | 5.08     | 6.2      | 7.48     | 2.19              | 3.17     | 4.14     | 4.95     | 5.26     | 6.31     | 7.47     | 9.05     | 5.6               | 7.33     | 10.45    | 5.65     | 7.79              | 11.61    |          |          |
|                | 16                | 1.37              | 1.99     | 2.66     | 3.1      | 3.49     | 4.06     | 5.01     | 5.92     | 1.74              | 2.48     | 3.27     | 3.9      | 4.22     | 5.01     | 6.12     | 7.41     | 2.1               | 3.09     | 4.05     | 4.87     | 5.18     | 6.23     | 7.39     | 8.98     | 5.51              | 7.24     | 10.38    | 5.57     | 7.7               | 11.53    |          |          |
|                | 24                | 1.23              | 1.85     | 2.5      | 2.97     | 3.36     | 3.93     | 4.87     | 5.8      | 1.58              | 2.32     | 3.11     | 3.76     | 4.08     | 4.87     | 5.97     | 7.27     | 1.94              | 2.92     | 3.88     | 4.71     | 5.02     | 6.08     | 7.23     | 8.84     | 5.34              | 7.07     | 10.23    | 5.41     | 7.53              | 11.37    |          |          |
| 9              | 12                | 1.33              | 1.93     | 2.56     | 2.92     | 3.35     | 3.82     | 4.96     | 5.84     | 1.67              | 2.38     | 3.13     | 3.65     | 4.03     | 4.67     | 5.83     | 6.88     | 2.03              | 2.95     | 3.86     | 4.55     | 4.93     | 5.79     | 7.02     | 8.31     | 5.24              | 6.73     | 9.62     | 5.3      | 7.22              | 10.86    |          |          |
|                | 16                | 1.24              | 1.84     | 2.46     | 2.84     | 3.26     | 3.74     | 4.86     | 5.76     | 1.57              | 2.28     | 3.02     | 3.56     | 3.94     | 4.58     | 5.73     | 6.79     | 1.92              | 2.85     | 3.75     | 4.45     | 4.83     | 5.69     | 6.91     | 8.22     | 5.13              | 6.62     | 9.53     | 5.2      | 7.11              | 10.76    |          |          |
|                | 24                | 1.07              | 1.66     | 2.27     | 2.69     | 3.09     | 3.58     | 4.68     | 5.6      | 1.39              | 2.09     | 2.82     | 3.39     | 3.75     | 4.41     | 5.53     | 6.62     | 1.72              | 2.64     | 3.54     | 4.25     | 4.63     | 5.5      | 6.71     | 8.05     | 4.91              | 6.41     | 9.35     | 5        | 6.9               | 10.55    |          |          |
| 10             | 12                | 1.2               | 1.77     | 2.35     | 2.64     | 3.11     | 3.47     | 4.6      | 5.29     | 1.51              | 2.18     | 2.87     | 3.29     | 3.73     | 4.23     | 5.41     | 6.22     | 1.85              | 2.71     | 3.55     | 4.09     | 4.56     | 5.23     | 6.52     | 7.52     | 4.79              | 6.09     | 8.74     | 4.9      | 6.63              | 9.89     |          |          |
|                | 16                | 1.1               | 1.66     | 2.23     | 2.55     | 3        | 3.37     | 4.48     | 5.19     | 1.4               | 2.07     | 2.75     | 3.19     | 3.62     | 4.12     | 5.28     | 6.12     | 1.73              | 2.58     | 3.42     | 3.97     | 4.44     | 5.11     | 6.39     | 7.41     | 4.66              | 5.97     | 8.63     | 4.78     | 6.5               | 9.76     |          |          |
|                | 24                | 0.91              | 1.45     | 2.01     | 2.37     | 2.79     | 3.18     | 4.25     | 5        | 1.19              | 1.84     | 2.51     | 2.99     | 3.4      | 3.92     | 5.05     | 5.92     | 1.49              | 2.34     | 3.17     | 3.75     | 4.2      | 4.89     | 6.15     | 7.21     | 4.41              | 5.72     | 8.41     | 4.53     | 6.25              | 9.51     |          |          |
| 12             | 12                | 0.93              | 1.41     | 1.89     | 2.09     | 2.56     | 2.73     | 3.78     | 4.12     | 1.18              | 1.75     | 2.32     | 2.56     | 3.07     | 3.31     | 4.48     | 4.86     | 1.47              | 2.19     | 2.89     | 3.17     | 3.78     | 4.08     | 5.44     | 5.9      | 3.74              | 4.79     | 6.93     | 4.13     | 5.46              | 7.89     |          |          |
|                | 16                | 0.8               | 1.28     | 1.74     | 1.97     | 2.42     | 2.61     | 3.63     | 4        | 1.04              | 1.61     | 2.16     | 2.44     | 2.92     | 3.18     | 4.32     | 4.73     | 1.32              | 2.03     | 2.73     | 3.03     | 3.61     | 3.94     | 5.27     | 5.77     | 3.58              | 4.64     | 6.79     | 3.96     | 5.29              | 7.73     |          |          |
|                | 24                | 0.58              | 1.03     | 1.48     | 1.76     | 2.16     | 2.39     | 3.34     | 3.77     | 0.79              | 1.34     | 1.87     | 2.21     | 2.65     | 2.94     | 4.02     | 4.5      | 1.03              | 1.73     | 2.42     | 2.76     | 3.32     | 3.68     | 4.95     | 5.52     | 3.28              | 4.34     | 6.53     | 3.64     | 4.97              | 7.42     |          |          |
| 14             | 12                | 0.66              | 1.06     | 1.44     | 1.6      | 1.99     | 2.1      | 2.96     | 3.15     | 0.86              | 1.33     | 1.78     | 1.95     | 2.41     | 2.54     | 3.54     | 3.75     | 1.09              | 1.68     | 2.25     | 2.41     | 2.99     | 3.14     | 4.35     | 4.58     | 2.86              | 3.71     | 5.43     | 3.29     | 4.28              | 6.22     |          |          |
|                | 16                | 0.53              | 0.91     | 1.28     | 1.47     | 1.84     | 1.97     | 2.79     | 3.02     | 0.71              | 1.17     | 1.61     | 1.82     | 2.24     | 2.4      | 3.36     | 3.61     | 0.92              | 1.51     | 2.06     | 2.26     | 2.81     | 2.99     | 4.15     | 4.43     | 2.69              | 3.54     | 5.27     | 3.1      | 4.09              | 6.03     |          |          |
|                | 24                | 0.3               | 0.65     | 1        | 1.25     | 1.56     | 1.74     | 2.49     | 2.79     | 0.46              | 0.89     | 1.31     | 1.58     | 1.95     | 2.16     | 3.03     | 3.36     | 0.63              | 1.19     | 1.74     | 1.99     | 2.48     | 2.72     | 3.8      | 4.17     | 2.38              | 3.23     | 4.98     | 2.76     | 3.74              | 5.7      |          |          |
| 16             | 12                | 0.45              | 0.75     | 1.04     | 1.2      | 1.49     | 1.6      | 2.24     | 2.42     | 0.59              | 0.96     | 1.31     | 1.48     | 1.82     | 1.95     | 2.71     | 2.9      | 0.76              | 1.23     | 1.68     | 1.84     | 2.29     | 2.43     | 3.36     | 3.58     | 2.19              | 2.88     | 4.28     | 2.53     | 3.34              | 4.92     |          |          |
|                | 16                | 0.32              | 0.61     | 0.89     | 1.08     | 1.34     | 1.47     | 2.07     | 2.29     | 0.45              | 0.8      | 1.14     | 1.35     | 1.66     | 1.81     | 2.53     | 2.77     | 0.6               | 1.06     | 1.5      | 1.69     | 2.1      | 2.28     | 3.17     | 3.43     | 2.02              | 2.71     | 4.12     | 2.34     | 3.14              | 4.73     |          |          |
|                | 24                | 0.09              | 0.36     | 0.62     | 0.87     | 1.07     | 1.24     | 1.78     | 2.06     | 0.21              | 0.54     | 0.85     | 1.12     | 1.37     | 1.57     | 2.21     | 2.52     | 0.32              | 0.76     | 1.19     | 1.42     | 1.79     | 2.01     | 2.82     | 3.16     | 1.72              | 2.4      | 3.82     | 2        | 2.8               | 4.38     |          |          |

| Wall Ht. (ft.) | Spacing (in) o.c. | 362S137-mils (Fy) |          |          |          |          |          |          |          | 362S162-mils (Fy) |          |          |          |          |          |          |          | 362S200-mils (Fy) |          |          |          |          |          |          |          | 362S250-mils (Fy) |          |          |          | 362S300-mils (Fy) |          |          |          | 362S350-mils (Fy) |       |      |       |       |       |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|-------------------|----------|----------|----------|-------------------|-------|------|-------|-------|-------|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) |                   |       |      |       |       |       |
| 8              | 12                | 1.49              | 2.14     | 2.87     | 3.32     | 3.7      | 4.37     | 5.21     | 6.12     | 1.87              | 2.65     | 3.51     | 4.15     | 4.47     | 5.38     | 6.49     | 7.90     | 9.80              | 2.25     | 3.28     | 4.32     | 5.18     | 5.5      | 6.68     | 7.81     | 9.57              | 11.69    | 5.82     | 7.76     | 11.05             | 13.44    | 5.86     | 8.17     | 12.16             | 15.14 | 7.83 | 11.10 | 16.12 | 19.46 |
|                | 16                | 1.42              | 2.07     | 2.8      | 3.26     | 3.62     | 4.3      | 5.14     | 6.06     | 1.8               | 2.57     | 3.43     | 4.08     | 4.39     | 5.31     | 6.41     | 7.83     | 9.73              | 2.17     | 3.2      | 4.23     | 5.1      | 5.42     | 6.6      | 7.73     | 9.5               | 11.62    | 5.73     | 7.67     | 10.98             | 13.36    | 5.78     | 8.08     | 12.08             | 15.07 | 7.74 | 11.00 | 16.02 | 19.38 |
|                | 24                | 1.29              | 1.93     | 2.64     | 3.13     | 3.46     | 4.17     | 5        | 5.95     | 1.65              | 2.42     | 3.27     | 3.94     | 4.22     | 5.17     | 6.26     | 7.7      | 9.59              | 2.01     | 3.03     | 4.06     | 4.94     | 5.27     | 6.45     | 7.57     | 9.36              | 11.47    | 5.56     | 7.5      | 10.83             | 13.22    | 5.63     | 7.91     | 11.92             | 14.93 | 7.56 | 10.81 | 15.83 | 19.21 |
| 9              | 12                | 1.38              | 2.01     | 2.7      | 3.11     | 3.49     | 4.07     | 5.13     | 6.05     | 1.74              | 2.48     | 3.3      | 3.86     | 4.21     | 4.99     | 6.13     | 7.32     | 9.05              | 2.1      | 3.07     | 4.06     | 4.79     | 5.18     | 6.17     | 7.37     | 8.84              | 10.79    | 5.46     | 7.17     | 10.24             | 12.44    | 5.53     | 7.65     | 11.48             | 14.05 | 7.36 | 10.36 | 14.89 | 17.99 |
|                | 16                | 1.3               | 1.92     | 2.6      | 3.02     | 3.39     | 3.99     | 5.04     | 5.97     | 1.64              | 2.38     | 3.2      | 3.77     | 4.1      | 4.9      | 6.03     | 7.23     | 8.96              | 2        | 2.96     | 3.95     | 4.69     | 5.08     | 6.07     | 7.27     | 8.75              | 10.70    | 5.35     | 7.06     | 10.14             | 12.34    | 5.43     | 7.55     | 11.37             | 13.96 | 7.25 | 10.23 | 14.77 | 17.88 |
|                | 24                | 1.13              | 1.74     | 2.41     | 2.87     | 3.19     | 3.82     | 4.85     | 5.81     | 1.46              | 2.19     | 2.99     | 3.6      | 3.89     | 4.72     | 5.84     | 7.06     | 8.78              | 1.8      | 2.76     | 3.74     | 4.49     | 4.89     | 5.88     | 7.07     | 8.58              | 10.51    | 5.14     | 6.85     | 9.96              | 12.16    | 5.23     | 7.33     | 11.16             | 13.77 | 7.02 | 9.98  | 14.52 | 17.67 |
| 10             | 12                | 1.26              | 1.85     | 2.5      | 2.85     | 3.24     | 3.73     | 4.87     | 5.67     | 1.58              | 2.29     | 3.05     | 3.53     | 3.91     | 4.55     | 5.72     | 6.67     | 8.22              | 1.93     | 2.84     | 3.76     | 4.37     | 4.83     | 5.61     | 6.88     | 8.06              | 9.82     | 5.08     | 6.54     | 9.36              | 11.37    | 5.16     | 7.06     | 10.59             | 12.88 | 6.85 | 9.55  | 13.60 | 16.44 |
|                | 16                | 1.16              | 1.75     | 2.38     | 2.75     | 3.12     | 3.63     | 4.75     | 5.57     | 1.47              | 2.17     | 2.93     | 3.42     | 3.77     | 4.44     | 5.6      | 6.57     | 8.11              | 1.81     | 2.71     | 3.63     | 4.25     | 4.7      | 5.49     | 6.76     | 7.95              | 9.71     | 4.95     | 6.4      | 9.25              | 11.25    | 5.03     | 6.93     | 10.46             | 12.77 | 6.71 | 9.40  | 13.44 | 16.31 |
|                | 24                | 0.96              | 1.54     | 2.16     | 2.57     | 2.88     | 3.44     | 4.53     | 5.38     | 1.26              | 1.95     | 2.68     | 3.22     | 3.52     | 4.23     | 5.37     | 6.37     | 7.90              | 1.57     | 2.47     | 3.38     | 4.01     | 4.47     | 5.27     | 6.51     | 7.74              | 9.49     | 4.69     | 6.15     | 9.03              | 11.03    | 4.79     | 6.67     | 10.21             | 12.55 | 6.43 | 9.10  | 13.15 | 16.04 |
| 11             | 12                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 7.36     |                   |          |          |          |          |          |          |          |                   |          |          |          |                   |          |          |          |                   |       |      |       |       |       |
|                | 16                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 7.23     |                   |          |          |          |          |          |          |          |                   |          |          |          |                   |          |          |          |                   |       |      |       |       |       |
|                | 24                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 6.99     |                   |          |          |          |          |          |          |          |                   |          |          |          |                   |          |          |          |                   |       |      |       |       |       |
| 12             | 12                | 0.99              | 1.51     | 2.04     | 2.27     | 2.68     | 2.97     | 4.07     | 4.48     | 1.25              | 1.87     | 2.5      | 2.79     | 3.23     | 3.6      | 4.8      | 5.29     | 6.48              | 1.56     | 2.32     | 3.1      | 3.45     | 4.04     | 4.44     | 5.81     | 6.42              | 7.80     | 4.06     | 5.21     | 7.53              | 9.13     | 4.4      | 5.85     | 8.56              | 10.45 | 5.71 | 7.72  | 10.95 | 13.28 |
|                | 16                | 0.86              | 1.37     | 1.89     | 2.15     | 2.51     | 2.85     | 3.91     | 4.36     | 1.11              | 1.72     | 2.34     | 2.66     | 3.06     | 3.47     | 4.64     | 5.16     | 6.34              | 1.4      | 2.16     | 2.93     | 3.3      | 3.88     | 4.3      | 5.64     | 6.28              | 7.65     | 3.9      | 5.05     | 7.38              | 8.99     | 4.23     | 5.67     | 8.4               | 10.30 | 5.52 | 7.52  | 10.75 | 13.10 |
|                | 24                | 0.63              | 1.12     | 1.62     | 1.93     | 2.21     | 2.62     | 3.62     | 4.13     | 0.86              | 1.44     | 2.04     | 2.42     | 2.75     | 3.22     | 4.33     | 4.92     | 6.08              | 1.12     | 1.86     | 2.62     | 3.03     | 3.58     | 4.03     | 5.32     | 6.02              | 7.38     | 3.59     | 4.74     | 7.11              | 8.70     | 3.91     | 5.34     | 8.08              | 10.01 | 5.16 | 7.14  | 10.38 | 12.76 |
| 14             | 12                | 0.72              | 1.15     | 1.58     | 1.75     | 2.09     | 2.3      | 3.23     | 3.45     | 0.93              | 1.44     | 1.94     | 2.14     | 2.55     | 2.78     | 3.85     | 4.1      | 4.98              | 1.18     | 1.81     | 2.44     | 2.64     | 3.24     | 3.43     | 4.71     | 5                 | 6.05     | 3.12     | 4.05     | 5.91              | 7.17     | 3.55     | 4.66     | 6.76              | 8.28  | 4.52 | 5.96  | 8.53  | 10.39 |
|                | 16                | 0.59              | 1        | 1.41     | 1.62     | 1.91     | 2.16     | 3.06     | 3.32     | 0.78              | 1.28     | 1.77     | 2.00     | 2.36     | 2.64     | 3.67     | 3.95     | 4.83              | 1.01     | 1.63     | 2.25     | 2.48     | 3.06     | 3.27     | 4.51     | 4.84              | 5.89     | 2.94     | 3.87     | 5.75              | 7.00     | 3.35     | 4.46     | 6.57              | 8.10  | 4.31 | 5.74  | 8.31  | 10.19 |
|                | 24                | 0.34              | 0.73     | 1.11     | 1.39     | 1.59     | 1.92     | 2.74     | 3.07     | 0.52              | 0.99     | 1.45     | 1.75     | 2.01     | 2.31     | 3.38     | 3.63     | 4.53              | 0.7      | 1.31     | 1.91     | 2.19     | 2.72     | 2.99     | 4.14     | 4.56              | 5.60     | 2.62     | 3.54     | 5.45              | 6.69     | 3        | 4.09     | 6.22              | 7.78  | 3.92 |       |       |       |









# ALLOWABLE AXIAL LOAD TABLES - 15 PSF LATERAL LOAD

| Wall Ht. (ft.) | Spacing (in) o.c. | 400S137-mils (Fy) |          |          |          |          |          |          |          | 400S162-mils (Fy) |          |          |          |          |          |          |          | 400S200-mils (Fy) |          |          |          |          |          |          |          | 400S250-mils (Fy) |           |          | 400S300-mils (Fy) |          |          |          | 400S350-mils (Fy) |           |          |          |          |           |       |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|-----------|----------|-------------------|----------|----------|----------|-------------------|-----------|----------|----------|----------|-----------|-------|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -118 (50)         | -33 (33) | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50)          | -118 (50) | -54 (50) | -68 (50)          | -97 (50) | -54 (50) | -68 (50) | -97 (50)          | -118 (50) | -54 (50) | -68 (50) | -97 (50) | -118 (50) |       |
| 8              | 12                | 1.24              | 1.92     | 2.71     | 3.32     | 3.71     | 4.6      | 5.21     | 6.2      | 1.62              | 2.45     | 3.38     | 4.22     | 4.59     | 5.77     | 6.89     | 8.73     | 10.87             | 1.97     | 3.1      | 4.23     | 5.32     | 5.67     | 7.19     | 8.33     | 10.65             | 13.06     | 5.81     | 8.19              | 12.36    | 15.08    | 5.96     | 8.55              | 13.37     | 17.06    | 7.95     | 11.59    | 17.73     | 21.59 |
|                | 16                | 1.06              | 1.74     | 2.51     | 3.14     | 3.49     | 4.41     | 5.04     | 6.05     | 1.42              | 2.25     | 3.16     | 4.04     | 4.36     | 5.57     | 6.68     | 8.54     | 10.67             | 1.76     | 2.88     | 4        | 5.1      | 5.43     | 6.97     | 8.11     | 10.45             | 12.85     | 5.59     | 7.95              | 12.15    | 14.87    | 5.75     | 8.32              | 13.15     | 16.85    | 7.72     | 11.33    | 17.46     | 21.35 |
|                | 24                | 0.72              | 1.38     | 2.12     | 2.81     | 3.07     | 4.06     | 4.7      | 5.77     | 1.05              | 1.86     | 2.75     | 3.67     | 3.91     | 5.18     | 6.27     | 8.17     | 10.28             | 1.35     | 2.46     | 3.57     | 4.68     | 4.97     | 6.55     | 7.69     | 10.06             | 12.45     | 5.16     | 7.49              | 11.73    | 14.46    | 5.32     | 7.87              | 12.7      | 16.43    | 7.26     | 10.82    | 16.93     | 20.89 |
| 9              | 12                | 1.05              | 1.71     | 2.47     | 3.05     | 3.43     | 4.3      | 5.03     | 6.04     | 1.4               | 2.2      | 3.09     | 3.87     | 4.22     | 5.33     | 6.45     | 8.11     | 10.09             | 1.73     | 2.8      | 3.88     | 4.86     | 5.24     | 6.63     | 7.81     | 9.87              | 12.11     | 5.44     | 7.65              | 11.47    | 14.03    | 5.55     | 8.06              | 12.54     | 15.91    | 7.42     | 10.87    | 16.43     | 20.09 |
|                | 16                | 0.84              | 1.49     | 2.22     | 2.83     | 3.16     | 4.07     | 4.8      | 5.84     | 1.17              | 1.95     | 2.82     | 3.64     | 3.94     | 5.08     | 6.19     | 7.87     | 9.84              | 1.47     | 2.53     | 3.61     | 4.59     | 4.95     | 6.36     | 7.54     | 9.62              | 11.86     | 5.16     | 7.35              | 11.21    | 13.76    | 5.28     | 7.76              | 12.25     | 15.64    | 7.12     | 10.54    | 16.09     | 19.79 |
|                | 24                | 0.44              | 1.06     | 1.75     | 2.43     | 2.64     | 3.63     | 4.36     | 5.47     | 0.73              | 1.49     | 2.32     | 3.2      | 3.39     | 4.61     | 5.68     | 7.41     | 9.35              | 0.99     | 2.03     | 3.08     | 4.09     | 4.38     | 5.84     | 7.01     | 9.14              | 11.35     | 4.62     | 6.78              | 10.7     | 13.25    | 4.76     | 7.19              | 11.68     | 15.12    | 6.55     | 9.90     | 15.43     | 19.20 |
| 10             | 12                | 0.86              | 1.49     | 2.19     | 2.74     | 3.09     | 3.89     | 4.81     | 5.83     | 1.17              | 1.93     | 2.76     | 3.48     | 3.82     | 4.83     | 5.96     | 7.4      | 9.20              | 1.47     | 2.48     | 3.5      | 4.36     | 4.77     | 6.01     | 7.24     | 9.01              | 11.08     | 4.98     | 7.01              | 10.51    | 12.88    | 5.09     | 7.5               | 11.64     | 14.66    | 6.83     | 10.04    | 15.04     | 18.48 |
|                | 16                | 0.62              | 1.22     | 1.9      | 2.49     | 2.77     | 3.62     | 4.52     | 5.59     | 0.9               | 1.64     | 2.45     | 3.21     | 3.48     | 4.54     | 5.64     | 7.12     | 8.90              | 1.18     | 2.17     | 3.18     | 4.05     | 4.42     | 5.69     | 6.9      | 8.71              | 10.76     | 4.64     | 6.65              | 10.19    | 12.56    | 4.77     | 7.14              | 11.29     | 14.33    | 6.47     | 9.64     | 14.63     | 18.11 |
|                | 24                | 0.17              | 0.74     | 1.36     | 2.03     | 2.17     | 3.11     | 3.98     | 5.12     | 0.41              | 1.12     | 1.87     | 2.7      | 2.85     | 3.99     | 5.04     | 6.58     | 8.33              | 0.64     | 1.59     | 2.57     | 3.47     | 3.75     | 5.09     | 6.27     | 8.14              | 10.17     | 4.02     | 5.98              | 9.59     | 11.94    | 4.16     | 6.46              | 10.61     | 13.70    | 5.80     | 8.88     | 13.84     | 17.40 |
| 11             | 12                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |                   |          |          |          |                   |           |          |          |          |           |       |
|                | 16                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |                   |          |          |          |                   |           |          |          |          |           |       |
|                | 24                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |                   |          |          |          |                   |           |          |          |          |           |       |
| 12             | 12                | 0.48              | 1.01     | 1.6      | 2.08     | 2.34     | 2.99     | 4.04     | 4.9      | 0.72              | 1.37     | 2.07     | 2.65     | 2.95     | 3.73     | 4.85     | 5.87     | 7.30              | 0.96     | 1.81     | 2.7      | 3.33     | 3.76     | 4.69     | 5.96     | 7.19              | 8.87      | 3.95     | 5.5               | 8.47     | 10.44    | 4.11     | 6.05              | 9.59      | 12.01    | 5.55     | 8.18     | 12.15     | 15.10 |
|                | 16                | 0.19              | 0.70     | 1.25     | 1.78     | 1.95     | 2.67     | 3.66     | 4.57     | 0.41              | 0.93     | 1.69     | 2.33     | 2.53     | 3.38     | 4.45     | 5.52     | 6.93              | 0.61     | 1.44     | 2.3      | 2.96     | 3.32     | 4.31     | 5.53     | 6.82              | 8.48      | 3.54     | 5.07              | 8.07     | 10.03    | 3.7      | 5.6               | 9.13      | 11.58    | 5.10     | 7.67     | 11.63     | 14.62 |
|                | 24                | 0.03              | 0.14     | 0.63     | 1.25     | 1.26     | 2.09     | 2.97     | 3.98     | 0.00              | 0.43     | 1.03     | 1.75     | 1.80     | 2.76     | 3.72     | 4.88     | 6.26              | 0.00     | 0.78     | 1.58     | 2.31     | 2.53     | 3.62     | 4.74     | 6.14              | 7.76      | 2.80     | 4.29              | 7.33     | 9.27     | 2.96     | 4.78              | 8.28      | 10.79    | 4.28     | 6.74     | 10.67     | 13.73 |
| 14             | 12                | 0.15              | 0.58     | 1.05     | 1.46     | 1.63     | 2.15     | 3.06     | 3.64     | 0.33              | 0.86     | 1.42     | 1.89     | 2.11     | 2.7      | 3.74     | 4.4      | 5.49              | 0.50     | 1.21     | 1.93     | 2.39     | 2.78     | 3.44     | 4.67     | 5.45              | 6.76      | 2.87     | 4.07              | 6.51     | 8.07     | 3.18     | 4.65              | 7.4       | 9.40     | 4.27     | 6.20     | 9.39      | 11.83 |
|                | 16                | 0.03              | 0.25     | 0.67     | 1.15     | 1.22     | 1.82     | 2.64     | 3.30     | 0.01              | 0.50     | 1.02     | 1.56     | 1.68     | 2.35     | 3.29     | 4.04     | 5.10              | 0.14     | 0.81     | 1.50     | 2.01     | 2.31     | 3.05     | 4.19     | 5.06              | 6.35      | 2.44     | 3.62              | 6.08     | 7.63     | 2.73     | 4.16              | 6.9       | 8.93     | 3.77     | 5.66     | 8.83      | 11.30 |
|                | 24                | 0.00              | 0.02     | 0.03     | 0.62     | 0.50     | 1.24     | 1.92     | 2.70     | 0.00              | 0.03     | 0.33     | 0.98     | 0.92     | 1.72     | 2.52     | 3.40     | 4.42              | 0.00     | 0.13     | 0.76     | 1.36     | 1.49     | 2.36     | 3.34     | 4.37              | 5.61      | 1.69     | 2.83              | 5.31     | 6.83     | 1.92     | 3.29              | 6.01      | 8.09     | 2.91     | 4.71     | 7.82      | 10.34 |
| 16             | 12                | 0.00              | 0.23     | 0.59     | 0.97     | 1.03     | 1.49     | 2.20     | 2.66     | 0.03              | 0.44     | 0.88     | 1.30     | 1.42     | 1.92     | 2.76     | 3.26     | 4.09              | 0.14     | 0.71     | 1.29     | 1.67     | 1.95     | 2.48     | 3.52     | 4.09              | 5.11      | 2.01     | 2.95              | 4.93     | 6.18     | 2.33     | 3.44              | 5.62      | 7.26     | 3.16     | 4.57     | 7.12      | 9.11  |
|                | 16                | 0.00              | 0.02     | 0.22     | 0.67     | 0.63     | 1.17     | 1.80     | 2.34     | 0.00              | 0.09     | 0.49     | 0.98     | 0.99     | 1.58     | 2.31     | 2.91     | 3.72              | 0.00     | 0.32     | 0.86     | 1.30     | 1.49     | 2.10     | 3.03     | 3.71              | 4.70      | 1.60     | 2.52              | 4.51     | 5.73     | 1.86     | 2.95              | 5.13      | 6.79     | 2.67     | 4.05     | 6.57      | 8.58  |
|                | 24                | 0.00              | 0.01     | 0.02     | 0.16     | 0.02     | 0.62     | 1.10     | 1.77     | 0.00              | 0.00     | 0.02     | 0.42     | 0.25     | 0.98     | 1.55     | 2.30     | 3.07              | 0.00     | 0.02     | 0.14     | 0.68     | 0.69     | 1.45     | 2.20     | 3.04              | 4.00      | 0.89     | 1.77              | 3.76     | 4.95     | 1.07     | 2.11              | 4.26      | 5.95     | 1.82     | 3.15     | 5.67      | 7.65  |

| Wall Ht. (ft.) | Spacing (in) o.c. | 550S137-mils (Fy) |          |          |          |          |          |          |          | 550S162-mils (Fy) |          |          |          |          |          |          |          | 550S200-mils (Fy) |          |          |          |          |          |          |          | 550S250-mils (Fy) |          |          | 550S300-mils (Fy) |          |          |  |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|--|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |  |
| 8              | 12                | 1.51              | 2.29     | 3.15     | 3.66     | 4.29     | 4.91     | 6.56     | 7.35     | 2.08              | 3.09     | 4.24     | 5.36     | 5.75     | 7.19     | 8.94     | 11.06    | 2.48              | 3.86     | 5.28     | 6.87     | 7.17     | 9.31     | 11.30    | 14.71    | 7.09              | 10.32    | 17.13    | 7.38              | 10.49    | 18.27    |  |
|                | 16                | 1.39              | 2.17     | 3.04     | 3.56     | 4.17     | 4.81     | 6.44     | 7.25     | 1.93              | 2.95     | 4.10     | 5.22     | 5.61     | 7.06     | 8.79     | 10.93    | 2.33              | 3.70     | 5.12     | 6.70     | 7.01     | 9.15     | 11.13    | 14.56    | 6.93              | 10.14    | 16.96    | 7.22              | 10.32    | 18.09    |  |
|                | 24                | 1.13              | 1.94     | 2.81     | 3.36     | 3.94     | 4.62     | 6.20     | 7.07     | 1.64              | 2.68     | 3.83     | 4.96     | 5.34     | 6.80     | 8.49     | 10.67    | 2.02              | 3.38     | 4.82     | 6.38     | 6.71     | 8.85     | 10.79    | 14.25    | 6.62              | 9.80     | 16.62    | 6.91              | 10.00    | 17.72    |  |
| 9              | 12                | 1.40              | 2.19     | 3.05     | 3.57     | 4.18     | 4.82     | 6.45     | 7.26     | 1.94              | 2.94     | 4.10     | 5.20     | 5.62     | 7.07     | 8.80     | 10.93    | 2.32              | 3.67     | 5.08     | 6.59     | 6.94     | 8.99     | 10.99    | 14.28    | 6.84              | 9.97     | 16.59    | 7.12              | 10.16    | 17.70    |  |
|                | 16                | 1.24              | 2.04     | 2.90     | 3.44     | 4.03     | 4.70     | 6.29     | 7.14     | 1.75              | 2.77     | 3.92     | 5.03     | 5.44     | 6.90     | 8.60     | 10.76    | 2.13              | 3.46     | 4.88     | 6.38     | 6.74     | 8.79     | 10.78    | 14.08    | 6.63              | 9.75     | 16.37    | 6.92              | 9.95     | 17.46    |  |
|                | 24                | 0.93              | 1.75     | 2.62     | 3.19     | 3.74     | 4.45     | 5.98     | 6.90     | 1.38              | 2.42     | 3.58     | 4.69     | 5.09     | 6.56     | 8.21     | 10.42    | 1.75              | 3.06     | 4.50     | 5.97     | 6.36     | 8.40     | 10.34    | 13.68    | 6.24              | 9.32     | 15.93    | 6.53              | 9.53     | 16.99    |  |
| 10             | 12                | 1.28              | 2.07     | 2.93     | 3.46     | 4.06     | 4.71     | 6.31     | 7.15     | 1.77              | 2.77     | 3.91     | 4.97     | 5.46     | 6.90     | 8.62     | 10.77    | 2.15              | 3.45     | 4.84     | 6.26     | 6.67     | 8.61     | 10.63    | 13.76    | 6.54              | 9.56     | 15.95    | 6.82              | 9.81     | 17.04    |  |
|                | 16                | 1.08              | 1.88     | 2.75     | 3.30     | 3.88     | 4.56     | 6.11     | 7.00     | 1.54              | 2.56     | 3.70     | 4.76     | 5.24     | 6.69     | 8.37     | 10.55    | 1.91              | 3.20     | 4.60     | 6.01     | 6.43     | 8.37     | 10.36    | 13.51    | 6.29              | 9.29     | 15.67    | 6.58              | 9.55     | 16.74    |  |
|                | 24                | 0.70              | 1.53     | 2.39     | 2.98     | 3.51     | 4.25     | 5.72     | 6.69     | 1.10              | 2.14     | 3.27     | 4.34     | 4.79     | 6.26     | 7.88     | 10.11    | 1.46              | 2.71     | 4.13     | 5.51     | 5.96     | 7.89     | 9.82     | 13.01    | 5.80              | 8.76     | 15.13    | 6.09              | 9.03     | 16.15    |  |
| 12             | 12                | 0.99              | 1.79     | 2.64     | 3.20     | 3.76     | 4.45     | 5.97     | 6.88     | 1.39              | 2.36     | 3.46     | 4.40     | 4.93     | 6.22     | 8.16     | 10.30    | 1.74              | 2.94     | 4.28     | 5.48     | 6.02     | 7.69     | 9.73     | 12.45    | 5.84              | 8.61     | 14.40    | 6.12              | 8.96     | 15.47    |  |
|                | 16                | 0.72              | 1.53     | 2.38     | 2.96     | 3.49     | 4.21     | 5.67     | 6.64     | 1.08              | 2.07     | 3.15     | 4.10     | 4.61     | 5.91     | 7.78     | 9.96     | 1.42              | 2.59     | 3.94     | 5.12     | 5.67     | 7.34     | 9.33     | 12.08    | 5.49              | 8.22     | 14.00    | 5.78              | 8.58     | 15.03    |  |
|                | 24                | 0.22              | 1.04     | 1.88     | 2.51     | 2.97     | 3.76     | 5.10     | 6.18     | 0.52              | 1.51     | 2.57     | 3.54     | 3.99     | 5.32     | 7.05     | 9.29     | 0.83              | 1.94     | 3.31     | 4.45     | 5.01     | 6.68     | 8.57     | 11.37    | 4.82              | 7.47     | 13.22    | 5.11              | 7.85     | 14.19    |  |
| 14             | 12                | 0.67              | 1.46     | 2.29     | 2.86     | 3.38     | 4.09     | 5.52     | 6.50     | 0.97              | 1.90     | 2.91     | 3.71     | 4.27     | 5.36     | 7.20     | 9.00     | 1.29              | 2.36     | 3.62     | 4.58     | 5.23     | 6.59     | 8.61     | 10.85    | 5.10              | 7.50     | 12.58    | 5.31              | 7.96     | 13.67    |  |
|                | 16                | 0.34              | 1.12     | 1.95     | 2.54     | 3.01     | 3.77     | 5.11     | 6.16     | 0.61              | 1.53     | 2.53     | 3.34     | 3.85     |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |                   |          |          |  |











# ALLOWABLE AXIAL LOAD TABLES - 25 PSF LOAD TABLES

| Wall Ht. (ft) | Spacing (in) o.c. | 350S137-mils (Fy) |          |          |          |          |          |          |          | 350S162-mils (Fy) |          |          |          |          |          |          |          | 350S200-mils (Fy) |          |          |          |          |          |          |          | 350S250-mils (Fy) |          |          |          |          | 350S300-mils (Fy) |          |          |          |          |          |          |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50)          | -97 (33) | -97 (50) | -33 (33) | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) |
| 8             | 12                | 0.67              | 1.26     | 1.87     | 2.44     | 2.77     | 3.38     | 4.26     | 5.29     | 0.97              | 1.68     | 2.43     | 3.17     | 3.45     | 4.27     | 5.31     | 6.69     | 1.26              | 2.22     | 3.16     | 4.04     | 4.35     | 5.43     | 6.54     | 8.23     | 4.62              | 6.35     | 9.60     | 4.72     | 6.80     | 10.66             |          |          |          |          |          |          |          |          |
|               | 16                | 0.396             | 0.96     | 1.54     | 2.17     | 2.47     | 3.09     | 3.94     | 5.02     | 0.667             | 1.36     | 2.08     | 2.87     | 3.12     | 3.96     | 4.96     | 6.39     | 0.91              | 1.86     | 2.79     | 3.69     | 4.00     | 5.09     | 6.17     | 7.91     | 4.25              | 5.96     | 9.26     | 4.36     | 6.42     | 10.28             |          |          |          |          |          |          |          |          |
|               | 24                | 0.006             | 0.406    | 0.947    | 1.667    | 1.90     | 2.56     | 3.33     | 4.50     | 0.096             | 0.766    | 1.437    | 2.307    | 2.51     | 3.38     | 4.30     | 5.81     | 0.296             | 1.207    | 2.10     | 3.03     | 3.34     | 4.45     | 5.47     | 7.29     | 3.54              | 5.24     | 8.61     | 3.67     | 5.69     | 9.55              |          |          |          |          |          |          |          |          |
| 9             | 12                | 0.426             | 0.967    | 1.51     | 2.06     | 2.38     | 2.91     | 3.89     | 4.92     | 0.677             | 1.33     | 2.01     | 2.69     | 2.99     | 3.70     | 4.72     | 5.92     | 0.92              | 1.81     | 2.68     | 3.45     | 3.81     | 4.72     | 5.86     | 7.30     | 4.03              | 5.54     | 8.57     | 4.16     | 6.02     | 9.66              |          |          |          |          |          |          |          |          |
|               | 16                | 0.116             | 0.616    | 1.147    | 1.747    | 2.02     | 2.58     | 3.50     | 4.58     | 0.336             | 0.967    | 1.60     | 2.34     | 2.61     | 3.34     | 4.30     | 5.56     | 0.536             | 1.407    | 2.25     | 3.05     | 3.40     | 4.33     | 5.42     | 6.92     | 3.59              | 5.09     | 8.16     | 3.73     | 5.56     | 9.20              |          |          |          |          |          |          |          |          |
|               | 24                | 0.003             | 0.003    | 0.466    | 1.176    | 1.376    | 1.976    | 2.767    | 3.947    | 0.003             | 0.296    | 0.886    | 1.716    | 1.907    | 2.687    | 3.53     | 4.88     | 0.006             | 0.666    | 1.466    | 2.326    | 2.63     | 3.60     | 4.59     | 6.20     | 2.797             | 4.27     | 7.40     | 2.93     | 4.71     | 8.33              |          |          |          |          |          |          |          |          |
| 10            | 12                | 0.186             | 0.666    | 1.157    | 1.677    | 1.98     | 2.43     | 3.35     | 4.23     | 0.396             | 0.996    | 1.59     | 2.21     | 2.52     | 3.11     | 4.10     | 5.11     | 0.606             | 1.407    | 2.19     | 2.85     | 3.26     | 4.01     | 5.14     | 6.35     | 3.40              | 4.73     | 7.51     | 3.56     | 5.22     | 8.48              |          |          |          |          |          |          |          |          |
|               | 16                | 0.003             | 0.296    | 0.756    | 1.336    | 1.58     | 2.076    | 2.90     | 3.85     | 0.023             | 0.596    | 1.156    | 1.846    | 2.097    | 2.727    | 3.63     | 4.71     | 0.186             | 0.966    | 1.727    | 2.427    | 2.80     | 3.58     | 4.64     | 5.92     | 2.92              | 4.24     | 7.05     | 3.08     | 4.71     | 7.96              |          |          |          |          |          |          |          |          |
|               | 24                | 0.002             | 0.003    | 0.033    | 0.723    | 0.876    | 1.426    | 2.106    | 3.166    | 0.002             | 0.003    | 0.376    | 1.176    | 1.326    | 2.026    | 2.786    | 3.986    | 0.003             | 0.173    | 0.886    | 1.656    | 1.966    | 2.806    | 3.727    | 5.147    | 2.056             | 3.357    | 6.21     | 2.216    | 3.787    | 6.99              |          |          |          |          |          |          |          |          |
| 12            | 12                | 0.002             | 0.153    | 0.526    | 0.996    | 1.226    | 1.576    | 2.296    | 2.926    | 0.003             | 0.393    | 0.846    | 1.376    | 1.636    | 2.066    | 2.897    | 3.607    | 0.053             | 0.686    | 1.306    | 1.806    | 2.217    | 2.727    | 3.74     | 4.55     | 2.196             | 3.247    | 5.48     | 2.487    | 3.76     | 6.22              |          |          |          |          |          |          |          |          |
|               | 16                | 0.002             | 0.002    | 0.093    | 0.643    | 0.793    | 1.193    | 1.806    | 2.536    | 0.002             | 0.003    | 0.383    | 0.993    | 1.176    | 1.656    | 2.376    | 3.186    | 0.002             | 0.223    | 0.806    | 1.376    | 1.706    | 2.276    | 3.177    | 4.097    | 1.696             | 2.726    | 4.98     | 1.946    | 3.187    | 5.64              |          |          |          |          |          |          |          |          |
|               | 24                | 0.001             | 0.002    | 0.002    | 0.022    | 0.052    | 0.532    | 0.953    | 1.833    | 0.002             | 0.002    | 0.002    | 0.322    | 0.363    | 0.943    | 1.453    | 2.433    | 0.002             | 0.002    | 0.003    | 0.603    | 0.813    | 1.483    | 2.186    | 3.286    | 0.833             | 1.823    | 4.086    | 0.993    | 2.186    | 4.616             |          |          |          |          |          |          |          |          |
| 14            | 12                | 0.002             | 0.002    | 0.052    | 0.492    | 0.613    | 0.923    | 1.426    | 1.956    | 0.002             | 0.223    | 0.583    | 1.003    | 1.226    | 1.546    | 2.226    | 2.736    | 0.003             | 0.453    | 0.956    | 1.336    | 1.696    | 2.056    | 2.917    | 3.487    | 1.636             | 2.456    | 4.23     | 1.436    | 2.396    | 4.83              |          |          |          |          |          |          |          |          |
|               | 16                | 0.002             | 0.002    | 0.002    | 0.412    | 0.523    | 0.843    | 1.323    | 1.873    | 0.002             | 0.002    | 0.183    | 0.683    | 0.823    | 1.203    | 1.776    | 2.376    | 0.002             | 0.052    | 0.513    | 0.963    | 1.243    | 1.673    | 2.426    | 3.096    | 1.213             | 2.026    | 3.806    | 1.436    | 2.396    | 4.337             |          |          |          |          |          |          |          |          |
|               | 24                | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.292    | 0.602    | 1.292    | 0.001             | 0.002    | 0.002    | 0.132    | 0.132    | 0.602    | 0.993    | 1.753    | 0.002             | 0.002    | 0.002    | 0.332    | 0.482    | 1.012    | 1.563    | 2.413    | 0.492             | 1.263    | 3.046    | 0.623    | 1.543    | 3.456             |          |          |          |          |          |          |          |          |
| 16            | 12                | 0.002             | 0.002    | 0.002    | 0.352    | 0.442    | 0.702    | 1.073    | 1.503    | 0.002             | 0.002    | 0.172    | 0.572    | 0.683    | 0.983    | 1.446    | 1.916    | 0.002             | 0.072    | 0.443    | 0.793    | 1.033    | 1.363    | 1.976    | 2.496    | 1.003             | 1.656    | 3.086    | 1.193    | 1.956    | 3.526             |          |          |          |          |          |          |          |          |
|               | 16                | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.132    | 0.342    | 0.912    | 0.001             | 0.002    | 0.002    | 0.342    | 0.392    | 0.732    | 1.123    | 1.663    | 0.002             | 0.002    | 0.132    | 0.532    | 0.713    | 1.093    | 1.613    | 2.213    | 0.703             | 1.333    | 2.766    | 0.843    | 1.603    | 3.156             |          |          |          |          |          |          |          |          |
|               | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.312    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.612    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.172    | 1.062    | 0.002             | 0.072    | 1.472    | 0.002    | 0.172    | 1.642             |          |          |          |          |          |          |          |          |

| Wall Ht. (ft.) | Spacing (in) o.c. | 362S137-mils (Fy) |          |          |          |          |          |          |          | 362S162-mils (Fy) |          |          |          |          |          |          |          | 362S200-mils (Fy) |          |          |          |          |          |          |          | 362S250-mils (Fy) |          |          |          |           | 362S300-mils (Fy) |          |          |           |          | 362S350-mils (Fy) |          |           |       |  |  |  |  |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|-----------|-------------------|----------|----------|-----------|----------|-------------------|----------|-----------|-------|--|--|--|--|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -118 (33)         | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -118 (33)         | -54 (50) | -68 (50) | -97 (50) | -118 (50) | -54 (50)          | -68 (50) | -97 (50) | -118 (50) | -54 (50) | -68 (50)          | -97 (50) | -118 (50) |       |  |  |  |  |
| 8              | 12                | 0.73              | 1.34     | 2.01     | 2.6      | 2.79     | 3.61     | 4.42     | 5.45     | 1.04              | 1.78     | 2.59     | 3.36     | 3.51     | 4.57     | 5.61     | 7.12     | 8.97              | 1.34     | 2.34     | 3.35     | 4.27     | 4.6      | 5.79     | 6.89     | 8.75              | 10.84    | 4.85     | 6.77     | 10.2      | 12.58             | 4.95     | 7.19     | 11.2      | 14.29    | 6.80              | 9.97     | 14.99     | 18.47 |  |  |  |  |
|                | 16                | 0.457             | 1.04     | 1.68     | 2.32     | 2.44     | 3.33     | 4.11     | 5.19     | 0.73              | 1.46     | 2.24     | 3.05     | 3.14     | 4.25     | 5.26     | 6.81     | 8.65              | 1        | 1.99     | 2.98     | 3.92     | 4.25     | 5.45     | 6.52     | 8.42              | 10.50    | 4.48     | 6.38     | 9.86      | 12.23             | 4.59     | 6.8      | 10.84     | 13.94    | 6.39              | 9.53     | 14.54     | 18.07 |  |  |  |  |
|                | 24                | 0.006             | 0.496    | 1.077    | 1.817    | 1.78     | 2.78     | 3.52     | 4.69     | 0.166             | 0.867    | 1.58     | 2.48     | 2.45     | 3.66     | 4.6      | 6.23     | 8.02              | 0.376    | 1.33     | 2.28     | 3.26     | 3.59     | 4.79     | 5.83     | 7.8               | 9.85     | 3.77     | 5.65     | 9.2       | 11.57             | 3.9      | 6.07     | 10.11     | 13.27    | 5.63              | 8.68     | 13.67     | 17.30 |  |  |  |  |
| 9              | 12                | 0.486             | 1.04     | 1.65     | 2.23     | 2.37     | 3.15     | 4.09     | 5.15     | 0.747             | 1.44     | 2.17     | 2.89     | 3.03     | 3.99     | 5.03     | 6.35     | 8.02              | 1        | 1.93     | 2.87     | 3.68     | 4.07     | 5.08     | 6.22     | 7.83              | 9.73     | 4.27     | 5.96     | 9.17      | 11.36             | 4.39     | 6.44     | 10.28     | 12.97    | 6.08              | 8.94     | 13.48     | 16.74 |  |  |  |  |
|                | 16                | 0.166             | 0.706    | 1.277    | 1.907    | 1.96     | 2.81     | 3.7      | 4.82     | 0.396             | 1.067    | 1.76     | 2.54     | 2.59     | 3.62     | 4.61     | 5.99     | 7.63              | 0.616    | 1.52     | 2.43     | 3.28     | 3.65     | 4.68     | 5.78     | 7.44              | 9.32     | 3.82     | 5.5      | 8.76      | 10.95             | 3.96     | 5.97     | 9.81      | 12.55    | 5.59              | 8.41     | 12.93     | 16.25 |  |  |  |  |
|                | 24                | 0.003             | 0.076    | 0.586    | 1.326    | 1.216    | 2.186    | 2.98     | 4.19     | 0.003             | 0.396    | 1.026    | 1.896    | 1.807    | 2.947    | 3.83     | 5.3      | 6.89              | 0.006    | 0.786    | 1.647    | 2.547    | 2.88     | 3.93     | 4.95     | 6.71              | 8.55     | 3.01     | 4.65     | 7.98      | 10.15             | 3.16     | 5.11     | 8.93      | 11.74    | 4.69              | 7.42     | 11.90     | 15.32 |  |  |  |  |
| 10             | 12                | 0.236             | 0.746    | 1.287    | 1.847    | 1.94     | 2.67     | 3.61     | 4.59     | 0.466             | 1.097    | 1.75     | 2.42     | 2.53     | 3.4      | 4.41     | 5.55     | 7.02              | 0.686    | 1.53     | 2.38     | 3.1      | 3.51     | 4.36     | 5.51     | 6.87              | 8.57     | 3.67     | 5.13     | 8.11      | 10.09             | 3.81     | 5.63     | 9.15      | 11.60    | 5.32              | 7.88     | 11.92     | 14.94 |  |  |  |  |
|                | 16                | 0.003             | 0.376    | 0.866    | 1.496    | 1.487    | 2.297    | 3.16     | 4.2      | 0.086             | 0.686    | 1.306    | 2.036    | 2.05     | 2.99     | 3.93     | 5.13     | 6.58              | 0.256    | 1.076    | 1.907    | 2.657    | 3.04     | 3.91     | 5        | 6.43              | 8.11     | 3.18     | 4.62     | 7.64      | 9.61              | 3.32     | 5.1      | 8.62      | 11.11    | 4.77              | 7.27     | 11.30     | 14.37 |  |  |  |  |
|                | 24                | 0.002             | 0.003    | 0.123    | 0.853    | 0.676    | 1.616    | 2.356    | 3.496    | 0.003             | 0.003    | 0.506    | 1.346    | 1.186    | 2.266    | 3.077    | 4.387    | 5.76              | 0.003    | 0.276    | 1.036    | 1.866    | 2.196    | 3.116    | 4.07     | 5.62              | 7.25     | 2.286    | 3.717    | 6.77      | 8.71              | 2.446    | 4.14     | 7.62      | 10.18    | 3.777             | 6.17     | 10.14     | 13.31 |  |  |  |  |
| 11             | 12                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 6.02     |                   |          |          |          |          |          |          |          |                   |          |          |          |           |                   |          |          |           |          |                   |          |           |       |  |  |  |  |
|                | 16                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 5.55     |                   |          |          |          |          |          |          |          |                   |          |          |          |           |                   |          |          |           |          |                   |          |           |       |  |  |  |  |
|                | 24                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 4.716    |                   |          |          |          |          |          |          |          |                   |          |          |          |           |                   |          |          |           |          |                   |          |           |       |  |  |  |  |
| 12             | 12                | 0.002             | 0.153    | 0.526    | 0.996    | 1.226    | 1.576    | 2.296    | 2.926    | 0.003             | 0.393    | 0.846    | 1.376    | 1.636    | 2.066    | 2.897    | 3.607    | 5.07              | 0.053    | 0.686    | 1.306    | 1.806    | 2.217    | 2.727    | 3.74     | 4.55              | 6.32     | 2.196    | 3.247    | 5.48      | 7.58              | 2.487    | 3.76     | 6.22      | 8.85     | 3.83              | 5.72     | 8.91      | 11.41 |  |  |  |  |
|                | 16                | 0.002             | 0.002    | 0.093    | 0.643    | 0.793    | 1.193    | 1.806    | 2.536    | 0.002             | 0.003    | 0.383    | 0.993    | 1.176    | 1.656    | 2.376    | 3.186    | 4.67              | 0.002    | 0.223    | 0.806    | 1.376    | 1.706    | 2.276    | 3.177    | 4.097             | 5.80     | 1.696    | 2.726    | 4.98      | 7.04              | 1.946    | 3.187    | 5.64      | 8.28     | 3.226             | 5.05     | 8.21      | 10.75 |  |  |  |  |
|                | 24                | 0.001             | 0.002    | 0.002    | 0.022    | 0.052    | 0.532    | 0.953    | 1.833    | 0.002             | 0.002    | 0.002</  |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |           |                   |          |          |           |          |                   |          |           |       |  |  |  |  |









# ALLOWABLE AXIAL LOAD TABLES - 30 PSF LOAD TABLES

| Wall Ht. (ft.) | Spacing (in) o.c. | 400S137-mils (Fy) |          |          |          |          |          |          |          | 400S200-mils (Fy) |          |          |          |          |          |          |          | 400S250-mils (Fy) |          |          |          |          |          |          |          | 400S300-mils (Fy) |           |          |          | 400S350-mils (Fy) |           |          |          |          |           |          |          |          |       |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-------------------|-----------|----------|----------|----------|-----------|----------|----------|----------|-------|
|                |                   | -33 (33)          | -43 (33) | -54 (50) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -118 (50)         | -33 (33) | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50)          | -118 (50) | -54 (50) | -68 (50) | -97 (50)          | -118 (50) | -54 (50) | -68 (50) | -97 (50) | -118 (50) | -54 (50) | -68 (50) | -97 (50) |       |
| 8              | 12                | 0.72              | 1.38     | 2.12     | 2.81     | 3.07     | 4.06     | 4.7      | 5.77     | 1.05              | 1.86     | 2.75     | 3.67     | 3.91     | 5.18     | 6.27     | 8.17     | 10.28             | 1.35     | 2.46     | 3.57     | 4.68     | 4.97     | 6.55     | 7.69     | 10.06             | 12.45     | 5.16     | 7.49     | 11.73             | 14.46     | 5.32     | 7.87     | 12.7     | 16.43     | 7.26     | 10.82    | 16.93    | 20.89 |
|                | 16                | 0.407             | 1.04     | 1.75     | 2.5      | 2.67     | 3.72     | 4.36     | 5.49     | 0.7               | 1.5      | 2.35     | 3.32     | 3.48     | 4.81     | 5.88     | 7.82     | 9.90              | 0.97     | 2.06     | 3.15     | 4.28     | 4.52     | 6.14     | 7.27     | 9.68              | 12.06     | 4.74     | 7.04     | 11.33             | 14.06     | 4.92     | 7.43     | 12.26    | 16.02     | 6.81     | 10.33    | 16.41    | 20.43 |
|                | 24                | 0.006             | 0.416    | 1.057    | 1.907    | 1.91     | 3.07     | 3.72     | 4.96     | 0.056             | 0.817    | 1.6      | 2.66     | 2.66     | 4.1      | 5.12     | 7.13     | 9.18              | 0.266    | 1.3      | 2.36     | 3.52     | 3.66     | 5.37     | 6.47     | 8.95              | 11.30     | 3.95     | 6.19     | 10.55             | 13.27     | 4.14     | 6.58     | 11.41    | 15.23     | 5.95     | 9.38     | 15.40    | 19.54 |
| 9              | 12                | 0.447             | 1.06     | 1.75     | 2.43     | 2.64     | 3.63     | 4.36     | 5.47     | 0.737             | 1.49     | 2.32     | 3.2      | 3.39     | 4.61     | 5.68     | 7.41     | 9.35              | 0.99     | 2.03     | 3.08     | 4.09     | 4.38     | 5.84     | 7.01     | 9.14              | 11.35     | 4.62     | 6.78     | 10.7              | 13.25     | 4.76     | 7.19     | 11.68    | 15.12     | 6.55     | 9.90     | 15.43    | 19.20 |
|                | 16                | 0.076             | 0.676    | 1.31     | 2.06     | 2.16     | 3.21     | 3.94     | 5.12     | 0.336             | 1.077    | 1.85     | 2.78     | 2.88     | 4.16     | 5.2      | 6.98     | 8.89              | 0.557    | 1.56     | 2.58     | 3.61     | 3.84     | 5.35     | 6.5      | 8.67              | 10.87     | 4.12     | 6.24     | 10.2              | 12.75     | 4.27     | 6.65     | 11.14    | 14.61     | 6.01     | 9.30     | 14.79    | 18.63 |
|                | 24                | 0.003             | 0.006    | 0.516    | 1.376    | 1.276    | 2.456    | 3.15     | 4.45     | 0.003             | 0.286    | 0.996    | 2.026    | 1.937    | 3.337    | 4.29     | 6.16     | 8.02              | 0.006    | 0.706    | 1.667    | 2.737    | 2.84     | 4.45     | 5.54     | 7.8               | 9.96      | 3.18     | 5.22     | 9.27              | 11.80     | 3.34     | 5.63     | 10.11    | 13.64     | 4.99     | 8.15     | 13.58    | 17.54 |
| 10             | 12                | 0.176             | 0.746    | 1.367    | 2.037    | 2.17     | 3.11     | 3.98     | 5.12     | 0.416             | 1.127    | 1.87     | 2.7      | 2.85     | 3.99     | 5.04     | 6.58     | 8.33              | 0.647    | 1.59     | 2.57     | 3.47     | 3.75     | 5.09     | 6.27     | 8.14              | 10.17     | 4.02     | 5.98     | 9.59              | 11.94     | 4.16     | 6.46     | 10.61    | 13.70     | 5.80     | 8.88     | 13.84    | 17.40 |
|                | 16                | 0.003             | 0.306    | 0.876    | 1.616    | 1.637    | 2.657    | 3.47     | 4.68     | 0.006             | 0.646    | 1.357    | 2.247    | 2.27     | 3.48     | 4.48     | 6.08     | 7.80              | 0.156    | 1.076    | 2.01     | 2.94     | 3.14     | 4.54     | 5.68     | 7.61              | 9.61      | 3.44     | 5.35     | 9.01              | 11.36     | 3.6      | 5.82     | 9.97     | 13.11     | 5.17     | 8.17     | 13.10    | 16.72 |
|                | 24                | 0.002             | 0.003    | 0.003    | 0.853    | 0.656    | 1.806    | 2.556    | 3.886    | 0.003             | 0.003    | 0.406    | 1.406    | 1.236    | 2.576    | 3.457    | 5.167    | 6.81              | 0.003    | 0.136    | 0.996    | 1.986    | 2.036    | 3.546    | 4.58     | 6.62              | 8.56      | 2.396    | 4.227    | 7.94              | 10.26     | 2.567    | 4.66     | 8.77     | 11.98     | 4.027    | 6.87     | 11.72    | 15.45 |
| 11             | 12                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |          |           |          |          |          |       |
|                | 16                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |          |           |          |          |          |       |
|                | 24                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |          |           |          |          |          |       |
| 12             | 12                | 0.003             | 0.143    | 0.636    | 1.256    | 1.266    | 2.096    | 2.977    | 3.987    | 0.003             | 0.436    | 1.036    | 1.756    | 1.806    | 2.766    | 3.72     | 4.88     | 6.26              | 0.003    | 0.786    | 1.586    | 2.316    | 2.537    | 3.627    | 4.74     | 6.14              | 7.76      | 2.807    | 4.29     | 7.33              | 9.27      | 2.967    | 4.78     | 8.28     | 10.79     | 4.28     | 6.74     | 10.67    | 13.73 |
|                | 16                | 0.002             | 0.003    | 0.083    | 0.793    | 0.656    | 1.586    | 2.356    | 3.456    | 0.002             | 0.003    | 0.433    | 1.253    | 1.156    | 2.206    | 3.066    | 4.323    | 5.647             | 0.003    | 0.203    | 0.956    | 1.736    | 1.846    | 3.006    | 4.047    | 5.527             | 7.11      | 2.146    | 3.597    | 6.66              | 8.58      | 2.306    | 4.047    | 7.51     | 10.07     | 3.547    | 5.91     | 9.79     | 12.91 |
|                | 24                | 0.002             | 0.002    | 0.002    | 0.002    | 0.003    | 0.683    | 1.273    | 2.513    | 0.002             | 0.002    | 0.002    | 0.362    | 0.013    | 1.233    | 1.906    | 3.316    | 4.566             | 0.002    | 0.002    | 0.003    | 0.713    | 0.623    | 1.933    | 2.786    | 4.426             | 5.946     | 0.993    | 2.366    | 5.466             | 7.327     | 1.133    | 2.746    | 6.127    | 8.75      | 2.256    | 4.456    | 8.23     | 11.41 |
| 14             | 12                | 0.002             | 0.002    | 0.033    | 0.623    | 0.503    | 1.243    | 1.926    | 2.706    | 0.002             | 0.003    | 0.333    | 0.983    | 0.926    | 1.726    | 2.526    | 3.406    | 4.426             | 0.002    | 0.133    | 0.763    | 1.363    | 1.496    | 2.366    | 3.346    | 4.376             | 5.617     | 1.696    | 2.836    | 5.317             | 6.83      | 1.926    | 3.296    | 6.01     | 8.09      | 2.916    | 4.717    | 7.82     | 10.34 |
|                | 16                | 0.002             | 0.002    | 0.002    | 0.162    | 0.002    | 0.732    | 1.293    | 2.192    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.252    | 0.663    | 0.001    | 3.826             | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.742    | 1.323    | 2.683             | 4.966     | 0.002    | 0.973    | 3.443             | 6.127     | 0.022    | 1.233    | 3.856    | 7.337     | 2.156    | 3.886    | 6.937    | 9.48  |
|                | 24                | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.212    | 1.292    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.252    | 0.663    | 1.863    | 2.783             | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.742    | 1.323    | 2.683             | 3.823     | 0.002    | 0.973    | 3.443             | 4.876     | 0.022    | 1.233    | 3.856    | 5.996     | 0.853    | 2.453    | 5.376    | 7.976 |
| 16             | 12                | 0.001             | 0.002    | 0.002    | 0.162    | 0.002    | 0.622    | 1.103    | 1.773    | 0.002             | 0.002    | 0.002    | 0.422    | 0.253    | 0.983    | 1.553    | 2.303    | 3.076             | 0.002    | 0.002    | 0.142    | 0.682    | 0.693    | 1.453    | 2.206    | 3.046             | 4.6       | 0.893    | 1.773    | 3.766             | 4.956     | 1.073    | 2.116    | 4.266    | 5.957     | 1.823    | 3.156    | 5.67     | 7.65  |
|                | 16                | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.152    | 0.492    | 1.292    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.482    | 0.903    | 1.773    | 2.513             | 0.001    | 0.002    | 0.002    | 0.142    | 0.012    | 0.892    | 1.483    | 2.463             | 3.383     | 0.272    | 1.123    | 3.113             | 4.276     | 0.382    | 1.393    | 3.506    | 5.226     | 1.093    | 2.383    | 4.756    | 6.826 |
|                | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.462    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.002    | 0.862    | 1.542             | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.242    | 1.462             | 2.312     | 0.002    | 0.022    | 1.992             | 3.093     | 0.002    | 0.152    | 2.203    | 3.943     | 0.002    | 1.062    | 3.293    | 5.396 |

| Wall Ht. (ft.) | Spacing (in) o.c. | 550S137-mils (Fy) |          |          |          |          |          |          |          | 550S162-mils (Fy) |          |          |          |          |          |          |          | 550S200-mils (Fy) |          |          |          |          |          |          |          | 550S250-mils (Fy) |          |          |          | 550S300-mils (Fy) |          |  |  |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|-------------------|----------|--|--|
|                |                   | -33 (33)          | -43 (33) | -54 (50) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50) | -68 (50)          | -97 (50) |  |  |
| 8              | 12                | 1.13              | 1.94     | 2.81     | 3.36     | 3.94     | 4.62     | 6.20     | 7.07     | 1.64              | 2.68     | 3.83     | 4.96     | 5.34     | 6.80     | 8.49     | 10.67    | 2.02              | 3.38     | 4.82     | 6.38     | 6.71     | 8.85     | 10.79    | 14.25    | 6.62              | 9.80     | 16.62    | 6.91     | 10.00             | 17.72    |  |  |
|                | 16                | 0.89              | 1.71     | 2.59     | 3.17     | 3.72     | 4.43     | 5.96     | 6.89     | 1.35              | 2.41     | 3.56     | 4.70     | 5.06     | 6.55     | 8.19     | 10.41    | 1.73              | 3.06     | 4.52     | 6.06     | 6.41     | 8.55     | 10.46    | 13.95    | 6.31              | 9.47     | 16.28    | 6.60     | 9.68              | 17.35    |  |  |
|                | 24                | 0.41              | 1.27     | 2.15     | 2.78     | 3.28     | 4.06     | 5.48     | 6.52     | 0.79              | 1.88     | 3.04     | 4.19     | 4.53     | 6.05     | 7.60     | 9.91     | 1.15              | 2.44     | 3.94     | 5.44     | 5.82     | 7.96     | 9.80     | 13.35    | 5.71              | 8.81     | 15.62    | 6.00     | 9.04              | 16.63    |  |  |
| 9              | 12                | 0.93              | 1.75     | 2.62     | 3.19     | 3.74     | 4.45     | 5.98     | 6.90     | 1.38              | 2.42     | 3.58     | 4.69     | 5.09     | 6.56     | 8.21     | 10.42    | 1.75              | 3.06     | 4.50     | 5.97     | 6.36     | 8.40     | 10.34    | 13.68    | 6.24              | 9.32     | 15.93    | 6.53     | 9.53              | 16.99    |  |  |
|                | 16                | 0.62              | 1.46     | 2.33     | 2.94     | 3.46     | 4.21     | 5.67     | 6.66     | 1.03              | 2.09     | 3.24     | 4.36     | 4.74     | 6.23     | 7.83     | 10.08    | 1.38              | 2.67     | 4.12     | 5.57     | 5.98     | 8.02     | 9.92     | 13.29    | 5.85              | 8.89     | 15.50    | 6.14     | 9.13              | 16.52    |  |  |
|                | 24                | 0.057             | 0.91     | 1.79     | 2.45     | 2.90     | 3.73     | 5.06     | 6.19     | 0.35              | 1.44     | 2.58     | 3.72     | 4.06     | 5.59     | 7.07     | 9.43     | 0.68              | 1.91     | 3.40     | 4.80     | 5.25     | 7.28     | 9.09     | 12.53    | 5.10              | 8.06     | 14.66    | 5.39     | 8.33              | 15.61    |  |  |
| 10             | 12                | 0.70              | 1.53     | 2.39     | 2.98     | 3.51     | 4.25     | 5.72     | 6.69     | 1.10              | 2.14     | 3.27     | 4.34     | 4.79     | 6.26     | 7.88     | 10.11    | 1.46              | 2.71     | 4.13     | 5.51     | 5.96     | 7.89     | 9.82     | 13.01    | 5.80              | 8.76     | 15.13    | 6.09     | 9.03              | 16.15    |  |  |
|                | 16                | 0.34              | 1.18     | 2.05     | 2.68     | 3.16     | 3.95     | 5.34     | 6.40     | 0.69              | 1.74     | 2.86     | 3.94     | 4.36     | 5.85     | 7.40     | 9.69     | 1.02              | 2.24     | 3.68     | 5.03     | 5.49     | 7.42     | 9.30     | 12.53    | 5.33              | 8.24     | 14.59    | 5.62     | 8.53              | 15.57    |  |  |
|                | 24                | 0.006             | 0.537    | 1.39     | 2.09     | 2.48     | 3.36     | 4.59     | 5.81     | 0.006             | 0.977    | 2.08     | 3.18     | 3.54     | 5.07     | 6.47     | 8.87     | 0.217             | 1.35     | 2.82     | 4.11     | 4.61     | 6.53     | 8.29     | 11.59    | 4.43              | 7.24     | 13.56    | 4.72     | 7.56              | 14.45    |  |  |
| 12             | 12                | 0.226             | 1.047    | 1.88     | 2.51     | 2.97     | 3.76     | 5.10     | 6.18     | 0.527             | 1.51     | 2.57     | 3.54     | 3.99     | 5.32     | 7.05     | 9.29     | 0.83              | 1.94     | 3.31     | 4.45     | 5.01     | 6.68     | 8.57     | 11.37    | 4.82              | 7.47     | 13.22    | 5.11     | 7.85              | 14.19    |  |  |
|                | 16                | 0.006             | 0.586    | 1.417    | 2.087    | 2.47     | 3.33     | 4.55     | 5.74     | 0.006             | 0.997    | 2.03     | 3.01     | 3.41     | 4.76     | 6.36     | 8.67     | 0.286             | 1.347    | 2.71     | 3.83     | 4.39     | 6.05     | 7.84     | 10.70    | 4.19              | 6.77     | 12.48    | 4.48     | 7.16              | 13.39    |  |  |
|                | 24                | 0.003             | 0.003    | 0.556    | 1.296    | 1.566    | 2.526    | 3.52     | 4.91     | 0.003             | 0.046    | 1.036    | 2.046    | 2.337    | 3.747    | 5.08     | 7.50     | 0.006             | 0.246    | 1.606    | 2.686    | 3.23     | 4.90     | 6.48     | 9.44     | 3.037             | 5.46     | 11.09    | 3.297    | 5.86              | 11.87    |  |  |
| 14             | 12                | 0.003             | 0.526    | 1.316    | 1.956    | 2.3      |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          |          |                   |          |          |          |                   |          |  |  |



















# ALLOWABLE AXIAL LOAD TABLES - 45 PSF LOAD TABLES

| Wall Ht. (ft) | Spacing (in) o.c. | 350S137-mils (Fy) |          |          |          |          |          |          |          | 350S162-mils (Fy) |          |          |          |          |          |          |          | 350S200-mils (Fy) |          |          |          |          |          |          |          | 350S250-mils (Fy) |          |          | 350S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 0.18 6            | 0.73 7   | 1.30     | 1.96     | 2.23     | 2.87     | 3.69     | 4.80     | 0.43 6            | 1.11 7   | 1.81     | 2.64     | 2.87     | 3.72     | 4.69     | 6.15     | 0.66 7            | 1.59     | 2.51     | 3.42     | 3.73     | 4.83     | 5.89     | 7.66     | 3.96              | 5.67     | 9.00     | 4.08              | 6.12     | 9.98     |
|               | 16                | 0.00 6            | 0.30 6   | 0.83 6   | 1.56 6   | 1.79 7   | 2.45 7   | 3.22     | 4.40     | 0.00 6            | 0.65 6   | 1.30 7   | 2.20 7   | 2.39     | 3.26     | 4.17     | 5.69     | 0.17 6            | 1.08 7   | 1.97     | 2.91     | 3.21     | 4.32     | 5.34     | 7.17     | 3.41              | 5.10     | 8.48     | 3.54              | 5.54     | 9.41     |
|               | 24                | 0.00 3            | 0.00 3   | 0.00 6   | 0.83 6   | 0.97 6   | 1.68 6   | 2.33 7   | 3.64 7   | 0.00 3            | 0.00 3   | 0.38 6   | 1.39 6   | 1.50 6   | 2.42 6   | 3.20     | 4.84     | 0.00 3            | 0.14 6   | 0.98 6   | 1.98 6   | 2.25 7   | 3.39 7   | 4.30     | 6.25     | 2.40 7            | 4.05     | 7.51     | 2.54 7            | 4.47     | 8.31     |
| 9             | 12                | 0.00 3            | 0.36 6   | 0.86 6   | 1.51 6   | 1.76 7   | 2.33 7   | 3.19     | 4.31     | 0.07 6            | 0.69 6   | 1.30 7   | 2.08 7   | 2.31     | 3.06     | 3.98     | 5.28     | 0.25 6            | 1.09 6   | 1.92     | 2.75     | 3.08     | 4.03     | 5.08     | 6.63     | 3.26              | 4.75     | 7.85     | 3.40              | 5.21     | 8.84     |
|               | 16                | 0.00 3            | 0.00 3   | 0.34 6   | 1.06 6   | 1.25 6   | 1.86 6   | 2.63 7   | 3.82 7   | 0.00 3            | 0.17 6   | 0.74 6   | 1.60 6   | 1.77 6   | 2.55 6   | 3.38     | 4.75     | 0.00 3            | 0.52 6   | 1.32 6   | 2.18 6   | 2.49 7   | 3.46 7   | 4.44     | 6.06     | 2.64 7            | 4.12     | 7.25     | 2.78 7            | 4.55     | 8.16     |
|               | 24                | 0.00 2            | 0.00 2   | 0.00 3   | 0.28 3   | 0.34 3   | 1.01 3   | 1.60 6   | 2.92 6   | 0.00 2            | 0.00 3   | 0.00 3   | 0.72 3   | 0.78 6   | 1.63 6   | 2.29 6   | 3.80 6   | 0.00 2            | 0.00 3   | 0.23 6   | 1.18 6   | 1.41 6   | 2.44 6   | 3.26 7   | 5.03 7   | 1.51 6            | 2.96 6   | 6.15     | 1.66 6            | 3.34 7   | 6.89     |
| 10            | 12                | 0.00 3            | 0.02 3   | 0.45 6   | 1.08 6   | 1.29 6   | 1.80 6   | 2.57 7   | 3.56 7   | 0.00 3            | 0.29 6   | 0.83 6   | 1.56 6   | 1.77 6   | 2.43 6   | 3.27     | 4.41     | 0.00 3            | 0.63 6   | 1.37 6   | 2.10 6   | 2.45 7   | 3.26 7   | 4.26     | 5.60     | 2.56 7            | 3.87     | 6.70     | 2.72 7            | 4.33     | 7.56     |
|               | 16                | 0.00 2            | 0.00 2   | 0.00 3   | 0.61 3   | 0.74 3   | 1.30 3   | 1.95 6   | 3.03 6   | 0.00 2            | 0.00 3   | 0.23 3   | 1.05 3   | 1.18 6   | 1.89 6   | 2.62 6   | 3.84 6   | 0.00 3            | 0.03 3   | 0.72 6   | 1.51 6   | 1.80 6   | 2.65 6   | 3.55 7   | 4.99 7   | 1.89 6            | 3.19 6   | 6.05     | 2.05 6            | 3.61 7   | 6.81     |
|               | 24                | 0.00 2            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.42 2   | 0.86 3   | 2.09 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.15 2   | 0.14 3   | 0.93 3   | 1.45 6   | 2.83 6   | 0.00 2            | 0.00 2   | 0.00 3   | 0.48 3   | 0.66 3   | 1.59 3   | 2.28 6   | 3.90 6   | 0.72 3            | 1.98 6   | 4.86 6   | 0.85 3            | 2.32 6   | 5.45 7   |
| 12            | 12                | 0.00 2            | 0.00 2   | 0.00 2   | 0.38 2   | 0.48 3   | 0.91 3   | 1.44 6   | 2.23 6   | 0.00 2            | 0.00 2   | 0.04 3   | 0.70 3   | 0.82 3   | 1.35 3   | 1.99 6   | 2.86 6   | 0.00 2            | 0.00 3   | 0.43 3   | 1.04 3   | 1.33 6   | 1.94 6   | 2.75 6   | 3.75 6   | 1.33 6            | 2.35 6   | 4.61 7   | 1.54 6            | 2.76 6   | 5.21 7   |
|               | 16                | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.41 2   | 0.80 3   | 1.70 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.20 2   | 0.21 3   | 0.81 3   | 1.29 3   | 2.29 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.46 2   | 0.65 3   | 1.33 3   | 1.99 6   | 3.13 6   | 0.67 3            | 1.65 3   | 3.92 6   | 0.82 3            | 2.00 6   | 4.42 6   |
|               | 24                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.00 2   | 0.78 2   | 0.00 1   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.08 2   | 1.29 2   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.30 2   | 0.67 3   | 2.03 3   | 0.00 2   | 0.46 2            | 2.71 3   | 0.00 2   | 0.67 3            | 3.02 3   |          |
| 14            | 12                | 0.00 1            | 0.00 1   | 0.00 2   | 0.00 2   | 0.00 2   | 0.29 2   | 0.60 2   | 1.29 2   | 0.00 1            | 0.00 2   | 0.00 2   | 0.13 2   | 0.13 2   | 0.60 2   | 0.99 3   | 1.75 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.33 2   | 0.48 2   | 1.01 2   | 1.56 3   | 2.41 3   | 0.49 2            | 1.26 3   | 3.04 6   | 0.62 3            | 1.54 3   | 3.45 6   |
|               | 16                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.00 2   | 0.79 2   | 0.00 1   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.09 2   | 0.32 2   | 1.21 2   | 0.00 1   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.45 2   | 0.82 3   | 1.81 3   | 0.00 2   | 0.61 2            | 2.38 3   | 0.00 2   | 0.81 2            | 2.68 3   |          |
|               | 24                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 1.35 2   |
| 16            | 12                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.02 2   | 0.66 2   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.11 2   | 0.30 2   | 0.99 2   | 0.00 1            | 0.00 1   | 0.00 2   | 0.00 2   | 0.00 2   | 0.39 2   | 0.70 2   | 1.48 2   | 0.00 2            | 0.53 2   | 1.95 3   | 0.00 2            | 0.69 2   | 2.20 3   |
|               | 16                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 1.47 2   |
|               | 24                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.23 2   |

| Wall Ht. (ft) | Spacing (in) o.c. | 362S137-mils (Fy) |          |          |          |          |          |          |          | 0.00 1362S162-mils (Fy) |          |          |          |          |          |          |          | 362S200-mils (Fy) |          |          |          |          |          |          |          | 362S250-mils (Fy) |          |          | 362S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)                | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 0.24 6            | 0.81 7   | 1.43     | 2.11     | 2.17     | 3.10     | 3.87     | 4.99     | 0.50 7                  | 1.21     | 1.97     | 2.82     | 2.86     | 4.01     | 4.99     | 6.57     | 0.74 7            | 1.71     | 2.69     | 3.65     | 3.98     | 5.18     | 6.24     | 8.17     | 4.19              | 6.08     | 9.59     | 4.31              | 6.50     | 10.55    |
|               | 16                | 0.00 6            | 0.38 6   | 0.95 7   | 1.71 7   | 1.66     | 2.67     | 3.40     | 4.59     | 0.06 6                  | 0.75 6   | 1.46 7   | 2.37 7   | 2.31     | 3.54     | 4.47     | 6.11     | 0.25 6            | 1.20 7   | 2.15     | 3.14     | 3.46     | 4.67     | 5.69     | 7.68     | 3.64              | 5.50     | 9.07     | 3.774             | 5.92     | 9.97     |
|               | 24                | 0.00 3            | 0.00 3   | 0.08 6   | 0.97 6   | 0.72 6   | 1.88 6   | 2.53 7   | 3.85 7   | 0.00 3                  | 0.00 6   | 0.52 6   | 1.56 6   | 1.31 6   | 2.68 6   | 3.50     | 5.25     | 0.00 3            | 0.26 6   | 1.15 6   | 2.19 6   | 2.49 7   | 3.72 7   | 4.66     | 6.76     | 2.62 7            | 4.43     | 8.09     | 2.77              | 4.83     | 8.88     |
| 9             | 12                | 0.00 6            | 0.44 6   | 0.98 6   | 1.66 6   | 1.65 7   | 2.55 7   | 3.41     | 4.56     | 0.13 6                  | 0.78 6   | 1.45 7   | 2.27 7   | 2.26     | 3.34     | 4.29     | 5.71     | 0.32 6            | 1.21 7   | 2.11     | 2.97     | 3.34     | 4.37     | 5.44     | 7.14     | 3.49              | 5.15     | 8.44     | 3.63              | 5.62     | 9.45     |
|               | 16                | 0.00 3            | 0.00 3   | 0.45 6   | 1.21 6   | 1.07 6   | 2.07 6   | 2.84 7   | 4.07 7   | 0.00 3                  | 0.26 6   | 0.88 6   | 1.77 6   | 1.65 7   | 2.82 7   | 3.68     | 5.17     | 0.00 6            | 0.64 6   | 1.49 6   | 2.40 6   | 2.73     | 3.79     | 4.79     | 6.57     | 2.86 7            | 4.49     | 7.83     | 3.01              | 4.94     | 8.76     |
|               | 24                | 0.00 2            | 0.00 2   | 0.00 3   | 0.36 3   | 0.04 3   | 1.19 3   | 1.81 6   | 3.17 6   | 0.00 2                  | 0.00 3   | 0.00 3   | 0.87 3   | 0.54 6   | 1.86 6   | 2.58 6   | 4.19 6   | 0.00 3            | 0.00 3   | 0.38 6   | 1.36 6   | 1.64 6   | 2.73 6   | 3.60 7   | 5.51 7   | 1.72 6            | 3.30 6   | 6.70     | 1.87 6            | 3.70 7   | 7.47     |
| 10            | 12                | 0.00 3            | 0.09 3   | 0.56 6   | 1.22 6   | 1.15 6   | 2.01 6   | 2.83 7   | 3.91 7   | 0.00 3                  | 0.38 6   | 0.96 6   | 1.74 6   | 1.69 7   | 2.69 7   | 3.58     | 4.82     | 0.00 6            | 0.74 6   | 1.54 6   | 2.32 6   | 2.69 7   | 3.58 7   | 4.62     | 6.10     | 2.81 7            | 4.24     | 7.28     | 2.96              | 4.70     | 8.21     |
|               | 16                | 0.00 2            | 0.00 3   | 0.00 3   | 0.74 3   | 0.52 6   | 1.49 6   | 2.19 6   | 3.36 6   | 0.00 2                  | 0.00 3   | 0.35 6   | 1.21 6   | 1.02 6   | 2.12 6   | 2.90 7   | 4.24 7   | 0.00 3            | 0.13 3   | 0.87 6   | 1.71 6   | 2.03 6   | 2.95 6   | 3.90     | 5.47     | 2.12 6            | 3.54 7   | 6.60     | 2.27 6            | 3.96 7   | 7.43     |
|               | 24                | 0.00 2            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 3   | 0.57 3   | 1.07 3   | 2.38 3   | 0.00 2                  | 0.00 2   | 0.00 3   | 0.27 3   | 0.00 3   | 1.12 3   | 1.70 6   | 3.19 6   | 0.00 2            | 0.00 2   | 0.00 3   | 0.64 3   | 0.86 3   | 1.85 3   | 2.60 6   | 4.34 6   | 0.91 3            | 2.27 6   | 5.38 6   | 1.04 6            | 2.63 6   | 6.02 7   |
| 12            | 12                | 0.00 2            | 0.00 2   | 0.00 3   | 0.48 3   | 0.28 3   | 1.06 3   | 1.66 6   | 2.52 6   | 0.00 2                  | 0.00 2   | 0.13 3   | 0.84 3   | 0.68 3   | 1.55 3   | 2.24 6   | 3.20 6   | 0.00 2            | 0.00 3   | 0.56 3   | 1.21 3   | 1.53 6   | 2.19 6   | 3.06 6   | 4.17 6   | 1.53 6            | 2.64 6   | 5.10 7   | 1.74 6            | 3.06 6   | 5.76     |
|               | 16                | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.54 2   | 0.99 3   | 1.96 3   | 0.00 2                  | 0.00 2   | 0.00 2   | 0.30 2   | 0.00 3   | 0.97 3   | 1.52 3   | 2.60 3   | 0.00 2            | 0.00 2   | 0.00 3   | 0.60 3   | 0.82 3   | 1.55 3   | 2.28 6   | 3.51 6   | 0.83 3            | 1.91 6   | 4.38 6   | 0.99 3            | 2.27 6   | 4.93 6   |
|               | 24                | 0.00 1            | 0.00 1   | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.99 2   | 0.00 1                  | 0.00 1   | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.26 2   | 1.55 2   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.45 2   | 0.90 3   | 2.36 3   | 0.00 2            | 0.65 3   | 3.11 3   | 0.00 2            | 0.88 3   | 3.47 6   |
| 14            | 12                | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.39 2   | 0.75 3   | 1.49 3   | 0.00 1                  | 0.00 2   | 0.00 2   | 0.21 2   | 0.00 2   | 0.73 2   | 1.19 3   | 2.00 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.43 2   | 0.62 3   | 1.18 3   | 1.80 3   | 2.71 3   | 0.61 3            | 1.46 3   | 3.40 6   | 0.76 3            | 1.77 3   | 3.85 6   |
|               | 16                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.10 2   | 0.96 2   | 0.00 1   | 0.00 1                  | 0.00 2   | 0.00 2   | 0.00 2   | 0.19 2   | 0.48 2   | 1.43 2   | 0.00 1   | 0.00 2            | 0.00 2   | 0.00 2   | 0.00 2   | 0.58 2   | 1.03 3   | 2.08 3   | 0.00 2   | 0.77 2            | 2.71 3   | 0.03 2   | 0.80 2            | 3.04 3   |          |
|               | 24                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.06 2   | 0.00 1                  | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1            | 0.00 1   | 1.64 2   |
| 16            | 12                | 0.00 1            | 0.00 1   | 0.00 1   | 0.00 1   | 0.00 2   | 0.12 2   | 0.80 2   | 0.00 1   | 0.00 1                  | 0.00 2   | 0.00 2   | 0.00 2   | 0.19 2   | 0.43 2   | 1.17 2   | 0.00 1   | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.50 2   | 0.87 2   | 1.70 2   | 0.00 2   |                   |          |          |                   |          |          |

# ALLOWABLE AXIAL LOAD TABLES - 45 PSF LOAD TABLES

| Wall Ht. (ft) | Spacing (in) o.c. | 400S137-mils (Fy) |          |          |          |          |          |          |          | 400S162-mils (Fy) |          |          |          |          |          |          |          | 400S200-mils (Fy) |          |          |          |          |          |          |          | 2.53 3400S250-mils (Fy) |          |          | 400S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)                | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 0.40              | 1.04     | 1.75     | 2.50     | 2.67     | 3.72     | 4.36     | 5.49     | 0.70              | 1.50     | 2.35     | 3.32     | 3.48     | 4.81     | 5.88     | 7.82     | 0.97              | 2.06     | 3.15     | 4.28     | 4.52     | 6.14     | 7.27     | 9.68     | 4.74                    | 7.04     | 11.33    | 4.92              | 7.43     | 12.26    |
|               | 16                | 0.00              | 0.62     | 1.28     | 2.10     | 2.16     | 3.28     | 3.93     | 5.13     | 0.26              | 1.03     | 1.85     | 2.87     | 2.93     | 4.33     | 5.37     | 7.36     | 0.49              | 1.55     | 2.62     | 3.76     | 3.94     | 5.62     | 6.73     | 9.19     | 4.21                    | 6.47     | 10.81    | 4.39              | 6.86     | 11.69    |
|               | 24                | 0.00              | 0.00     | 0.41     | 1.35     | 1.20     | 2.47     | 3.11     | 4.45     | 0.00              | 0.18     | 0.91     | 2.04     | 1.90     | 3.44     | 4.40     | 6.48     | 0.00              | 0.61     | 1.62     | 2.80     | 2.86     | 4.64     | 5.71     | 8.25     | 3.21                    | 5.39     | 9.81     | 3.40              | 5.78     | 10.59    |
| 9             | 12                | 0.07              | 0.67     | 1.31     | 2.06     | 2.16     | 3.21     | 3.94     | 5.12     | 0.33              | 1.07     | 1.85     | 2.78     | 2.88     | 4.16     | 5.20     | 6.98     | 0.55              | 1.56     | 2.58     | 3.61     | 3.84     | 5.35     | 6.50     | 8.67     | 4.12                    | 6.24     | 10.20    | 4.27              | 6.65     | 11.14    |
|               | 16                | 0.00              | 0.18     | 0.76     | 1.59     | 1.56     | 2.70     | 3.41     | 4.67     | 0.00              | 0.53     | 1.27     | 2.27     | 2.24     | 3.60     | 4.59     | 6.42     | 0.00              | 0.98     | 1.96     | 3.01     | 3.16     | 4.74     | 5.85     | 8.08     | 3.48                    | 5.55     | 9.57     | 3.64              | 5.96     | 10.45    |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.74     | 0.46     | 1.75     | 2.42     | 3.82     | 0.00              | 0.00     | 0.20     | 1.32     | 1.07     | 2.57     | 3.45     | 5.39     | 0.00              | 0.00     | 0.82     | 1.93     | 1.92     | 3.62     | 4.64     | 6.98     | 2.32                    | 4.29     | 8.39     | 2.49              | 4.68     | 9.13     |
| 10            | 12                | 0.00              | 0.30     | 0.87     | 1.61     | 1.63     | 2.65     | 3.47     | 4.68     | 0.00              | 0.64     | 1.35     | 2.24     | 2.27     | 3.48     | 4.48     | 6.08     | 0.15              | 1.07     | 2.01     | 2.94     | 3.14     | 4.54     | 5.68     | 7.61     | 3.44                    | 5.35     | 9.01     | 3.60              | 5.82     | 9.97     |
|               | 16                | 0.00              | 0.00     | 0.27     | 1.09     | 0.96     | 2.07     | 2.84     | 4.14     | 0.00              | 0.06     | 0.70     | 1.67     | 1.56     | 2.86     | 3.79     | 5.45     | 0.00              | 0.43     | 1.32     | 2.29     | 2.39     | 3.86     | 4.93     | 6.94     | 2.73                    | 4.58     | 8.29     | 2.89              | 5.03     | 9.16     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.18     | 0.00     | 1.05     | 1.70     | 3.15     | 0.00              | 0.00     | 0.00     | 0.66     | 0.29     | 1.75     | 2.52     | 4.32     | 0.00              | 0.00     | 0.09     | 1.13     | 1.03     | 2.64     | 3.58     | 5.71     | 1.46                    | 3.19     | 6.97     | 1.61              | 3.59     | 7.67     |
| 12            | 12                | 0.00              | 0.00     | 0.08     | 0.79     | 0.65     | 1.58     | 2.35     | 3.45     | 0.00              | 0.00     | 0.43     | 1.25     | 1.15     | 2.20     | 3.06     | 4.32     | 0.00              | 0.20     | 0.95     | 1.73     | 1.84     | 3.00     | 4.04     | 5.52     | 2.14                    | 3.59     | 6.66     | 2.30              | 4.04     | 7.51     |
|               | 16                | 0.00              | 0.00     | 0.00     | 0.23     | 0.00     | 0.93     | 1.61     | 2.81     | 0.00              | 0.00     | 0.00     | 0.64     | 0.37     | 1.53     | 2.26     | 3.63     | 0.00              | 0.00     | 0.19     | 1.03     | 1.00     | 2.27     | 3.18     | 4.78     | 1.35                    | 2.75     | 5.84     | 1.50              | 3.15     | 6.57     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.33     | 1.69     | 3.33     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.38     | 0.88     | 2.42     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 1.00     | 1.67     | 3.46     | 0.00                    | 1.30     | 4.40     | 0.10              | 1.59     | 4.90     |
| 14            | 12                | 0.00              | 0.00     | 0.00     | 0.16     | 0.00     | 0.73     | 1.29     | 2.19     | 0.00              | 0.00     | 0.00     | 0.48     | 0.26     | 1.18     | 1.83     | 2.84     | 0.00              | 0.00     | 0.11     | 0.79     | 0.78     | 1.76     | 2.60     | 3.75     | 1.04                    | 2.15     | 4.63     | 1.22              | 2.54     | 5.22     |
|               | 16                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.14     | 0.55     | 1.57     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.55     | 1.03     | 2.17     | 0.00              | 0.00     | 0.00     | 0.12     | 0.00     | 1.06     | 1.72     | 3.02     | 0.28                    | 1.33     | 3.82     | 0.40              | 1.64     | 4.28     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.51     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 1.02     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.21     | 1.75     | 0.00     | 0.00                    | 2.41     | 0.00     | 0.10              | 2.65     |          |
| 16            | 12                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.15     | 0.49     | 1.29     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.48     | 0.90     | 1.77     | 0.00              | 0.00     | 0.00     | 0.14     | 0.01     | 0.89     | 1.48     | 2.46     | 0.27                    | 1.12     | 3.11     | 0.38              | 1.39     | 3.50     |
|               | 16                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.72     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.13     | 1.15     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.24     | 0.63     | 1.77     | 0.00                    | 0.37     | 2.35     | 0.00              | 0.54     | 2.61     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.09     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.60     | 0.00     | 0.00                    | 1.03     | 0.00     | 0.00              | 1.08     |          |

| Wall Ht. (ft) | Spacing (in) o.c. | 550S137-mils (Fy) |          |          |          |          |          |          |          | 550S162-mils (Fy) |          |          |          |          |          |          |          | 550S200-mils (Fy) |          |          |          |          |          |          |          | 550S250-mils (Fy) |          |          | 550S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 0.89              | 1.71     | 2.59     | 3.17     | 3.72     | 4.43     | 5.96     | 6.89     | 1.35              | 2.41     | 3.56     | 4.70     | 5.06     | 6.55     | 8.19     | 10.41    | 1.73              | 3.06     | 4.52     | 6.06     | 6.41     | 8.55     | 10.46    | 13.95    | 6.31              | 9.47     | 16.28    | 6.60              | 9.68     | 17.35    |
|               | 16                | 0.57              | 1.42     | 2.30     | 2.91     | 3.42     | 4.18     | 5.64     | 6.64     | 0.98              | 2.06     | 3.21     | 4.36     | 4.70     | 6.21     | 7.80     | 10.08    | 1.34              | 2.64     | 4.13     | 5.64     | 6.02     | 8.15     | 10.02    | 13.55    | 5.91              | 9.03     | 15.84    | 6.20              | 9.25     | 16.87    |
|               | 24                | 0.00              | 0.84     | 1.72     | 2.40     | 2.84     | 3.69     | 5.02     | 6.16     | 0.26              | 1.37     | 2.53     | 3.69     | 4.00     | 5.56     | 7.03     | 9.42     | 0.59              | 1.84     | 3.37     | 4.83     | 5.25     | 7.38     | 9.16     | 12.76    | 5.11              | 8.16     | 14.97    | 5.41              | 8.41     | 15.92    |
| 9             | 12                | 0.62              | 1.46     | 2.33     | 2.94     | 3.46     | 4.21     | 5.67     | 6.66     | 1.03              | 2.09     | 3.24     | 4.36     | 4.74     | 6.23     | 7.83     | 10.08    | 1.38              | 2.67     | 4.12     | 5.57     | 5.98     | 8.02     | 9.92     | 13.29    | 5.85              | 8.89     | 15.50    | 6.14              | 9.13     | 16.52    |
|               | 16                | 0.23              | 1.09     | 1.97     | 2.61     | 3.08     | 3.89     | 5.26     | 6.35     | 0.57              | 1.65     | 2.80     | 3.93     | 4.28     | 5.80     | 7.32     | 9.65     | 0.91              | 2.16     | 3.64     | 5.05     | 5.49     | 7.53     | 9.36     | 12.78    | 5.34              | 8.34     | 14.94    | 5.64              | 8.59     | 15.91    |
|               | 24                | 0.00              | 0.39     | 1.26     | 1.98     | 2.36     | 3.27     | 4.48     | 5.74     | 0.00              | 0.82     | 1.96     | 3.11     | 3.41     | 4.98     | 6.35     | 8.80     | 0.02              | 1.19     | 2.70     | 4.06     | 4.53     | 6.57     | 8.28     | 11.79    | 4.37              | 7.26     | 13.84    | 4.66              | 7.55     | 14.71    |
| 10            | 12                | 0.34              | 1.18     | 2.05     | 2.68     | 3.16     | 3.95     | 5.34     | 6.40     | 0.69              | 1.74     | 2.86     | 3.94     | 4.36     | 5.85     | 7.40     | 9.69     | 1.02              | 2.24     | 3.68     | 5.03     | 5.49     | 7.42     | 9.30     | 12.53    | 5.33              | 8.24     | 14.59    | 5.62              | 8.53     | 15.57    |
|               | 16                | 0.00              | 0.74     | 1.61     | 2.28     | 2.70     | 3.55     | 4.84     | 6.01     | 0.16              | 1.22     | 2.34     | 3.43     | 3.81     | 5.33     | 6.78     | 9.14     | 0.47              | 1.64     | 3.10     | 4.41     | 4.90     | 6.82     | 8.62     | 11.90    | 4.73              | 7.57     | 13.90    | 5.02              | 7.87     | 14.82    |
|               | 24                | 0.00              | 0.00     | 0.77     | 1.52     | 1.83     | 2.80     | 3.88     | 5.25     | 0.00              | 0.66     | 1.34     | 2.47     | 2.76     | 4.32     | 5.59     | 8.09     | 0.00              | 0.52     | 2.00     | 3.25     | 3.76     | 5.68     | 7.31     | 10.69    | 3.57              | 6.29     | 12.57    | 3.85              | 6.62     | 13.37    |
| 12            | 12                | 0.00              | 0.58     | 1.41     | 2.08     | 2.47     | 3.33     | 4.55     | 5.74     | 0.00              | 0.66     | 1.34     | 2.47     | 2.76     | 4.32     | 5.59     | 8.09     | 0.00              | 0.52     | 2.00     | 3.25     | 3.76     | 5.68     | 7.31     | 10.69    | 3.57              | 6.29     | 12.57    | 3.85              | 6.62     | 13.37    |
|               | 16                | 0.00              | 0.00     | 0.83     | 1.54     | 1.86     | 2.78     | 3.85     | 5.18     | 0.00              | 0.34     | 1.35     | 2.35     | 2.68     | 4.07     | 5.49     | 7.88     | 0.00              | 0.59     | 1.96     | 3.05     | 3.60     | 5.27     | 6.92     | 9.84     | 3.40              | 5.88     | 11.54    | 3.68              | 6.28     | 12.37    |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.56     | 0.72     | 1.78     | 2.56     | 4.13     | 0.00              | 0.00     | 0.12     | 1.16     | 1.34     | 2.80     | 3.90     | 6.43     | 0.00              | 0.00     | 0.59     | 1.64     | 2.16     | 3.84     | 5.23     | 8.27     | 1.96              | 4.26     | 9.80     | 2.21              | 4.65     | 10.46    |
| 14            | 12                | 0.00              | 0.00     | 0.74     | 1.42     | 1.72     | 2.61     | 3.63     | 4.93     | 0.00              | 0.26     | 1.18     | 2.05     | 2.39     | 3.59     | 4.94     | 6.96     | 0.00              | 0.48     | 1.72     | 2.63     | 3.22     | 4.61     | 6.23     | 8.66     | 3.05              | 5.23     | 10.16    | 3.28              | 5.67     | 11.02    |
|               | 16                | 0.00              | 0.00     | 0.04     | 0.78     | 0.96     | 1.94     | 2.76     | 4.21     | 0.00              | 0.00     | 0.41     | 1.31     | 1.54     | 2.79     | 3.91     | 6.03     | 0.00              | 0.00     | 0.86     | 1.76     | 2.30     | 3.72     | 5.13     | 7.66     | 2.12              | 4.20     | 9.05     | 2.34              | 4.62     | 9.78     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.74     | 1.21     | 2.91     | 0.00              | 0.00     | 0.00     | 0.00     | 0.04     | 1.38     | 2.09     | 4.39     | 0.00              | 0.00     | 0.00     | 0.24     | 0.67     | 2.13     | 3.18     | 5.87     | 0.49              | 2.37     | 7.07     | 0.68              | 2.74     | 7.58     |
| 16            | 12                | 0.00              | 0.00     | 0.08     | 0.75     | 0.95     | 1.85     | 2.66     | 4.03     | 0.00              | 0.00     | 0.42     | 1.19     | 1.44     | 2.48     | 3.56     | 5.29     | 0.00              | 0.00     | 0.83     | 1.58     | 2.12     | 3.28     | 4.65     | 6.69     | 1.96              | 3.76     | 7.92     | 2.15              | 4.22     | 8.73     |
|               | 16                | 0.00              | 0.00     | 0.00     | 0.05     | 0.12     | 1.09     | 1.63     | 3.18     | 0.00              | 0.00     | 0.00     | 0.42     | 0.53     | 1.64     | 2.45     | 4.31     | 0.00              | 0.00     | 0.00     | 0.69     | 1.13     | 2.34     | 3.46     | 5.63     | 0.97              | 3.67     | 6.73     | 1.15              | 3.07     | 7.38     |
|               | 24                | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 1.71     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.20     | 0.54     | 7.62     | 0.00              | 0.00     | 0.00     | 0.00     | 0.00     | 0.73     | 1.40     | 3.79     | 0.00              | 0.77     | 4.67     | 0.00              | 1.07     | 5.04     |

See notes located on page 40

# ALLOWABLE AXIAL LOAD TABLES - 45 PSF LOAD TABLES

| Wall Ht. (ft) | Spacing (in) o.c. | 600S137-mils (Fy) |          |          |          |          |          |          |          | 600S162-mils (Fy) |          |          |          |          |          |          |          | 600S200-mils (Fy) |          |          |          |          |          |          |          | 600S250-mils (Fy) |          |          | 600S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 0.97              | 1.73     | 2.59     | 3.15     | 3.83     | 4.40     | 6.16     | 6.99     | 1.47              | 2.53     | 3.68     | 4.79     | 5.22     | 6.65     | 8.47     | 10.61    | 1.88              | 3.27     | 4.77     | 6.42     | 6.73     | 9.00     | 11.01    | 14.67    | 6.63              | 9.96     | 17.19    | 6.93              | 10.14    | 18.32    |
|               | 16                | 0.68              | 1.44     | 2.30     | 2.90     | 3.57     | 4.16     | 5.88     | 6.78     | 1.12              | 2.20     | 3.36     | 4.48     | 4.91     | 6.35     | 8.12     | 10.32    | 1.52              | 2.88     | 4.41     | 6.03     | 6.37     | 8.63     | 10.61    | 14.30    | 6.26              | 9.55     | 16.78    | 6.56              | 9.75     | 17.87    |
|               | 24                | 0.11              | 0.88     | 1.74     | 2.41     | 3.06     | 3.68     | 5.33     | 6.36     | 0.45              | 1.58     | 2.74     | 3.89     | 4.28     | 5.77     | 7.43     | 9.74     | 0.81              | 2.13     | 3.70     | 5.27     | 5.66     | 7.92     | 9.83     | 13.58    | 5.52              | 8.75     | 15.97    | 5.82              | 8.97     | 16.99    |
| 9             | 12                | 0.73              | 1.48     | 2.34     | 2.93     | 3.61     | 4.18     | 5.91     | 6.80     | 1.18              | 2.25     | 3.40     | 4.51     | 4.94     | 6.38     | 8.15     | 10.34    | 1.56              | 2.91     | 4.41     | 5.98     | 6.35     | 8.54     | 10.55    | 14.12    | 6.22              | 9.45     | 16.51    | 6.52              | 9.65     | 17.59    |
|               | 16                | 0.37              | 1.13     | 1.98     | 2.62     | 3.28     | 3.88     | 5.55     | 6.53     | 0.75              | 1.85     | 3.00     | 4.13     | 4.54     | 6.00     | 7.71     | 9.96     | 1.12              | 2.43     | 3.96     | 5.49     | 5.89     | 8.08     | 10.04    | 13.65    | 5.75              | 8.93     | 15.99    | 6.04              | 9.15     | 17.02    |
|               | 24                | 0.00 6            | 0.43     | 1.28     | 2.01     | 2.64     | 3.27     | 4.86     | 6.00     | 0.00 7            | 1.07     | 2.23     | 3.358    | 3.76     | 5.25     | 6.84     | 9.22     | 0.27              | 1.51     | 3.08     | 4.55     | 5.01     | 7.18     | 9.05     | 12.73    | 4.83              | 7.93     | 14.96    | 5.12              | 8.18     | 15.90    |
| 10            | 12                | 0.4 7             | 1.22     | 2.07     | 2.69     | 3.35     | 3.94     | 5.63     | 6.58     | 0.86              | 1.94     | 3.09     | 4.20     | 4.62     | 6.06     | 7.79     | 10.01    | 1.22              | 2.51     | 4.01     | 5.49     | 5.92     | 8.01     | 10.01    | 13.47    | 5.75              | 8.86     | 15.72    | 6.05              | 9.10     | 16.74    |
|               | 16                | 0.04 7            | 0.78     | 1.63     | 2.31     | 2.95     | 3.56     | 5.18     | 6.24     | 0.36              | 1.46     | 2.60     | 3.73     | 4.13     | 5.59     | 7.23     | 9.53     | 0.69              | 1.94     | 3.46     | 4.90     | 5.36     | 7.45     | 9.39     | 12.89    | 5.18              | 8.23     | 15.07    | 5.47              | 8.49     | 16.04    |
|               | 24                | 0.00 6            | 0.00 6   | 0.79 7   | 1.57 7   | 2.17     | 2.82     | 4.33     | 5.58     | 0.00 6            | 0.54 7   | 1.67     | 2.82     | 3.18     | 4.68     | 6.16     | 8.61     | 0.00 6            | 0.86     | 2.42     | 3.78     | 4.29     | 6.37     | 8.18     | 11.76    | 4.08              | 7.02     | 13.82    | 4.36              | 7.30     | 14.67    |
| 12            | 12                | 0.00 6            | 0.63 7   | 1.45     | 2.13     | 2.75     | 3.36     | 4.94     | 5.03     | 0.19 6            | 1.24     | 2.36     | 3.43     | 3.87     | 5.30     | 6.90     | 9.18     | 0.50 7            | 1.66     | 3.11     | 4.37     | 4.91     | 6.77     | 8.72     | 11.86    | 4.69              | 7.51     | 13.82    | 4.98              | 7.83     | 14.75    |
|               | 16                | 0.00 6            | 0.06 6   | 0.85 7   | 1.60 7   | 2.19     | 2.82     | 4.31     | 5.54     | 0.00 6            | 0.61 6   | 1.70 7   | 2.78 7   | 3.18     | 4.63     | 6.11     | 8.48     | 0.00 6            | 0.92 7   | 2.38     | 3.60     | 4.16     | 6.01     | 7.85     | 11.05    | 3.93              | 6.65     | 12.92    | 4.21              | 6.99     | 13.77    |
|               | 24                | 0.00 3            | 0.00 3   | 0.00 6   | 0.63 6   | 1.14 6   | 1.82 6   | 3.13 7   | 4.60 7   | 0.00 3            | 0.00 6   | 0.49 6   | 1.59 6   | 1.90 6   | 3.39 6   | 4.63     | 7.17     | 0.00 3            | 0.00 6   | 1.03 6   | 2.19 6   | 2.75 7   | 4.60 7   | 6.22     | 9.52     | 2.50 7            | 5.06     | 11.23    | 2.76 7            | 5.42     | 11.92    |
| 14            | 12                | 0.00 3            | 0.01 6   | 0.77 6   | 1.50 6   | 2.07 7   | 2.68 7   | 4.12     | 5.35     | 0.00 6            | 0.52 6   | 1.53 6   | 2.49 6   | 2.92     | 4.21     | 5.81     | 8.09     | 0.00 6            | 0.79 6   | 2.14 7   | 3.19 7   | 3.79     | 5.39     | 7.22     | 9.97     | 3.56              | 6.02     | 11.64    | 3.82              | 6.43     | 12.50    |
|               | 16                | 0.00 2            | 0.00 3   | 0.05 6   | 0.84 6   | 1.36 6   | 2.00 6   | 3.31 7   | 4.70 7   | 0.00 3            | 0.00 3   | 0.75 6   | 1.74 6   | 2.09 6   | 3.41 6   | 4.80     | 7.17     | 0.00 3            | 0.00 6   | 1.28 6   | 2.30 6   | 2.88 7   | 4.48 7   | 6.14     | 8.96     | 2.64 6            | 4.99     | 10.53    | 2.89 7            | 5.39     | 11.28    |
|               | 24                | 0.00 2            | 0.00 2   | 0.00 3   | 0.00 3   | 0.08 3   | 0.77 3   | 1.83 6   | 3.49 6   | 0.00 2            | 0.00 2   | 0.00 3   | 0.38 3   | 0.58 6   | 1.95 6   | 2.97 6   | 5.51 6   | 0.00 2            | 0.00 3   | 0.00 3   | 0.71 3   | 1.23 6   | 2.85 6   | 4.19 6   | 7.15 6   | 0.99 6            | 3.13 6   | 8.51 7   | 1.19 6            | 3.50 6   | 9.05     |
| 16            | 12                | 0.00 2            | 0.00 3   | 0.10 3   | 0.85 3   | 1.35 6   | 1.95 6   | 3.23 6   | 4.56 6   | 0.00 3            | 0.00 3   | 0.74 6   | 1.60 6   | 1.96 6   | 3.09 6   | 4.44 7   | 6.44 7   | 0.00 3            | 0.01 6   | 1.22 6   | 2.09 6   | 2.68 6   | 4.03 6   | 5.66     | 8.00     | 2.47 6            | 4.57 7   | 9.40     | 2.69 6            | 4.99 7   | 10.20    |
|               | 16                | 0.00 2            | 0.00 2   | 0.00 3   | 0.10 3   | 0.53 3   | 1.16 3   | 2.26 6   | 3.76 6   | 0.00 2            | 0.00 2   | 0.00 3   | 0.78 3   | 1.03 6   | 2.21 6   | 3.30 6   | 5.42 6   | 0.00 2            | 0.00 3   | 0.28 3   | 1.14 3   | 1.67 6   | 3.04 6   | 4.44 6   | 6.89 6   | 1.46 6            | 3.43 6   | 8.17 7   | 1.65 6            | 3.82 6   | 8.82     |
|               | 24                | 0.00 1            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 2   | 0.57 3   | 2.34 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 3   | 0.673    | 1.31 3   | 3.64 3   | 0.00 2            | 0.00 2   | 0.00 2   | 0.00 2   | 0.00 3   | 1.32 3   | 2.31 6   | 4.94 6   | 0.00 3            | 1.43 3   | 5.99 6   | 0.00 3            | 1.74 3   | 6.38 6   |

| Wall Ht. (ft) | Spacing (in) o.c. | 800S137-mils (Fy) |          |          |          |          |          |          |          | 800S162-mils (Fy) |          |          |          |          |          |          |          | 800S200-mils (Fy) |          |          |          |          |          |          |          | 800S250-mils (Fy) |          |          | 800S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) | -54 (50)          | -68 (50) | -97 (50) |
| 8             | 12                | 1.14              | 1.88     | 2.74     | 3.12     | 3.89     | 4.32     | 6.45     | 6.81     | 1.71              | 2.70     | 3.85     | 4.84     | 5.41     | 6.67     | 8.98     | 10.69    | 2.23              | 3.71     | 5.24     | 6.99     | 7.27     | 9.60     | 11.82    | 15.33    | 7.42              | 11.00    | 18.99    | 7.75              | 11.28    | 20.67    |
|               | 16                | 0.92              | 1.67     | 2.53     | 2.95     | 3.69     | 4.16     | 6.28     | 6.66     | 1.46              | 2.45     | 3.61     | 4.62     | 5.17     | 6.45     | 8.76     | 10.48    | 1.96              | 3.42     | 4.98     | 6.71     | 7.01     | 9.34     | 11.56    | 15.08    | 7.13              | 10.70    | 18.69    | 7.46              | 10.98    | 20.33    |
|               | 24                | 0.50              | 1.26     | 2.13     | 2.62     | 3.30     | 3.84     | 5.93     | 6.36     | 0.95              | 1.97     | 3.13     | 4.17     | 4.69     | 6.02     | 8.32     | 10.05    | 1.41              | 2.85     | 4.45     | 6.15     | 6.50     | 8.83     | 11.04    | 14.59    | 6.57              | 10.10    | 18.11    | 6.89              | 10.39    | 19.67    |
| 9             | 12                | 0.96              | 1.71     | 2.57     | 2.98     | 3.72     | 4.18     | 6.30     | 6.68     | 1.50              | 2.50     | 3.65     | 4.65     | 5.21     | 6.48     | 8.79     | 10.51    | 2.01              | 3.47     | 5.02     | 6.75     | 7.05     | 9.38     | 11.59    | 15.11    | 7.14              | 10.70    | 18.65    | 7.47              | 10.96    | 20.22    |
|               | 16                | 0.69              | 1.45     | 2.31     | 2.77     | 3.47     | 3.98     | 6.08     | 6.49     | 1.18              | 2.19     | 3.34     | 4.37     | 4.90     | 6.2      | 8.51     | 10.23    | 1.66              | 3.11     | 4.68     | 6.39     | 6.72     | 9.05     | 11.26    | 14.79    | 6.78              | 10.32    | 18.27    | 7.10              | 10.58    | 19.80    |
|               | 24                | 0.16              | 0.94     | 1.81     | 2.35     | 2.97     | 3.57     | 5.64     | 6.11     | 0.55              | 1.57     | 2.73     | 3.80     | 4.30     | 5.65     | 7.94     | 9.69     | 0.98              | 2.39     | 4.02     | 5.67     | 6.07     | 8.39     | 10.59    | 14.16    | 6.07              | 9.55     | 17.51    | 6.38              | 9.83     | 18.95    |
| 10            | 12                | 0.77              | 1.52     | 2.38     | 2.83     | 3.54     | 4.03     | 6.14     | 6.54     | 1.27              | 2.27     | 3.42     | 4.43     | 4.98     | 6.27     | 8.57     | 10.29    | 1.75              | 3.20     | 4.77     | 6.47     | 6.80     | 9.12     | 11.33    | 14.85    | 6.83              | 10.35    | 18.24    | 7.14              | 10.60    | 19.70    |
|               | 16                | 0.44              | 1.20     | 2.07     | 2.56     | 3.23     | 3.78     | 5.86     | 6.30     | 0.88              | 1.89     | 3.04     | 4.08     | 4.60     | 5.92     | 8.22     | 9.95     | 1.33              | 2.75     | 4.35     | 6.02     | 6.39     | 8.70     | 10.91    | 14.45    | 6.38              | 9.87     | 17.77    | 6.69              | 10.13    | 19.17    |
|               | 24                | 0.00              | 0.58     | 1.45     | 2.04     | 2.61     | 3.28     | 5.31     | 5.82     | 0.11              | 1.14     | 2.30     | 3.39     | 3.85     | 5.24     | 7.52     | 9.27     | 0.51              | 1.88     | 3.54     | 5.14     | 5.59     | 7.89     | 10.08    | 13.66    | 5.51              | 8.93     | 16.83    | 5.81              | 9.20     | 18.12    |
| 12            | 12                | 0.33              | 1.09     | 1.95     | 2.46     | 3.10     | 3.67     | 5.74     | 6.19     | 0.74              | 1.74     | 2.89     | 3.93     | 4.44     | 5.76     | 8.05     | 9.77     | 1.17              | 2.57     | 4.17     | 5.81     | 6.21     | 8.49     | 10.70    | 14.22    | 6.08              | 9.50     | 17.23    | 6.38              | 9.71     | 18.41    |
|               | 16                | 0.00              | 0.64     | 1.50     | 2.08     | 2.65     | 3.30     | 5.33     | 5.84     | 0.20              | 1.21     | 2.35     | 3.42     | 3.89     | 5.26     | 7.53     | 9.27     | 0.59              | 1.94     | 3.58     | 5.16     | 5.62     | 7.89     | 10.09    | 13.63    | 5.45              | 8.82     | 16.53    | 5.74              | 9.04     | 17.63    |
|               | 24                | 0.00 6            | 0.00 7   | 0.64     | 1.35     | 1.78     | 2.59     | 4.54     | 5.14     | 0.00 6            | 0.18     | 1.32     | 2.44     | 2.84     | 4.29     | 6.52     | 8.28     | 0.00 7            | 0.74     | 2.43     | 3.92     | 4.47     | 6.72     | 8.89     | 12.46    | 4.23              | 7.48     | 15.17    | 4.51              | 7.74     | 16.13    |
| 14            | 12                | 0.00 7            | 0.59     | 1.44     | 2.02     | 2.58     | 3.24     | 5.25     | 5.76     | 0.15 7            | 1.14     | 2.26     | 3.32     | 3.79     | 5.14     | 7.41     | 9.12     | 0.52              | 1.83     | 3.44     | 4.94     | 5.46     | 7.66     | 9.92     | 13.41    | 9.18              | 8.42     | 15.84    | 5.47              | 8.64     | 16.79    |
|               | 16                | 0.00 6            | 0.01 7   | 0.86     | 1.52     | 1.99     | 2.74     | 4.70     | 5.27     | 0.00 6            | 0.45 7   | 1.56     | 2.65     | 3.06     | 4.47     | 6.70     | 8.42     | 0.00 7            | 1.03     | 2.66     | 4.10     | 4.67     | 6.85     | 9.08     | 12.58    | 4.36              | 7.51     | 14.89    | 4.64              | 7.76     | 15.76    |
|               | 24                | 0.00 3            | 0.00 6   | 0.00 6   | 0.57 6   | 0.85 7   | 1.80 7   | 3.64     | 4.34     | 0.00 3            | 0.00 6   | 0.24 6   | 1.39 6   | 1.69     | 3.18     | 5.34     | 7.09     | 0.00 6            | 0.00 6   | 1.20 7   | 2.52 7   | 3.18     | 5.30     | 7.49     | 10.99    | 2.81              | 5.79     | 13.09    | 3.06              | 6.07     | 13.78    |
| 16            | 12                | 0.00 6            | 0.06 6   | 0.88 7   | 1.53 7   | 1.99     | 2.73     | 4.67     | 5.24     | 0.00 6            | 0.49 7   | 1.58     | 2.63     | 3.05     | 4.42     | 6.64     | 8.33     | 0.00 6            | 1.03     | 2.59     | 3.91     | 4.53     | 6.52     | 8.83     | 12.09    | 4.19              | 7.15     | 14.08    | 4.46              | 7.43     | 14.93    |
|               | 16                | 0.00 3            | 0.00 6   | 0.17 6   | 0.91 6   | 1.25 7   | 2.11 7   | 3.97     | 4.62     | 0.00 3            | 0.00 6   | 0.72 6   | 1.81 6   | 2.15     | 3.57     | 5.73     | 7.48     | 0.00 6            | 0.09 6   | 1.66 7   | 2.91 7   | 3.56     | 5.53     | 7.76     | 11.04    | 3.20              | 6.05     | 12.90    | 3.46              | 6.34     | 13.64    |
|               | 24                | 0.00 2            | 0.00 3   | 0.00 3   | 0.00 3   | 0.00 6   | 0.94 6   | 2.64 6   | 3.43 6   | 0.00 2            | 0.00 3   | 0.00 6   | 0.29 6   | 0.48 6   | 26       | 4.03 7   | 5.74 7   | 0.00 3            | 0.00 6   | 0.00 6   | 1.09 6   | 1.77 6   | 3.71 6   | 5.77     | 9.07     | 1.38 6            | 4.01 7   | 10.70    | 1.59 6            | 4.31 7   | 11       |



# ALLOWABLE AXIAL LOAD TABLES - 50 PSF LOAD TABLES

| Wall Ht. (ft) | Spacing (in) o.c. | 350S137-mils (Fy) |          |          |          |          |          |          |          | 350S162-mils (Fy) |          |          |          |          |          |          |          | 350S200-mils (Fy) |          |          |          |          |          |          |          | 350S250-mils (Fy) |          |          | 350S300-mils (Fy) |          |          |
|---------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|
|               |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50)          | -68 (33) | -68 (50) |
| 8             | 12                | 0.006             | 0.406    | 0.947    | 1.667    | 1.90     | 2.56     | 3.33     | 4.50     | 0.096             | 0.766    | 1.437    | 2.307    | 2.51     | 3.38     | 4.30     | 5.81     | 0.296             | 1.207    | 2.10     | 3.03     | 3.34     | 4.45     | 5.47     | 7.29     | 3.54              | 5.24     | 8.61     | 3.67              | 5.69     | 9.55     |
|               | 16                | 0.003             | 0.006    | 0.396    | 1.196    | 1.376    | 2.066    | 2.76     | 4.01     | 0.003             | 0.216    | 0.836    | 1.786    | 1.937    | 2.837    | 3.67     | 5.25     | 0.006             | 0.596    | 1.467    | 2.437    | 2.72     | 3.85     | 4.81     | 6.70     | 2.89              | 4.56     | 7.99     | 3.03              | 4.99     | 8.85     |
|               | 24                | 0.002             | 0.003    | 0.003    | 0.333    | 0.406    | 1.146    | 1.726    | 3.106    | 0.002             | 0.003    | 0.003    | 0.833    | 0.886    | 1.846    | 2.526    | 4.246    | 0.003             | 0.003    | 0.306    | 1.346    | 1.586    | 2.756    | 3.587    | 5.617    | 1.706             | 3.327    | 6.82     | 1.846             | 3.717    | 7.54     |
| 9             | 12                | 0.003             | 0.003    | 0.466    | 1.176    | 1.376    | 1.976    | 2.767    | 3.947    | 0.003             | 0.293    | 0.886    | 1.716    | 1.907    | 2.687    | 3.53     | 4.88     | 0.006             | 0.666    | 1.466    | 2.326    | 2.63     | 3.60     | 4.59     | 6.20     | 2.797             | 4.27     | 7.40     | 2.93              | 4.71     | 8.33     |
|               | 16                | 0.002             | 0.003    | 0.003    | 0.663    | 0.786    | 1.426    | 2.106    | 3.366    | 0.002             | 0.003    | 0.226    | 1.146    | 1.266    | 2.076    | 2.827    | 4.267    | 0.003             | 0.003    | 0.766    | 1.666    | 1.946    | 2.946    | 3.83     | 5.53     | 2.066             | 3.527    | 6.69     | 2.206             | 3.93     | 7.51     |
|               | 24                | 0.002             | 0.002    | 0.002    | 0.002    | 0.003    | 0.443    | 0.903    | 2.303    | 0.002             | 0.002    | 0.003    | 0.143    | 0.113    | 1.003    | 1.546    | 3.146    | 0.002             | 0.002    | 0.003    | 0.503    | 0.686    | 1.756    | 2.456    | 4.336    | 0.763             | 2.176    | 5.386    | 0.896             | 2.516    | 6.027    |
| 10            | 12                | 0.002             | 0.003    | 0.033    | 0.723    | 0.876    | 1.426    | 2.106    | 3.166    | 0.002             | 0.003    | 0.376    | 1.176    | 1.326    | 2.026    | 2.786    | 3.986    | 0.003             | 0.173    | 0.886    | 1.656    | 1.966    | 2.806    | 3.727    | 5.147    | 2.056             | 3.357    | 6.21     | 2.216             | 3.787    | 6.99     |
|               | 16                | 0.002             | 0.002    | 0.002    | 0.192    | 0.243    | 0.853    | 1.386    | 2.546    | 0.002             | 0.002    | 0.003    | 0.583    | 0.643    | 1.393    | 2.016    | 3.326    | 0.002             | 0.003    | 0.133    | 0.983    | 1.216    | 2.106    | 2.906    | 4.436    | 1.296             | 2.566    | 5.447    | 1.436             | 2.946    | 6.11     |
|               | 24                | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.002    | 0.123    | 1.463    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.292    | 0.663    | 2.163    | 0.002             | 0.002    | 0.002    | 0.002    | 0.003    | 0.883    | 1.433    | 3.163    | 0.003             | 1.173    | 4.066    | 0.053             | 1.453    | 4.526    |
| 12            | 12                | 0.001             | 0.002    | 0.002    | 0.022    | 0.052    | 0.532    | 0.953    | 1.833    | 0.002             | 0.002    | 0.002    | 0.322    | 0.363    | 0.943    | 1.453    | 2.433    | 0.002             | 0.002    | 0.003    | 0.603    | 0.813    | 1.483    | 2.186    | 3.286    | 0.833             | 1.823    | 4.086    | 0.993             | 2.186    | 4.616    |
|               | 16                | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.222    | 1.222    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.322    | 0.663    | 1.773    | 0.001             | 0.002    | 0.002    | 0.002    | 0.042    | 0.792    | 1.303    | 2.563    | 0.082             | 1.043    | 3.306    | 0.172             | 1.313    | 3.706    |
|               | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.172    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.002    | 0.642    | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.002    | 0.002    | 0.002             | 0.002    | 1.322    | 0.002             | 0.002    | 2.103    |
| 14            | 12                | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.132    | 0.912    | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.212    | 0.482    | 1.342    | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.582    | 0.993    | 1.953    | 0.012             | 0.772    | 2.543    | 0.092             | 0.983    | 2.863    |
|               | 16                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.342    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.002    | 0.732    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.162    | 1.282    | 0.002             | 0.032    | 1.792    | 0.002             | 0.152    | 1.993    |
|               | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001             | 0.001    | 0.822    |
| 16            | 12                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.312    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.612    | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.172    | 0.062    | 0.002             | 0.072    | 0.472    | 0.002             | 0.172    | 1.642    |
|               | 16                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.051    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001             | 0.001    | 0.822    |
|               | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    | 0.001             | 0.001    | 0.001    |

| Wall Ht. (ft.) | Spacing (in) o.c. | 362S137-mils (Fy) |          |          |          |          |          |          |          | 362S162-mils (Fy) |          |          |          |          |          |          |          | 362S200-mils (Fy) |          |          |          |          |          |          |          | 362S250-mils (Fy) |           |          |          | 362S300-mils (Fy) |           |          |          | 362S350-mils (Fy) |           |       |       |       |       |
|----------------|-------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-------------------|-----------|----------|----------|-------------------|-----------|-------|-------|-------|-------|
|                |                   | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -33 (33)          | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50) | -118 (50)         | -33 (33) | -43 (33) | -54 (33) | -54 (50) | -68 (33) | -68 (50) | -97 (33) | -97 (50)          | -118 (50) | -54 (50) | -68 (50) | -97 (50)          | -118 (50) | -54 (50) | -68 (50) | -97 (50)          | -118 (50) |       |       |       |       |
| 8              | 12                | 0.006             | 0.496    | 1.077    | 1.817    | 1.78     | 2.78     | 3.52     | 4.69     | 0.166             | 0.867    | 1.58     | 2.48     | 2.45     | 3.66     | 4.6      | 6.23     | 0.376             | 1.33     | 2.28     | 3.26     | 3.59     | 4.79     | 5.83     | 7.8      | 9.85              | 3.77      | 5.65     | 9.2      | 11.57             | 3.9       | 6.07     | 10.11    | 13.27             | 5.63      | 8.68  | 13.67 | 17.30 |       |
|                | 16                | 0.003             | 0.006    | 0.516    | 1.336    | 1.187    | 2.277    | 2.96     | 4.21     | 0.006             | 0.316    | 0.976    | 1.966    | 1.807    | 3.107    | 3.98     | 5.67     | 0.006             | 0.726    | 1.637    | 2.657    | 2.97     | 4.18     | 5.17     | 7.21     | 9.23              | 3.12      | 4.96     | 8.57     | 10.93             | 3.26      | 5.37     | 9.42     | 12.62             | 4.90      | 7.88  | 12.84 | 16.55 |       |
|                | 24                | 0.002             | 0.003    | 0.003    | 0.463    | 0.086    | 1.336    | 1.936    | 3.336    | 0.003             | 0.003    | 0.006    | 0.996    | 0.626    | 2.086    | 2.827    | 4.647    | 0.003             | 0.006    | 0.456    | 1.546    | 1.826    | 3.066    | 3.93     | 6.1      | 8.06              | 1.916     | 3.687    | 7.39     | 9.72              | 2.066     | 4.07     | 8.1      | 11.38             | 3.577     | 6.40  | 11.28 | 15.13 |       |
| 9              | 12                | 0.003             | 0.076    | 0.586    | 1.326    | 1.216    | 2.186    | 2.98     | 4.19     | 0.003             | 0.396    | 1.026    | 0.996    | 1.807    | 2.947    | 3.83     | 5.3      | 0.006             | 0.786    | 1.647    | 2.547    | 2.88     | 3.93     | 4.95     | 6.71     | 8.55              | 3.01      | 4.65     | 7.98     | 10.15             | 3.16      | 5.11     | 8.93     | 11.74             | 4.69      | 7.42  | 11.90 | 15.32 |       |
|                | 16                | 0.002             | 0.003    | 0.003    | 0.783    | 0.546    | 1.616    | 2.316    | 3.616    | 0.003             | 0.036    | 1.896    | 1.076    | 2.326    | 3.127    | 4.677    | 6.21     | 0.003             | 0.116    | 0.926    | 1.866    | 2.176    | 3.256    | 4.18     | 6.03     | 7.83              | 2.276     | 3.887    | 7.26     | 9.40              | 2.427     | 4.3      | 8.1      | 10.97             | 3.877     | 6.50  | 10.94 | 14.43 |       |
|                | 24                | 0.002             | 0.002    | 0.002    | 0.002    | 0.003    | 0.603    | 1.116    | 2.566    | 0.002             | 0.002    | 0.003    | 1.316    | 0.003    | 1.213    | 1.816    | 3.526    | 4.976             | 0.002    | 0.003    | 0.003    | 0.673    | 0.896    | 2.026    | 2.786    | 4.796             | 6.527     | 0.956    | 2.486    | 5.927             | 8.01      | 1.096    | 2.856    | 6.587             | 9.54      | 2.376 | 4.847 | 9.17  | 12.78 |
| 10             | 12                | 0.002             | 0.003    | 0.123    | 0.853    | 0.676    | 1.616    | 2.356    | 3.496    | 0.003             | 0.003    | 0.506    | 0.273    | 1.186    | 2.266    | 3.077    | 4.387    | 5.76              | 0.003    | 0.276    | 1.036    | 1.866    | 2.196    | 3.116    | 4.07     | 5.62              | 7.25      | 2.286    | 3.717    | 6.77              | 8.71      | 2.446    | 4.14     | 7.62              | 10.18     | 3.777 | 6.17  | 10.14 | 13.31 |
|                | 16                | 0.002             | 0.002    | 0.003    | 0.293    | 0.003    | 1.013    | 1.616    | 2.856    | 0.002             | 0.002    | 0.003    | 1.346    | 0.416    | 1.616    | 2.286    | 3.706    | 5.036             | 0.002    | 0.003    | 0.273    | 1.153    | 1.426    | 2.386    | 3.236    | 4.896             | 6.477     | 1.496    | 2.886    | 5.977             | 7.88      | 1.636    | 3.276    | 6.71              | 9.32      | 2.886 | 5.177 | 9.08  | 12.32 |
|                | 24                | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.002    | 0.323    | 1.733    | 0.002             | 0.002    | 0.002    | 0.723    | 0.003    | 0.453    | 0.903    | 4.493    | 3.726             | 0.002    | 0.002    | 0.002    | 0.002    | 0.073    | 1.103    | 1.726    | 3.576             | 5.066     | 0.103    | 1.433    | 4.546             | 6.396     | 0.223    | 1.736    | 5.066             | 7.767     | 1.293 | 3.416 | 7.207 | 10.53 |
| 11             | 12                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 4.716    |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |                   |           |       |       |       |       |
|                | 16                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 3.956    |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |                   |           |       |       |       |       |
|                | 24                |                   |          |          |          |          |          |          |          |                   |          |          |          |          |          |          | 2.633    |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |                   |           |       |       |       |       |
| 12             | 12                | 0.002             | 0.002    | 0.002    | 0.102    | 0.003    | 0.663    | 1.153    | 2.093    | 0.002             | 0.002    | 0.002    | 0.002    | 0.153    | 1.113    | 1.696    | 2.746    | 3.756             | 0.002    | 0.002    | 0.033    | 0.753    | 0.993    | 1.703    | 2.476    | 3.676             | 4.896     | 1.003    | 2.096    | 4.556             | 6.057     | 1.173    | 2.466    | 5.137             | 7.257     | 2.146 | 3.896 | 6.967 | 9.56  |
|                | 16                | 0.001             | 0.002    | 0.002    | 0.002    | 0.002    | 0.062    | 0.383    | 1.453    | 0.001             | 0.002    | 0.002    | 0.432    | 0.002    | 0.462    | 0.873    | 2.053    | 3.013             | 0.002    | 0.002    | 0.002    | 0.052    | 0.183    | 0.983    | 1.563    | 2.923             | 4.086     | 0.202    | 1.253    | 3.726             | 5.186     | 0.313    | 1.543    | 4.176             | 6.326     | 1.203 | 2.866 | 5.856 | 8.507 |
|                | 24                | 0.001             | 0.001    | 0.001    | 0.001    | 0.002    | 0.002    | 0.352    | 0.001    | 0.001             | 0.001    | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.862    | 1.722             | 0.001    | 0.001    | 0.002    | 0.002    | 0.002    | 0.002    | 0.002    | 1.612             | 2.673     | 0.002    | 0.002    | 2.263             | 3.643     | 0.002    | 0.002    | 2.493             | 4.693     | 0.002 | 1.113 | 3.933 | 6.636 |
| 14             | 12                | 0.001             | 0.001    | 0.002    | 0.002    | 0.002    | 0.012    | 0.262    | 1.092    | 0.001             | 0.001    | 0.002    | 0.001    | 0.002    | 0.322    | 0.652</  |          |                   |          |          |          |          |          |          |          |                   |           |          |          |                   |           |          |          |                   |           |       |       |       |       |



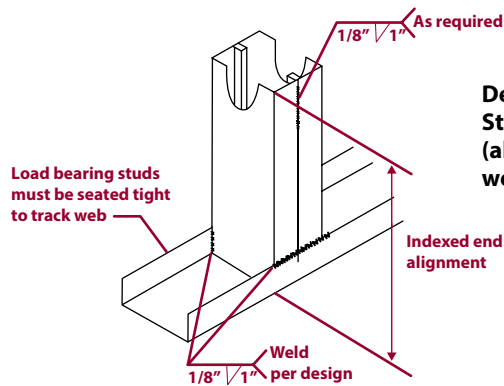
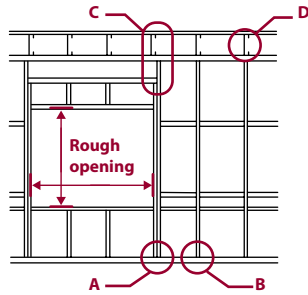


# CONSTRUCTION DETAILS

## Detail A

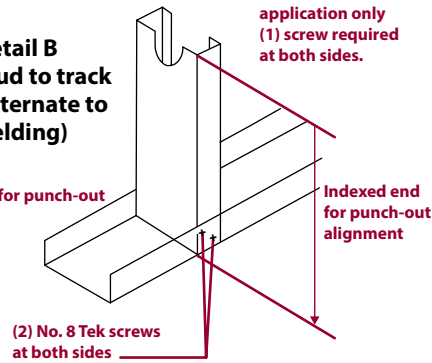
Multiple stud and stud to track attachments (single stud to track identical)

Typical load bearing wall panel

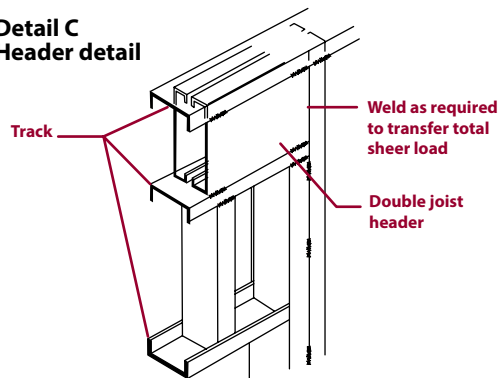


**Detail B**  
Stud to track  
(alternate to welding)

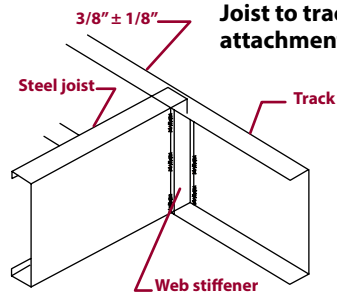
Note: In curtain wall application only (1) screw required at both sides.



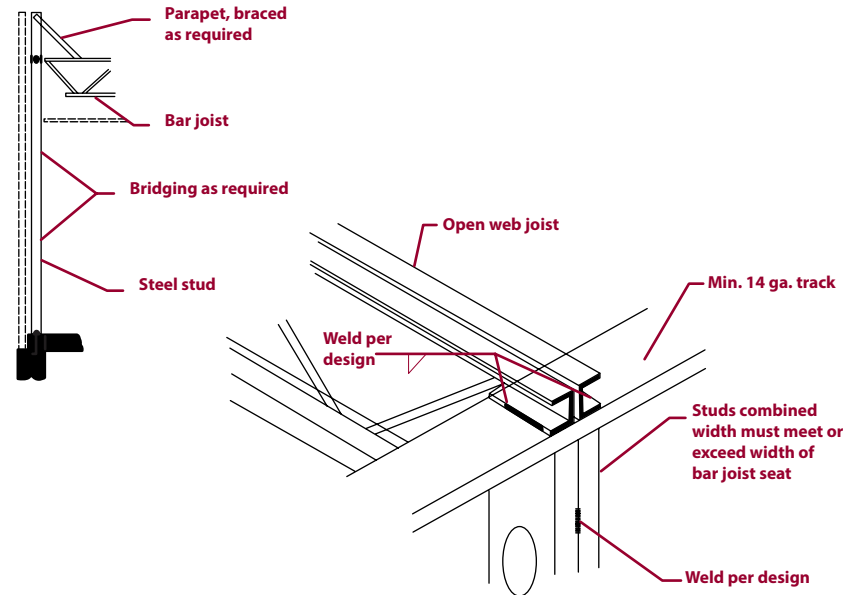
**Detail C**  
Header detail



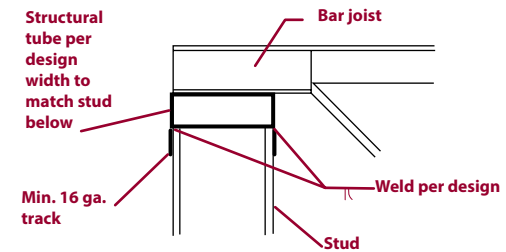
**Detail D**  
Joist to track attachment



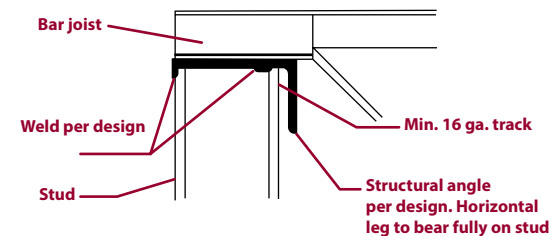
## Steel bearing applications



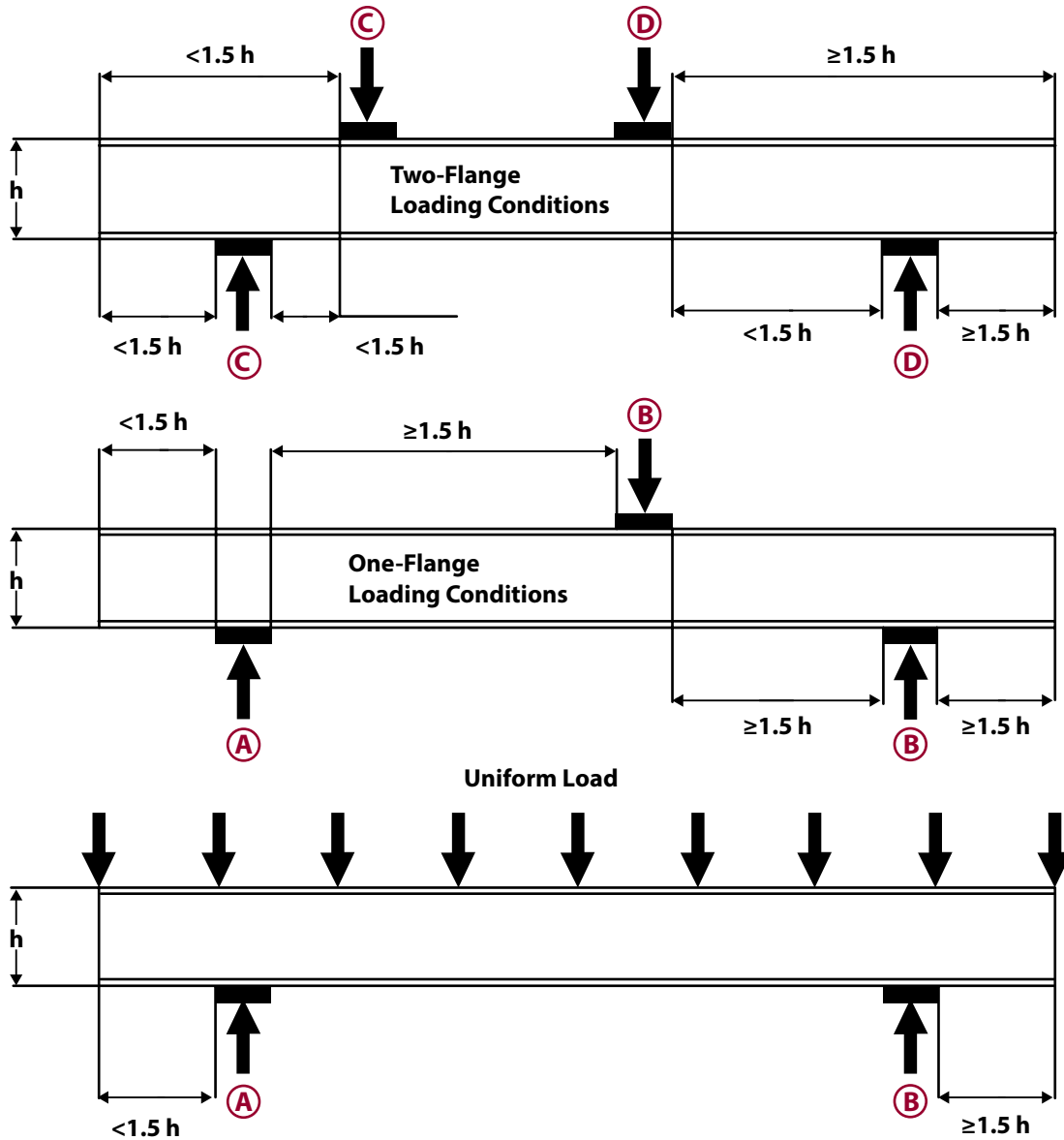
### Alternative A - Bearing Wall - joist not aligned with studs



### Alternative B - Bearing Wall - joist not aligned with studs



# WEB CRIPPLING LOAD TABLES



### WEB CRIPPLING LOAD TABLE NOTES

1. Listed allowable loads apply only to stud and joist members with stiffened flanges (i.e. S-section).
2. For back-to-back members, the listed allowable loads are for the entire two-member assembly.
3. Listed allowable loads are based on members 'fastened to supports', except back-to-back members under two-flange loading (Conditions 3 and 4) for which data for 'fastened to support' is unavailable in AISI S100 are based on 'fastened to support' values.
4. For back-to-back members, the distance between the web connectors and the flange shall be kept to a minimum.
5. Listed allowable loads are for unpunched webs. Capacity reductions for end and interior one flange loading may be calculated per AISI S100 section C3.4.2

- (A) One-Flange End Loading
- (B) One-Flange Interior Loading
- (C) Two-Flange End Loading
- (D) Two-Flange Interior Loading
- (B) Point Load and Loading Condition



# WEB CRIPPLING LOAD TABLES - SINGLE MEMBERS

| Section | Design t (in) | Fy (ksi) | Condition 1 Bearing Length (in) |      |      |   |      |     | Condition 2 Bearing Length (in) |    |      |      |   |      | Condition 3 Bearing Length (in) |      |    |      |      |     | Condition 4 Bearing Length (in) |    |      |    |      |      |   |      |    |       |    |
|---------|---------------|----------|---------------------------------|------|------|---|------|-----|---------------------------------|----|------|------|---|------|---------------------------------|------|----|------|------|-----|---------------------------------|----|------|----|------|------|---|------|----|-------|----|
|         |               |          | 1                               | 3.5  | 4    | 6 | 1    | 3.5 | 4                               | 6  | 1    | 3.5  | 4 | 6    | 1                               | 3.5  | 4  | 6    | 1    | 3.5 | 4                               | 6  |      |    |      |      |   |      |    |       |    |
| 162     | S_-18         | 0.0188   | 33                              | 55   | 89   | 1 | 95   | 12  | 112                             | 12 | 87   | 125  | 1 | 131  | 12                              | 151  | 12 | 45   | 64   | 1   | 67                              | 12 | 76   | 12 | 122  | 161  | 1 | 166  | 12 | 186   | 12 |
| 162     | S_-27         | 0.0283   | 33                              | 122  | 194  | 1 | 205  | 1   | 242                             | 12 | 218  | 304  | 1 | 317  | 1                               | 361  | 12 | 111  | 151  | 1   | 157                             | 1  | 178  | 12 | 290  | 371  | 1 | 383  | 1  | 425   | 12 |
| 162     | S_-30         | 0.0312   | 33                              | 148  | 233  | 1 | 246  | 1   | 290                             | 1  | 269  | 373  | 1 | 388  | 1                               | 442  | 1  | 137  | 185  | 1   | 192                             | 1  | 217  | 1  | 356  | 452  | 1 | 466  | 1  | 516   | 1  |
| 162     | S_-33         | 0.0346   | 33                              | 180  | 282  | 1 | 297  | 1   | 350                             | 1  | 336  | 462  | 1 | 481  | 1                               | 545  | 1  | 170  | 229  | 1   | 237                             | 1  | 267  | 1  | 441  | 557  | 1 | 574  | 1  | 634   | 1  |
| 250     | S_-18         | 0.0188   | 33                              | 52   | 84   |   | 89   | 2   | 106                             | 12 | 85   | 122  |   | 128  | 2                               | 147  | 12 | 37   | 51   |     | 54                              | 2  | 61   | 12 | 109  | 145  |   | 150  | 2  | 168   | 12 |
| 250     | S_-27         | 0.0283   | 33                              | 117  | 186  |   | 196  |     | 231                             | 12 | 213  | 298  |   | 310  | 12                              | 354  | 12 | 96   | 130  |     | 135                             |    | 153  | 12 | 268  | 343  |   | 354  |    | 393   | 12 |
| 250     | S_-30         | 0.0312   | 33                              | 141  | 223  |   | 235  |     | 277                             | 1  | 264  | 365  |   | 381  | 1                               | 433  | 1  | 119  | 161  |     | 167                             |    | 189  | 1  | 330  | 420  |   | 433  |    | 479   | 1  |
| 250     | S_-33         | 0.0346   | 33                              | 173  | 271  |   | 285  |     | 336                             | 1  | 330  | 453  |   | 472  | 1                               | 535  | 1  | 150  | 201  |     | 209                             |    | 235  | 1  | 411  | 519  |   | 535  |    | 591   | 1  |
| 250     | S_-43         | 0.0451   | 33                              | 287  | 443  |   | 466  |     | 547                             | 1  | 580  | 780  |   | 810  | 1                               | 913  | 1  | 267  | 351  |     | 364                             |    | 407  | 1  | 720  | 892  |   | 918  |    | 1006  | 1  |
| 250     | S_-54         | 0.0566   | 33                              | 433  | 657  |   | 690  |     | 806                             | 1  | 891  | 1178 |   | 1221 | 1                               | 1369 | 1  | 430  | 556  |     | 574                             |    | 639  | 1  | 1142 | 1392 |   | 1429 |    | 1558  | 1  |
| 250     | S_-54         | 0.0566   | 50                              | 656  | 996  |   | 1046 |     | 1222                            | 1  | 1350 | 1785 |   | 1850 | 1                               | 2075 | 1  | 652  | 842  |     | 870                             |    | 968  | 1  | 1730 | 2109 |   | 2165 |    | 2361  | 1  |
| 250     | S_-68         | 0.0713   | 33                              | 654  | 977  |   | 1024 |     | 1191                            | 1  | 1368 | 1778 |   | 1838 | 1                               | 2050 | 1  | 693  | 880  |     | 907                             |    | 1004 | 1  | 1815 | 2179 |   | 2233 |    | 2421  | 1  |
| 250     | S_-68         | 0.0713   | 50                              | 990  | 1480 |   | 1552 |     | 1805                            | 1  | 2073 | 2693 |   | 2785 | 1                               | 3106 | 1  | 1049 | 1333 |     | 1375                            |    | 1521 | 1  | 2750 | 3302 |   | 3384 |    | 3669  | 1  |
| 350     | S_-18         | 0.0188   | 33                              | 49   | 80   |   | 84   | 2   | 100                             | 2  | 83   | 119  |   | 124  | 2                               | 143  | 2  | 28   | 40   |     | 42                              | 2  | 48   | 2  | 98   | 130  |   | 134  | 2  | 150   | 2  |
| 350     | S_-27         | 0.0283   | 33                              | 112  | 177  |   | 187  |     | 221                             | 2  | 209  | 292  |   | 304  | 2                               | 347  | 2  | 81   | 111  |     | 115                             |    | 130  | 2  | 247  | 316  |   | 327  |    | 362   | 2  |
| 350     | S_-30         | 0.0312   | 33                              | 135  | 214  |   | 225  |     | 266                             |    | 259  | 359  |   | 373  |                                 | 425  |    | 103  | 139  |     | 144                             |    | 163  |    | 306  | 389  |   | 402  |    | 445   |    |
| 350     | S_-33         | 0.0346   | 33                              | 166  | 260  |   | 274  |     | 323                             |    | 324  | 445  |   | 463  |                                 | 526  |    | 131  | 175  |     | 182                             |    | 205  |    | 384  | 484  |   | 499  |    | 551   |    |
| 350     | S_-43         | 0.0451   | 33                              | 278  | 428  |   | 451  |     | 528                             |    | 571  | 768  |   | 798  |                                 | 900  |    | 240  | 315  |     | 326                             |    | 365  |    | 680  | 842  |   | 866  |    | 949   |    |
| 350     | S_-54         | 0.0566   | 33                              | 420  | 638  |   | 670  |     | 783                             |    | 879  | 1162 |   | 1204 |                                 | 1351 |    | 392  | 507  |     | 524                             |    | 583  |    | 1086 | 1324 |   | 1359 |    | 1482  |    |
| 350     | S_-54         | 0.0566   | 50                              | 637  | 967  |   | 1016 |     | 1186                            |    | 1331 | 1761 |   | 1825 |                                 | 2046 |    | 594  | 768  |     | 794                             |    | 883  |    | 1645 | 2005 |   | 2059 |    | 2245  |    |
| 350     | S_-68         | 0.0713   | 33                              | 637  | 951  |   | 998  |     | 1160                            |    | 1351 | 1756 |   | 1816 |                                 | 2025 |    | 640  | 813  |     | 839                             |    | 928  |    | 1736 | 2085 |   | 2137 |    | 2317  |    |
| 350     | S_-68         | 0.0713   | 50                              | 965  | 1441 |   | 1512 |     | 1758                            |    | 2047 | 2660 |   | 2751 |                                 | 3068 |    | 970  | 1232 |     | 1271                            |    | 1406 |    | 2631 | 3159 |   | 3238 |    | 3510  |    |
| 362     | S_-18         | 0.0188   | 33                              | 49   | 79   |   | 84   | 2   | 99                              | 2  | 82   | 119  |   | 124  | 2                               | 143  | 2  | 27   | 39   |     | 40                              | 2  | 46   | 2  | 97   | 128  |   | 132  | 2  | 149   | 2  |
| 362     | S_-27         | 0.0283   | 33                              | 111  | 177  |   | 186  |     | 220                             | 2  | 209  | 291  |   | 303  | 2                               | 346  | 2  | 80   | 108  |     | 113                             |    | 127  | 2  | 245  | 313  |   | 324  |    | 359   | 2  |
| 362     | S_-30         | 0.0312   | 33                              | 135  | 213  |   | 224  |     | 265                             |    | 258  | 358  |   | 373  |                                 | 424  |    | 101  | 136  |     | 141                             |    | 160  |    | 304  | 386  |   | 398  |    | 441   |    |
| 362     | S_-33         | 0.0346   | 33                              | 165  | 259  |   | 273  |     | 322                             |    | 323  | 444  |   | 462  |                                 | 525  |    | 129  | 173  |     | 179                             |    | 202  |    | 381  | 480  |   | 495  |    | 547   |    |
| 362     | S_-43         | 0.0451   | 33                              | 277  | 427  |   | 449  |     | 526                             |    | 570  | 767  |   | 796  |                                 | 898  |    | 236  | 311  |     | 322                             |    | 360  |    | 675  | 836  |   | 860  |    | 943   |    |
| 362     | S_-54         | 0.0566   | 33                              | 419  | 636  |   | 668  |     | 780                             |    | 877  | 1160 |   | 1202 |                                 | 1348 |    | 388  | 501  |     | 518                             |    | 577  |    | 1079 | 1316 |   | 1351 |    | 1473  |    |
| 362     | S_-54         | 0.0566   | 50                              | 634  | 963  |   | 1012 |     | 1182                            |    | 1329 | 1758 |   | 1822 |                                 | 2043 |    | 588  | 760  |     | 785                             |    | 874  |    | 1635 | 1994 |   | 2047 |    | 2232  |    |
| 362     | S_-68         | 0.0713   | 33                              | 635  | 948  |   | 995  |     | 1157                            |    | 1349 | 1753 |   | 1813 |                                 | 2022 |    | 635  | 806  |     | 831                             |    | 920  |    | 1728 | 2074 |   | 2126 |    | 2305  |    |
| 362     | S_-68         | 0.0713   | 50                              | 962  | 1437 |   | 1507 |     | 1752                            |    | 2044 | 2657 |   | 2747 |                                 | 3064 |    | 961  | 1221 |     | 1259                            |    | 1393 |    | 2618 | 3143 |   | 3221 |    | 3492  |    |
| 362     | S_-97         | 0.1017   | 33                              | 1206 | 1755 |   | 1837 |     | 2120                            |    | 2626 | 3323 |   | 3427 |                                 | 3787 |    | 1333 | 1651 |     | 1698                            |    | 1862 |    | 3547 | 4166 |   | 4258 |    | 4578  |    |
| 362     | S_-97         | 0.1017   | 50                              | 1827 | 2659 |   | 2783 |     | 3212                            |    | 3978 | 5035 |   | 5192 |                                 | 5738 |    | 2020 | 2501 |     | 2573                            |    | 2821 |    | 5374 | 6313 |   | 6452 |    | 6936  |    |
| 362     | S_-118        | 0.1242   | 50                              | 2625 | 3764 |   | 3933 |     | 4521                            |    | 5799 | 7235 |   | 7448 |                                 | 8189 |    | 3053 | 3729 |     | 3829                            |    | 4178 |    | 8044 | 9340 |   | 9532 |    | 10201 |    |
| 400     | S_-27         | 0.0283   | 33                              | 109  | 174  |   | 183  |     | 217                             | 2  | 207  | 289  |   | 301  |                                 | 344  | 2  | 75   | 102  |     | 106                             |    | 120  | 2  | 238  | 305  |   | 315  |    | 349   | 2  |
| 400     | S_-30         | 0.0312   | 33                              | 133  | 210  |   | 221  |     | 261                             |    | 257  | 356  |   | 370  |                                 | 421  |    | 95   | 129  |     | 134                             |    | 151  |    | 296  | 376  |   | 388  |    | 429   |    |
| 400     | S_-33         | 0.0346   | 33                              | 163  | 256  |   | 269  |     | 317                             |    | 322  | 442  |   | 460  |                                 | 522  |    | 122  | 164  |     | 170                             |    | 192  |    | 372  | 469  |   | 483  |    | 534   |    |
| 400     | S_-43         | 0.0451   | 33                              | 274  | 422  |   | 444  |     | 520                             |    | 567  | 763  |   | 792  |                                 | 893  |    | 227  | 299  |     | 309                             |    | 346  |    | 662  | 819  |   | 843  |    | 924   |    |
| 400     | S_-54         | 0.0566   | 33                              | 415  | 629  |   | 661  |     | 772                             |    | 873  | 1155 |   | 1197 |                                 | 1342 |    | 376  | 485  |     | 502                             |    | 558  |    | 1061 | 1293 |   | 1328 |    | 1448  |    |
| 400     | S_-54         | 0.0566   | 50                              | 628  | 954  |   | 1002 |     | 1170                            |    | 1323 | 1750 |   | 1813 |                                 | 2034 |    | 569  | 735  |     | 760                             |    | 846  |    | 1607 | 1960 |   | 2012 |    | 2194  |    |
| 400     | S_-68         | 0.0713   | 33                              | 629  | 940  |   | 986  |     | 1147                            |    | 1344 | 1746 |   | 1806 |                                 | 2014 |    | 617  | 784  |     | 809                             |    | 895  |    | 1702 | 2044 |   | 2094 |    | 2271  |    |
| 400     | S_-68         | 0.0713   | 50                              | 953  | 1424 |   | 1494 |     | 1737                            |    | 2036 | 2646 |   | 2736 |                                 | 3051 |    | 936  | 1188 |     | 1226                            |    | 1356 |    | 2579 | 3096 |   | 3173 |    | 3440  |    |
| 400     | S_-97         | 0.1017   | 33                              | 1197 | 1742 |   | 1823 |     | 2105                            |    | 2617 | 3312 |   | 3415 |                                 | 3774 |    | 1305 | 1616 |     | 1662                            |    | 1822 |    | 3504 | 4116 |   | 4207 |    | 4523  |    |
| 400     | S_-97         | 0.1017   | 50                              | 1814 | 2640 |   | 2762 |     | 3189                            |    | 3965 | 5018 |   | 5174 |                                 | 5718 |    | 1978 | 2448 |     | 2518                            |    | 2761 |    | 5309 | 6236 |   | 6374 |    | 6852  |    |
| 400     | S_-118        | 0.1242   | 50                              | 2608 | 3739 |   | 3907 |     | 4491                            |    | 5781 | 7212 |   | 7424 |                                 | 8163 |    | 2996 | 3659 |     | 3757                            |    | 4099 |    | 7956 | 9238 |   | 9428 |    | 10090 |    |
| 550     | S_-27         | 0.0283   | 33                              | 103  | 164  |   | 173  |     | 205                             | 2  | 202  | 282  |   | 294  |                                 | 336  | 2  | 58   | 79   |     | 82                              |    | 93   | 2  | 214  | 274  |   | 283  |    | 314   | 2  |
| 550     | S_-30         | 0.0312   | 33                              | 126  | 199  |   | 210  |     | 248                             |    | 251  | 348  |   | 362  |                                 | 412  |    | 76   | 103  |     | 106                             |    | 120  |    | 268  | 341  |   | 351  |    | 389   |    |

See notes located on page 69 (Section Property Table Notes).

# WEB CRIPPLING LOAD TABLES - SINGLE MEMBERS

| Section | Design t (in) | Fy (ksi) | Condition 1 Bearing Length (in) |      |      |      | Condition 2 Bearing Length (in) |      |      |      | Condition 3 Bearing Length (in) |      |      |      | Condition 4 Bearing Length (in) |      |      |      |      |
|---------|---------------|----------|---------------------------------|------|------|------|---------------------------------|------|------|------|---------------------------------|------|------|------|---------------------------------|------|------|------|------|
|         |               |          | 1                               | 3.5  | 4    | 6    | 1                               | 3.5  | 4    | 6    | 1                               | 3.5  | 4    | 6    | 1                               | 3.5  | 4    | 6    |      |
| 550     | S_-33         | 0.0346   | 33                              | 155  | 243  | 256  | 302                             | 315  | 432  | 450  | 511                             | 100  | 134  | 139  | 157                             | 339  | 428  | 441  | 487  |
| 550     | S_-43         | 0.0451   | 33                              | 262  | 405  | 426  | 499                             | 556  | 749  | 778  | 877                             | 195  | 256  | 265  | 297                             | 614  | 760  | 782  | 858  |
| 550     | S_-54         | 0.0566   | 33                              | 400  | 607  | 638  | 745                             | 859  | 1136 | 1177 | 1320                            | 331  | 428  | 443  | 493                             | 995  | 1213 | 1246 | 1358 |
| 550     | S_-54         | 0.0566   | 50                              | 606  | 920  | 966  | 1128                            | 1302 | 1722 | 1784 | 2001                            | 502  | 649  | 671  | 746                             | 1508 | 1838 | 1887 | 2058 |
| 550     | S_-68         | 0.0713   | 33                              | 609  | 910  | 955  | 1111                            | 1324 | 1721 | 1780 | 1985                            | 557  | 707  | 729  | 807                             | 1611 | 1934 | 1982 | 2149 |
| 550     | S_-68         | 0.0713   | 50                              | 923  | 1380 | 1447 | 1683                            | 2007 | 2608 | 2697 | 3007                            | 844  | 1071 | 1105 | 1223                            | 2441 | 2931 | 3003 | 3256 |
| 550     | S_-97         | 0.1017   | 33                              | 1166 | 1697 | 1776 | 2050                            | 2585 | 3272 | 3373 | 3728                            | 1205 | 1492 | 1535 | 1683                            | 3352 | 3937 | 4024 | 4326 |
| 550     | S_-97         | 0.1017   | 50                              | 1766 | 2571 | 2691 | 3106                            | 3917 | 4957 | 5111 | 5648                            | 1826 | 2261 | 2325 | 2550                            | 5078 | 5965 | 6097 | 6555 |
| 600     | S_-30         | 0.0312   | 33                              | 124  | 196  | 206  | 243                             | 249  | 345  | 359  | 409                             | 70   | 95   | 98   | 111                             | 260  | 330  | 340  | 377  |
| 600     | S_-33         | 0.0346   | 33                              | 153  | 240  | 253  | 297                             | 313  | 430  | 447  | 507                             | 93   | 125  | 130  | 146                             | 329  | 416  | 429  | 473  |
| 600     | S_-43         | 0.0451   | 33                              | 259  | 400  | 420  | 493                             | 553  | 745  | 773  | 872                             | 185  | 243  | 252  | 282                             | 600  | 743  | 764  | 838  |
| 600     | S_-54         | 0.0566   | 33                              | 395  | 600  | 631  | 736                             | 855  | 1131 | 1172 | 1314                            | 318  | 411  | 425  | 473                             | 975  | 1189 | 1221 | 1331 |
| 600     | S_-54         | 0.0566   | 50                              | 599  | 909  | 956  | 1116                            | 1295 | 1713 | 1775 | 1991                            | 482  | 623  | 644  | 716                             | 1478 | 1802 | 1850 | 2017 |
| 600     | S_-68         | 0.0713   | 33                              | 604  | 902  | 946  | 1100                            | 1318 | 1713 | 1772 | 1976                            | 539  | 684  | 706  | 781                             | 1583 | 1901 | 1949 | 2113 |
| 600     | S_-68         | 0.0713   | 50                              | 914  | 1366 | 1433 | 1666                            | 1998 | 2596 | 2685 | 2994                            | 816  | 1036 | 1069 | 1183                            | 2399 | 2881 | 2952 | 3201 |
| 600     | S_-97         | 0.1017   | 33                              | 1157 | 1684 | 1762 | 2034                            | 2575 | 3260 | 3361 | 3714                            | 1175 | 1455 | 1497 | 1641                            | 3306 | 3884 | 3969 | 4267 |
| 600     | S_-97         | 0.1017   | 50                              | 1752 | 2551 | 2669 | 3081                            | 3902 | 4939 | 5093 | 5628                            | 1781 | 2205 | 2268 | 2487                            | 5010 | 5885 | 6014 | 6466 |
| 600     | S_-118        | 0.1242   | 50                              | 2528 | 3625 | 3788 | 4354                            | 5698 | 7108 | 7318 | 8046                            | 2734 | 3339 | 3429 | 3741                            | 7555 | 8772 | 8952 | 9581 |
| 800     | S_-43         | 0.0451   | 33                              | 247  | 381  | 401  | 470                             | 542  | 730  | 757  | 854                             | 150  | 197  | 204  | 228                             | 548  | 678  | 698  | 765  |
| 800     | S_-54         | 0.0566   | 33                              | 379  | 576  | 605  | 706                             | 839  | 1110 | 1150 | 1290                            | 270  | 349  | 361  | 402                             | 904  | 1102 | 1131 | 1234 |
| 800     | S_-54         | 0.0566   | 50                              | 575  | 872  | 917  | 1070                            | 1272 | 1682 | 1743 | 1955                            | 409  | 529  | 547  | 608                             | 1370 | 1670 | 1714 | 1869 |
| 800     | S_-68         | 0.0713   | 33                              | 582  | 870  | 912  | 1061                            | 1297 | 1686 | 1744 | 1944                            | 473  | 600  | 619  | 685                             | 1485 | 1783 | 1827 | 1981 |
| 800     | S_-68         | 0.0713   | 50                              | 882  | 1318 | 1382 | 1607                            | 1966 | 2555 | 2642 | 2946                            | 716  | 910  | 939  | 1038                            | 2250 | 2701 | 2768 | 3001 |
| 800     | S_-97         | 0.1017   | 33                              | 1123 | 1635 | 1711 | 1975                            | 2541 | 3216 | 3316 | 3665                            | 1068 | 1322 | 1360 | 1491                            | 3142 | 3691 | 3773 | 4056 |
| 800     | S_-97         | 0.1017   | 50                              | 1702 | 2477 | 2592 | 2992                            | 3850 | 4873 | 5025 | 5553                            | 1618 | 2003 | 2060 | 2259                            | 4761 | 5593 | 5716 | 6145 |
| 800     | S_-118        | 0.1242   | 50                              | 2462 | 3531 | 3689 | 4241                            | 5629 | 7023 | 7229 | 7949                            | 2518 | 3075 | 3158 | 3445                            | 7223 | 8387 | 8559 | 9160 |
| 1000    | S_-54         | 0.0566   | 33                              | 365  | 554  | 582  | 680                             | 826  | 1092 | 1132 | 1269                            | 228  | 295  | 305  | 339                             | 841  | 1026 | 1053 | 1148 |
| 1000    | S_-54         | 0.0566   | 50                              | 553  | 840  | 882  | 1031                            | 1251 | 1655 | 1715 | 1923                            | 346  | 447  | 462  | 514                             | 1275 | 1554 | 1595 | 1740 |
| 1000    | S_-68         | 0.0713   | 33                              | 563  | 842  | 883  | 1027                            | 1279 | 1662 | 1719 | 1917                            | 415  | 527  | 544  | 602                             | 1398 | 1679 | 1721 | 1865 |
| 1000    | S_-68         | 0.0713   | 50                              | 854  | 1275 | 1338 | 1555                            | 1938 | 2518 | 2604 | 2904                            | 629  | 799  | 824  | 912                             | 2119 | 2544 | 2607 | 2826 |
| 1000    | S_-97         | 0.1017   | 33                              | 1094 | 1592 | 1666 | 1923                            | 2511 | 3178 | 3277 | 3622                            | 974  | 1206 | 1240 | 1360                            | 2999 | 3523 | 3601 | 3871 |
| 1000    | S_-97         | 0.1017   | 50                              | 1657 | 2412 | 2525 | 2914                            | 3805 | 4815 | 4965 | 5487                            | 1476 | 1827 | 1879 | 2060                            | 4545 | 5338 | 5456 | 5866 |
| 1000    | S_-118        | 0.1242   | 50                              | 2405 | 3449 | 3604 | 4143                            | 5569 | 6948 | 7152 | 7864                            | 2330 | 2845 | 2921 | 3187                            | 6934 | 8051 | 8217 | 8794 |
| 1200    | S_-68         | 0.0713   | 33                              | 547  | 816  | 857  | 996                             | 1262 | 1640 | 1696 | 1892                            | 363  | 462  | 476  | 527                             | 1320 | 1585 | 1625 | 1762 |
| 1200    | S_-68         | 0.0713   | 50                              | 828  | 1237 | 1298 | 1509                            | 1913 | 2485 | 2570 | 2866                            | 551  | 699  | 721  | 798                             | 2001 | 2402 | 2462 | 2669 |
| 1200    | S_-97         | 0.1017   | 33                              | 1068 | 1554 | 1626 | 1877                            | 2484 | 3144 | 3242 | 3583                            | 889  | 1101 | 1133 | 1242                            | 2871 | 3372 | 3446 | 3705 |
| 1200    | S_-97         | 0.1017   | 50                              | 1618 | 2355 | 2464 | 2844                            | 3764 | 4764 | 4912 | 5428                            | 1348 | 1668 | 1716 | 1882                            | 4350 | 5109 | 5222 | 5614 |
| 1200    | S_-118        | 0.1242   | 50                              | 2354 | 3375 | 3527 | 4054                            | 5515 | 6881 | 7083 | 7788                            | 2161 | 2638 | 2709 | 2956                            | 6675 | 7750 | 7910 | 8465 |
| 1400    | S_-68         | 0.0713   | 33                              | 531  | 793  | 832  | 968                             | 1247 | 1621 | 1676 | 1869                            | 316  | 401  | 414  | 458                             | 1249 | 1500 | 1537 | 1666 |
| 1400    | S_-68         | 0.0713   | 50                              | 805  | 1202 | 1261 | 1466                            | 1889 | 2455 | 2539 | 2831                            | 479  | 608  | 627  | 694                             | 1892 | 2272 | 2328 | 2525 |
| 1400    | S_-97         | 0.1017   | 33                              | 1043 | 1519 | 1589 | 1835                            | 2459 | 3113 | 3210 | 3547                            | 812  | 1005 | 1034 | 1134                            | 2753 | 3234 | 3305 | 3553 |
| 1400    | S_-97         | 0.1017   | 50                              | 1581 | 2301 | 2408 | 2780                            | 3726 | 4716 | 4863 | 5374                            | 1230 | 1523 | 1567 | 1718                            | 4171 | 4900 | 5008 | 5384 |
| 1400    | S_-118        | 0.1242   | 50                              | 2307 | 3308 | 3456 | 3973                            | 5466 | 6819 | 7020 | 7719                            | 2006 | 2449 | 2515 | 2744                            | 6437 | 7474 | 7628 | 8164 |
| 1600    | S_-97         | 0.1017   | 50                              | 1547 | 2252 | 2357 | 2721                            | 3692 | 4673 | 4818 | 5324                            | 1121 | 1388 | 1428 | 1566                            | 4005 | 4705 | 4809 | 5170 |
| 1600    | S_-118        | 0.1242   | 50                              | 2263 | 3245 | 3391 | 3898                            | 5420 | 6762 | 6961 | 7654                            | 1862 | 2274 | 2335 | 2548                            | 6217 | 7219 | 7367 | 7884 |

See notes located on page 69 (Section Property Table Notes).

# WEB CRIPPLING LOAD TABLES - BACK-TO-BACK MEMBERS

| Section | Design t (in) | Fy (ksi) | Condition 1 Bearing Length (in) |       |       |   |       |     | Condition 2 Bearing Length (in) |     |       |       |   |       | Condition 3 Bearing Length (in) |       |    |       |       |     | Condition 4 Bearing Length (in) |    |       |     |       |       |   |       |    |       |    |
|---------|---------------|----------|---------------------------------|-------|-------|---|-------|-----|---------------------------------|-----|-------|-------|---|-------|---------------------------------|-------|----|-------|-------|-----|---------------------------------|----|-------|-----|-------|-------|---|-------|----|-------|----|
|         |               |          | 1                               | 3.5   | 4     | 6 | 1     | 3.5 | 1                               | 3.5 | 4     | 6     | 1 | 3.5   | 1                               | 3.5   | 4  | 6     | 1     | 3.5 | 4                               | 6  | 1     | 3.5 |       |       |   |       |    |       |    |
| 162     | S_-18         | 0.0188   | 33                              | 247   | 392   | 1 | 414   | 12  | 488                             | 12  | 256   | 316   | 1 | 325   | 12                              | 356   | 12 | 151   | 200   | 1   | 207                             | 12 | 232   | 12  | 305   | 403   | 1 | 418   | 12 | 468   | 12 |
| 162     | S_-27         | 0.0283   | 33                              | 535   | 826   | 1 | 869   | 1   | 1020                            | 12  | 609   | 730   | 1 | 748   | 1                               | 811   | 12 | 368   | 472   | 1   | 487                             | 1  | 540   | 12  | 771   | 987   | 1 | 1020  | 1  | 1131  | 12 |
| 162     | S_-30         | 0.0312   | 33                              | 642   | 985   | 1 | 1036  | 1   | 1213                            | 1   | 747   | 890   | 1 | 911   | 1                               | 985   | 1  | 454   | 577   | 1   | 595                             | 1  | 659   | 1   | 957   | 1216  | 1 | 1255  | 1  | 1389  | 1  |
| 162     | S_-33         | 0.0346   | 33                              | 779   | 1186  | 1 | 1247  | 1   | 1457                            | 1   | 926   | 1097  | 1 | 1122  | 1                               | 1211  | 1  | 565   | 713   | 1   | 735                             | 1  | 812   | 1   | 1200  | 1515  | 1 | 1561  | 1  | 1724  | 1  |
| 250     | S_-18         | 0.0188   | 33                              | 247   | 391   | 1 | 413   | 12  | 487                             | 12  | 255   | 314   | 1 | 323   | 12                              | 353   | 12 | 129   | 171   | 1   | 177                             | 12 | 198   | 12  | 261   | 345   | 1 | 357   | 12 | 400   | 12 |
| 250     | S_-27         | 0.0283   | 33                              | 534   | 825   | 1 | 868   | 1   | 1018                            | 12  | 605   | 726   | 1 | 744   | 1                               | 806   | 12 | 329   | 421   | 1   | 435                             | 1  | 482   | 12  | 688   | 881   | 1 | 910   | 1  | 1010  | 12 |
| 250     | S_-30         | 0.0312   | 33                              | 641   | 983   | 1 | 1034  | 1   | 1211                            | 1   | 742   | 885   | 1 | 906   | 1                               | 980   | 1  | 408   | 519   | 1   | 535                             | 1  | 593   | 1   | 861   | 1094  | 1 | 1129  | 1  | 1249  | 1  |
| 250     | S_-33         | 0.0346   | 33                              | 777   | 1184  | 1 | 1245  | 1   | 1454                            | 1   | 921   | 1091  | 1 | 1116  | 1                               | 1204  | 1  | 512   | 647   | 1   | 666                             | 1  | 736   | 1   | 1088  | 1373  | 1 | 1415  | 1  | 1562  | 1  |
| 250     | S_-43         | 0.0451   | 33                              | 1273  | 1904  | 1 | 1998  | 1   | 2323                            | 1   | 1597  | 1862  | 1 | 1901  | 1                               | 2038  | 1  | 910   | 1127  | 1   | 1159                            | 1  | 1271  | 1   | 1964  | 2432  | 1 | 2501  | 1  | 2743  | 1  |
| 250     | S_-54         | 0.0566   | 33                              | 1895  | 2787  | 1 | 2919  | 1   | 3380                            | 1   | 2484  | 2860  | 1 | 2916  | 1                               | 3109  | 1  | 1461  | 1781  | 1   | 1828                            | 1  | 1993  | 1   | 3159  | 3851  | 1 | 3954  | 1  | 4311  | 1  |
| 250     | S_-54         | 0.0566   | 50                              | 2871  | 4223  | 1 | 4423  | 1   | 5121                            | 1   | 3764  | 4333  | 1 | 4418  | 1                               | 4711  | 1  | 2213  | 2698  | 1   | 2770                            | 1  | 3020  | 1   | 4786  | 5835  | 1 | 5990  | 1  | 6532  | 1  |
| 250     | S_-68         | 0.0713   | 33                              | 2832  | 4094  | 1 | 4281  | 1   | 4933                            | 1   | 3877  | 4409  | 1 | 4488  | 1                               | 4763  | 1  | 2347  | 2819  | 1   | 2889                            | 1  | 3132  | 1   | 5077  | 6096  | 1 | 6247  | 1  | 6773  | 1  |
| 250     | S_-68         | 0.0713   | 50                              | 4291  | 6203  | 1 | 6487  | 1   | 7474                            | 1   | 5874  | 6680  | 1 | 6800  | 1                               | 7216  | 1  | 3557  | 4271  | 1   | 4377                            | 1  | 4745  | 1   | 7692  | 9236  | 1 | 9465  | 1  | 10263 | 1  |
| 350     | S_-18         | 0.0188   | 33                              | 246   | 390   | 1 | 412   | 12  | 486                             | 12  | 253   | 312   | 1 | 320   | 12                              | 351   | 12 | 109   | 144   | 1   | 149                             | 12 | 167   | 12  | 220   | 291   | 1 | 301   | 12 | 338   | 12 |
| 350     | S_-27         | 0.0283   | 33                              | 533   | 823   | 1 | 866   | 1   | 1016                            | 12  | 602   | 722   | 1 | 740   | 1                               | 802   | 12 | 292   | 374   | 1   | 386                             | 1  | 429   | 12  | 611   | 783   | 1 | 808   | 1  | 897   | 12 |
| 350     | S_-30         | 0.0312   | 33                              | 640   | 981   | 1 | 1032  | 1   | 1208                            | 1   | 739   | 880   | 1 | 901   | 1                               | 975   | 1  | 366   | 465   | 1   | 480                             | 1  | 531   | 1   | 771   | 981   | 1 | 1012  | 1  | 1120  | 1  |
| 350     | S_-33         | 0.0346   | 33                              | 776   | 1182  | 1 | 1242  | 1   | 1452                            | 1   | 917   | 1086  | 1 | 1111  | 1                               | 1198  | 1  | 463   | 585   | 1   | 603                             | 1  | 665   | 1   | 984   | 1241  | 1 | 1279  | 1  | 1412  | 1  |
| 350     | S_-43         | 0.0451   | 33                              | 1272  | 1901  | 1 | 1995  | 1   | 2320                            | 1   | 1590  | 1854  | 1 | 1893  | 1                               | 2029  | 1  | 838   | 1037  | 1   | 1067                            | 1  | 1170  | 1   | 1808  | 2239  | 1 | 2303  | 1  | 2525  | 1  |
| 350     | S_-54         | 0.0566   | 33                              | 1892  | 2783  | 1 | 2916  | 1   | 3375                            | 1   | 2474  | 2849  | 1 | 2904  | 1                               | 3097  | 1  | 1361  | 1659  | 1   | 1703                            | 1  | 1857  | 1   | 2943  | 3588  | 1 | 3684  | 1  | 4016  | 1  |
| 350     | S_-54         | 0.0566   | 50                              | 2867  | 4217  | 1 | 4417  | 1   | 5114                            | 1   | 3749  | 4316  | 1 | 4400  | 1                               | 4693  | 1  | 2062  | 2514  | 1   | 2581                            | 1  | 2814  | 1   | 4459  | 5436  | 1 | 5581  | 1  | 6085  | 1  |
| 350     | S_-68         | 0.0713   | 33                              | 2829  | 4089  | 1 | 4276  | 1   | 4927                            | 1   | 3863  | 4393  | 1 | 4472  | 1                               | 4746  | 1  | 2208  | 2652  | 1   | 2717                            | 1  | 2946  | 1   | 4776  | 5735  | 1 | 5877  | 1  | 6372  | 1  |
| 350     | S_-68         | 0.0713   | 50                              | 4286  | 6196  | 1 | 6479  | 1   | 7466                            | 1   | 5853  | 6657  | 1 | 6776  | 1                               | 7191  | 1  | 3346  | 4018  | 1   | 4117                            | 1  | 4464  | 1   | 7236  | 8689  | 1 | 8904  | 1  | 9654  | 1  |
| 362     | S_-18         | 0.0188   | 33                              | 246   | 390   | 1 | 412   | 12  | 486                             | 12  | 253   | 311   | 1 | 320   | 12                              | 350   | 12 | 107   | 141   | 1   | 146                             | 12 | 164   | 12  | 215   | 285   | 1 | 295   | 12 | 330   | 12 |
| 362     | S_-27         | 0.0283   | 33                              | 533   | 823   | 1 | 866   | 1   | 1015                            | 12  | 602   | 722   | 1 | 739   | 1                               | 801   | 12 | 288   | 369   | 1   | 381                             | 1  | 422   | 12  | 603   | 772   | 1 | 797   | 1  | 884   | 12 |
| 362     | S_-30         | 0.0312   | 33                              | 640   | 981   | 1 | 1032  | 1   | 1208                            | 1   | 738   | 880   | 1 | 901   | 1                               | 974   | 1  | 361   | 459   | 1   | 474                             | 1  | 524   | 1   | 761   | 968   | 1 | 999   | 1  | 1105  | 1  |
| 362     | S_-33         | 0.0346   | 33                              | 776   | 1182  | 1 | 1242  | 1   | 1452                            | 1   | 916   | 1085  | 1 | 1110  | 1                               | 1197  | 1  | 458   | 578   | 1   | 595                             | 1  | 657   | 1   | 972   | 1226  | 1 | 1264  | 1  | 1395  | 1  |
| 362     | S_-43         | 0.0451   | 33                              | 1271  | 1901  | 1 | 1994  | 1   | 2319                            | 1   | 1589  | 1853  | 1 | 1892  | 1                               | 2028  | 1  | 830   | 1027  | 1   | 1057                            | 1  | 1159  | 1   | 1790  | 2217  | 1 | 2280  | 1  | 2501  | 1  |
| 362     | S_-54         | 0.0566   | 33                              | 1892  | 2783  | 1 | 2915  | 1   | 3375                            | 1   | 2473  | 2847  | 1 | 2903  | 1                               | 3096  | 1  | 1349  | 1645  | 1   | 1689                            | 1  | 1842  | 1   | 2918  | 3558  | 1 | 3653  | 1  | 3983  | 1  |
| 362     | S_-54         | 0.0566   | 50                              | 2867  | 4217  | 1 | 4417  | 1   | 5113                            | 1   | 3747  | 4314  | 1 | 4398  | 1                               | 4691  | 1  | 2045  | 2493  | 1   | 2559                            | 1  | 2790  | 1   | 4422  | 5391  | 1 | 5535  | 1  | 6035  | 1  |
| 362     | S_-68         | 0.0713   | 33                              | 2828  | 4089  | 1 | 4276  | 1   | 4927                            | 1   | 3861  | 4392  | 1 | 4470  | 1                               | 4744  | 1  | 2193  | 2633  | 1   | 2698                            | 1  | 2925  | 1   | 4742  | 5694  | 1 | 5835  | 1  | 6326  | 1  |
| 362     | S_-68         | 0.0713   | 50                              | 4285  | 6195  | 1 | 6479  | 1   | 7465                            | 1   | 5851  | 6654  | 1 | 6773  | 1                               | 7188  | 1  | 3322  | 3989  | 1   | 4088                            | 1  | 4432  | 1   | 7185  | 8627  | 1 | 8841  | 1  | 9585  | 1  |
| 362     | S_-97         | 0.1017   | 33                              | 5281  | 7432  | 1 | 7751  | 1   | 8861                            | 1   | 7683  | 8590  | 1 | 8725  | 1                               | 9193  | 1  | 4584  | 5385  | 1   | 5504                            | 1  | 5917  | 1   | 9915  | 11646 | 1 | 11903 | 1  | 12797 | 1  |
| 362     | S_-97         | 0.1017   | 50                              | 8002  | 11260 | 1 | 11743 | 1   | 13425                           | 1   | 11642 | 13016 | 1 | 13219 | 1                               | 13929 | 1  | 6946  | 8159  | 1   | 8339                            | 1  | 8965  | 1   | 15022 | 17646 | 1 | 18035 | 1  | 19389 | 1  |
| 362     | S_-118        | 0.1242   | 50                              | 11411 | 15811 | 1 | 16463 | 1   | 18734                           | 1   | 18681 | 22551 | 1 | 23125 | 1                               | 25123 | 1  | 10484 | 12173 | 1   | 12424                           | 1  | 13296 | 1   | 22675 | 26328 | 1 | 26869 | 1  | 28755 | 1  |
| 400     | S_-27         | 0.0283   | 33                              | 533   | 822   | 1 | 865   | 1   | 1015                            | 12  | 600   | 720   | 1 | 738   | 1                               | 800   | 12 | 276   | 353   | 1   | 365                             | 1  | 405   | 12  | 577   | 739   | 1 | 763   | 1  | 847   | 12 |
| 400     | S_-30         | 0.0312   | 33                              | 639   | 981   | 1 | 1031  | 1   | 1208                            | 1   | 737   | 878   | 1 | 899   | 1                               | 972   | 1  | 347   | 441   | 1   | 455                             | 1  | 504   | 1   | 732   | 931   | 1 | 960   | 1  | 1063  | 1  |
| 400     | S_-33         | 0.0346   | 33                              | 776   | 1181  | 1 | 1242  | 1   | 1451                            | 1   | 915   | 1083  | 1 | 1108  | 1                               | 1195  | 1  | 442   | 557   | 1   | 574                             | 1  | 634   | 1   | 937   | 1183  | 1 | 1219  | 1  | 1346  | 1  |
| 400     | S_-43         | 0.0451   | 33                              | 1271  | 1900  | 1 | 1993  | 1   | 2318                            | 1   | 1587  | 1850  | 1 | 1889  | 1                               | 2025  | 1  | 806   | 998   | 1   | 1026                            | 1  | 1126  | 1   | 1739  | 2154  | 1 | 2215  | 1  | 2429  | 1  |
| 400     | S_-54         | 0.0566   | 33                              | 1891  | 2782  | 1 | 2914  | 1   | 3373                            | 1   | 2470  | 2844  | 1 | 2899  | 1                               | 3092  | 1  | 1317  | 1605  | 1   | 1648                            | 1  | 1797  | 1   | 2848  | 3472  | 1 | 3564  | 1  | 3886  | 1  |
| 400     | S_-54         | 0.0566   | 50                              | 2866  | 4215  | 1 | 4415  | 1   | 5111                            | 1   | 3743  | 4309  | 1 | 4393  | 1                               | 4685  | 1  | 1995  | 2432  | 1   | 2497                            | 1  | 2723  | 1   | 4315  | 5260  | 1 | 5401  | 1  | 5889  | 1  |
| 400     | S_-68         | 0.0713   | 33                              | 2827  | 4087  | 1 | 4274  | 1   | 4925                            | 1   | 3857  | 4387  | 1 | 4465  | 1                               | 4739  | 1  | 2147  | 2578  | 1   | 2642                            | 1  | 2865  | 1   | 4644  | 5576  | 1 | 5714  | 1  | 6195  | 1  |
| 400     | S_-68         | 0.0713   | 50                              | 4284  | 6193  | 1 | 6476  | 1   | 7462                            | 1   | 5844  | 6646  | 1 | 6765  | 1                               | 7180  | 1  | 3253  | 3906  | 1   | 4003                            | 1  | 4340  | 1   | 7036  | 8448  | 1 | 8658  | 1  | 9387  | 1  |
| 400     | S_-97         | 0.1017   | 33                              | 5280  | 7429  | 1 | 7748  | 1   | 8858                            | 1   | 7676  | 8582  | 1 | 8716  | 1                               | 9184  | 1  | 4508  | 5295  | 1   | 5412                            | 1  | 5819  | 1   | 9750  | 11453 | 1 | 11705 | 1  | 12584 | 1  |
| 400     | S_-97         | 0.1017   | 50                              | 8000  | 11256 | 1 | 11740 | 1   | 13421                           | 1   | 11630 | 13003 | 1 | 13206 | 1                               | 13915 | 1  | 6830  | 8023  | 1   | 8200                            | 1  | 8816  | 1   | 14772 | 17352 | 1 | 17735 | 1  | 19067 | 1  |
| 400     | S_-118        | 0.1242   | 50                              | 11408 | 15806 | 1 | 16458 | 1   | 18729                           | 1   | 18676 | 22544 | 1 | 23118 | 1                               | 25115 | 1  | 10329 | 11993 | 1   | 12240                           | 1  | 13098 | 1   | 22338 | 25937 | 1 | 26471 | 1  | 28328 | 1  |
| 550     | S_-27         | 0.0283   | 33                              | 531   | 821   | 1 | 863   | 1   | 1013                            | 12  | 597   | 716   | 1 | 733   | 1                               | 795   | 12 | 233   | 298   | 1   | 308                             | 1  | 341   | 12  | 487   | 624   | 1 | 644   | 1  | 715   | 12 |
| 550     | S_-30         | 0.0312   | 33                              | 638   | 979   | 1 | 1029  | 1   | 1205                            | 1   | 732   | 873   | 1 | 894   | 1                               | 966   | 1  | 298   | 378   | 1   | 390                             | 1  | 432   | 1   | 627   | 798   | 1 | 823   | 1  | 911   | 1  |

See notes located on page 69 (Section Property Table Notes).

# WEB CRIPPLING LOAD TABLES - BACK-TO-BACK MEMBERS

| Section | Design t (in) | Fy (ksi) | Condition 1 Bearing Length (in) |       |       |   | Condition 2 Bearing Length (in) |     |       |   | Condition 3 Bearing Length (in) |       |   |       | Condition 4 Bearing Length (in) |       |   |      |       |  |       |  |       |   |       |       |  |       |  |       |   |
|---------|---------------|----------|---------------------------------|-------|-------|---|---------------------------------|-----|-------|---|---------------------------------|-------|---|-------|---------------------------------|-------|---|------|-------|--|-------|--|-------|---|-------|-------|--|-------|--|-------|---|
|         |               |          | 1                               | 3.5   | 4     | 6 | 1                               | 3.5 | 4     | 6 | 1                               | 3.5   | 4 | 6     | 1                               | 3.5   | 4 | 6    |       |  |       |  |       |   |       |       |  |       |  |       |   |
| 550     | S_-33         | 0.0346   | 33                              | 774   | 1179  |   | 1239                            |     | 1448  | 1 | 909                             | 1077  |   | 1102  |                                 | 1188  | 1 | 384  | 484   |  | 499   |  | 551   | 1 | 815   | 1028  |  | 1060  |  | 1170  | 1 |
| 550     | S_-43         | 0.0451   | 33                              | 1269  | 1897  |   | 1990                            |     | 2314  | 1 | 1579                            | 1841  |   | 1879  | 1                               | 2015  | 1 | 721  | 893   |  | 919   |  | 1007  | 1 | 1556  | 1927  |  | 1982  |  | 2174  | 1 |
| 550     | S_-54         | 0.0566   | 33                              | 1888  | 2778  |   | 2909                            |     | 3368  | 1 | 2459                            | 2831  |   | 2886  | 1                               | 3078  | 1 | 1200 | 1463  |  | 1502  |  | 1638  | 1 | 2595  | 3164  |  | 3249  |  | 3542  | 1 |
| 550     | S_-54         | 0.0566   | 50                              | 2861  | 4208  |   | 4408                            |     | 5104  | 1 | 3725                            | 4289  |   | 4372  | 1                               | 4663  | 1 | 1818 | 2217  |  | 2276  |  | 2482  | 1 | 3933  | 4794  |  | 4922  |  | 5367  | 1 |
| 550     | S_-68         | 0.0713   | 33                              | 2823  | 4082  |   | 4268                            |     | 4918  | 1 | 3841                            | 4369  |   | 4447  | 1                               | 4719  | 1 | 1985 | 2384  |  | 2443  |  | 2649  | 1 | 4294  | 5156  |  | 5284  |  | 5728  | 1 |
| 550     | S_-68         | 0.0713   | 50                              | 4278  | 6185  |   | 6467                            |     | 7452  | 1 | 5820                            | 6619  |   | 6738  | 1                               | 7150  | 1 | 3008 | 3612  |  | 3702  |  | 4013  | 1 | 6506  | 7812  |  | 8005  |  | 8680  | 1 |
| 550     | S_-97         | 0.1017   | 33                              | 5274  | 7421  |   | 7739                            |     | 8847  | 1 | 7649                            | 8552  |   | 8686  | 1                               | 9152  | 1 | 4238 | 4978  |  | 5088  |  | 5470  | 1 | 9166  | 10767 |  | 11004 |  | 11830 | 1 |
| 550     | S_-97         | 0.1017   | 50                              | 7990  | 11243 |   | 11726                           |     | 13405 | 1 | 11589                           | 12957 |   | 13160 | 1                               | 13866 | 1 | 6421 | 7543  |  | 7709  |  | 8288  | 1 | 13888 | 16313 |  | 16673 |  | 17925 | 1 |
| 600     | S_-30         | 0.0312   | 33                              | 638   | 978   |   | 1029                            |     | 1204  | 1 | 731                             | 871   |   | 892   | 1                               | 965   | 1 | 283  | 359   |  | 371   |  | 410   | 1 | 596   | 757   |  | 781   |  | 865   | 1 |
| 600     | S_-33         | 0.0346   | 33                              | 774   | 1178  |   | 1238                            |     | 1447  | 1 | 908                             | 1075  |   | 1100  | 1                               | 1186  | 1 | 366  | 462   |  | 477   |  | 526   | 1 | 778   | 982   |  | 1012  |  | 1117  | 1 |
| 600     | S_-43         | 0.0451   | 33                              | 1268  | 1896  |   | 1989                            |     | 2313  | 1 | 1576                            | 1838  |   | 1876  | 1                               | 2011  | 1 | 696  | 862   |  | 886   |  | 972   | 1 | 1501  | 1859  |  | 1912  |  | 2097  | 1 |
| 600     | S_-54         | 0.0566   | 33                              | 1888  | 2776  |   | 2908                            |     | 3367  | 1 | 2455                            | 2827  |   | 2882  | 1                               | 3073  | 1 | 1165 | 1420  |  | 1458  |  | 1590  | 1 | 2520  | 3072  |  | 3154  |  | 3439  | 1 |
| 600     | S_-54         | 0.0566   | 50                              | 2860  | 4207  |   | 4406                            |     | 5101  | 1 | 3720                            | 4283  |   | 4366  | 1                               | 4657  | 1 | 1765 | 2152  |  | 2209  |  | 2409  | 1 | 3818  | 4654  |  | 4778  |  | 5210  | 1 |
| 600     | S_-68         | 0.0713   | 33                              | 2822  | 4080  |   | 4267                            |     | 4916  | 1 | 3836                            | 4363  |   | 4441  | 1                               | 4713  | 1 | 1937 | 2326  |  | 2383  |  | 2584  | 1 | 4189  | 5030  |  | 5154  |  | 5589  | 1 |
| 600     | S_-68         | 0.0713   | 50                              | 4276  | 6182  |   | 6465                            |     | 7449  | 1 | 5812                            | 6611  |   | 6729  | 1                               | 7141  | 1 | 2935 | 3524  |  | 3611  |  | 3915  | 1 | 6347  | 7621  |  | 7810  |  | 8467  | 1 |
| 600     | S_-97         | 0.1017   | 33                              | 5272  | 7418  |   | 7737                            |     | 8844  | 1 | 7641                            | 8543  |   | 8677  | 1                               | 9142  | 1 | 4157 | 4883  |  | 4991  |  | 5366  | 1 | 8991  | 10562 |  | 10795 |  | 11605 | 1 |
| 600     | S_-97         | 0.1017   | 50                              | 7988  | 11240 |   | 11722                           |     | 13401 | 1 | 11577                           | 12944 |   | 13146 | 1                               | 13852 | 1 | 6299 | 7399  |  | 7562  |  | 8130  | 1 | 13623 | 16002 |  | 16355 |  | 17583 | 1 |
| 600     | S_-118        | 0.1242   | 50                              | 11392 | 15784 |   | 16436                           |     | 18703 | 1 | 18650                           | 22513 |   | 23086 | 1                               | 25081 | 1 | 9616 | 11165 |  | 11395 |  | 12195 | 1 | 20797 | 24147 |  | 24644 |  | 26374 | 1 |
| 800     | S_-43         | 0.0451   | 33                              | 1266  | 1892  |   | 1985                            |     | 2309  |   | 1567                            | 1827  |   | 1866  |                                 | 2000  |   | 603  | 747   |  | 769   |  | 843   |   | 1302  | 1613  |  | 1659  |  | 1819  |   |
| 800     | S_-54         | 0.0566   | 33                              | 1885  | 2772  |   | 2903                            |     | 3361  |   | 2443                            | 2812  |   | 2867  |                                 | 3058  |   | 1038 | 1266  |  | 1300  |  | 1417  |   | 2246  | 2738  |  | 2811  |  | 3065  |   |
| 800     | S_-54         | 0.0566   | 50                              | 2855  | 4200  |   | 4399                            |     | 5093  |   | 3702                            | 4261  |   | 4344  |                                 | 4633  |   | 1573 | 1918  |  | 1969  |  | 2147  |   | 3402  | 4148  |  | 4259  |  | 4643  |   |
| 800     | S_-68         | 0.0713   | 33                              | 2818  | 4074  |   | 4260                            |     | 4909  |   | 3819                            | 4344  |   | 4421  |                                 | 4692  |   | 1762 | 2115  |  | 2168  |  | 2350  |   | 3810  | 4575  |  | 4688  |  | 5083  |   |
| 800     | S_-68         | 0.0713   | 50                              | 4270  | 6173  |   | 6455                            |     | 7438  |   | 5786                            | 6581  |   | 6699  |                                 | 7109  |   | 2669 | 3205  |  | 3284  |  | 3561  |   | 5772  | 6931  |  | 7103  |  | 7701  |   |
| 800     | S_-97         | 0.1017   | 33                              | 5265  | 7409  |   | 7727                            |     | 8833  |   | 7612                            | 8510  |   | 8644  |                                 | 9107  |   | 3867 | 4542  |  | 4642  |  | 4991  |   | 8363  | 9823  |  | 10040 |  | 10794 |   |
| 800     | S_-97         | 0.1017   | 50                              | 7978  | 11226 |   | 11707                           |     | 13384 |   | 11533                           | 12895 |   | 13097 |                                 | 13799 |   | 5859 | 6882  |  | 7034  |  | 7562  |   | 12671 | 14883 |  | 15212 |  | 16354 |   |
| 800     | S_-118        | 0.1242   | 50                              | 11379 | 15766 |   | 16417                           |     | 18682 |   | 18629                           | 22488 |   | 23060 |                                 | 25052 |   | 9028 | 10482 |  | 10698 |  | 11449 |   | 19524 | 22670 |  | 23137 |  | 24760 |   |
| 1000    | S_-54         | 0.0566   | 33                              | 1882  | 2768  |   | 2899                            |     | 3356  |   | 2432                            | 2800  |   | 2855  |                                 | 3044  |   | 927  | 1130  |  | 1160  |  | 1265  |   | 2005  | 2445  |  | 2510  |  | 2737  |   |
| 1000    | S_-54         | 0.0566   | 50                              | 2851  | 4194  |   | 4393                            |     | 5086  |   | 3685                            | 4242  |   | 4325  |                                 | 4613  |   | 1405 | 1713  |  | 1758  |  | 1917  |   | 3038  | 3704  |  | 3803  |  | 4146  |   |
| 1000    | S_-68         | 0.0713   | 33                              | 2814  | 4069  |   | 4255                            |     | 4902  |   | 3804                            | 4326  |   | 4404  |                                 | 4674  |   | 1608 | 1931  |  | 1979  |  | 2145  |   | 3478  | 4176  |  | 4280  |  | 4640  |   |
| 1000    | S_-68         | 0.0713   | 50                              | 4264  | 6165  |   | 6447                            |     | 7428  |   | 5764                            | 6555  |   | 6673  |                                 | 7081  |   | 2437 | 2926  |  | 2998  |  | 3251  |   | 5270  | 6327  |  | 6484  |  | 7030  |   |
| 1000    | S_-97         | 0.1017   | 33                              | 5260  | 7401  |   | 7718                            |     | 8824  |   | 7587                            | 8482  |   | 8615  |                                 | 9077  |   | 3613 | 4244  |  | 4337  |  | 4663  |   | 7813  | 9178  |  | 9380  |  | 10085 |   |
| 1000    | S_-97         | 0.1017   | 50                              | 7969  | 11213 |   | 11695                           |     | 13369 |   | 11495                           | 12852 |   | 13053 |                                 | 13753 |   | 5474 | 6430  |  | 6572  |  | 7065  |   | 11839 | 13906 |  | 14213 |  | 15280 |   |
| 1000    | S_-118        | 0.1242   | 50                              | 11368 | 15751 |   | 16401                           |     | 18663 |   | 18610                           | 22466 |   | 23037 |                                 | 25027 |   | 8515 | 9887  |  | 10090 |  | 10798 |   | 18416 | 21383 |  | 21823 |  | 23354 |   |
| 1200    | S_-68         | 0.0713   | 33                              | 2811  | 4064  |   | 4250                            |     | 4897  |   | 3790                            | 4311  |   | 4388  |                                 | 4657  |   | 1470 | 1765  |  | 1809  |  | 1961  |   | 3179  | 3817  |  | 3912  |  | 4241  |   |
| 1200    | S_-68         | 0.0713   | 50                              | 4259  | 6158  |   | 6439                            |     | 7419  |   | 5743                            | 6532  |   | 6649  |                                 | 7056  |   | 2227 | 2674  |  | 2741  |  | 2971  |   | 4817  | 5784  |  | 5927  |  | 6426  |   |
| 1200    | S_-97         | 0.1017   | 33                              | 5254  | 7394  |   | 7711                            |     | 8815  |   | 7564                            | 8457  |   | 8589  |                                 | 9050  |   | 3385 | 3976  |  | 4063  |  | 4368  |   | 7320  | 8598  |  | 8788  |  | 9448  |   |
| 1200    | S_-97         | 0.1017   | 50                              | 7961  | 11202 |   | 11683                           |     | 13356 |   | 11461                           | 12813 |   | 13014 |                                 | 13712 |   | 5128 | 6024  |  | 6156  |  | 6619  |   | 11091 | 13028 |  | 13315 |  | 14315 |   |
| 1200    | S_-118        | 0.1242   | 50                              | 11358 | 15737 |   | 16386                           |     | 18647 |   | 18594                           | 22446 |   | 23017 |                                 | 25005 |   | 8055 | 9352  |  | 9545  |  | 10215 |   | 17420 | 20227 |  | 20643 |  | 22091 |   |
| 1400    | S_-68         | 0.0713   | 33                              | 2808  | 4060  |   | 4245                            |     | 4892  |   | 3778                            | 4297  |   | 4374  |                                 | 4642  |   | 1343 | 1613  |  | 1653  |  | 1792  |   | 2905  | 3488  |  | 3574  |  | 3875  |   |
| 1400    | S_-68         | 0.0713   | 50                              | 4255  | 6151  |   | 6433                            |     | 7411  |   | 5724                            | 6510  |   | 6627  |                                 | 7033  |   | 2035 | 2444  |  | 2504  |  | 2715  |   | 4401  | 5285  |  | 5416  |  | 5872  |   |
| 1400    | S_-97         | 0.1017   | 33                              | 5250  | 7387  |   | 7704                            |     | 8807  |   | 7543                            | 8434  |   | 8566  |                                 | 9025  |   | 3175 | 3730  |  | 3812  |  | 4098  |   | 6867  | 8067  |  | 8245  |  | 8864  |   |
| 1400    | S_-97         | 0.1017   | 50                              | 7954  | 11192 |   | 11673                           |     | 13344 |   | 11429                           | 12778 |   | 12978 |                                 | 13674 |   | 4811 | 5651  |  | 5776  |  | 6210  |   | 10405 | 12223 |  | 12492 |  | 13430 |   |
| 1400    | S_-118        | 0.1242   | 50                              | 11349 | 15724 |   | 16373                           |     | 18631 |   | 18579                           | 22427 |   | 22998 |                                 | 24985 |   | 7633 | 8863  |  | 9045  |  | 9680  |   | 16509 | 19168 |  | 19563 |  | 20936 |   |
| 1600    | S_-97         | 0.1017   | 50                              | 7947  | 11183 |   | 11663                           |     | 13333 |   | 12743                           | 15589 |   | 16011 |                                 | 17480 |   | 4517 | 5306  |  | 5423  |  | 5830  |   | 9769  | 11475 |  | 11728 |  | 12609 |   |
| 1600    | S_-118        | 0.1242   | 50                              | 11340 | 15712 |   | 16361                           |     | 18617 |   | 18565                           | 22410 |   | 22981 |                                 | 24966 |   | 7242 | 8409  |  | 8582  |  | 9184  |   | 15663 | 18187 |  | 18561 |  | 19864 |   |

See notes located on page 69 (Section Property Table Notes).

## TRADITIONAL FLOOR JOIST SPAN TABLES - NOTES

### Allowable Floor Joist Span Table Notes:

1. Spans are based on continuous support of each flange over the full length of the joist
2. For two equal span condition, the listed span is the distance from either end to the center support, with the joist continuous over the center support.
3. Joists must be braced against rotation at all supports.
4. End shear and web crippling capacity have not been reduced for punch-outs.
5. Web crippling check based on 3.5 end bearing. Where listed allowable spans are followed by "e" web stiffeners are required at end supports; "i" web stiffeners are required at mid-supports; "a" web stiffeners are required at all supports.
6. Shear capacity at mid-span support has been reduced for the presence of punch-outs adjacent to the support.
7. Total load deflection limited to  $L/240$ . Live load deflection limit as noted.
8. Alternate span live loading has been considered for two, equal span condition.
9. For distortional buckling allowable moment,  $k\theta = 0$ .
10. Moment of inertia for deflection is calculated at the maximum service level stress for the span listed. Note that this value may be higher than the effective  $I_{xx}$  listed in section property tables.

### Bridging Recommendations:

Floor joist bridging may be spaced as indicated below, except where member design requires an alternate spacing.

| Span (ft.) | Minimum Number of Rows |
|------------|------------------------|
| up to 16   | 1 row at mid span      |
| 16 to 24   | 2 rows at 1/3 points   |
| 24 to 32   | 3 rows at 1/4 points   |



# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 20 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 20 psf |        |         |                             |        |        | L/480 Live Load Deflection for 20 psf |        |         |                             |        |        |
|-------------|---------|---------------------------------------|--------|---------|-----------------------------|--------|--------|---------------------------------------|--------|---------|-----------------------------|--------|--------|
|             |         | Single Span Spacing (in)              |        |         | Two Equal Span Spacing (in) |        |        | Single Span Spacing (in)              |        |         | Two Equal Span Spacing (in) |        |        |
|             |         | 12"                                   | 16"    | 24"     | 12"                         | 16"    | 24"    | 12"                                   | 16"    | 24"     | 12"                         | 16"    | 24"    |
| 600S162-33  | 33      | 14'6"                                 | 12'7"e | 10'3"e  | 14'6"                       | 12'7"  | 10'1"  | 14'4"                                 | 12'7"e | 10'3"e  | 14'6"                       | 12'7"  | 10'1"  |
| 600S200-33  | 33      | 15'6"                                 | 13'5"e | 10'11"e | 15'6"                       | 13'3"  | 10'5"  | 15'0"                                 | 13'5"e | 10'11"e | 15'6"                       | 13'3"  | 10'5"  |
| 600S162-43  | 33      | 17'2"                                 | 15'6"  | 12'8"   | 17'11"                      | 15'6"  | 12'8"  | 15'7"                                 | 14'2"  | 12'5"   | 17'6"                       | 15'6"  | 12'8"  |
| 600S200-43  | 33      | 18'0"                                 | 16'0"  | 13'1"   | 18'6"                       | 16'0"  | 13'1"  | 16'5"                                 | 14'11" | 13'0"   | 18'5"                       | 16'0"  | 13'1"  |
| 600S250-43  | 33      | 18'11"                                | 16'5"  | 13'5"e  | 19'0"                       | 16'5"  | 13'5"  | 17'2"                                 | 15'7"  | 13'5"e  | 19'0"                       | 16'5"  | 13'5"  |
| 600S162-54  | 33      | 18'5"                                 | 16'9"  | 14'7"   | 20'8"                       | 18'2"  | 14'10" | 16'9"                                 | 15'2"  | 13'3"   | 18'9"                       | 17'1"  | 14'10" |
| 600S162-54  | 50      | 18'5"                                 | 16'9"  | 14'7"   | 20'8"                       | 18'9"  | 16'5"  | 16'9"                                 | 15'2"  | 13'3"   | 18'9"                       | 17'1"  | 14'11" |
| 600S200-54  | 33      | 19'4"                                 | 17'7"  | 15'4"   | 21'9"                       | 19'2"  | 15'8"  | 17'7"                                 | 16'0"  | 14'0"   | 19'9"                       | 17'11" | 15'8"  |
| 600S200-54  | 50      | 19'4"                                 | 17'7"  | 15'4"   | 21'9"                       | 19'9"  | 17'3"  | 17'7"                                 | 16'0"  | 14'0"   | 19'9"                       | 17'11" | 15'8"  |
| 600S250-54  | 33      | 20'3"                                 | 18'5"  | 15'7"   | 22'1"                       | 19'1"  | 15'7"  | 18'5"                                 | 16'9"  | 14'8"   | 20'8"                       | 18'10" | 15'7"  |
| 600S250-54  | 50      | 20'3"                                 | 18'5"  | 16'1"   | 22'9"                       | 20'8"  | 17'10" | 18'5"                                 | 16'9"  | 14'8"   | 20'8"                       | 18'10" | 16'5"  |
| 600S300-54  | 50      | 21'2"                                 | 19'2"  | 16'8"   | 23'7"                       | 21'3"  | 18'2"  | 19'2"                                 | 17'5"  | 15'3"   | 21'7"                       | 19'6"  | 17'0"  |
| 600S162-68  | 33      | 19'9"                                 | 17'11" | 15'8"   | 22'2"                       | 20'2"  | 16'11" | 17'11"                                | 16'4"  | 14'3"   | 20'2"                       | 18'4"  | 16'0"  |
| 600S162-68  | 50      | 19'9"                                 | 17'11" | 15'8"   | 22'2"                       | 20'2"  | 17'7"  | 17'11"                                | 16'4"  | 14'3"   | 20'2"                       | 18'4"  | 16'0"  |
| 600S200-68  | 33      | 20'9"                                 | 18'10" | 16'6"   | 23'4"                       | 21'2"  | 18'0"  | 18'10"                                | 17'2"  | 15'0"   | 21'2"                       | 19'3"  | 16'10" |
| 600S200-68  | 50      | 20'9"                                 | 18'10" | 16'6"   | 23'4"                       | 21'2"  | 18'6"  | 18'10"                                | 17'2"  | 15'0"   | 21'2"                       | 19'3"  | 16'10" |
| 600S250-68  | 33      | 21'9"                                 | 19'9"  | 17'3"   | 24'5"                       | 22'3"  | 18'8"  | 18'8"                                 | 18'0"  | 15'8"   | 22'3"                       | 20'2"  | 17'8"  |
| 600S250-68  | 50      | 21'9"                                 | 19'9"  | 17'3"   | 24'5"                       | 22'3"  | 19'5"  | 19'9"                                 | 18'0"  | 15'8"   | 22'3"                       | 20'2"  | 17'8"  |
| 600S300-68  | 50      | 22'8"                                 | 20'8"  | 18'0"   | 25'6"                       | 23'1"  | 20'2"  | 20'8"                                 | 18'9"  | 16'4"   | 23'2"                       | 21'0"  | 18'5"  |
| 600S162-97  | 33      | 21'11"                                | 19'11" | 17'4"   | 24'7"                       | 22'4"  | 19'6"  | 19'11"                                | 18'1"  | 15'9"   | 22'4"                       | 20'3"  | 17'9"  |
| 600S162-97  | 50      | 21'11"                                | 19'11" | 17'4"   | 24'7"                       | 22'4"  | 19'6"  | 19'11"                                | 18'1"  | 15'9"   | 22'4"                       | 20'3"  | 17'9"  |
| 600S200-97  | 33      | 23'1"                                 | 20'11" | 18'4"   | 25'11"                      | 23'6"  | 20'7"  | 20'11"                                | 19'0"  | 16'8"   | 23'6"                       | 21'4"  | 18'8"  |
| 600S200-97  | 50      | 23'1"                                 | 20'11" | 18'4"   | 25'11"                      | 23'6"  | 20'7"  | 20'11"                                | 19'0"  | 16'8"   | 23'6"                       | 21'4"  | 18'8"  |
| 600S250-97  | 33      | 24'3"                                 | 22'0"  | 19'3"   | 27'2"                       | 24'8"  | 21'7"  | 22'0"                                 | 20'0"  | 17'6"   | 24'8"                       | 22'5"  | 19'7"  |
| 600S250-97  | 50      | 24'3"                                 | 22'0"  | 19'3"   | 27'2"                       | 24'8"  | 21'7"  | 22'0"                                 | 20'0"  | 17'6"   | 24'8"                       | 22'5"  | 19'7"  |
| 600S300-97  | 50      | 25'3"                                 | 22'11" | 20'1"   | 28'4"                       | 25'9"  | 22'6"  | 22'11"                                | 20'10" | 18'3"   | 25'9"                       | 23'5"  | 20'5"  |
| 600S162-118 | 50      | 23'1"                                 | 21'0"  | 18'4"   | 25'11"                      | 23'7"  | 20'7"  | 21'0"                                 | 19'1"  | 16'8"   | 23'7"                       | 21'5"  | 18'9"  |
| 600S200-118 | 50      | 24'5"                                 | 22'2"  | 19'4"   | 27'5"                       | 24'11" | 21'9"  | 22'2"                                 | 20'2"  | 17'7"   | 24'11"                      | 22'7"  | 19'9"  |
| 600S250-118 | 50      | 25'8"                                 | 23'4"  | 20'4"   | 28'9"                       | 26'2"  | 22'10" | 23'4"                                 | 21'2"  | 18'6"   | 26'2"                       | 23'9"  | 20'9"  |
| 600S300-118 | 50      | 26'9"                                 | 24'4"  | 21'3"   | 30'1"                       | 27'4"  | 23'10" | 24'4"                                 | 22'1"  | 19'4"   | 27'4"                       | 24'10" | 21'8"  |
| 600S350-118 | 50      | 28'3"                                 | 25'8"  | 22'5"   | 31'8"                       | 28'10" | 25'2"  | 25'8"                                 | 23'4"  | 20'4"   | 28'10"                      | 26'2"  | 22'10" |
| 800S162-33  | 33      | 16'9"e                                | 14'6"e | 11'10"e | 15'8"e                      | 13'0"e | 9'10"e | 16'9"e                                | 14'6"e | 11'10"e | 15'8"e                      | 13'0"e | 9'10"e |
| 800S200-33  | 33      | 18'0"e                                | 15'7"e | 12'8"e  | 16'6"e                      | 13'8"e | 10'3"e | 18'0"e                                | 15'7"e | 12'8"e  | 16'6"e                      | 13'8"e | 10'3"e |
| 800S162-43  | 33      | 20'2"                                 | 17'6"  | 14'3"e  | 20'2"                       | 17'6"  | 13'11" | 19'6"                                 | 17'6"  | 14'3"e  | 20'2"                       | 17'6"  | 13'11" |
| 800S200-43  | 33      | 21'7"                                 | 18'8"  | 15'3"e  | 21'7"                       | 18'8"  | 15'3"  | 20'7"                                 | 18'8"  | 15'3"e  | 21'7"                       | 18'8"  | 15'3"  |
| 800S250-43  | 33      | 22'2"                                 | 19'2"e | 15'8"e  | 22'2"                       | 19'2"  | 15'6"  | 21'5"                                 | 19'2"e | 15'8"e  | 22'2"                       | 19'2"  | 15'6"  |
| 800S162-54  | 33      | 23'3"                                 | 20'5"  | 16'8"   | 23'7"                       | 20'5"  | 16'8"  | 21'1"                                 | 19'2"  | 16'8"   | 23'7"                       | 20'5"  | 16'8"  |
| 800S162-54  | 50      | 23'3"                                 | 21'1"  | 18'4"   | 26'0"                       | 23'5"  | 19'1"  | 21'1"                                 | 19'2"  | 16'9"   | 23'8"                       | 21'6"  | 18'9"  |
| 800S200-54  | 33      | 24'4"                                 | 22'1"  | 18'4"   | 26'0"                       | 22'6"  | 18'4"  | 22'1"                                 | 20'1"  | 17'6"   | 24'10"                      | 22'6"  | 18'4"  |
| 800S200-54  | 50      | 24'4"                                 | 22'1"  | 19'4"   | 27'4"                       | 24'10" | 20'5"  | 22'1"                                 | 20'1"  | 17'6"   | 24'10"                      | 22'6"  | 19'8"  |
| 800S250-54  | 33      | 25'4"                                 | 22'5"  | 18'3"   | 25'10"                      | 22'5"  | 18'3"  | 23'1"                                 | 20'11" | 18'3"   | 25'10"                      | 22'5"  | 18'3"  |
| 800S250-54  | 50      | 25'4"                                 | 23'1"  | 20'2"   | 28'6"                       | 25'6"  | 20'10" | 23'1"                                 | 20'11" | 18'3"   | 25'10"                      | 23'6"  | 20'6"  |
| 800S300-54  | 50      | 26'4"                                 | 23'10" | 20'8"   | 29'3"                       | 25'11" | 21'2"  | 23'11"                                | 21'9"  | 18'11"  | 26'10"                      | 24'4"  | 21'1"  |
| 800S162-68  | 33      | 24'11"                                | 22'8"  | 19'5"   | 27'5"                       | 23'9"  | 19'4"  | 22'8"                                 | 20'7"  | 18'0"   | 25'5"                       | 23'1"  | 19'4"  |
| 800S162-68  | 50      | 24'11"                                | 22'8"  | 19'9"   | 28'0"                       | 25'5"  | 22'3"  | 22'8"                                 | 20'7"  | 18'0"   | 25'5"                       | 23'1"  | 20'2"  |
| 800S200-68  | 33      | 26'1"                                 | 23'9"  | 20'9"   | 29'4"                       | 26'5"  | 21'7"  | 23'9"                                 | 21'7"  | 18'10"  | 26'8"                       | 24'2"  | 21'2"  |
| 800S200-68  | 50      | 26'1"                                 | 23'9"  | 20'9"   | 29'4"                       | 26'8"  | 23'3"  | 23'9"                                 | 21'7"  | 18'10"  | 26'8"                       | 24'2"  | 21'2"  |
| 800S250-68  | 33      | 27'3"                                 | 24'9"  | 21'8"   | 30'7"                       | 27'0"  | 22'0"  | 24'9"                                 | 22'6"  | 19'8"   | 27'10"                      | 25'3"  | 22'0"  |
| 800S250-68  | 50      | 27'3"                                 | 24'9"  | 21'8"   | 30'7"                       | 27'10" | 24'3"  | 24'9"                                 | 22'6"  | 19'8"   | 27'10"                      | 25'3"  | 22'1"  |
| 800S300-68  | 50      | 28'4"                                 | 25'9"  | 22'5"   | 31'9"                       | 28'9"  | 24'10" | 25'9"                                 | 23'4"  | 20'5"   | 28'11"                      | 26'3"  | 22'11" |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 20 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 20 psf |         |         |                             |         |         | L/480 Live Load Deflection for 20 psf |         |         |                             |         |         |
|--------------|---------|---------------------------------------|---------|---------|-----------------------------|---------|---------|---------------------------------------|---------|---------|-----------------------------|---------|---------|
|              |         | Single Span Spacing (in)              |         |         | Two Equal Span Spacing (in) |         |         | Single Span Spacing (in)              |         |         | Two Equal Span Spacing (in) |         |         |
|              |         | 12"                                   | 16"     | 24"     | 12"                         | 16"     | 24"     | 12"                                   | 16"     | 24"     | 12"                         | 16"     | 24"     |
| 800S162-97   | 33      | 27'8"                                 | 25'2"   | 22'0"   | 31'1"                       | 28'3"   | 24'8"   | 25'2"                                 | 22'10"  | 20'0"   | 28'3"                       | 25'8"   | 22'5"   |
| 800S162-97   | 50      | 27'8"                                 | 25'2"   | 22'0"   | 31'1"                       | 28'3"   | 24'8"   | 25'2"                                 | 22'10"  | 20'0"   | 28'3"                       | 25'8"   | 22'5"   |
| 800S200-97   | 33      | 29'0"                                 | 26'5"   | 23'1"   | 32'7"                       | 29'7"   | 25'11"  | 26'5"                                 | 24'0"   | 20'11"  | 29'7"                       | 26'11"  | 23'6"   |
| 800S200-97   | 50      | 29'0"                                 | 26'5"   | 23'1"   | 32'7"                       | 29'7"   | 25'11"  | 26'5"                                 | 24'0"   | 20'11"  | 29'7"                       | 26'11"  | 23'6"   |
| 800S250-97   | 33      | 30'4"                                 | 27'7"   | 24'1"   | 34'1"                       | 30'11"  | 27'1"   | 27'7"                                 | 25'1"   | 21'11"  | 30'11"                      | 28'2"   | 24'7"   |
| 800S250-97   | 50      | 30'4"                                 | 27'7"   | 24'1"   | 34'1"                       | 30'11"  | 27'1"   | 27'7"                                 | 25'1"   | 21'11"  | 30'11"                      | 28'2"   | 24'7"   |
| 800S300-97   | 50      | 31'7"                                 | 28'8"   | 25'1"   | 35'5"                       | 32'2"   | 28'1"   | 28'8"                                 | 26'1"   | 22'9"   | 32'2"                       | 29'3"   | 25'7"   |
| 800S162-118  | 50      | 29'4"                                 | 26'7"   | 23'3"   | 32'11"                      | 29'11"  | 26'1"   | 26'7"                                 | 24'2"   | 21'1"   | 29'11"                      | 27'2"   | 23'9"   |
| 800S200-118  | 50      | 30'9"                                 | 27'11"  | 24'5"   | 34'6"                       | 31'5"   | 27'5"   | 27'11"                                | 25'5"   | 22'2"   | 31'5"                       | 28'6"   | 24'11"  |
| 800S250-118  | 50      | 32'2"                                 | 29'3"   | 25'6"   | 36'1"                       | 32'10"  | 28'8"   | 29'3"                                 | 26'7"   | 23'2"   | 32'10"                      | 29'10"  | 26'1"   |
| 800S300-118  | 50      | 33'6"                                 | 30'5"   | 26'7"   | 37'7"                       | 34'2"   | 29'10"  | 30'5"                                 | 27'8"   | 24'2"   | 34'2"                       | 31'0"   | 27'1"   |
| 800S350-118  | 50      | 35'3"                                 | 32'0"   | 28'0"   | 39'7"                       | 35'11"  | 31'5"   | 32'0"                                 | 29'1"   | 25'5"   | 35'11"                      | 32'8"   | 28'6"   |
| 1000S162-43  | 33      | 22'4"e                                | 19'4"e  | 15'10"e | 22'3"e                      | 18'10"e | 14'8"e  | 22'4"e                                | 19'4"e  | 15'10"e | 22'3"e                      | 18'10"e | 14'8"e  |
| 1000S200-43  | 33      | 24'1"e                                | 20'11"e | 17'1"e  | 23'5"e                      | 19'9"e  | 15'4"e  | 24'1"e                                | 20'11"e | 17'1"e  | 23'5"e                      | 19'9"e  | 15'4"e  |
| 1000S250-43  | 33      | 24'10"e                               | 21'6"e  | 17'6"e  | 24'5"e                      | 20'6"e  | 15'10"e | 24'10"e                               | 21'6"e  | 17'6"e  | 24'5"e                      | 20'6"e  | 15'10"e |
| 1000S162-54  | 33      | 26'4"                                 | 22'9"   | 18'7"e  | 26'4"                       | 22'9"   | 18'6"   | 25'2"                                 | 22'9"   | 18'7"e  | 26'4"                       | 22'9"   | 18'6"   |
| 1000S162-54  | 50      | 27'7"                                 | 25'0"   | 21'2"   | 29'11"                      | 25'11"  | 21'2"   | 25'2"                                 | 22'10"  | 19'11"  | 28'2"                       | 25'6"   | 21'2"   |
| 1000S200-54  | 33      | 28'3"                                 | 24'5"   | 20'0"e  | 28'3"                       | 24'5"   | 19'9"   | 26'4"                                 | 23'10"  | 20'0"e  | 28'3"                       | 24'5"   | 19'9"   |
| 1000S200-54  | 50      | 28'10"                                | 26'2"   | 22'9"   | 32'2"                       | 27'10"  | 22'2"   | 26'4"                                 | 23'10"  | 20'9"   | 29'5"                       | 26'8"   | 22'2"   |
| 1000S250-54  | 33      | 29'1"                                 | 25'2"   | 20'7"e  | 29'1"                       | 25'2"   | 20'7"   | 27'6"                                 | 25'0"   | 20'7"e  | 29'1"                       | 25'2"   | 20'7"   |
| 1000S250-54  | 50      | 30'3"                                 | 27'6"   | 23'4"   | 33'1"                       | 28'8"   | 23'1"   | 27'6"                                 | 25'0"   | 21'10"  | 30'10"                      | 28'1"   | 23'1"   |
| 1000S300-54  | 50      | 31'3"                                 | 28'4"   | 23'9"   | 33'7"                       | 29'1"   | 23'3"   | 28'6"                                 | 25'10"  | 22'6"   | 31'10"                      | 28'10"  | 23'3"   |
| 1000S162-68  | 33      | 30'0"                                 | 26'9"   | 21'10"  | 30'11"                      | 26'9"   | 21'10"  | 27'3"                                 | 24'9"   | 21'7"   | 30'7"                       | 26'9"   | 21'10"  |
| 1000S162-68  | 50      | 30'0"                                 | 27'2"   | 23'8"   | 33'6"                       | 30'5"   | 25'0"   | 27'3"                                 | 24'9"   | 21'7"   | 30'7"                       | 27'9"   | 24'2"   |
| 1000S200-68  | 33      | 31'3"                                 | 28'5"   | 23'4"   | 33'0"                       | 28'7"   | 23'4"   | 28'5"                                 | 25'10"  | 22'7"   | 31'11"                      | 28'7"   | 23'4"   |
| 1000S200-68  | 50      | 31'3"                                 | 28'5"   | 24'9"   | 35'0"                       | 31'9"   | 26'9"   | 28'5"                                 | 25'10"  | 22'7"   | 31'11"                      | 28'11"  | 25'3"   |
| 1000S250-68  | 33      | 32'6"                                 | 29'7"   | 24'10"  | 35'2"                       | 30'5"   | 24'10"  | 29'7"                                 | 26'10"  | 23'5"   | 33'2"                       | 30'2"   | 24'10"  |
| 1000S250-68  | 50      | 32'6"                                 | 29'7"   | 25'10"  | 36'6"                       | 33'2"   | 27'6"   | 29'7"                                 | 26'10"  | 23'5"   | 33'2"                       | 30'2"   | 26'4"   |
| 1000S300-68  | 50      | 33'8"                                 | 30'7"   | 26'8"   | 37'9"                       | 34'3"   | 28'0"   | 30'7"                                 | 27'10"  | 24'4"   | 34'4"                       | 31'3"   | 27'2"   |
| 1000S162-97  | 33      | 33'4"                                 | 30'4"   | 26'6"   | 37'5"                       | 33'3"   | 27'1"   | 30'4"                                 | 27'6"   | 24'1"   | 34'0"                       | 30'11"  | 27'0"   |
| 1000S162-97  | 50      | 33'4"                                 | 30'4"   | 26'6"   | 37'5"                       | 34'0"   | 29'9"   | 30'4"                                 | 27'6"   | 24'1"   | 34'0"                       | 30'11"  | 27'0"   |
| 1000S200-97  | 33      | 34'10"                                | 31'8"   | 27'8"   | 39'1"                       | 35'6"   | 28'11"  | 31'8"                                 | 28'9"   | 25'1"   | 35'6"                       | 32'3"   | 28'2"   |
| 1000S200-97  | 50      | 34'10"                                | 31'8"   | 27'8"   | 39'1"                       | 35'6"   | 31'0"   | 31'8"                                 | 28'9"   | 25'1"   | 35'6"                       | 32'3"   | 28'2"   |
| 1000S250-97  | 33      | 36'3"                                 | 32'11"  | 28'9"   | 40'9"                       | 37'0"   | 31'11"  | 32'11"                                | 29'11"  | 26'2"   | 37'0"                       | 33'7"   | 29'4"   |
| 1000S250-97  | 50      | 36'3"                                 | 32'11"  | 28'9"   | 40'9"                       | 37'0"   | 32'4"   | 32'11"                                | 29'11"  | 26'2"   | 37'0"                       | 33'7"   | 29'4"   |
| 1000S300-97  | 50      | 37'7"                                 | 34'2"   | 29'10"  | 42'3"                       | 38'4"   | 33'6"   | 34'2"                                 | 31'0"   | 27'1"   | 38'4"                       | 34'10"  | 30'5"   |
| 1000S162-118 | 50      | 35'4"                                 | 32'1"   | 28'0"   | 39'8"                       | 36'0"   | 31'6"   | 32'1"                                 | 29'2"   | 25'6"   | 36'0"                       | 32'9"   | 28'7"   |
| 1000S200-118 | 50      | 36'11"                                | 33'7"   | 29'4"   | 41'6"                       | 37'8"   | 32'11"  | 33'7"                                 | 30'6"   | 26'8"   | 37'8"                       | 34'3"   | 29'11"  |
| 1000S250-118 | 50      | 38'6"                                 | 35'0"   | 30'7"   | 43'2"                       | 39'3"   | 34'4"   | 35'0"                                 | 31'9"   | 27'9"   | 39'3"                       | 35'8"   | 31'2"   |
| 1000S300-118 | 50      | 39'11"                                | 36'3"   | 31'8"   | 44'10"                      | 40'9"   | 35'7"   | 36'3"                                 | 32'11"  | 28'9"   | 40'9"                       | 37'0"   | 32'4"   |
| 1000S350-118 | 50      | 41'11"                                | 38'1"   | 33'4"   | 47'1"                       | 42'9"   | 37'5"   | 38'1"                                 | 34'7"   | 30'3"   | 42'9"                       | 38'11"  | 34'0"   |
| 1200S162-54  | 33      | 28'5"e                                | 24'7"e  | 20'1"e  | 28'5"e                      | 24'7"e  | 19'9"e  | 28'5"e                                | 24'7"e  | 20'1"e  | 28'5"e                      | 24'7"e  | 19'9"e  |
| 1200S162-54  | 50      | 31'9"e                                | 27'11"e | 22'10"e | 32'3"e                      | 27'11"e | 22'5"e  | 29'0"e                                | 26'3"e  | 22'10"e | 27'11"e                     | 22'5"e  | 19'9"e  |
| 1200S200-54  | 33      | 30'9"e                                | 26'7"e  | 21'9"e  | 30'9"e                      | 26'6"e  | 20'11"e | 30'3"e                                | 26'7"e  | 21'9"e  | 30'9"e                      | 26'6"e  | 20'11"e |
| 1200S200-54  | 50      | 33'2"e                                | 30'0"e  | 24'8"e  | 34'10"e                     | 29'7"e  | 23'2"e  | 30'3"e                                | 27'5"e  | 23'10"e | 33'9"e                      | 29'7"e  | 23'2"e  |
| 1200S250-54  | 33      | 31'9"e                                | 27'6"e  | 22'6"e  | 31'5"e                      | 26'9"e  | 21'1"e  | 31'5"e                                | 27'6"e  | 22'6"e  | 31'5"e                      | 26'9"e  | 21'1"e  |
| 1200S250-54  | 50      | 34'6"e                                | 31'2"e  | 25'6"e  | 35'5"e                      | 30'0"e  | 23'5"e  | 31'5"e                                | 28'6"e  | 24'10"e | 35'1"e                      | 30'0"e  | 23'5"e  |
| 1200S300-54  | 50      | 36'1"e                                | 31'10"e | 26'0"e  | 36'3"e                      | 30'8"e  | 23'11"e | 32'11"e                               | 29'10"e | 26'0"e  | 36'3"e                      | 30'8"e  | 23'11"e |
| 1200S162-68  | 33      | 33'8"                                 | 29'2"   | 23'10"  | 33'8"                       | 29'2"   | 23'10"  | 31'7"                                 | 28'8"   | 23'10"  | 33'8"                       | 29'2"   | 23'10"  |
| 1200S162-68  | 50      | 34'8"                                 | 31'5"   | 27'1"   | 38'4"                       | 33'2"   | 27'1"   | 31'7"                                 | 28'8"   | 24'11"  | 35'3"                       | 32'0"   | 27'1"   |
| 1200S200-68  | 33      | 36'1"                                 | 31'4"   | 25'7"   | 36'2"                       | 31'4"   | 25'7"   | 32'11"                                | 29'10"  | 25'7"   | 36'2"                       | 31'4"   | 25'7"   |
| 1200S200-68  | 50      | 36'1"                                 | 32'9"   | 28'6"   | 40'4"                       | 35'9"   | 29'2"   | 32'11"                                | 29'10"  | 26'0"   | 36'9"                       | 33'4"   | 29'0"   |
| 1200S250-68  | 33      | 37'5"                                 | 32'5"   | 26'5"   | 37'5"                       | 32'5"   | 26'5"   | 34'2"                                 | 31'0"   | 26'5"   | 37'5"                       | 32'5"   | 26'5"   |
| 1200S250-68  | 50      | 37'6"                                 | 34'0"   | 29'7"   | 41'11"                      | 36'11"  | 30'1"   | 34'2"                                 | 27'0"   | 26'5"   | 38'2"                       | 34'8"   | 30'1"   |
| 1200S300-68  | 50      | 38'11"                                | 35'5"   | 30'8"   | 43'5"                       | 37'7"   | 30'8"   | 35'5"                                 | 32'2"   | 28'1"   | 39'9"                       | 36'1"   | 30'8"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 20 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 20 psf |          |           |                             |           |          | L/480 Live Load Deflection for 20 psf |           |           |                             |           |          |
|--------------|---------|---------------------------------------|----------|-----------|-----------------------------|-----------|----------|---------------------------------------|-----------|-----------|-----------------------------|-----------|----------|
|              |         | Single Span Spacing (in)              |          |           | Two Equal Span Spacing (in) |           |          | Single Span Spacing (in)              |           |           | Two Equal Span Spacing (in) |           |          |
|              |         | 12"                                   | 16"      | 24"       | 12"                         | 16"       | 24"      | 12"                                   | 16"       | 24"       | 12"                         | 16"       | 24"      |
| 1200S162-97  | 33      | 38' 11"                               | 35' 4"   | 30' 6"    | 43' 2"                      | 37' 5"    | 30' 6"   | 35' 4"                                | 32' 1"    | 28' 1"    | 39' 8"                      | 36' 1"    | 30' 6"   |
| 1200S162-97  | 50      | 38' 11"                               | 35' 4"   | 30' 11"   | 43' 8"                      | 39' 8"    | 34' 8"   | 35' 4"                                | 32' 1"    | 28' 1"    | 39' 8"                      | 36' 1"    | 31' 6"   |
| 1200S200-97  | 33      | 40' 6"                                | 36' 10"  | 32' 2"    | 45' 6"                      | 39' 11"   | 32' 7"   | 36' 10"                               | 33' 5"    | 29' 3"    | 41' 4"                      | 37' 7"    | 32' 7"   |
| 1200S200-97  | 50      | 40' 6"                                | 36' 10"  | 32' 2"    | 45' 6"                      | 41' 4"    | 36' 1"   | 36' 10"                               | 33' 5"    | 29' 3"    | 41' 4"                      | 37' 7"    | 32' 10"  |
| 1200S250-97  | 33      | 42' 1"                                | 38' 2"   | 33' 4"    | 47' 2"                      | 41' 4"    | 33' 9"   | 38' 2"                                | 34' 8"    | 30' 4"    | 42' 11"                     | 39' 0"    | 33' 9"   |
| 1200S250-97  | 50      | 42' 1"                                | 38' 2"   | 33' 4"    | 47' 2"                      | 42' 11"   | 37' 6"   | 38' 2"                                | 34' 8"    | 30' 4"    | 42' 11"                     | 39' 0"    | 34' 1"   |
| 1200S300-97  | 50      | 43' 6"                                | 39' 6"   | 34' 6"    | 48' 10"                     | 44' 4"    | 38' 9"   | 39' 6"                                | 35' 11"   | 31' 4"    | 44' 4"                      | 40' 4"    | 35' 2"   |
| 1200S162-118 | 50      | 41' 3"                                | 37' 6"   | 32' 9"    | 46' 4"                      | 42' 1"    | 36' 9"   | 37' 6"                                | 34' 1"    | 29' 9"    | 42' 1"                      | 38' 3"    | 33' 5"   |
| 1200S200-118 | 50      | 43' 0"                                | 39' 1"   | 34' 1"    | 48' 3"                      | 43' 10"   | 38' 4"   | 39' 1"                                | 35' 6"    | 31' 0"    | 43' 10"                     | 39' 10"   | 34' 10"  |
| 1200S250-118 | 50      | 44' 8"                                | 40' 7"   | 35' 5"    | 50' 2"                      | 45' 7"    | 39' 9"   | 40' 7"                                | 36' 10"   | 32' 2"    | 45' 7"                      | 41' 5"    | 36' 2"   |
| 1200S300-118 | 50      | 46' 2"                                | 42' 0"   | 36' 8"    | 51' 10"                     | 47' 1"    | 41' 2"   | 42' 0"                                | 38' 2"    | 33' 4"    | 47' 1"                      | 42' 10"   | 37' 5"   |
| 1200S350-118 | 50      | 48' 5"                                | 44' 0"   | 38' 5"    | 54' 5"                      | 49' 5"    | 43' 2"   | 44' 0"                                | 40' 0"    | 34' 11"   | 49' 5"                      | 44' 11"   | 39' 3"   |
| 1400S162-54  | 33      | 30' 2" e                              | 26' 1" e | 21' 4" e  | 30' 2" e                    | 26' 1" e  | 20' 5" e | 30' 2" e                              | 26' 1" e  | 21' 4" e  | 30' 2" e                    | 26' 1" e  | 20' 5" e |
| 1400S162-54  | 50      | 34' 0" e                              | 29' 6" e | 24' 1" e  | 34' 0" e                    | 29' 6" e  | 22' 9" e | 32' 7" e                              | 29' 6" e  | 24' 1" e  | 34' 0" e                    | 29' 6" e  | 22' 9" e |
| 1400S200-54  | 33      | 32' 9" e                              | 28' 4" e | 23' 2" e  | 32' 9" e                    | 27' 8" e  | 21' 5" e | 32' 9" e                              | 28' 4" e  | 23' 2" e  | 32' 9" e                    | 27' 8" e  | 21' 5" e |
| 1400S200-54  | 50      | 37' 0" e                              | 32' 1" e | 26' 2" e  | 36' 4" e                    | 30' 6" e  | 23' 4" e | 34' 0" e                              | 30' 10" e | 26' 2" e  | 36' 4" e                    | 30' 6" e  | 23' 4" e |
| 1400S250-54  | 33      | 34' 0" e                              | 29' 6" e | 24' 1" e  | 33' 1" e                    | 27' 10" e | 21' 7" e | 34' 0" e                              | 29' 6" e  | 24' 1" e  | 33' 1" e                    | 27' 10" e | 21' 7" e |
| 1400S250-54  | 50      | 38' 6" e                              | 33' 4" e | 27' 2" e  | 36' 11" e                   | 30' 10" e | 23' 7" e | 35' 4" e                              | 32' 0" e  | 27' 2" e  | 36' 11" e                   | 30' 10" e | 23' 7" e |
| 1400S300-54  | 50      | 39' 5" e                              | 34' 1" e | 27' 10" e | 37' 2" e                    | 31' 1" e  | 23' 9" e | 36' 5" e                              | 32' 11" e | 27' 10" e | 37' 2" e                    | 31' 1" e  | 23' 9" e |
| 1400S162-68  | 33      | 35' 11"                               | 31' 1"   | 25' 5"    | 35' 11"                     | 31' 1"    | 25' 5"   | 35' 8"                                | 31' 1"    | 25' 5"    | 35' 11"                     | 31' 1"    | 25' 5"   |
| 1400S162-68  | 50      | 39' 1"                                | 35' 3"   | 28' 9"    | 40' 8"                      | 35' 3"    | 28' 9"   | 35' 8"                                | 32' 4"    | 28' 2"    | 39' 9"                      | 35' 3"    | 28' 9"   |
| 1400S200-68  | 33      | 38' 9"                                | 33' 6"   | 27' 5" e  | 38' 9"                      | 33' 6"    | 27' 5"   | 37' 1"                                | 33' 6"    | 27' 5" e  | 38' 9"                      | 33' 6"    | 27' 5"   |
| 1400S200-68  | 50      | 40' 8"                                | 36' 10"  | 31' 1"    | 44' 0"                      | 38' 1"    | 31' 1"   | 37' 1"                                | 33' 8"    | 29' 3"    | 41' 5"                      | 37' 6"    | 31' 1"   |
| 1400S250-68  | 33      | 40' 3"                                | 34' 10"  | 28' 5" e  | 40' 3"                      | 34' 10"   | 28' 5"   | 38' 6"                                | 34' 10"   | 28' 5" e  | 40' 3"                      | 34' 10"   | 28' 5"   |
| 1400S250-68  | 50      | 42' 2"                                | 38' 3"   | 32' 3"    | 45' 8"                      | 39' 6"    | 31' 11"  | 38' 6"                                | 34' 11"   | 30' 5"    | 43' 0"                      | 38' 11"   | 31' 11"  |
| 1400S300-68  | 50      | 43' 7"                                | 39' 5"   | 33' 0"    | 46' 9"                      | 39' 5"    | 32' 4"   | 39' 9"                                | 36' 0"    | 31' 5"    | 44' 5"                      | 40' 1"    | 32' 4"   |
| 1400S162-97  | 33      | 44' 5"                                | 40' 4"   | 32' 11"   | 46' 7"                      | 40' 4"    | 32' 11"  | 40' 4"                                | 36' 8"    | 32' 0"    | 45' 4"                      | 40' 4"    | 32' 11"  |
| 1400S162-97  | 50      | 44' 5"                                | 40' 4"   | 35' 2"    | 49' 9"                      | 45' 1"    | 37' 8"   | 40' 4"                                | 36' 8"    | 32' 0"    | 45' 4"                      | 41' 2"    | 35' 10"  |
| 1400S200-97  | 33      | 46' 1"                                | 41' 11"  | 35' 3"    | 49' 10"                     | 43' 2"    | 35' 3"   | 41' 11"                               | 38' 1"    | 33' 3"    | 47' 0"                      | 42' 9"    | 35' 3"   |
| 1400S200-97  | 50      | 46' 1"                                | 41' 11"  | 36' 6"    | 51' 8"                      | 46' 10"   | 40' 5"   | 41' 11"                               | 38' 1"    | 33' 3"    | 47' 0"                      | 42' 9"    | 37' 3"   |
| 1400S250-97  | 33      | 47' 9"                                | 43' 4"   | 36' 7"    | 51' 9"                      | 44' 10"   | 36' 7"   | 43' 4"                                | 39' 5"    | 34' 5"    | 48' 8"                      | 44' 3"    | 36' 7"   |
| 1400S250-97  | 50      | 47' 9"                                | 43' 4"   | 37' 10"   | 53' 6"                      | 48' 7"    | 41' 11"  | 43' 4"                                | 39' 5"    | 34' 5"    | 48' 8"                      | 44' 3"    | 38' 7"   |
| 1400S300-97  | 50      | 49' 3"                                | 44' 9"   | 39' 1"    | 55' 3"                      | 50' 2"    | 42' 11"  | 44' 9"                                | 40' 8"    | 35' 6"    | 50' 3"                      | 45' 8"    | 39' 10"  |
| 1400S162-118 | 50      | 47' 2"                                | 42' 10"  | 37' 5"    | 52' 11"                     | 48' 1"    | 42' 0"   | 42' 10"                               | 38' 11"   | 34' 0"    | 48' 1"                      | 43' 8"    | 38' 2"   |
| 1400S200-118 | 50      | 48' 11"                               | 44' 6"   | 38' 10"   | 55' 0"                      | 49' 11"   | 43' 8"   | 44' 6"                                | 40' 5"    | 35' 4"    | 49' 11"                     | 45' 4"    | 39' 8"   |
| 1400S250-118 | 50      | 50' 9"                                | 46' 1"   | 40' 3"    | 56' 11"                     | 51' 9"    | 45' 2"   | 46' 1"                                | 41' 10"   | 36' 7"    | 51' 9"                      | 47' 0"    | 41' 1"   |
| 1400S300-118 | 50      | 52' 4"                                | 47' 7"   | 41' 7"    | 58' 9"                      | 53' 5"    | 46' 8"   | 47' 7"                                | 43' 3"    | 37' 9"    | 53' 5"                      | 48' 6"    | 42' 5"   |
| 1400S350-118 | 50      | 54' 9"                                | 49' 9"   | 43' 6"    | 61' 6"                      | 55' 10"   | 48' 10"  | 49' 9"                                | 45' 3"    | 39' 6"    | 55' 10"                     | 50' 9"    | 44' 4"   |
| 1600S200-68  | 50      | 45' 0"                                | 40' 1"   | 32' 8"    | 46' 3"                      | 40' 1"    | 32' 8"   | 41' 2"                                | 37' 3"    | 32' 5"    | 45' 10"                     | 40' 1"    | 32' 8"   |
| 1600S250-68  | 50      | 46' 8"                                | 41' 9"   | 34' 1"    | 48' 3"                      | 41' 9"    | 33' 0"   | 42' 7"                                | 38' 7"    | 33' 7"    | 47' 6"                      | 41' 9"    | 33' 0"   |
| 1600S300-68  | 50      | 48' 2"                                | 42' 11"  | 35' 1"    | 49' 7"                      | 42' 5"    | 33' 4"   | 44' 0"                                | 39' 10"   | 34' 8"    | 49' 0"                      | 42' 5"    | 33' 4"   |
| 1600S350-68  | 50      | 50' 5"                                | 45' 9"   | 39' 4"    | 54' 8"                      | 46' 3"    | 36' 1"   | 46' 0"                                | 41' 9"    | 36' 4"    | 51' 5"                      | 46' 3"    | 36' 1"   |
| 1600S200-97  | 50      | 51' 6"                                | 46' 8"   | 40' 7"    | 57' 6"                      | 52' 1"    | 42' 10"  | 46' 11"                               | 42' 7"    | 37' 1"    | 52' 5"                      | 47' 7"    | 41' 5"   |
| 1600S250-97  | 50      | 53' 3"                                | 48' 3"   | 42' 0"    | 59' 6"                      | 53' 11"   | 44' 7"   | 48' 6"                                | 44' 0"    | 38' 4"    | 54' 3"                      | 49' 2"    | 42' 10"  |
| 1600S300-97  | 50      | 54' 10"                               | 49' 9"   | 43' 4"    | 61' 4"                      | 55' 7"    | 45' 9"   | 49' 11"                               | 45' 4"    | 39' 6"    | 55' 11"                     | 50' 9"    | 44' 2"   |
| 1600S350-97  | 50      | 57' 3"                                | 52' 0"   | 45' 4"    | 64' 1"                      | 58' 2"    | 50' 7"   | 52' 1"                                | 47' 4"    | 41' 3"    | 58' 5"                      | 53' 0"    | 46' 2"   |
| 1600S200-118 | 50      | 54' 10"                               | 49' 10"  | 43' 7"    | 61' 7"                      | 56' 0"    | 48' 9" i | 49' 10"                               | 45' 4"    | 39' 7"    | 56' 0"                      | 50' 10"   | 44' 5"   |
| 1600S250-118 | 50      | 56' 8"                                | 51' 6"   | 45' 0"    | 63' 8"                      | 57' 10"   | 50' 5"   | 51' 6"                                | 46' 10"   | 40' 11"   | 57' 10"                     | 52' 7"    | 45' 11"  |
| 1600S300-118 | 50      | 58' 5"                                | 53' 1"   | 46' 4"    | 65' 7"                      | 59' 7"    | 52' 0" i | 53' 1"                                | 48' 3"    | 42' 2"    | 59' 7"                      | 54' 2"    | 47' 4"   |
| 1600S350-118 | 50      | 61' 0"                                | 55' 5"   | 48' 5"    | 68' 6"                      | 62' 3"    | 54' 4" i | 55' 5"                                | 50' 4"    | 44' 0"    | 62' 3"                      | 56' 6"    | 49' 5"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 30 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 30 psf |          |          |                             |         |          | L/480 Live Load Deflection for 30 psf |          |          |                             |         |          |
|-------------|---------|---------------------------------------|----------|----------|-----------------------------|---------|----------|---------------------------------------|----------|----------|-----------------------------|---------|----------|
|             |         | Single Span Spacing (in)              |          |          | Two Equal Span Spacing (in) |         |          | Single Span Spacing (in)              |          |          | Two Equal Span Spacing (in) |         |          |
|             |         | 12"                                   | 16"      | 24"      | 12"                         | 16"     | 24"      | 12"                                   | 16"      | 24"      | 12"                         | 16"     | 24"      |
| 600S162-33  | 33      | 12'7" e                               | 10'11" e | 8'11" e  | 12'7"                       | 10'10"  | 8'5" e   | 12'6" e                               | 10'11" e | 8'11" e  | 12'7"                       | 10'10"  | 8'5" e   |
| 600S200-33  | 33      | 13'5" e                               | 11'7" e  | 9'6" e   | 13'3"                       | 11'2"   | 8'8" e   | 13'2" e                               | 11'7" e  | 9'6" e   | 13'3"                       | 11'2"   | 8'8" e   |
| 600S162-43  | 33      | 15'0"                                 | 13'5"    | 11'0" e  | 15'6"                       | 13'5"   | 11'0"    | 13'8"                                 | 12'5"    | 10'10" e | 15'4"                       | 13'5"   | 11'0"    |
| 600S200-43  | 33      | 15'9"                                 | 13'10"   | 11'4" e  | 16'0"                       | 13'10"  | 11'4"    | 14'4"                                 | 13'0"    | 11'4" e  | 16'0"                       | 13'10"  | 11'4"    |
| 600S250-43  | 33      | 16'5"                                 | 14'3"    | 11'7" e  | 16'5"                       | 14'3"   | 11'7"    | 15'0"                                 | 13'7"    | 11'7" e  | 16'5"                       | 14'3"   | 11'7"    |
| 600S162-54  | 33      | 16'1"                                 | 14'7"    | 12'9"    | 18'1"                       | 15'9"   | 12'10"   | 14'7"                                 | 13'3"    | 11'7"    | 16'5"                       | 14'11"  | 12'10"   |
| 600S162-54  | 50      | 16'1"                                 | 14'7"    | 12'9"    | 18'1"                       | 16'5"   | 14'4"    | 14'7"                                 | 13'3"    | 11'7"    | 16'5"                       | 14'11"  | 13'0"    |
| 600S200-54  | 33      | 16'11"                                | 15'4"    | 13'5"    | 19'0"                       | 16'7"   | 13'7"    | 15'4"                                 | 14'0"    | 12'2"    | 17'3"                       | 15'8"   | 13'7"    |
| 600S200-54  | 50      | 16'11"                                | 15'4"    | 13'5"    | 19'0"                       | 17'3"   | 15'1"    | 15'4"                                 | 14'0"    | 12'2"    | 17'3"                       | 15'8"   | 13'8"    |
| 600S250-54  | 33      | 17'9"                                 | 16'1"    | 13'6"    | 19'1"                       | 16'7"   | 13'4"    | 16'1"                                 | 14'8"    | 12'9"    | 18'1"                       | 16'5"   | 13'4"    |
| 600S250-54  | 50      | 17'9"                                 | 16'1"    | 14'1"    | 19'11"                      | 18'1"   | 15'6"    | 16'1"                                 | 14'8"    | 12'9"    | 18'1"                       | 16'5"   | 14'4"    |
| 600S300-54  | 50      | 18'6"                                 | 16'9"    | 14'7"    | 20'7"                       | 18'7"   | 15'9"    | 16'9"                                 | 15'3"    | 13'4"    | 18'10"                      | 17'1"   | 14'10"   |
| 600S162-68  | 33      | 17'3"                                 | 15'8"    | 13'8"    | 19'4"                       | 17'7"   | 14'7"    | 15'8"                                 | 14'3"    | 12'5"    | 17'7"                       | 16'0"   | 14'0"    |
| 600S162-68  | 50      | 17'3"                                 | 15'8"    | 13'8"    | 19'4"                       | 17'7"   | 15'4"    | 15'8"                                 | 14'3"    | 12'5"    | 17'7"                       | 16'0"   | 14'0"    |
| 600S200-68  | 33      | 18'2"                                 | 16'6"    | 14'5"    | 20'4"                       | 18'6"   | 15'6"    | 16'6"                                 | 15'0"    | 13'1"    | 18'6"                       | 16'10"  | 14'8"    |
| 600S200-68  | 50      | 18'2"                                 | 16'6"    | 14'5"    | 20'4"                       | 18'6"   | 16'2"    | 16'6"                                 | 15'0"    | 13'1"    | 18'6"                       | 16'10"  | 14'8"    |
| 600S250-68  | 33      | 19'0"                                 | 17'3"    | 15'1"    | 21'4"                       | 19'5"   | 16'0"    | 17'3"                                 | 15'8"    | 13'9"    | 19'5"                       | 17'8"   | 15'5"    |
| 600S250-68  | 50      | 19'0"                                 | 17'3"    | 15'1"    | 21'4"                       | 19'5"   | 16'11"   | 17'3"                                 | 15'8"    | 13'9"    | 19'5"                       | 17'8"   | 15'5"    |
| 600S300-68  | 50      | 19'10"                                | 18'0"    | 15'9"    | 22'3"                       | 20'2"   | 17'7"    | 18'0"                                 | 16'4"    | 14'4"    | 20'3"                       | 18'5"   | 16'1"    |
| 600S162-97  | 33      | 19'1"                                 | 17'4"    | 15'2"    | 21'6"                       | 19'6"   | 17'0"    | 17'4"                                 | 15'9"    | 13'9"    | 19'6"                       | 17'9"   | 15'6"    |
| 600S162-97  | 50      | 19'1"                                 | 17'4"    | 15'2"    | 21'6"                       | 19'6"   | 17'0"    | 17'4"                                 | 15'9"    | 13'9"    | 19'6"                       | 17'9"   | 15'6"    |
| 600S200-97  | 33      | 20'2"                                 | 18'4"    | 16'0"    | 22'7"                       | 20'7"   | 17'11"   | 18'4"                                 | 16'8"    | 14'6"    | 20'7"                       | 18'8"   | 16'4"    |
| 600S200-97  | 50      | 20'2"                                 | 18'4"    | 16'0"    | 22'7"                       | 20'7"   | 17'11"   | 18'4"                                 | 16'8"    | 14'6"    | 20'7"                       | 18'8"   | 16'4"    |
| 600S250-97  | 33      | 21'2"                                 | 19'3"    | 16'9"    | 23'9"                       | 21'7"   | 18'10"   | 19'3"                                 | 17'6"    | 15'3"    | 21'7"                       | 19'7"   | 17'2"    |
| 600S250-97  | 50      | 21'2"                                 | 19'3"    | 16'9"    | 23'9"                       | 21'7"   | 18'10"   | 19'3"                                 | 17'6"    | 15'3"    | 21'7"                       | 19'7"   | 17'2"    |
| 600S300-97  | 50      | 22'1"                                 | 20'1"    | 17'6"    | 24'9"                       | 22'6"   | 19'8"    | 20'1"                                 | 18'3"    | 15'11"   | 22'6"                       | 20'5"   | 17'10"   |
| 600S162-118 | 50      | 20'2"                                 | 18'4"    | 16'0"    | 22'8"                       | 20'7"   | 18'0"    | 18'4"                                 | 16'8"    | 14'7"    | 20'7"                       | 18'9"   | 16'4"    |
| 600S200-118 | 50      | 21'4"                                 | 19'4"    | 16'11"   | 23'11"                      | 21'9"   | 19'0"    | 19'4"                                 | 17'7"    | 15'4"    | 21'9"                       | 19'9"   | 17'3"    |
| 600S250-118 | 50      | 22'5"                                 | 20'4"    | 17'9"    | 25'2"                       | 22'10"  | 20'0"    | 20'4"                                 | 18'6"    | 16'2"    | 22'10"                      | 20'9"   | 18'2"    |
| 600S300-118 | 50      | 23'5"                                 | 21'3"    | 18'7"    | 26'3"                       | 23'10"  | 20'10"   | 21'3"                                 | 19'4"    | 16'10"   | 23'10"                      | 21'8"   | 18'11"   |
| 600S350-118 | 50      | 24'8"                                 | 22'5"    | 19'7"    | 27'8"                       | 25'2"   | 22'0"    | 22'5"                                 | 20'4"    | 17'9"    | 25'2"                       | 22'10"  | 20'0"    |
| 800S162-33  | 33      | 14'6" e                               | 12'7" e  | 10'3" e  | 13'0" e                     | 10'9" e | 8'0" e   | 14'6" e                               | 12'7" e  | 10'3" e  | 13'0" e                     | 10'9" e | 8'0" e   |
| 800S200-33  | 33      | 15'7" e                               | 13'6" e  | 11'0" e  | 13'8" e                     | 11'2" e | 8'2" e   | 15'7" e                               | 13'6" e  | 11'0" e  | 13'8" e                     | 11'2" e | 8'2" e   |
| 800S162-43  | 33      | 17'6"                                 | 15'2" e  | 12'4" e  | 17'6"                       | 14'11"  | 11'9"    | 17'1"                                 | 15'2" e  | 12'4" e  | 17'6"                       | 14'11"  | 11'9"    |
| 800S200-43  | 33      | 18'8"                                 | 16'2" e  | 13'3" e  | 18'8"                       | 16'2"   | 12'11" e | 18'0"                                 | 16'2" e  | 13'3" e  | 18'8"                       | 16'2"   | 12'11" e |
| 800S250-43  | 33      | 19'2" e                               | 16'7" e  | 13'7" e  | 19'2"                       | 16'7"   | 13'0" e  | 18'9"                                 | 16'7" e  | 13'7" e  | 19'2"                       | 16'7"   | 13'0" e  |
| 800S162-54  | 33      | 20'3"                                 | 17'8"    | 14'5" e  | 20'5"                       | 17'8"   | 14'4"    | 18'5"                                 | 16'9"    | 14'5" e  | 20'5"                       | 17'8"   | 14'4"    |
| 800S162-54  | 50      | 20'3"                                 | 18'5"    | 16'0"    | 22'8"                       | 20'3"   | 16'6"    | 18'5"                                 | 16'9"    | 14'7"    | 20'8"                       | 18'9"   | 16'4"    |
| 800S200-54  | 33      | 21'3"                                 | 19'4"    | 15'11" e | 22'6"                       | 19'6"   | 15'11"   | 19'4"                                 | 17'6"    | 15'4" e  | 21'8"                       | 19'6"   | 15'11"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 30 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 30 psf |                     |                     |                             |                     |                    | L/480 Live Load Deflection for 30 psf |                     |                     |                             |                     |                    |
|-------------|---------|---------------------------------------|---------------------|---------------------|-----------------------------|---------------------|--------------------|---------------------------------------|---------------------|---------------------|-----------------------------|---------------------|--------------------|
|             |         | Single Span Spacing (in)              |                     |                     | Two Equal Span Spacing (in) |                     |                    | Single Span Spacing (in)              |                     |                     | Two Equal Span Spacing (in) |                     |                    |
|             |         | 12"                                   | 16"                 | 24"                 | 12"                         | 16"                 | 24"                | 12"                                   | 16"                 | 24"                 | 12"                         | 16"                 | 24"                |
| 800S200-54  | 50      | 21'3"                                 | 19'4"               | 16'10"              | 23'10"                      | 21'7"               | 17'8"              | 19'4"                                 | 17'6"               | 15'4"               | 21'8"                       | 19'8"               | 17'2"              |
| 800S250-54  | 33      | 22'2"                                 | 19'5"               | 15'10" <sup>e</sup> | 22'5"                       | 19'5"               | 15'10"             | 20'2"                                 | 18'3"               | 15'10" <sup>e</sup> | 22'5"                       | 19'5"               | 15'10"             |
| 800S250-54  | 50      | 22'2"                                 | 20'2"               | 17'7"               | 24'11"                      | 22'1"               | 18'1"              | 20'2"                                 | 18'3"               | 16'0"               | 22'7"                       | 20'6"               | 17'11"             |
| 800S300-54  | 50      | 23'0"                                 | 20'10"              | 18'1"               | 25'6"                       | 22'5"               | 18'4"              | 20'11"                                | 19'0"               | 16'7"               | 23'5"                       | 21'3"               | 18'4"              |
| 800S162-68  | 33      | 21'9"                                 | 19'9"               | 16'10"              | 23'9"                       | 20'6"               | 16'8"              | 19'9"                                 | 18'0"               | 15'8"               | 22'3"                       | 20'2"               | 16'8"              |
| 800S162-68  | 50      | 21'9"                                 | 19'9"               | 17'3"               | 24'5"                       | 19'5"               | 19'5"              | 19'9"                                 | 18'0"               | 15'8"               | 22'3"                       | 20'2"               | 17'8"              |
| 800S200-68  | 33      | 22'10"                                | 20'9"               | 18'1"               | 25'7"                       | 22'10"              | 18'8"              | 20'9"                                 | 18'10"              | 16'5"               | 23'3"                       | 21'2"               | 18'6"              |
| 800S200-68  | 50      | 22'10"                                | 20'9"               | 18'1"               | 25'7"                       | 23'3"               | 20'4"              | 20'9"                                 | 18'10"              | 16'5"               | 23'3"                       | 21'2"               | 18'6"              |
| 800S250-68  | 33      | 23'10"                                | 21'8"               | 18'11"              | 26'9"                       | 23'4"               | 19'1"              | 21'8"                                 | 19'8"               | 17'2"               | 24'3"                       | 22'1"               | 19'1"              |
| 800S250-68  | 50      | 23'10"                                | 21'8"               | 18'11"              | 26'9"                       | 24'3"               | 21'2"              | 21'8"                                 | 19'8"               | 17'2"               | 24'3"                       | 22'1"               | 19'3"              |
| 800S300-68  | 50      | 24'9"                                 | 22'6"               | 19'7"               | 27'9"                       | 25'2"               | 21'6"              | 22'6"                                 | 20'5"               | 17'10"              | 25'3"                       | 22'11"              | 20'0"              |
| 800S162-97  | 33      | 24'2"                                 | 22'0"               | 19'2"               | 27'2"                       | 24'8"               | 21'7"              | 22'0"                                 | 20'0"               | 17'5"               | 24'8"                       | 22'5"               | 19'7"              |
| 800S162-97  | 50      | 24'2"                                 | 22'0"               | 19'2"               | 27'2"                       | 24'8"               | 21'7"              | 22'0"                                 | 20'0"               | 17'5"               | 24'8"                       | 22'5"               | 19'7"              |
| 800S200-97  | 33      | 25'4"                                 | 23'1"               | 20'2"               | 28'6"                       | 25'11"              | 22'7"              | 23'1"                                 | 20'11"              | 18'4"               | 25'11"                      | 23'6"               | 20'6"              |
| 800S200-97  | 50      | 25'4"                                 | 23'1"               | 20'2"               | 28'6"                       | 25'11"              | 22'7"              | 23'1"                                 | 20'11"              | 18'4"               | 25'11"                      | 23'6"               | 20'6"              |
| 800S250-97  | 33      | 26'6"                                 | 24'1"               | 21'0"               | 29'9"                       | 27'1"               | 23'7"              | 24'1"                                 | 21'11"              | 19'1"               | 27'1"                       | 24'7"               | 21'6"              |
| 800S250-97  | 50      | 26'6"                                 | 24'1"               | 21'0"               | 29'9"                       | 27'1"               | 23'7"              | 24'1"                                 | 21'11"              | 19'1"               | 27'1"                       | 24'7"               | 21'6"              |
| 800S300-97  | 50      | 27'7"                                 | 25'1"               | 21'11"              | 30'11"                      | 28'1"               | 24'7"              | 25'1"                                 | 22'9"               | 19'11"              | 28'1"                       | 25'7"               | 22'4"              |
| 800S162-118 | 50      | 25'7"                                 | 23'3"               | 20'4"               | 28'9"                       | 26'1"               | 22'10"             | 23'3"                                 | 21'1"               | 18'5"               | 26'1"                       | 23'9"               | 20'9"              |
| 800S200-118 | 50      | 26'10"                                | 24'5"               | 21'4"               | 30'2"                       | 27'5"               | 23'11"             | 24'5"                                 | 22'2"               | 19'5"               | 27'5"                       | 24'11"              | 21'9"              |
| 800S250-118 | 50      | 28'1"                                 | 25'6"               | 22'4"               | 31'7"                       | 28'8"               | 25'1"              | 25'6"                                 | 23'2"               | 20'3"               | 28'8"                       | 26'1"               | 22'9"              |
| 800S300-118 | 50      | 29'3"                                 | 26'7"               | 23'3"               | 32'10"                      | 29'10"              | 26'1"              | 26'7"                                 | 24'2"               | 21'1"               | 29'10"                      | 27'1"               | 23'8"              |
| 800S350-118 | 50      | 30'10"                                | 28'0"               | 24'5"               | 34'7"                       | 31'5"               | 27'5"              | 28'0"                                 | 25'5"               | 22'2"               | 31'5"                       | 28'6"               | 24'11"             |
| 1000S162-43 | 33      | 19'4" <sup>e</sup>                    | 16'9" <sup>e</sup>  | 13'8" <sup>e</sup>  | 18'10" <sup>e</sup>         | 15'10" <sup>e</sup> | 12'2" <sup>e</sup> | 19'4" <sup>e</sup>                    | 16'9" <sup>e</sup>  | 13'8" <sup>e</sup>  | 18'10" <sup>e</sup>         | 15'10" <sup>e</sup> | 12'2" <sup>e</sup> |
| 1000S200-43 | 33      | 20'11" <sup>e</sup>                   | 18'1" <sup>e</sup>  | 14'9" <sup>e</sup>  | 19'9" <sup>e</sup>          | 16'6" <sup>e</sup>  | 12'7" <sup>e</sup> | 20'11" <sup>e</sup>                   | 18'1" <sup>e</sup>  | 14'9" <sup>e</sup>  | 19'9" <sup>e</sup>          | 16'6" <sup>e</sup>  | 12'7" <sup>e</sup> |
| 1000S250-43 | 33      | 21'6" <sup>e</sup>                    | 18'7" <sup>e</sup>  | 15'2" <sup>e</sup>  | 20'6" <sup>e</sup>          | 17'1" <sup>e</sup>  | 13'0" <sup>e</sup> | 21'6" <sup>e</sup>                    | 18'7" <sup>e</sup>  | 15'2" <sup>e</sup>  | 20'6" <sup>e</sup>          | 17'1" <sup>e</sup>  | 13'0" <sup>e</sup> |
| 1000S162-54 | 33      | 22'9"                                 | 19'9"               | 16'1" <sup>e</sup>  | 22'9"                       | 19'9"               | 15'10"             | 22'0"                                 | 19'9"               | 16'1" <sup>e</sup>  | 22'9"                       | 19'9"               | 15'10"             |
| 1000S162-54 | 50      | 24'1"                                 | 21'10"              | 18'4"               | 25'11"                      | 22'6"               | 18'2"              | 22'0"                                 | 19'11"              | 17'4"               | 24'7"                       | 22'3"               | 18'2"              |
| 1000S200-54 | 33      | 24'5"                                 | 21'2" <sup>e</sup>  | 17'3" <sup>e</sup>  | 24'5"                       | 21'1"               | 16'9"              | 23'0"                                 | 20'10" <sup>e</sup> | 17'3" <sup>e</sup>  | 24'5"                       | 21'1"               | 16'9"              |
| 1000S200-54 | 50      | 25'2"                                 | 22'10"              | 19'9"               | 27'10"                      | 23'8"               | 18'9"              | 23'0"                                 | 20'10"              | 18'2"               | 25'8"                       | 23'3"               | 18'9"              |
| 1000S250-54 | 33      | 25'2"                                 | 21'10" <sup>e</sup> | 17'10" <sup>e</sup> | 25'2"                       | 21'10"              | 17'10"             | 24'0"                                 | 21'10" <sup>e</sup> | 17'10" <sup>e</sup> | 25'2"                       | 21'10"              | 17'10"             |
| 1000S250-54 | 50      | 26'5"                                 | 24'0"               | 20'3"               | 28'8"                       | 24'9"               | 19'6"              | 24'0"                                 | 21'10"              | 19'1"               | 27'0"                       | 24'6"               | 19'6"              |
| 1000S300-54 | 50      | 27'4"                                 | 24'9"               | 20'7"               | 29'1"                       | 24'10"              | 19'7"              | 24'10"                                | 22'7"               | 19'8"               | 27'10"                      | 24'10"              | 19'7"              |
| 1000S162-68 | 33      | 26'2"                                 | 23'2"               | 18'11"              | 26'9"                       | 23'2"               | 18'11"             | 23'9"                                 | 21'7"               | 18'10"              | 26'8"                       | 23'2"               | 18'11"             |
| 1000S162-68 | 50      | 26'2"                                 | 23'9"               | 20'8"               | 29'3"                       | 26'6"               | 21'8"              | 23'9"                                 | 21'7"               | 18'10"              | 26'8"                       | 24'2"               | 21'1"              |
| 1000S200-68 | 33      | 27'4"                                 | 24'9"               | 20'3"               | 28'7"                       | 24'9"               | 20'3"              | 24'10"                                | 22'7"               | 19'8"               | 27'10"                      | 24'9"               | 20'3"              |
| 1000S200-68 | 50      | 27'4"                                 | 24'10"              | 21'7"               | 30'7"                       | 27'9"               | 23'2"              | 24'10"                                | 22'7"               | 19'8"               | 27'10"                      | 25'3"               | 22'0"              |
| 1000S250-68 | 33      | 28'5"                                 | 25'10"              | 21'6" <sup>e</sup>  | 30'5"                       | 26'4"               | 21'6"              | 25'10"                                | 23'5"               | 20'6"               | 29'0"                       | 26'4"               | 21'6"              |
| 1000S250-68 | 50      | 28'5"                                 | 25'10"              | 22'7"               | 31'11"                      | 29'0"               | 23'10"             | 25'10"                                | 23'5"               | 20'6"               | 29'0"                       | 26'4"               | 23'0"              |
| 1000S300-68 | 50      | 29'5"                                 | 26'9"               | 23'4"               | 33'0"                       | 29'8"               | 24'3"              | 26'9"                                 | 24'4"               | 21'3"               | 30'0"                       | 27'3"               | 23'9"              |

See notes located on page 74



# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 30 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 30 psf |           |           |                             |           |           | L/480 Live Load Deflection for 30 psf |           |           |                             |           |           |
|--------------|---------|---------------------------------------|-----------|-----------|-----------------------------|-----------|-----------|---------------------------------------|-----------|-----------|-----------------------------|-----------|-----------|
|              |         | Single Span Spacing (in)              |           |           | Two Equal Span Spacing (in) |           |           | Single Span Spacing (in)              |           |           | Two Equal Span Spacing (in) |           |           |
|              |         | 12"                                   | 16"       | 24"       | 12"                         | 16"       | 24"       | 12"                                   | 16"       | 24"       | 12"                         | 16"       | 24"       |
| 1000S162-97  | 33      | 29' 2"                                | 26' 6"    | 23' 1"    | 32' 8"                      | 28' 9"    | 23' 5"    | 26' 6"                                | 24' 1"    | 21' 0"    | 29' 9"                      | 27' 0"    | 23' 5"    |
| 1000S162-97  | 50      | 29' 2"                                | 26' 6"    | 23' 1"    | 32' 8"                      | 29' 9"    | 26' 0"    | 26' 6"                                | 24' 1"    | 21' 0"    | 29' 9"                      | 27' 0"    | 23' 7"    |
| 1000S200-97  | 33      | 30' 5"                                | 27' 8"    | 24' 2"    | 34' 2"                      | 30' 9"    | 25' 0"    | 27' 8"                                | 25' 1"    | 21' 11"   | 31' 0"                      | 28' 2"    | 24' 8"    |
| 1000S200-97  | 50      | 30' 5"                                | 27' 8"    | 24' 2"    | 34' 2"                      | 31' 0"    | 27' 1"    | 27' 8"                                | 25' 1"    | 21' 11"   | 31' 0"                      | 28' 2"    | 24' 8"    |
| 1000S250-97  | 33      | 31' 8"                                | 28' 9"    | 25' 2"    | 35' 7"                      | 32' 4"    | 27' 8"    | 28' 9"                                | 26' 2"    | 22' 10"   | 32' 4"                      | 29' 4"    | 25' 8"    |
| 1000S250-97  | 50      | 31' 8"                                | 28' 9"    | 25' 2"    | 35' 7"                      | 32' 4"    | 28' 3"    | 28' 9"                                | 26' 2"    | 22' 10"   | 32' 4"                      | 29' 4"    | 25' 8"    |
| 1000S300-97  | 50      | 32' 10"                               | 29' 10"   | 26' 1"    | 36' 10"                     | 33' 6"    | 29' 3"    | 29' 10"                               | 27' 1"    | 23' 8"    | 33' 6"                      | 30' 5"    | 26' 7"    |
| 1000S162-118 | 50      | 30' 10"                               | 28' 0"    | 24' 6"    | 34' 8"                      | 31' 6"    | 27' 6"    | 28' 0"                                | 25' 6"    | 22' 3"    | 31' 6"                      | 28' 7"    | 25' 0"    |
| 1000S200-118 | 50      | 32' 3"                                | 29' 4"    | 25' 7"    | 36' 3"                      | 32' 11"   | 28' 9"    | 29' 4"                                | 26' 8"    | 23' 3"    | 32' 11"                     | 29' 11"   | 26' 1"    |
| 1000S250-118 | 50      | 33' 7"                                | 30' 7"    | 26' 8"    | 37' 9"                      | 34' 4"    | 29' 11"   | 30' 7"                                | 27' 9"    | 24' 3"    | 34' 4"                      | 31' 2"    | 27' 3"    |
| 1000S300-118 | 50      | 34' 10"                               | 31' 8"    | 27' 8"    | 39' 2"                      | 35' 7"    | 31' 1"    | 31' 8"                                | 28' 9"    | 25' 2"    | 35' 7"                      | 32' 4"    | 28' 3"    |
| 1000S350-118 | 50      | 36' 8"                                | 33' 4"    | 29' 1"    | 41' 2"                      | 37' 5"    | 32' 8"    | 33' 4"                                | 30' 3"    | 26' 5"    | 37' 5"                      | 34' 0"    | 29' 8"    |
| 1200S162-54  | 33      | 24' 7" e                              | 21' 4" e  | 17' 5" e  | 24' 7" e                    | 21' 2" e  | 16' 8" e  | 24' 7" e                              | 21' 4" e  | 17' 5" e  | 24' 7" e                    | 21' 2" e  | 16' 8" e  |
| 1200S162-54  | 50      | 27' 9" e                              | 24' 2" e  | 19' 9" e  | 27' 11" e                   | 24' 1" e  | 18' 9" e  | 25' 4" e                              | 22' 11" e | 19' 9" e  | 27' 11" e                   | 24' 1" e  | 18' 9" e  |
| 1200S200-54  | 33      | 26' 7" e                              | 23' 0" e  | 18' 10" e | 26' 6" e                    | 22' 5" e  | 17' 7" e  | 26' 5" e                              | 23' 0" e  | 18' 10" e | 26' 6" e                    | 22' 5" e  | 17' 7" e  |
| 1200S200-54  | 50      | 28' 11" e                             | 26' 2" e  | 21' 4" e  | 29' 7" e                    | 24' 11" e | 19' 3" e  | 26' 5" e                              | 23' 11" e | 20' 10" e | 29' 6" e                    | 24' 11" e | 19' 3" e  |
| 1200S250-54  | 33      | 27' 6" e                              | 23' 10" e | 19' 5" e  | 26' 9" e                    | 22' 8" e  | 17' 8" e  | 27' 5" e                              | 23' 10" e | 19' 5" e  | 26' 9" e                    | 22' 8" e  | 17' 8" e  |
| 1200S250-54  | 50      | 30' 1" e                              | 27' 0" e  | 22' 1" e  | 30' 0" e                    | 25' 3" e  | 19' 6" e  | 27' 5" e                              | 24' 11" e | 21' 8" e  | 30' 0" e                    | 25' 3" e  | 19' 6" e  |
| 1200S300-54  | 50      | 31' 6" e                              | 27' 6" e  | 22' 6" e  | 30' 8" e                    | 25' 9" e  | 19' 10" e | 28' 9" e                              | 26' 1" e  | 22' 6" e  | 30' 8" e                    | 25' 9" e  | 19' 10" e |
| 1200S162-68  | 33      | 29' 2"                                | 25' 3"    | 20' 7" e  | 29' 2"                      | 25' 3"    | 20' 7"    | 27' 7"                                | 25' 0"    | 20' 7" e  | 29' 2"                      | 25' 3"    | 20' 7"    |
| 1200S162-68  | 50      | 30' 3"                                | 27' 5"    | 23' 6"    | 33' 2"                      | 28' 9"    | 23' 6"    | 27' 7"                                | 25' 0"    | 21' 9"    | 30' 10"                     | 27' 11"   | 23' 6"    |
| 1200S200-68  | 33      | 31' 4"                                | 27' 1"    | 22' 2" e  | 31' 4"                      | 27' 1"    | 22' 0"    | 28' 9"                                | 26' 1"    | 22' 2" e  | 31' 4"                      | 27' 1"    | 22' 0"    |
| 1200S200-68  | 50      | 31' 6"                                | 28' 7"    | 24' 11"   | 35' 2"                      | 30' 11"   | 25' 3"    | 28' 9"                                | 26' 1"    | 22' 8"    | 32' 1"                      | 29' 1"    | 25' 3"    |
| 1200S250-68  | 33      | 32' 5"                                | 28' 1"    | 22' 11" e | 32' 5"                      | 28' 1"    | 22' 11"   | 29' 10"                               | 27' 1"    | 22' 11" e | 32' 5"                      | 28' 1"    | 22' 11"   |
| 1200S250-68  | 50      | 32' 9"                                | 29' 8"    | 25' 10"   | 36' 7"                      | 31' 11"   | 25' 9"    | 29' 10"                               | 27' 1"    | 23' 7"    | 33' 4"                      | 30' 3"    | 25' 9"    |
| 1200S300-68  | 50      | 34' 0"                                | 30' 11"   | 26' 7"    | 37' 7"                      | 32' 7"    | 26' 7"    | 30' 11"                               | 28' 1"    | 24' 6"    | 34' 8"                      | 31' 6"    | 26' 7"    |
| 1200S162-97  | 33      | 34' 0"                                | 30' 11"   | 26' 5"    | 37' 5"                      | 32' 5"    | 26' 5"    | 30' 11"                               | 28' 1"    | 24' 6"    | 34' 8"                      | 31' 6"    | 26' 5"    |
| 1200S162-97  | 50      | 34' 0"                                | 30' 11"   | 27' 0"    | 38' 2"                      | 34' 8"    | 30' 3"    | 30' 11"                               | 28' 1"    | 24' 6"    | 34' 8"                      | 31' 6"    | 27' 6"    |
| 1200S200-97  | 33      | 35' 5"                                | 32' 2"    | 28' 1"    | 39' 9"                      | 34' 6"    | 28' 2"    | 32' 2"                                | 29' 3"    | 25' 6"    | 36' 1"                      | 32' 10"   | 28' 2"    |
| 1200S200-97  | 50      | 35' 5"                                | 32' 2"    | 28' 1"    | 39' 9"                      | 36' 1"    | 31' 6"    | 32' 2"                                | 29' 3"    | 25' 6"    | 36' 1"                      | 32' 10"   | 28' 8"    |
| 1200S250-97  | 33      | 36' 9"                                | 33' 4"    | 29' 2"    | 41' 3"                      | 35' 10"   | 29' 3"    | 33' 4"                                | 30' 4"    | 26' 6"    | 37' 6"                      | 34' 1"    | 29' 3"    |
| 1200S250-97  | 50      | 36' 9"                                | 33' 4"    | 29' 2"    | 41' 3"                      | 37' 6"    | 32' 9"    | 33' 4"                                | 30' 4"    | 26' 6"    | 37' 6"                      | 34' 1"    | 29' 9"    |
| 1200S300-97  | 50      | 38' 0"                                | 34' 6"    | 30' 2"    | 42' 8"                      | 38' 9"    | 33' 10"   | 34' 6"                                | 31' 4"    | 27' 5"    | 38' 9"                      | 35' 2"    | 30' 9"    |
| 1200S162-118 | 50      | 36' 1"                                | 32' 9"    | 28' 7"    | 40' 6"                      | 36' 9"    | 32' 1"    | 32' 9"                                | 29' 9"    | 26' 0"    | 36' 9"                      | 33' 5"    | 29' 2"    |
| 1200S200-118 | 50      | 37' 7"                                | 34' 1"    | 29' 10"   | 42' 2"                      | 38' 4"    | 33' 6"    | 34' 1"                                | 31' 0"    | 27' 1"    | 38' 4"                      | 34' 10"   | 30' 5"    |
| 1200S250-118 | 50      | 39' 0"                                | 35' 5"    | 30' 11"   | 43' 9"                      | 39' 9"    | 34' 9"    | 35' 5"                                | 32' 2"    | 28' 2"    | 39' 9"                      | 36' 2"    | 31' 7"    |
| 1200S300-118 | 50      | 40' 4"                                | 36' 8"    | 32' 0"    | 45' 4"                      | 41' 2"    | 36' 0"    | 36' 8"                                | 33' 4"    | 29' 1"    | 41' 2"                      | 37' 5"    | 32' 8"    |
| 1200S350-118 | 50      | 42' 4"                                | 38' 5"    | 33' 7"    | 47' 6"                      | 43' 2"    | 37' 8"    | 38' 5"                                | 34' 11"   | 30' 6"    | 43' 2"                      | 39' 3"    | 34' 3"    |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 30 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 30 psf |         |         |                             |        |         | L/480 Live Load Deflection for 30 psf |         |         |                             |        |         |
|--------------|---------|---------------------------------------|---------|---------|-----------------------------|--------|---------|---------------------------------------|---------|---------|-----------------------------|--------|---------|
|              |         | Single Span Spacing (in)              |         |         | Two Equal Span Spacing (in) |        |         | Single Span Spacing (in)              |         |         | Two Equal Span Spacing (in) |        |         |
|              |         | 12"                                   | 16"     | 24"     | 12"                         | 16"    | 24"     | 12"                                   | 16"     | 24"     | 12"                         | 16"    | 24"     |
| 1400S162-54  | 33      | 26'1"e                                | 22'7"e  | 18'5"e  | 26'1"e                      | 22'0"e | 16'11"e | 26'1"e                                | 22'7"e  | 18'5"e  | 26'1"e                      | 22'0"e | 16'11"e |
| 1400S162-54  | 50      | 29'6"e                                | 25'6"e  | 20'10"e | 29'6"e                      | 24'7"e | 18'7"e  | 28'6"e                                | 25'6"e  | 20'10"e | 29'6"e                      | 24'7"e | 18'7"e  |
| 1400S200-54  | 33      | 28'4"e                                | 24'6"e  | 20'0"e  | 27'8"e                      | 23'2"e | 17'8"e  | 28'4"e                                | 24'6"e  | 20'0"e  | 27'8"e                      | 23'2"e | 17'8"e  |
| 1400S200-54  | 50      | 32'1"e                                | 27'9"e  | 22'8"e  | 30'6"e                      | 25'3"e | 19'0"e  | 29'8"e                                | 26'11"e | 22'8"e  | 30'6"e                      | 25'3"e | 19'0"e  |
| 1400S250-54  | 33      | 29'6"e                                | 25'6"e  | 20'10"e | 27'10"e                     | 23'4"e | 17'9"e  | 29'6"e                                | 25'6"e  | 20'10"e | 27'10"e                     | 23'4"e | 17'9"e  |
| 1400S250-54  | 50      | 33'4"e                                | 28'10"e | 23'7"e  | 30'10"e                     | 25'7"e | 19'2"e  | 30'10"e                               | 27'11"e | 23'7"e  | 30'10"e                     | 25'7"e | 19'2"e  |
| 1400S300-54  | 50      | 34'1"e                                | 29'7"e  | 24'1"e  | 31'1"e                      | 25'9"e | 19'3"e  | 31'10"e                               | 28'9"e  | 24'1"e  | 31'1"e                      | 25'9"e | 19'3"e  |
| 1400S162-68  | 33      | 31'1"                                 | 26'11"  | 22'0"e  | 31'1"                       | 26'11" | 22'0"   | 31'1"                                 | 26'11"  | 22'0"e  | 31'1"                       | 26'11" | 22'0"   |
| 1400S162-68  | 50      | 34'1"                                 | 30'6"   | 24'11"  | 35'3"                       | 30'6"  | 24'11"  | 31'2"                                 | 28'3"   | 24'7"   | 34'9"                       | 30'6"  | 24'11"  |
| 1400S200-68  | 33      | 33'6"                                 | 29'1"   | 23'9"e  | 33'6"                       | 29'1"  | 23'5"   | 32'5"                                 | 29'1"   | 23'9"e  | 33'6"                       | 29'1"  | 23'5"   |
| 1400S200-68  | 50      | 35'6"                                 | 32'2"   | 26'11"  | 38'1"                       | 33'0"  | 26'10"  | 32'5"                                 | 29'4"   | 25'7"   | 36'2"                       | 32'9"  | 26'10"  |
| 1400S250-68  | 33      | 34'10"                                | 30'2"e  | 24'8"e  | 34'10"                      | 30'2"  | 24'3"   | 33'7"                                 | 30'2"e  | 24'8"e  | 34'10"                      | 30'2"  | 24'3"   |
| 1400S250-68  | 50      | 36'10"                                | 33'4"   | 27'11"  | 39'6"                       | 34'2"  | 27'0"   | 33'7"                                 | 30'6"   | 26'6"   | 37'6"                       | 34'0"  | 27'0"   |
| 1400S300-68  | 50      | 38'1"                                 | 34'5"   | 28'7"   | 40'6"                       | 34'7"  | 27'3"   | 34'8"                                 | 31'6"   | 27'5"   | 38'9"                       | 34'7"  | 27'3"   |
| 1400S162-97  | 33      | 38'10"                                | 34'11"  | 28'6"   | 40'4"                       | 34'11" | 28'6"   | 35'3"                                 | 32'0"   | 28'0"   | 39'7"                       | 34'11" | 28'6"   |
| 1400S162-97  | 50      | 38'10"                                | 35'3"   | 30'8"   | 43'5"                       | 39'4"  | 32'8"   | 35'3"                                 | 32'0"   | 28'0"   | 39'7"                       | 35'11" | 31'3"   |
| 1400S200-97  | 33      | 40'3"                                 | 36'7"   | 30'6"   | 43'2"                       | 37'5"  | 30'6"   | 36'7"                                 | 33'3"   | 29'1"   | 41'1"                       | 37'4"  | 30'6"   |
| 1400S200-97  | 50      | 40'3"                                 | 36'7"   | 31'11"  | 45'2"                       | 40'11" | 35'0"   | 36'7"                                 | 33'3"   | 29'1"   | 41'1"                       | 37'4"  | 32'6"   |
| 1400S250-97  | 33      | 41'8"                                 | 37'11"  | 31'8"   | 44'10"                      | 38'10" | 31'8"   | 37'11"                                | 34'5"   | 30'1"   | 42'6"                       | 38'8"  | 31'8"   |
| 1400S250-97  | 50      | 41'8"                                 | 37'11"  | 33'1"   | 46'9"                       | 42'5"  | 36'3"   | 37'11"                                | 34'5"   | 30'1"   | 42'6"                       | 38'8"  | 33'8"   |
| 1400S300-97  | 50      | 43'0"                                 | 39'1"   | 34'2"   | 48'3"                       | 43'10" | 37'2"   | 39'1"                                 | 35'6"   | 31'0"   | 43'11"                      | 39'11" | 34'9"   |
| 1400S162-118 | 50      | 41'2"                                 | 37'5"   | 32'8"   | 46'3"                       | 42'0"  | 36'8"   | 37'5"                                 | 34'0"   | 29'8"   | 42'0"                       | 38'2"  | 33'4"   |
| 1400S200-118 | 50      | 42'9"                                 | 38'10"  | 33'11"  | 48'0"                       | 43'8"  | 38'1"   | 38'10"                                | 35'4"   | 30'10"  | 43'8"                       | 39'8"  | 34'8"   |
| 1400S250-118 | 50      | 44'4"                                 | 40'3"   | 35'2"   | 49'9"                       | 45'2"  | 39'6"   | 40'3"                                 | 36'7"   | 31'11"  | 45'2"                       | 41'1"  | 35'10"  |
| 1400S300-118 | 50      | 45'9"                                 | 41'7"   | 36'4"   | 51'4"                       | 46'8"  | 40'9"   | 41'7"                                 | 37'9"   | 33'0"   | 46'8"                       | 42'5"  | 37'0"   |
| 1400S350-118 | 50      | 47'10"                                | 43'6"   | 38'0"   | 53'9"                       | 48'10" | 42'8"   | 43'6"                                 | 39'6"   | 34'6"   | 48'10"                      | 44'4"  | 38'9"   |
| 1600S200-68  | 50      | 39'4"                                 | 34'8"   | 28'4"   | 40'1"                       | 34'8"  | 27'5"   | 35'11"                                | 32'7"   | 28'4"   | 40'0"                       | 34'8"  | 27'5"   |
| 1600S250-68  | 50      | 40'9"                                 | 36'2"   | 29'6"   | 41'9"                       | 35'5"  | 27'7"   | 37'2"                                 | 33'9"   | 29'4"   | 41'6"                       | 35'5"  | 27'7"   |
| 1600S300-68  | 50      | 42'0"                                 | 37'2"   | 30'4"   | 42'5"                       | 35'10" | 27'10"  | 38'5"                                 | 34'10"  | 30'3"   | 42'5"                       | 35'10" | 27'10"  |
| 1600S350-68  | 50      | 44'0"                                 | 39'11"  | 34'0"   | 46'3"                       | 38'10" | 29'10"  | 40'2"                                 | 36'5"   | 31'9"   | 44'11"                      | 38'10" | 29'10"  |
| 1600S200-97  | 50      | 44'11"                                | 40'9"   | 35'6"   | 50'2"                       | 45'5"  | 37'1"   | 41'0"                                 | 37'2"   | 32'5"   | 45'10"                      | 41'6"  | 36'2"   |
| 1600S250-97  | 50      | 46'6"                                 | 42'2"   | 36'8"   | 51'11"                      | 47'1"  | 38'7"   | 42'4"                                 | 38'5"   | 33'6"   | 47'4"                       | 42'11" | 37'5"   |
| 1600S300-97  | 50      | 47'11"                                | 43'5"   | 37'10"  | 53'7"                       | 48'6"  | 39'7"   | 43'7"                                 | 39'7"   | 34'6"   | 48'10"                      | 44'3"  | 38'7"   |
| 1600S350-97  | 50      | 50'0"                                 | 45'5"   | 39'7"   | 56'0"                       | 50'9"  | 43'10"  | 45'6"                                 | 41'4"   | 36'1"   | 51'0"                       | 46'3"  | 40'4"   |
| 1600S200-118 | 50      | 47'11"                                | 43'7"   | 38'1"   | 53'10"                      | 48'10" | 42'7"   | 43'7"                                 | 39'7"   | 34'7"   | 48'11"                      | 44'5"  | 38'10"  |
| 1600S250-118 | 50      | 49'6"                                 | 45'0"   | 39'4"   | 55'7"                       | 50'6"  | 44'0"   | 45'0"                                 | 40'11"  | 35'9"   | 50'6"                       | 45'11" | 40'1"   |
| 1600S300-118 | 50      | 51'0"                                 | 46'4"   | 40'6"   | 57'4"                       | 52'1"  | 45'5"   | 46'4"                                 | 42'2"   | 36'10"  | 52'1"                       | 47'4"  | 41'4"   |
| 1600S350-118 | 50      | 53'4"                                 | 48'5"   | 42'4"   | 59'10"                      | 54'4"  | 47'5"   | 48'5"                                 | 44'0"   | 38'5"   | 54'4"                       | 49'5"  | 43'2"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 40 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 40 psf |         |         |                              |        |        | L/360 Live Load Deflection for 40 psf |         |         |                              |        |        |
|-------------|---------|---------------------------------------|---------|---------|------------------------------|--------|--------|---------------------------------------|---------|---------|------------------------------|--------|--------|
|             |         | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |        |        | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |        |        |
|             |         | 12"                                   | 16"     | 24"     | 12"                          | 16"    | 24"    | 12"                                   | 16"     | 24"     | 12"                          | 16"    | 24"    |
| 600S162-33  | 33      | 11'3"e                                | 9'9"e   | 7'11"e  | 11'3"                        | 9'6"   | 7'4"e  | 11'3"e                                | 9'9"e   | 7'11"e  | 11'3"                        | 9'6"   | 7'4"e  |
| 600S200-33  | 33      | 12'0"e                                | 10'4"e  | 8'6"e   | 11'7"                        | 9'9"e  | 7'6"e  | 11'11"e                               | 10'4"e  | 8'6"e   | 11'7"                        | 9'9"e  | 7'6"e  |
| 600S162-43  | 33      | 13'8"                                 | 12'0"e  | 9'10"e  | 13'11"                       | 12'0"  | 9'10"  | 12'5"                                 | 11'3"   | 9'10"e  | 13'11"                       | 12'0"  | 9'10"  |
| 600S200-43  | 33      | 14'4"                                 | 12'5"e  | 10'2"e  | 14'4"                        | 12'5"  | 10'0"  | 13'0"                                 | 11'10"  | 10'2"e  | 14'4"                        | 12'5"  | 10'0"  |
| 600S250-43  | 33      | 14'8"                                 | 12'9"e  | 10'5"e  | 14'8"                        | 12'9"  | 10'2"  | 13'7"                                 | 12'4"e  | 10'5"e  | 14'8"                        | 12'9"  | 10'2"  |
| 600S162-54  | 33      | 14'7"                                 | 13'3"   | 11'6"   | 16'3"                        | 14'1"  | 11'5"  | 13'3"                                 | 12'1"   | 10'7"   | 14'11"                       | 13'7"  | 11'5"  |
| 600S162-54  | 50      | 14'7"                                 | 13'3"   | 11'7"   | 16'5"                        | 14'11" | 13'0"  | 13'3"                                 | 12'1"   | 10'7"   | 14'11"                       | 13'7"  | 11'10" |
| 600S200-54  | 33      | 15'4"                                 | 14'0"   | 12'2"e  | 17'2"                        | 14'10" | 12'2"  | 14'0"                                 | 12'8"   | 11'1"   | 15'8"                        | 14'3"  | 12'2"  |
| 600S200-54  | 50      | 15'4"                                 | 14'0"   | 12'2"   | 17'3"                        | 15'8"  | 13'6"  | 14'0"                                 | 12'8"   | 11'1"   | 15'8"                        | 14'3"  | 12'5"  |
| 600S250-54  | 33      | 16'1"                                 | 14'8"   | 12'1"e  | 17'1"                        | 14'9"  | 11'10" | 14'8"                                 | 13'3"   | 11'7"   | 16'5"                        | 14'9"  | 11'10" |
| 600S250-54  | 50      | 16'1"                                 | 14'8"   | 12'9"   | 18'1"                        | 16'5"  | 13'10" | 14'8"                                 | 13'3"   | 11'7"   | 16'5"                        | 14'11" | 13'0"  |
| 600S300-54  | 50      | 16'9"                                 | 15'2"   | 13'2"   | 18'8"                        | 16'10" | 14'0"  | 15'3"                                 | 13'10"  | 12'1"   | 17'1"                        | 15'6"  | 13'5"  |
| 600S162-68  | 33      | 15'8"                                 | 14'3"   | 12'5"   | 17'7"                        | 16'0"  | 12'11" | 14'3"                                 | 12'11"  | 11'4"   | 16'0"                        | 14'6"  | 12'8"  |
| 600S162-68  | 50      | 15'8"                                 | 14'3"   | 12'5"   | 17'7"                        | 16'0"  | 14'0"  | 14'3"                                 | 12'11"  | 11'4"   | 16'0"                        | 14'6"  | 12'8"  |
| 600S200-68  | 33      | 16'6"                                 | 15'0"   | 13'1"   | 18'6"                        | 16'10" | 13'9"  | 15'0"                                 | 13'7"   | 11'11"  | 16'10"                       | 15'3"  | 13'4"  |
| 600S200-68  | 50      | 16'6"                                 | 15'0"   | 13'1"   | 18'6"                        | 16'10" | 14'8"  | 15'0"                                 | 13'7"   | 11'11"  | 16'10"                       | 15'3"  | 13'4"  |
| 600S250-68  | 33      | 17'3"                                 | 15'8"   | 13'9"   | 19'5"                        | 17'8"  | 14'3"  | 15'8"                                 | 14'3"   | 12'6"   | 17'8"                        | 16'0"  | 14'0"  |
| 600S250-68  | 50      | 17'3"                                 | 15'8"   | 13'9"   | 19'5"                        | 17'8"  | 15'5"  | 15'8"                                 | 14'3"   | 12'6"   | 17'8"                        | 16'0"  | 14'0"  |
| 600S300-68  | 50      | 18'0"                                 | 16'4"   | 14'4"   | 20'3"                        | 18'4"  | 15'11" | 16'4"                                 | 14'10"  | 13'0"   | 18'5"                        | 16'8"  | 14'7"  |
| 600S162-97  | 33      | 17'4"                                 | 15'9"   | 13'9"   | 19'6"                        | 17'9"  | 15'4"  | 15'9"                                 | 14'4"   | 12'6"   | 17'9"                        | 16'1"  | 14'1"  |
| 600S162-97  | 50      | 17'4"                                 | 15'9"   | 13'9"   | 19'6"                        | 17'9"  | 15'6"  | 15'9"                                 | 14'4"   | 12'6"   | 17'9"                        | 16'1"  | 14'1"  |
| 600S200-97  | 33      | 18'4"                                 | 16'8"   | 14'6"   | 20'7"                        | 18'8"  | 16'3"  | 16'8"                                 | 15'1"   | 13'2"   | 18'8"                        | 17'0"  | 14'10" |
| 600S200-97  | 50      | 18'4"                                 | 16'8"   | 14'6"   | 20'7"                        | 18'8"  | 16'4"  | 16'8"                                 | 15'1"   | 13'2"   | 18'8"                        | 17'0"  | 14'10" |
| 600S250-97  | 33      | 19'3"                                 | 17'6"   | 15'3"   | 21'7"                        | 19'7"  | 17'2"  | 17'6"                                 | 15'10"  | 13'10"  | 19'7"                        | 17'10" | 15'7"  |
| 600S250-97  | 50      | 19'3"                                 | 17'6"   | 15'3"   | 21'7"                        | 19'7"  | 17'2"  | 17'6"                                 | 15'10"  | 13'10"  | 19'7"                        | 17'10" | 15'7"  |
| 600S300-97  | 50      | 20'1"                                 | 18'3"   | 15'11"  | 22'6"                        | 20'5"  | 17'10" | 18'3"                                 | 16'7"   | 14'6"   | 20'5"                        | 18'7"  | 16'3"  |
| 600S162-118 | 50      | 18'4"                                 | 16'8"   | 14'7"   | 20'7"                        | 18'9"  | 16'4"  | 16'8"                                 | 15'2"   | 13'3"   | 18'9"                        | 17'0"  | 14'10" |
| 600S200-118 | 50      | 19'4"                                 | 17'7"   | 15'4"   | 21'9"                        | 19'9"  | 17'3"  | 17'7"                                 | 16'0"   | 14'0"   | 19'9"                        | 17'11" | 15'8"  |
| 600S250-118 | 50      | 20'4"                                 | 18'6"   | 16'2"   | 22'10"                       | 20'9"  | 18'2"  | 18'6"                                 | 16'10"  | 14'8"   | 20'9"                        | 18'10" | 16'6"  |
| 600S300-118 | 50      | 21'3"                                 | 19'4"   | 16'10"  | 23'10"                       | 21'8"  | 18'11" | 19'4"                                 | 17'7"   | 15'4"   | 21'8"                        | 19'8"  | 17'2"  |
| 600S350-118 | 50      | 22'5"                                 | 20'4"   | 17'9"   | 25'2"                        | 22'10" | 20'0"  | 20'4"                                 | 18'6"   | 16'2"   | 22'10"                       | 20'9"  | 18'2"  |
| 800S162-33  | 33      | 13'0"e                                | 11'3"e  | 9'2"e   | 11'3"e                       | 9'2"e  | 6'8"e  | 13'0"e                                | 11'3"e  | 9'2"e   | 11'3"e                       | 9'2"e  | 6'8"e  |
| 800S200-33  | 33      | 13'11"e                               | 12'1"e  | 9'6"e   | 11'8"e                       | 9'6"e  | 6'10"e | 13'11"e                               | 12'1"e  | 9'6"e   | 11'8"e                       | 9'6"e  | 6'10"e |
| 800S162-43  | 33      | 15'8"e                                | 13'6"e  | 11'1"e  | 15'5"                        | 13'1"  | 10'4"e | 15'6"e                                | 13'6"e  | 11'1"e  | 15'5"                        | 13'1"  | 10'4"e |
| 800S200-43  | 33      | 16'9"e                                | 14'6"e  | 11'10"e | 16'9"                        | 14'6"  | 11'3"e | 16'4"e                                | 14'6"e  | 11'10"e | 16'9"                        | 14'6"  | 11'3"e |
| 800S250-43  | 33      | 17'2"e                                | 14'10"e | 12'2"e  | 17'2"                        | 14'7"  | 11'4"e | 17'0"e                                | 14'10"e | 12'2"e  | 17'2"                        | 14'7"  | 11'4"e |
| 800S162-54  | 33      | 18'3"                                 | 15'10"  | 12'11"e | 18'3"                        | 15'10" | 12'9"  | 16'9"                                 | 15'3"   | 12'11"e | 18'3"                        | 15'10" | 12'9"  |
| 800S162-54  | 50      | 18'5"                                 | 16'8"   | 14'7"   | 20'7"                        | 18'1"  | 14'9"  | 16'9"                                 | 15'3"   | 13'3"   | 18'9"                        | 17'0"  | 14'9"  |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 40 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 40 psf |         |         |                              |        |        | L/360 Live Load Deflection for 40 psf |         |         |                              |        |        |
|-------------|---------|---------------------------------------|---------|---------|------------------------------|--------|--------|---------------------------------------|---------|---------|------------------------------|--------|--------|
|             |         | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |        |        | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |        |        |
|             |         | 12"                                   | 16"     | 24"     | 12"                          | 16"    | 24"    | 12"                                   | 16"     | 24"     | 12"                          | 16"    | 24"    |
| 800S200-54  | 33      | 19'4"                                 | 17'5"e  | 14'3"e  | 20'1"                        | 17'5"  | 14'3"  | 17'6"                                 | 15'11"  | 13'11"e | 19'8"                        | 17'5"  | 14'3"  |
| 800S200-54  | 50      | 19'4"                                 | 17'6"   | 15'4"   | 21'8"                        | 19'4"  | 15'9"  | 17'6"                                 | 15'11"  | 13'11"  | 19'8"                        | 17'11" | 15'7"  |
| 800S250-54  | 33      | 20'0"                                 | 17'4"e  | 14'2"e  | 20'0"                        | 17'4"  | 14'2"  | 18'3"                                 | 16'7"   | 14'2"e  | 20'0"                        | 17'4"  | 14'2"  |
| 800S250-54  | 50      | 20'2"                                 | 18'3"   | 16'0"   | 22'7"                        | 19'9"  | 16'2"  | 18'3"                                 | 16'7"   | 14'6"   | 20'6"                        | 18'8"  | 16'2"  |
| 800S300-54  | 50      | 20'10"                                | 18'11"  | 16'4"   | 23'2"                        | 20'1"  | 16'4"  | 19'0"                                 | 17'3"   | 15'0"   | 21'3"                        | 19'3"  | 16'4"  |
| 800S162-68  | 33      | 19'9"                                 | 18'0"   | 15'0"   | 21'2"                        | 18'3"  | 14'10" | 18'0"                                 | 16'4"   | 14'3"   | 20'2"                        | 18'3"  | 14'10" |
| 800S162-68  | 50      | 19'9"                                 | 18'0"   | 15'8"   | 22'3"                        | 20'2"  | 17'4"  | 18'0"                                 | 16'4"   | 14'3"   | 20'2"                        | 18'4"  | 16'0"  |
| 800S200-68  | 33      | 20'9"                                 | 18'10"  | 16'5"   | 23'3"                        | 20'5"  | 16'8"  | 18'10"                                | 17'1"   | 14'11"  | 21'2"                        | 19'2"  | 16'8"  |
| 800S200-68  | 50      | 20'9"                                 | 18'10"  | 16'5"   | 23'3"                        | 21'2"  | 18'6"  | 18'10"                                | 17'1"   | 14'11"  | 21'2"                        | 19'2"  | 16'9"  |
| 800S250-68  | 33      | 21'8"                                 | 19'8"   | 17'1"   | 24'1"                        | 20'11" | 17'1"  | 19'8"                                 | 17'10"  | 15'7"   | 22'1"                        | 20'1"  | 17'1"  |
| 800S250-68  | 50      | 21'8"                                 | 19'8"   | 17'2"   | 24'3"                        | 22'1"  | 18'11" | 19'8"                                 | 17'10"  | 15'7"   | 22'1"                        | 20'1"  | 17'6"  |
| 800S300-68  | 50      | 22'6"                                 | 20'5"   | 17'10"  | 25'2"                        | 22'10" | 19'3"  | 20'5"                                 | 18'7"   | 16'2"   | 22'11"                       | 20'10" | 18'2"  |
| 800S162-97  | 33      | 22'0"                                 | 20'0"   | 17'5"   | 24'8"                        | 22'5"  | 19'5"  | 20'0"                                 | 18'2"   | 15'10"  | 22'5"                        | 20'4"  | 17'10" |
| 800S162-97  | 50      | 22'0"                                 | 20'0"   | 17'5"   | 24'8"                        | 22'5"  | 19'7"  | 20'0"                                 | 18'2"   | 15'10"  | 22'5"                        | 20'4"  | 17'10" |
| 800S200-97  | 33      | 23'1"                                 | 20'11"  | 18'4"   | 25'11"                       | 23'6"  | 20'6"  | 20'11"                                | 19'0"   | 16'7"   | 23'6"                        | 21'4"  | 18'8"  |
| 800S200-97  | 50      | 23'1"                                 | 20'11"  | 18'4"   | 25'11"                       | 23'6"  | 20'6"  | 20'11"                                | 19'0"   | 16'7"   | 23'6"                        | 21'4"  | 18'8"  |
| 800S250-97  | 33      | 24'1"                                 | 21'11"  | 19'1"   | 27'1"                        | 24'7"  | 21'6"  | 21'11"                                | 19'11"  | 17'4"   | 24'7"                        | 22'4"  | 19'6"  |
| 800S250-97  | 50      | 24'1"                                 | 21'11"  | 19'1"   | 27'1"                        | 24'7"  | 21'6"  | 21'11"                                | 19'11"  | 17'4"   | 24'7"                        | 22'4"  | 19'6"  |
| 800S300-97  | 50      | 25'1"                                 | 22'9"   | 19'11"  | 28'1"                        | 25'7"  | 22'4"  | 22'9"                                 | 20'8"   | 18'1"   | 25'7"                        | 23'3"  | 20'3"  |
| 800S162-118 | 50      | 23'3"                                 | 21'1"   | 18'5"   | 26'1"                        | 23'9"  | 20'9"  | 21'1"                                 | 19'2"   | 16'9"   | 23'9"                        | 21'7"  | 18'10" |
| 800S200-118 | 50      | 24'5"                                 | 22'2"   | 19'5"   | 27'5"                        | 24'11" | 21'9"  | 22'2"                                 | 20'2"   | 17'7"   | 24'11"                       | 22'8"  | 19'9"  |
| 800S250-118 | 50      | 25'6"                                 | 23'2"   | 20'3"   | 28'8"                        | 26'1"  | 22'9"  | 23'2"                                 | 21'1"   | 18'5"   | 26'1"                        | 23'8"  | 20'8"  |
| 800S300-118 | 50      | 26'7"                                 | 24'2"   | 21'1"   | 29'10"                       | 27'1"  | 23'8"  | 24'2"                                 | 21'11"  | 19'2"   | 27'1"                        | 24'8"  | 21'6"  |
| 800S350-118 | 50      | 28'0"                                 | 25'5"   | 22'2"   | 31'5"                        | 28'6"  | 24'11" | 25'5"                                 | 23'1"   | 20'2"   | 28'6"                        | 25'11" | 22'8"  |
| 1000S162-43 | 33      | 17'4"e                                | 15'0"e  | 12'3"e  | 16'5"e                       | 13'8"e | 10'5"e | 17'4"e                                | 15'0"e  | 12'3"e  | 16'5"e                       | 13'8"e | 10'5"e |
| 1000S200-43 | 33      | 18'8"e                                | 16'2"e  | 13'2"e  | 17'3"e                       | 14'3"e | 10'9"e | 18'8"e                                | 16'2"e  | 13'2"e  | 17'3"e                       | 14'3"e | 10'9"e |
| 1000S250-43 | 33      | 19'3"e                                | 16'8"e  | 13'7"e  | 17'10"e                      | 14'9"e | 11'0"e | 19'3"e                                | 16'8"e  | 13'7"e  | 17'10"e                      | 14'9"e | 11'0"e |
| 1000S162-54 | 33      | 20'4"                                 | 17'8"e  | 14'5"e  | 20'4"                        | 17'6"  | 13'11" | 20'0"                                 | 17'8"e  | 14'5"e  | 20'4"                        | 17'6"  | 13'11" |
| 1000S162-54 | 50      | 21'11"                                | 19'10"  | 16'5"   | 23'2"                        | 20'1"  | 15'10" | 20'0"                                 | 18'1"   | 15'9"   | 22'4"                        | 20'1"  | 15'10" |
| 1000S200-54 | 33      | 21'10"                                | 18'11"e | 15'6"e  | 21'10"                       | 18'7"  | 14'9"  | 20'10"                                | 18'11"e | 15'6"e  | 21'10"                       | 18'7"  | 14'9"  |
| 1000S200-54 | 50      | 22'10"                                | 20'9"   | 17'8"e  | 24'7"                        | 20'10" | 16'4"  | 20'10"                                | 18'11"  | 16'6"   | 23'4"                        | 20'10" | 16'4"  |
| 1000S250-54 | 33      | 22'6"e                                | 19'6"e  | 15'11"e | 22'6"                        | 19'6"  | 15'7"e | 21'10"                                | 19'6"e  | 15'11"e | 22'6"                        | 19'6"  | 15'7"e |
| 1000S250-54 | 50      | 24'0"                                 | 21'10"  | 18'1"e  | 25'7"                        | 21'9"  | 17'0"  | 21'10"                                | 19'10"  | 17'4"e  | 24'6"                        | 21'9"  | 17'0"  |
| 1000S300-54 | 50      | 24'9"                                 | 22'5"   | 18'5"e  | 25'9"                        | 21'10" | 17'1"  | 22'7"                                 | 20'6"   | 17'10"e | 25'3"                        | 21'10" | 17'1"  |
| 1000S162-68 | 33      | 23'9"                                 | 20'9"   | 16'11"e | 23'11"                       | 20'9"  | 16'10" | 21'7"                                 | 19'8"   | 16'11"e | 23'11"                       | 20'9"  | 16'10" |
| 1000S162-68 | 50      | 23'9"                                 | 21'7"   | 18'9"   | 26'7"                        | 23'9"  | 19'5"  | 21'7"                                 | 19'8"   | 17'2"   | 24'3"                        | 22'0"  | 19'2"  |
| 1000S200-68 | 33      | 24'10"                                | 22'2"   | 18'1"e  | 25'7"                        | 22'2"  | 18'0"  | 22'7"                                 | 20'6"   | 17'11"e | 25'4"                        | 22'2"  | 18'0"  |
| 1000S200-68 | 50      | 24'10"                                | 22'6"   | 19'8"   | 27'9"                        | 25'2"  | 20'9"  | 22'7"                                 | 20'6"   | 17'11"  | 25'4"                        | 22'11" | 20'0"  |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 40 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 40 psf |        |         |                              |         |        | L/360 Live Load Deflection for 40 psf |         |         |                              |         |        |
|--------------|---------|---------------------------------------|--------|---------|------------------------------|---------|--------|---------------------------------------|---------|---------|------------------------------|---------|--------|
|              |         | Single Span Spacing (in)              |        |         | Two Equal Spans Spacing (in) |         |        | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |         |        |
|              |         | 12"                                   | 16"    | 24"     | 12"                          | 16"     | 24"    | 12"                                   | 16"     | 24"     | 12"                          | 16"     | 24"    |
| 1000S250-68  | 33      | 25'10"                                | 23'5"  | 19'3"e  | 27'3"                        | 23'7"   | 19'3"  | 23'5"                                 | 21'4"   | 18'7"e  | 26'4"                        | 23'7"   | 19'3"  |
| 1000S250-68  | 50      | 25'10"                                | 23'5"  | 20'6"   | 29'0"                        | 26'1"   | 21'4"  | 23'5"                                 | 21'4"   | 18'7"   | 26'4"                        | 23'11"  | 20'11" |
| 1000S300-68  | 50      | 26'9"                                 | 24'4"  | 21'2"   | 29'11"                       | 26'6"   | 21'8"  | 24'4"                                 | 22'1"   | 19'3"   | 27'3"                        | 24'9"   | 21'7"  |
| 1000S162-97  | 33      | 26'6"                                 | 24'1"  | 21'0"   | 29'9"                        | 25'9"   | 20'11" | 24'1"                                 | 21'10"  | 19'1"   | 27'0"                        | 24'6"   | 20'11" |
| 1000S162-97  | 50      | 26'6"                                 | 24'1"  | 21'0"   | 29'9"                        | 27'0"   | 23'7"  | 24'1"                                 | 21'10"  | 19'1"   | 27'0"                        | 24'6"   | 21'5"  |
| 1000S200-97  | 33      | 27'8"                                 | 25'1"  | 21'11"  | 31'0"                        | 27'5"   | 22'4"  | 25'1"                                 | 22'10"  | 19'11"  | 28'2"                        | 25'7"   | 22'4"  |
| 1000S200-97  | 50      | 27'8"                                 | 25'1"  | 21'11"  | 31'0"                        | 28'2"   | 24'8"  | 25'1"                                 | 22'10"  | 19'11"  | 28'2"                        | 25'7"   | 22'5"  |
| 1000S250-97  | 33      | 28'9"                                 | 26'2"  | 22'10"  | 32'4"                        | 29'4"   | 24'9"  | 26'2"                                 | 23'9"   | 20'9"   | 29'4"                        | 26'8"   | 23'4"  |
| 1000S250-97  | 50      | 28'9"                                 | 26'2"  | 22'10"  | 32'4"                        | 29'4"   | 25'8"  | 26'2"                                 | 23'9"   | 20'9"   | 29'4"                        | 26'8"   | 23'4"  |
| 1000S300-97  | 50      | 29'10"                                | 27'1"  | 23'8"   | 33'6"                        | 30'5"   | 26'7"  | 27'1"                                 | 24'8"   | 21'6"   | 30'5"                        | 27'8"   | 24'2"  |
| 1000S162-118 | 50      | 28'0"                                 | 25'6"  | 22'3"   | 31'6"                        | 28'7"   | 25'0"  | 25'6"                                 | 23'2"   | 20'3"   | 28'7"                        | 26'0"   | 22'8"  |
| 1000S200-118 | 50      | 29'4"                                 | 26'8"  | 23'3"   | 32'11"                       | 29'11"  | 26'1"  | 26'8"                                 | 24'2"   | 21'2"   | 29'11"                       | 27'2"   | 23'9"  |
| 1000S250-118 | 50      | 30'7"                                 | 27'9"  | 24'3"   | 34'4"                        | 31'2"   | 27'3"  | 27'9"                                 | 25'3"   | 22'0"   | 31'2"                        | 28'4"   | 24'9"  |
| 1000S300-118 | 50      | 31'8"                                 | 28'9"  | 25'2"   | 35'7"                        | 32'4"   | 28'3"  | 28'9"                                 | 26'2"   | 22'10"  | 32'4"                        | 29'4"   | 25'8"  |
| 1000S350-118 | 50      | 33'4"                                 | 30'3"  | 26'5"   | 37'5"                        | 34'0"   | 29'8"  | 30'3"                                 | 27'6"   | 24'0"   | 34'0"                        | 30'10"  | 26'11" |
| 1200S162-54  | 33      | 22'0"e                                | 19'1"e | 15'7"e  | 21'11"e                      | 18'7"e  | 14'6"e | 22'0"e                                | 19'1"e  | 15'7"e  | 21'11"e                      | 18'7"e  | 14'6"e |
| 1200S162-54  | 50      | 25'0"e                                | 21'7"e | 17'8"e  | 25'0"e                       | 21'0"e  | 16'2"e | 23'0"e                                | 20'10"e | 17'8"e  | 25'0"e                       | 21'0"e  | 16'2"e |
| 1200S200-54  | 33      | 23'10"e                               | 20'7"e | 16'10"e | 23'3"e                       | 19'8"e  | 15'2"e | 23'10"e                               | 20'7"e  | 16'10"e | 23'3"e                       | 19'8"e  | 15'2"e |
| 1200S200-54  | 50      | 26'3"e                                | 23'5"e | 19'1"e  | 25'11"e                      | 21'8"e  | 16'6"e | 24'0"e                                | 21'9"e  | 18'11"e | 25'11"e                      | 21'8"e  | 16'6"e |
| 1200S250-54  | 33      | 24'7"e                                | 21'4"e | 17'5"e  | 23'6"e                       | 19'10"e | 15'4"e | 24'7"e                                | 21'4"e  | 17'5"e  | 23'6"e                       | 19'10"e | 15'4"e |
| 1200S250-54  | 50      | 27'4"e                                | 24'2"e | 19'9"e  | 26'3"e                       | 21'11"e | 16'9"e | 24'11"e                               | 22'7"e  | 19'8"e  | 26'3"e                       | 21'11"e | 16'9"e |
| 1200S300-54  | 50      | 28'5"e                                | 24'8"e | 20'1"e  | 26'10"e                      | 22'5"e  | 17'0"e | 26'1"e                                | 23'8"e  | 20'1"e  | 26'10"e                      | 22'5"e  | 17'0"e |
| 1200S162-68  | 33      | 26'1"                                 | 22'7"  | 18'5"e  | 26'1"                        | 22'7"   | 18'5"  | 25'1"                                 | 22'7"   | 18'5"e  | 26'1"                        | 22'7"   | 18'5"  |
| 1200S162-68  | 50      | 27'5"                                 | 24'11" | 21'0"   | 29'8"                        | 25'9"   | 21'0"  | 25'1"                                 | 22'9"   | 19'9"   | 28'0"                        | 25'4"   | 21'0"  |
| 1200S200-68  | 33      | 28'0"                                 | 24'3"  | 19'10"e | 28'0"                        | 24'3"   | 19'6"  | 26'1"                                 | 23'8"   | 19'10"e | 28'0"                        | 24'3"   | 19'6"  |
| 1200S200-68  | 50      | 28'7"                                 | 25'11" | 22'7"   | 31'11"                       | 27'8"   | 22'7"  | 26'1"                                 | 23'8"   | 20'7"   | 29'2"                        | 26'5"   | 22'7"  |
| 1200S250-68  | 33      | 29'0"                                 | 25'1"e | 20'6"e  | 29'0"                        | 25'1"   | 20'3"  | 27'1"                                 | 24'7"e  | 20'6"e  | 29'0"                        | 25'1"   | 20'3"  |
| 1200S250-68  | 50      | 29'9"                                 | 26'11" | 23'4"   | 33'0"                        | 28'6"   | 22'8"  | 27'1"                                 | 24'7"   | 21'5"   | 30'4"                        | 27'6"   | 22'8"  |
| 1200S300-68  | 50      | 30'11"                                | 28'1"  | 23'9"   | 33'7"                        | 29'1"   | 23'8"  | 28'1"                                 | 25'6"   | 22'3"   | 31'6"                        | 28'7"   | 23'8"  |
| 1200S162-97  | 33      | 30'11"                                | 28'1"  | 23'8"   | 33'5"                        | 28'11"  | 23'8"  | 28'1"                                 | 25'6"   | 22'3"   | 31'6"                        | 28'8"   | 23'8"  |
| 1200S162-97  | 50      | 30'11"                                | 28'1"  | 24'6"   | 34'8"                        | 31'6"   | 27'3"  | 28'1"                                 | 25'6"   | 22'3"   | 31'6"                        | 28'8"   | 25'0"  |
| 1200S200-97  | 33      | 32'2"                                 | 29'3"  | 25'3"   | 35'8"                        | 30'11"  | 25'1"  | 29'3"                                 | 26'6"   | 23'2"   | 32'10"                       | 29'10"  | 25'1"  |
| 1200S200-97  | 50      | 32'2"                                 | 29'3"  | 25'6"   | 36'1"                        | 32'10"  | 28'8"  | 29'3"                                 | 26'6"   | 23'2"   | 32'10"                       | 29'10"  | 26'0"  |
| 1200S250-97  | 33      | 33'4"                                 | 30'4"  | 26'2"   | 37'0"                        | 32'0"   | 26'2"  | 30'4"                                 | 27'7"   | 24'1"   | 34'1"                        | 30'11"  | 26'2"  |
| 1200S250-97  | 50      | 33'4"                                 | 30'4"  | 26'6"   | 37'6"                        | 34'1"   | 29'9"  | 30'4"                                 | 27'7"   | 24'1"   | 34'1"                        | 30'11"  | 27'0"  |
| 1200S300-97  | 50      | 34'6"                                 | 31'4"  | 27'5"   | 38'9"                        | 35'2"   | 30'8"  | 31'4"                                 | 28'6"   | 24'11"  | 35'2"                        | 32'0"   | 27'11" |
| 1200S162-118 | 50      | 32'9"                                 | 29'9"  | 26'0"   | 36'9"                        | 33'5"   | 29'2"  | 29'9"                                 | 27'0"   | 23'7"   | 33'5"                        | 30'4"   | 26'6"  |
| 1200S200-118 | 50      | 34'1"                                 | 31'0"  | 27'1"   | 38'4"                        | 34'10"  | 30'5"  | 31'0"                                 | 28'2"   | 24'7"   | 34'10"                       | 31'7"   | 27'7"  |

See notes located on page 74



# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 40 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 40 psf |         |         |                              |         |         | L/360 Live Load Deflection for 40 psf |         |         |                              |         |        |
|--------------|---------|---------------------------------------|---------|---------|------------------------------|---------|---------|---------------------------------------|---------|---------|------------------------------|---------|--------|
|              |         | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |         |         | Single Span Spacing (in)              |         |         | Two Equal Spans Spacing (in) |         |        |
|              |         | 12"                                   | 16"     | 24"     | 12"                          | 16"     | 24"     | 12"                                   | 16"     | 24"     | 12"                          | 16"     | 24"    |
| 1200S250-118 | 50      | 35'5"                                 | 32'2"   | 28'2"   | 39'9"                        | 36'2"   | 31'7"   | 32'2"                                 | 29'3"   | 25'7"   | 36'2"                        | 32'10"  | 28'8"  |
| 1200S300-118 | 50      | 36'8"                                 | 33'4"   | 29'1"   | 41'2"                        | 37'5"   | 32'8"   | 33'4"                                 | 30'3"   | 26'5"   | 37'5"                        | 34'0"   | 29'8"  |
| 1200S350-118 | 50      | 38'5"                                 | 34'11"  | 30'6"   | 43'2"                        | 39'3"   | 34'3"   | 34'11"                                | 31'9"   | 27'9"   | 39'3"                        | 35'8"   | 31'1"  |
| 1400S162-54  | 33      | 23'4"e                                | 20'3"e  | 16'6"e  | 22'10"e                      | 19'1"e  | 14'6"e  | 23'4"e                                | 20'3"e  | 16'6"e  | 22'10"e                      | 19'1"e  | 14'6"e |
| 1400S162-54  | 50      | 26'4"e                                | 22'10"e | 18'8"e  | 25'8"e                       | 21'2"e  | 15'9"e  | 25'10"e                               | 22'10"e | 18'8"e  | 25'8"e                       | 21'2"e  | 15'9"e |
| 1400S200-54  | 33      | 25'4"e                                | 21'11"e | 17'11"e | 24'1"e                       | 20'0"e  | 15'1"e  | 25'4"e                                | 21'11"e | 17'11"e | 24'1"e                       | 20'0"e  | 15'1"e |
| 1400S200-54  | 50      | 28'8"e                                | 24'10"e | 20'3"e  | 26'4"e                       | 21'8"e  | 16'0"e  | 26'11"e                               | 24'5"e  | 20'3"e  | 26'4"e                       | 21'8"e  | 16'0"e |
| 1400S250-54  | 33      | 26'4"e                                | 22'10"e | 18'8"e  | 24'3"e                       | 20'2"e  | 15'2"e  | 26'4"e                                | 22'10"e | 18'8"e  | 24'3"e                       | 20'2"e  | 15'2"e |
| 1400S250-54  | 50      | 29'10"e                               | 25'10"e | 21'1"e  | 26'8"e                       | 21'10"e | 16'2"e  | 28'0"e                                | 25'4"e  | 21'1"e  | 26'8"e                       | 21'10"e | 16'2"e |
| 1400S300-54  | 50      | 30'6"e                                | 26'5"e  | 21'7"e  | 26'10"e                      | 22'0"e  | 16'2"e  | 28'10"e                               | 26'1"e  | 21'7"e  | 26'10"e                      | 22'0"e  | 16'2"e |
| 1400S162-68  | 33      | 27'10"                                | 24'1"e  | 19'8"e  | 27'10"                       | 24'1"   | 19'6"   | 27'10"                                | 24'1"e  | 19'8"e  | 27'10"                       | 24'1"   | 19'6"  |
| 1400S162-68  | 50      | 30'11"                                | 27'4"   | 22'4"   | 31'6"                        | 27'4"   | 22'4"   | 28'3"                                 | 25'8"   | 22'3"   | 31'6"                        | 27'4"   | 22'4"  |
| 1400S200-68  | 33      | 30'0"                                 | 26'0"e  | 21'3"e  | 30'0"                        | 25'11"  | 20'7"   | 29'5"                                 | 26'0"e  | 21'3"e  | 30'0"                        | 25'11"  | 20'7"  |
| 1400S200-68  | 50      | 32'3"                                 | 29'2"   | 24'1"e  | 34'1"                        | 29'6"   | 23'5"   | 29'5"                                 | 26'8"   | 23'2"   | 32'10"                       | 29'6"   | 23'5"  |
| 1400S250-68  | 33      | 31'2"                                 | 27'0"e  | 22'0"e  | 31'2"                        | 26'10"  | 21'3"e  | 30'6"                                 | 27'0"e  | 22'0"e  | 31'2"                        | 26'10"  | 21'3"e |
| 1400S250-68  | 50      | 33'5"                                 | 30'4"   | 25'0"e  | 35'4"                        | 30'0"   | 23'7"   | 30'6"                                 | 27'8"   | 24'1"e  | 34'1"                        | 30'0"   | 23'7"  |
| 1400S300-68  | 50      | 34'6"                                 | 31'2"   | 25'7"e  | 35'10"                       | 30'5"   | 23'10"  | 31'6"                                 | 28'7"   | 24'10"e | 35'2"                        | 30'5"   | 23'10" |
| 1400S162-97  | 33      | 35'3"                                 | 31'3"   | 25'6"   | 36'1"                        | 31'3"   | 25'6"   | 32'0"                                 | 29'1"   | 25'5"   | 36'0"                        | 31'3"   | 25'6"  |
| 1400S162-97  | 50      | 35'3"                                 | 32'0"   | 27'10"  | 39'5"                        | 35'9"   | 29'2"   | 32'0"                                 | 29'1"   | 25'5"   | 36'0"                        | 32'7"   | 28'5"  |
| 1400S200-97  | 33      | 36'7"                                 | 33'3"   | 27'4"   | 38'7"                        | 33'5"   | 27'4"   | 33'3"                                 | 30'2"   | 26'5"   | 37'4"                        | 33'5"   | 27'4"  |
| 1400S200-97  | 50      | 36'7"                                 | 33'3"   | 29'0"   | 41'0"                        | 37'2"   | 31'4"   | 33'3"                                 | 30'2"   | 26'5"   | 37'4"                        | 33'11"  | 29'6"  |
| 1400S250-97  | 33      | 37'11"                                | 34'5"   | 28'4"   | 40'1"                        | 34'9"   | 28'4"   | 34'5"                                 | 31'3"   | 27'4"   | 38'8"                        | 34'9"   | 28'4"  |
| 1400S250-97  | 50      | 37'11"                                | 34'5"   | 30'0"   | 42'5"                        | 38'6"   | 32'5"   | 34'5"                                 | 31'3"   | 27'4"   | 38'8"                        | 35'1"   | 30'7"  |
| 1400S300-97  | 50      | 39'1"                                 | 35'6"   | 31'0"   | 43'10"                       | 39'9"   | 33'3"   | 35'6"                                 | 32'3"   | 28'2"   | 39'11"                       | 36'3"   | 31'7"  |
| 1400S162-118 | 50      | 37'5"                                 | 34'0"   | 29'8"   | 42'0"                        | 38'2"   | 33'4"i  | 34'0"                                 | 30'11"  | 27'0"   | 38'2"                        | 34'8"   | 30'3"  |
| 1400S200-118 | 50      | 38'10"                                | 35'4"   | 30'10"  | 43'8"                        | 39'8"   | 34'8"i  | 35'4"                                 | 32'1"   | 28'0"   | 39'8"                        | 36'0"   | 31'6"  |
| 1400S250-118 | 50      | 40'3"                                 | 36'7"   | 31'11"  | 45'2"                        | 41'1"   | 35'10"i | 36'7"                                 | 33'3"   | 29'0"   | 41'1"                        | 37'4"   | 32'7"  |
| 1400S300-118 | 50      | 41'7"                                 | 37'9"   | 33'0"   | 46'8"                        | 42'5"   | 37'0"i  | 37'9"                                 | 34'4"   | 30'0"   | 42'5"                        | 38'6"   | 33'8"  |
| 1400S350-118 | 50      | 43'6"                                 | 39'6"   | 34'6"   | 48'10"                       | 44'4"   | 38'9"i  | 39'6"                                 | 35'11"  | 31'4"   | 44'4"                        | 40'4"   | 35'2"  |
| 1600S200-68  | 50      | 35'8"                                 | 31'0"   | 25'4"   | 35'10"                       | 30'10"  | 23'8"   | 32'7"                                 | 29'6"   | 25'4"   | 35'10"                       | 30'10"  | 23'8"  |
| 1600S250-68  | 50      | 37'0"                                 | 32'4"   | 26'5"   | 36'10"                       | 30'11"  | 23'9"   | 33'9"                                 | 30'7"   | 26'5"   | 36'10"                       | 30'11"  | 23'9"  |
| 1600S300-68  | 50      | 38'1"                                 | 33'3"   | 27'2"   | 37'3"                        | 31'3"   | 24'0"   | 34'10"                                | 31'7"   | 27'2"   | 37'3"                        | 31'3"   | 24'0"  |
| 1600S350-68  | 50      | 40'0"                                 | 36'3"   | 30'5"   | 40'5"                        | 33'8"   | 25'7"   | 36'6"                                 | 33'1"   | 28'10"  | 40'5"                        | 33'8"   | 25'7"  |
| 1600S200-97  | 50      | 40'10"                                | 37'0"   | 32'2"   | 45'7"                        | 40'7"   | 33'2"   | 37'3"                                 | 33'9"   | 29'5"   | 41'7"                        | 37'8"   | 32'10" |
| 1600S250-97  | 50      | 42'2"                                 | 38'3"   | 33'4"   | 47'2"                        | 42'3"   | 34'6"   | 38'6"                                 | 34'11"  | 30'5"   | 43'0"                        | 39'0"   | 34'0"  |
| 1600S300-97  | 50      | 43'6"                                 | 39'5"   | 34'4"   | 48'7"                        | 43'5"   | 35'5"   | 39'7"                                 | 36'0"   | 31'4"   | 44'4"                        | 40'3"   | 35'0"  |
| 1600S350-97  | 50      | 45'5"                                 | 41'3"   | 35'11"  | 50'10"                       | 46'1"   | 39'1"   | 41'4"                                 | 37'7"   | 32'9"   | 46'4"                        | 42'0"   | 36'8"  |
| 1600S200-118 | 50      | 43'7"                                 | 39'7"   | 34'7"   | 48'11"                       | 44'4"   | 38'6"i  | 39'7"                                 | 35'11"  | 31'5"   | 44'5"                        | 40'4"   | 35'3"i |
| 1600S250-118 | 50      | 45'0"                                 | 40'11"  | 35'9"   | 50'6"                        | 45'11"  | 40'0"i  | 40'11"                                | 37'2"   | 32'5"   | 45'11"                       | 41'9"   | 36'5"i |
| 1600S300-118 | 50      | 46'4"                                 | 42'2"   | 36'10"  | 52'1"                        | 47'4"   | 41'1"i  | 42'2"                                 | 38'3"   | 33'5"   | 47'4"                        | 43'0"   | 37'7"i |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 50 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 50 psf |           |           |                              |           |          | L/360 Live Load Deflection for 50 psf |          |           |                              |           |          |
|-------------|---------|---------------------------------------|-----------|-----------|------------------------------|-----------|----------|---------------------------------------|----------|-----------|------------------------------|-----------|----------|
|             |         | Single Span Spacing (in) 16           |           |           | Two Equal Spans Spacing (in) |           |          | Single Span Spacing (in)              |          |           | Two Equal Spans Spacing (in) |           |          |
|             |         | 12"                                   | 16"       | 24"       | 12"                          | 16"       | 24"      | 12"                                   | 16"      | 24"       | 12"                          | 16"       | 24"      |
| 600S162-33  | 33      | 10' 3" e                              | 8' 11" e  | 7' 3" e   | 10' 1"                       | 8' 5" e   | 6' 5" e  | 10' 3" e                              | 8' 11" e | 7' 3" e   | 10' 1"                       | 8' 5" e   | 6' 5" e  |
| 600S200-33  | 33      | 10' 11" e                             | 9' 6" e   | 7' 9" e   | 10' 5"                       | 8' 8" e   | 6' 7" e  | 10' 11" e                             | 9' 6" e  | 7' 9" e   | 10' 5"                       | 8' 8" e   | 6' 7" e  |
| 600S162-43  | 33      | 12' 8"                                | 11' 0" e  | 9' 0" e   | 12' 8"                       | 11' 0"    | 8' 10"   | 11' 6"                                | 10' 5" e | 9' 0" e   | 12' 8"                       | 11' 0"    | 8' 10"   |
| 600S200-43  | 33      | 13' 1"                                | 11' 4" e  | 9' 3" e   | 13' 1"                       | 11' 4"    | 9' 0" e  | 12' 1"                                | 11' 0" e | 9' 3" e   | 13' 1"                       | 11' 4"    | 9' 0" e  |
| 600S250-43  | 33      | 13' 5" e                              | 11' 7" e  | 9' 6" e   | 13' 5"                       | 11' 7"    | 9' 2" e  | 12' 8"                                | 11' 6" e | 9' 6" e   | 13' 5"                       | 11' 7"    | 9' 2" e  |
| 600S162-54  | 33      | 13' 7"                                | 12' 4"    | 10' 6" e  | 14' 10"                      | 12' 10"   | 10' 4"   | 12' 4"                                | 11' 2"   | 9' 9"     | 13' 10"                      | 12' 7"    | 10' 4"   |
| 600S162-54  | 50      | 13' 7"                                | 12' 4"    | 10' 9"    | 15' 3"                       | 13' 10"   | 12' 0"   | 12' 4"                                | 11' 2"   | 9' 9"     | 13' 10"                      | 12' 7"    | 11' 0"   |
| 600S200-54  | 33      | 14' 3"                                | 13' 0"    | 11' 1" e  | 15' 8"                       | 13' 7"    | 11' 0"   | 13' 0"                                | 11' 9"   | 10' 3" e  | 14' 7"                       | 13' 3"    | 11' 0"   |
| 600S200-54  | 50      | 14' 3"                                | 13' 0"    | 11' 4"    | 16' 0"                       | 14' 7"    | 12' 2"   | 13' 0"                                | 11' 9"   | 10' 3"    | 14' 7"                       | 13' 3"    | 11' 7"   |
| 600S250-54  | 33      | 14' 11"                               | 13' 6"    | 11' 0" e  | 15' 7"                       | 13' 4"    | 10' 9"   | 13' 7"                                | 12' 4"   | 10' 9" e  | 15' 3"                       | 13' 4"    | 10' 9"   |
| 600S250-54  | 50      | 14' 11"                               | 13' 7"    | 11' 10"   | 16' 9"                       | 15' 3"    | 12' 6"   | 13' 7"                                | 12' 4"   | 10' 9"    | 15' 3"                       | 13' 10"   | 12' 1"   |
| 600S300-54  | 50      | 15' 7"                                | 14' 1"    | 12' 3"    | 17' 3"                       | 15' 7"    | 12' 8"   | 14' 2"                                | 12' 10"  | 11' 2"    | 15' 10"                      | 14' 4"    | 12' 5"   |
| 600S162-68  | 33      | 14' 7"                                | 13' 3"    | 11' 7"    | 16' 4"                       | 14' 7"    | 11' 9"   | 13' 3"                                | 12' 0"   | 10' 6"    | 14' 10"                      | 13' 6"    | 11' 9"   |
| 600S162-68  | 50      | 14' 7"                                | 13' 3"    | 11' 7"    | 16' 4"                       | 14' 10"   | 13' 0"   | 13' 3"                                | 12' 0"   | 10' 6"    | 14' 10"                      | 13' 6"    | 11' 9"   |
| 600S200-68  | 33      | 15' 4"                                | 13' 11"   | 12' 2"    | 17' 2"                       | 15' 6"    | 12' 5"   | 13' 11"                               | 12' 8"   | 11' 0"    | 15' 7"                       | 14' 2"    | 12' 5"   |
| 600S200-68  | 50      | 15' 4"                                | 13' 11"   | 12' 2"    | 17' 2"                       | 15' 7"    | 13' 8"   | 13' 11"                               | 12' 8"   | 11' 0"    | 15' 7"                       | 14' 2"    | 12' 5"   |
| 600S250-68  | 33      | 16' 1"                                | 14' 7"    | 12' 9"    | 18' 0"                       | 16' 0"    | 12' 11"  | 14' 7"                                | 13' 3"   | 11' 7"    | 16' 4"                       | 14' 10"   | 12' 11"  |
| 600S250-68  | 50      | 16' 1"                                | 14' 7"    | 12' 9"    | 18' 0"                       | 16' 4"    | 14' 4"   | 14' 7"                                | 13' 3"   | 11' 7"    | 16' 4"                       | 14' 10"   | 13' 0"   |
| 600S300-68  | 50      | 16' 9"                                | 15' 2"    | 13' 3"    | 18' 9"                       | 17' 0"    | 14' 10"  | 15' 2"                                | 13' 10"  | 12' 1"    | 17' 1"                       | 15' 6"    | 13' 6"   |
| 600S162-97  | 33      | 16' 2"                                | 14' 8"    | 12' 10"   | 18' 1"                       | 16' 5"    | 13' 11"  | 14' 8"                                | 13' 4"   | 11' 8"    | 16' 5"                       | 14' 11"   | 13' 1"   |
| 600S162-97  | 50      | 16' 2"                                | 14' 8"    | 12' 10"   | 18' 1"                       | 16' 5"    | 14' 4"   | 14' 8"                                | 13' 4"   | 11' 8"    | 16' 5"                       | 14' 11"   | 13' 1"   |
| 600S200-97  | 33      | 17' 0"                                | 15' 5"    | 13' 6"    | 19' 1"                       | 17' 4"    | 14' 9"   | 15' 5"                                | 14' 0"   | 12' 3"    | 17' 4"                       | 15' 9"    | 13' 9"   |
| 600S200-97  | 50      | 17' 0"                                | 15' 5"    | 13' 6"    | 19' 1"                       | 17' 4"    | 15' 2"   | 15' 5"                                | 14' 0"   | 12' 3"    | 17' 4"                       | 15' 9"    | 13' 9"   |
| 600S250-97  | 33      | 17' 10"                               | 16' 3"    | 14' 2"    | 20' 0"                       | 18' 2"    | 15' 6"   | 16' 3"                                | 14' 9"   | 12' 10"   | 18' 2"                       | 16' 6"    | 14' 5"   |
| 600S250-97  | 50      | 17' 10"                               | 16' 3"    | 14' 2"    | 20' 0"                       | 18' 2"    | 15' 11"  | 16' 3"                                | 14' 9"   | 12' 10"   | 18' 2"                       | 16' 6"    | 14' 5"   |
| 600S300-97  | 50      | 18' 7"                                | 16' 11"   | 14' 9"    | 20' 11"                      | 19' 0"    | 16' 7"   | 16' 11"                               | 15' 4"   | 13' 5"    | 19' 0"                       | 17' 3"    | 15' 1"   |
| 600S162-118 | 50      | 17' 0"                                | 15' 6"    | 13' 6"    | 19' 1"                       | 17' 4"    | 15' 2"   | 15' 6"                                | 14' 1"   | 12' 3"    | 17' 4"                       | 15' 9"    | 13' 9"   |
| 600S200-118 | 50      | 18' 0"                                | 16' 4"    | 14' 3"    | 20' 2"                       | 18' 4"    | 16' 0"   | 16' 4"                                | 14' 10"  | 13' 0"    | 18' 4"                       | 16' 8"    | 14' 7"   |
| 600S250-118 | 50      | 18' 11"                               | 17' 2"    | 15' 0"    | 21' 3"                       | 19' 3"    | 16' 10"  | 17' 2"                                | 15' 7"   | 13' 7"    | 19' 3"                       | 17' 6"    | 15' 4"   |
| 600S300-118 | 50      | 19' 9"                                | 17' 11"   | 15' 8"    | 22' 2"                       | 20' 2"    | 17' 7"   | 17' 11"                               | 16' 3"   | 14' 3"    | 20' 2"                       | 18' 3"    | 16' 0"   |
| 600S350-118 | 50      | 20' 10"                               | 18' 11"   | 16' 6"    | 23' 4"                       | 21' 3"    | 18' 6"   | 18' 11"                               | 17' 2"   | 15' 0"    | 21' 3"                       | 19' 3"    | 16' 10"  |
| 800S162-33  | 33      | 11' 10" e                             | 10' 3" e  | 7' 11" e  | 9' 10" e                     | 8' 0" e   | 5' 9" e  | 11' 10" e                             | 10' 3" e | 7' 11" e  | 9' 10" e                     | 8' 0" e   | 5' 9" e  |
| 800S200-33  | 33      | 12' 8" e                              | 11' 0" e  | 7' 11" e  | 10' 3" e                     | 8' 2" e   | 5' 10" e | 12' 8" e                              | 11' 0" e | 7' 11" e  | 10' 3" e                     | 8' 2" e   | 5' 10" e |
| 800S162-43  | 33      | 14' 3" e                              | 12' 4" e  | 10' 1" e  | 13' 11"                      | 11' 9"    | 9' 2" e  | 14' 3" e                              | 12' 4" e | 10' 1" e  | 13' 11"                      | 11' 9"    | 9' 2" e  |
| 800S200-43  | 33      | 15' 3" e                              | 13' 3" e  | 10' 10" e | 15' 3"                       | 12' 11" e | 10' 0" e | 15' 2" e                              | 13' 3" e | 10' 10" e | 15' 3"                       | 12' 11" e | 10' 0" e |
| 800S250-43  | 33      | 15' 8" e                              | 13' 7" e  | 11' 1" e  | 15' 6"                       | 13' 0" e  | 10' 0" e | 15' 8" e                              | 13' 7" e | 11' 1" e  | 15' 6"                       | 13' 0" e  | 10' 0" e |
| 800S162-54  | 33      | 16' 8"                                | 14' 5" e  | 11' 9" e  | 16' 8"                       | 14' 4"    | 11' 7"   | 15' 7"                                | 14' 1"   | 11' 9" e  | 16' 8"                       | 14' 4"    | 11' 7"   |
| 800S162-54  | 50      | 17' 1"                                | 15' 6"    | 13' 6"    | 19' 1"                       | 16' 6"    | 13' 5"   | 15' 7"                                | 14' 1"   | 12' 4"    | 17' 5"                       | 15' 10"   | 13' 5"   |
| 800S200-54  | 33      | 17' 11"                               | 15' 11" e | 13' 0" e  | 18' 4"                       | 15' 11"   | 13' 0" e | 16' 3"                                | 14' 9" e | 12' 11" e | 18' 3"                       | 15' 11"   | 13' 0" e |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 50 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 50 psf |           |           |                              |          |           | L/360 Live Load Deflection for 50 psf |           |           |                              |          |           |
|-------------|---------|---------------------------------------|-----------|-----------|------------------------------|----------|-----------|---------------------------------------|-----------|-----------|------------------------------|----------|-----------|
|             |         | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |          |           | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |          |           |
|             |         | 12"                                   | 16"       | 24"       | 12"                          | 16"      | 24"       | 12"                                   | 16"       | 24"       | 12"                          | 16"      | 24"       |
| 800S200-54  | 50      | 17' 11"                               | 16' 3"    | 14' 3"    | 20' 1"                       | 17' 8"   | 14' 5"    | 16' 3"                                | 14' 9"    | 12' 11"   | 18' 3"                       | 16' 7"   | 14' 5"    |
| 800S250-54  | 33      | 18' 3"                                | 15' 10" e | 12' 11" e | 18' 3"                       | 15' 10"  | 12' 11" e | 17' 0"                                | 15' 5" e  | 12' 11" e | 18' 3"                       | 15' 10"  | 12' 11" e |
| 800S250-54  | 50      | 18' 8"                                | 17' 0"    | 14' 9" e  | 20' 10"                      | 18' 1"   | 14' 8"    | 17' 0"                                | 15' 5"    | 13' 6"    | 19' 1"                       | 17' 4"   | 14' 8"    |
| 800S300-54  | 50      | 19' 4"                                | 17' 6"    | 14' 11" e | 21' 2"                       | 18' 4"   | 14' 9"    | 17' 8"                                | 16' 0"    | 13' 11"   | 19' 9"                       | 17' 10"  | 14' 9"    |
| 800S162-68  | 33      | 18' 4"                                | 16' 8"    | 13' 9"    | 19' 4"                       | 16' 8"   | 13' 6"    | 16' 8"                                | 15' 2"    | 13' 3"    | 18' 9"                       | 16' 8"   | 13' 6"    |
| 800S162-68  | 50      | 18' 4"                                | 16' 8"    | 14' 7"    | 20' 7"                       | 18' 9"   | 15' 10"   | 16' 8"                                | 15' 2"    | 13' 3"    | 18' 9"                       | 17' 0"   | 14' 10"   |
| 800S200-68  | 33      | 19' 3"                                | 17' 6"    | 15' 3" e  | 21' 7"                       | 18' 8"   | 15' 3"    | 17' 6"                                | 15' 11"   | 13' 10"   | 19' 7"                       | 17' 10"  | 15' 3"    |
| 800S200-68  | 50      | 19' 3"                                | 17' 6"    | 15' 3"    | 21' 7"                       | 19' 7"   | 17' 2"    | 17' 6"                                | 15' 11"   | 13' 10"   | 19' 7"                       | 17' 10"  | 15' 7"    |
| 800S250-68  | 33      | 20' 1"                                | 18' 3"    | 15' 7" e  | 22' 0"                       | 19' 1"   | 15' 7"    | 18' 3"                                | 16' 7"    | 14' 6"    | 20' 6"                       | 18' 7"   | 15' 7"    |
| 800S250-68  | 50      | 20' 1"                                | 18' 3"    | 15' 11"   | 22' 7"                       | 20' 6"   | 17' 3"    | 18' 3"                                | 16' 7"    | 14' 6"    | 20' 6"                       | 18' 7"   | 16' 3"    |
| 800S300-68  | 50      | 20' 10"                               | 18' 11"   | 16' 6"    | 23' 4"                       | 21' 2"   | 17' 7"    | 18' 11"                               | 17' 3"    | 15' 0"    | 21' 3"                       | 19' 4"   | 16' 10"   |
| 800S162-97  | 33      | 20' 5"                                | 18' 6"    | 16' 2"    | 22' 11"                      | 20' 10"  | 17' 8"    | 18' 6"                                | 16' 10"   | 14' 9"    | 20' 10"                      | 18' 11"  | 16' 6"    |
| 800S162-97  | 50      | 20' 5"                                | 18' 6"    | 16' 2"    | 22' 11"                      | 20' 10"  | 18' 2"    | 18' 6"                                | 16' 10"   | 14' 9"    | 20' 10"                      | 18' 11"  | 16' 6"    |
| 800S200-97  | 33      | 21' 5"                                | 19' 5"    | 17' 0"    | 24' 0"                       | 21' 10"  | 18' 7"    | 19' 5"                                | 17' 8"    | 15' 5"    | 21' 10"                      | 19' 10"  | 17' 4"    |
| 800S200-97  | 50      | 21' 5"                                | 19' 5"    | 17' 0"    | 24' 0"                       | 21' 10"  | 19' 1"    | 19' 5"                                | 17' 8"    | 15' 5"    | 21' 10"                      | 19' 10"  | 17' 4"    |
| 800S250-97  | 33      | 22' 4"                                | 20' 4"    | 17' 9"    | 25' 1"                       | 22' 10"  | 19' 6"    | 20' 4"                                | 18' 5"    | 16' 1"    | 22' 10"                      | 20' 9"   | 18' 1"    |
| 800S250-97  | 50      | 22' 4"                                | 20' 4"    | 17' 9"    | 25' 1"                       | 22' 10"  | 19' 11"   | 20' 4"                                | 18' 5"    | 16' 1"    | 22' 10"                      | 20' 9"   | 18' 1"    |
| 800S300-97  | 50      | 23' 3"                                | 21' 1"    | 18' 5"    | 26' 1"                       | 23' 9"   | 20' 9"    | 21' 1"                                | 19' 2"    | 16' 9"    | 23' 9"                       | 21' 7"   | 18' 10"   |
| 800S162-118 | 50      | 21' 7"                                | 19' 7"    | 17' 2"    | 24' 3"                       | 22' 0"   | 19' 3"    | 19' 7"                                | 17' 10"   | 15' 7"    | 22' 0"                       | 20' 0"   | 17' 6"    |
| 800S200-118 | 50      | 22' 8"                                | 20' 7"    | 18' 0"    | 25' 5"                       | 23' 1"   | 20' 2"    | 20' 7"                                | 18' 8"    | 16' 4"    | 23' 1"                       | 21' 0"   | 18' 4"    |
| 800S250-118 | 50      | 23' 8"                                | 21' 6"    | 18' 10"   | 26' 7"                       | 24' 2"   | 21' 2"    | 21' 6"                                | 19' 7"    | 17' 1"    | 24' 2"                       | 22' 0"   | 19' 2"    |
| 800S300-118 | 50      | 24' 8"                                | 22' 5"    | 19' 7"    | 27' 8"                       | 25' 2"   | 22' 0"    | 22' 5"                                | 20' 4"    | 17' 9"    | 25' 2"                       | 22' 10"  | 20' 0"    |
| 800S350-118 | 50      | 26' 0"                                | 23' 7"    | 20' 7"    | 29' 2"                       | 26' 6"   | 23' 2"    | 23' 7"                                | 21' 5"    | 18' 9"    | 26' 6"                       | 24' 1"   | 21' 0"    |
| 1000S162-43 | 33      | 15' 10" e                             | 13' 8" e  | 11' 2" e  | 14' 8" e                     | 12' 2" e | 9' 1" e   | 15' 10" e                             | 13' 8" e  | 11' 2" e  | 14' 8" e                     | 12' 2" e | 9' 1" e   |
| 1000S200-43 | 33      | 17' 1" e                              | 14' 9" e  | 12' 1" e  | 15' 4" e                     | 12' 7" e | 9' 4" e   | 17' 1" e                              | 14' 9" e  | 12' 1" e  | 15' 4" e                     | 12' 7" e | 9' 4" e   |
| 1000S250-43 | 33      | 17' 6" e                              | 15' 2" e  | 12' 5" e  | 15' 10" e                    | 13' 0" e | 9' 7" e   | 17' 6" e                              | 15' 2" e  | 12' 5" e  | 15' 10" e                    | 13' 0" e | 9' 7" e   |
| 1000S162-54 | 33      | 18' 7" e                              | 16' 1" e  | 13' 2" e  | 18' 6"                       | 15' 10"  | 12' 6" e  | 18' 6" e                              | 16' 1" e  | 13' 2" e  | 18' 6"                       | 15' 10"  | 12' 6" e  |
| 1000S162-54 | 50      | 20' 4"                                | 18' 4"    | 15' 0" e  | 21' 2"                       | 18' 2"   | 14' 2"    | 18' 6"                                | 16' 10"   | 14' 7" e  | 20' 8"                       | 18' 2"   | 14' 2"    |
| 1000S200-54 | 33      | 20' 0" e                              | 17' 3" e  | 14' 1" e  | 19' 9"                       | 16' 9"   | 13' 3" e  | 19' 4" e                              | 17' 3" e  | 14' 1" e  | 19' 9"                       | 16' 9"   | 13' 3" e  |
| 1000S200-54 | 50      | 21' 3"                                | 19' 3"    | 16' 1" e  | 22' 2"                       | 18' 9"   | 14' 7"    | 19' 4"                                | 17' 7"    | 15' 3" e  | 21' 8"                       | 18' 9"   | 14' 7"    |
| 1000S250-54 | 33      | 20' 7" e                              | 17' 10" e | 14' 6" e  | 20' 7"                       | 17' 10"  | 13' 11" e | 20' 3" e                              | 17' 10" e | 14' 6" e  | 20' 7"                       | 17' 10"  | 13' 11" e |
| 1000S250-54 | 50      | 22' 4"                                | 20' 3"    | 16' 6" e  | 23' 1"                       | 19' 6"   | 15' 1"    | 20' 3"                                | 18' 5"    | 16' 1" e  | 22' 9"                       | 19' 6"   | 15' 1"    |
| 1000S300-54 | 50      | 23' 0"                                | 20' 7"    | 16' 9" e  | 23' 3"                       | 19' 7"   | 15' 2"    | 21' 0"                                | 19' 0"    | 16' 7" e  | 23' 3"                       | 19' 7"   | 15' 2"    |
| 1000S162-68 | 33      | 21' 10"                               | 18' 11"   | 15' 5" e  | 21' 10"                      | 18' 11"  | 15' 4"    | 20' 1"                                | 18' 3"    | 15' 5" e  | 21' 10"                      | 18' 11"  | 15' 4"    |
| 1000S162-68 | 50      | 22' 1"                                | 20' 0"    | 17' 5"    | 24' 8"                       | 21' 8"   | 17' 8"    | 20' 1"                                | 18' 3"    | 15' 11"   | 22' 6"                       | 20' 5"   | 17' 8"    |
| 1000S200-68 | 33      | 23' 0"                                | 20' 3"    | 16' 6" e  | 23' 4"                       | 20' 3"   | 16' 4"    | 20' 11"                               | 19' 0"    | 16' 6" e  | 23' 4"                       | 20' 3"   | 16' 4"    |
| 1000S200-68 | 50      | 23' 0"                                | 20' 11"   | 18' 3"    | 25' 9"                       | 23' 2"   | 18' 11"   | 20' 11"                               | 19' 0"    | 16' 7"    | 23' 6"                       | 21' 4"   | 18' 7"    |
| 1000S250-68 | 33      | 24' 0"                                | 21' 6" e  | 17' 7" e  | 24' 10"                      | 21' 6"   | 17' 7"    | 21' 9"                                | 19' 9"    | 17' 3" e  | 24' 5"                       | 21' 6"   | 17' 7"    |
| 1000S250-68 | 50      | 24' 0"                                | 21' 9"    | 19' 0"    | 26' 11"                      | 23' 10"  | 19' 5"    | 21' 9"                                | 19' 9"    | 17' 3"    | 24' 5"                       | 22' 3"   | 19' 5"    |
| 1000S300-68 | 50      | 24' 10"                               | 22' 7"    | 19' 7"    | 27' 9"                       | 24' 3"   | 19' 9"    | 22' 7"                                | 20' 6"    | 17' 11"   | 25' 4"                       | 23' 0"   | 19' 9"    |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 50 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 50 psf |           |           |                              |           |           | L/360 Live Load Deflection for 50 psf |           |           |                              |           |           |
|--------------|---------|---------------------------------------|-----------|-----------|------------------------------|-----------|-----------|---------------------------------------|-----------|-----------|------------------------------|-----------|-----------|
|              |         | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |           |           | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |           |           |
|              |         | 12"                                   | 16"       | 24"       | 12"                          | 16"       | 24"       | 12"                                   | 16"       | 24"       | 12"                          | 16"       | 24"       |
| 1000S162-97  | 33      | 24' 7"                                | 22' 4"    | 19' 4"    | 27' 1"                       | 23' 5"    | 19' 1"    | 22' 4"                                | 20' 3"    | 17' 9"    | 25' 1"                       | 22' 9"    | 19' 1"    |
| 1000S162-97  | 50      | 24' 7"                                | 22' 4"    | 19' 6"    | 27' 7"                       | 25' 1"    | 21' 11"   | 22' 4"                                | 20' 3"    | 17' 9"    | 25' 1"                       | 22' 9"    | 19' 11"   |
| 1000S200-97  | 33      | 25' 8"                                | 23' 4"    | 20' 4"    | 28' 10"                      | 25' 0"    | 20' 4"    | 23' 4"                                | 21' 2"    | 18' 6"    | 26' 2"                       | 23' 9"    | 20' 4"    |
| 1000S200-97  | 50      | 25' 8"                                | 23' 4"    | 20' 4"    | 28' 10"                      | 26' 2"    | 22' 10"   | 23' 4"                                | 21' 2"    | 18' 6"    | 26' 2"                       | 23' 9"    | 20' 9"    |
| 1000S250-97  | 33      | 26' 9"                                | 24' 3"    | 21' 2"    | 30' 0"                       | 27' 3"    | 22' 7"    | 24' 3"                                | 22' 1"    | 19' 3"    | 27' 3"                       | 24' 9"    | 21' 8"    |
| 1000S250-97  | 50      | 26' 9"                                | 24' 3"    | 21' 2"    | 30' 0"                       | 27' 3"    | 23' 10"   | 24' 3"                                | 22' 1"    | 19' 3"    | 27' 3"                       | 24' 9"    | 21' 8"    |
| 1000S300-97  | 50      | 27' 8"                                | 25' 2"    | 22' 0"    | 31' 1"                       | 28' 3"    | 24' 8"    | 25' 2"                                | 22' 10"   | 20' 0"    | 28' 3"                       | 25' 8"    | 22' 5"    |
| 1000S162-118 | 50      | 26' 0"                                | 23' 8"    | 20' 8"    | 29' 3"                       | 26' 7"    | 23' 2"    | 23' 8"                                | 21' 6"    | 18' 9"    | 26' 7"                       | 24' 1"    | 21' 1"    |
| 1000S200-118 | 50      | 27' 3"                                | 24' 9"    | 21' 7"    | 30' 7"                       | 27' 9"    | 24' 3"    | 24' 9"                                | 22' 6"    | 19' 7"    | 27' 9"                       | 25' 3"    | 22' 0"    |
| 1000S250-118 | 50      | 28' 4"                                | 25' 9"    | 22' 6"    | 31' 10"                      | 28' 11"   | 25' 3"    | 25' 9"                                | 23' 5"    | 20' 5"    | 28' 11"                      | 26' 3"    | 22' 11"   |
| 1000S300-118 | 50      | 29' 5"                                | 26' 9"    | 23' 4"    | 33' 0"                       | 30' 0"    | 26' 3"    | 26' 9"                                | 24' 3"    | 21' 3"    | 30' 0"                       | 27' 3"    | 23' 10"   |
| 1000S350-118 | 50      | 30' 11"                               | 28' 1"    | 24' 6"    | 34' 8"                       | 31' 6"    | 27' 6"    | 28' 1"                                | 25' 6"    | 22' 3"    | 31' 6"                       | 28' 8"    | 25' 0"    |
| 1200S162-54  | 33      | 20' 1" e                              | 17' 5" e  | 14' 3" e  | 19' 9" e                     | 16' 8" e  | 12' 10" e | 20' 1" e                              | 17' 5" e  | 14' 3" e  | 19' 9" e                     | 16' 8" e  | 12' 10" e |
| 1200S162-54  | 50      | 22' 10" e                             | 19' 9" e  | 16' 1" e  | 22' 5" e                     | 18' 9" e  | 14' 2" e  | 21' 4" e                              | 19' 4" e  | 16' 1" e  | 22' 5" e                     | 18' 9" e  | 14' 2" e  |
| 1200S200-54  | 33      | 21' 9" e                              | 18' 10" e | 15' 4" e  | 20' 11" e                    | 17' 7" e  | 13' 6" e  | 21' 9" e                              | 18' 10" e | 15' 4" e  | 20' 11" e                    | 17' 7" e  | 13' 6" e  |
| 1200S200-54  | 50      | 24' 4" e                              | 21' 4" e  | 17' 5" e  | 23' 2" e                     | 19' 3" e  | 14' 6" e  | 22' 3" e                              | 20' 2" e  | 17' 5" e  | 23' 2" e                     | 19' 3" e  | 14' 6" e  |
| 1200S250-54  | 33      | 22' 6" e                              | 19' 5" e  | 15' 11" e | 21' 1" e                     | 17' 8" e  | 13' 7" e  | 22' 6" e                              | 19' 5" e  | 15' 11" e | 21' 1" e                     | 17' 8" e  | 13' 7" e  |
| 1200S250-54  | 50      | 25' 4" e                              | 22' 1" e  | 18' 0" e  | 23' 5" e                     | 19' 6" e  | 14' 8" e  | 23' 1" e                              | 21' 0" e  | 18' 0" e  | 23' 5" e                     | 19' 6" e  | 14' 8" e  |
| 1200S300-54  | 50      | 26' 0" e                              | 22' 6" e  | 18' 4" e  | 23' 11" e                    | 19' 10" e | 14' 11" e | 24' 3" e                              | 21' 11" e | 18' 4" e  | 23' 11" e                    | 19' 10" e | 14' 11" e |
| 1200S162-68  | 33      | 23' 10"                               | 20' 7" e  | 16' 10" e | 23' 10"                      | 20' 7"    | 16' 7"    | 23' 3"                                | 20' 7" e  | 16' 10" e | 23' 10"                      | 20' 7"    | 16' 7"    |
| 1200S162-68  | 50      | 25' 6"                                | 23' 1"    | 19' 2"    | 27' 1"                       | 23' 6"    | 19' 2"    | 23' 3"                                | 21' 1"    | 18' 4"    | 25' 11"                      | 23' 6"    | 19' 2"    |
| 1200S200-68  | 33      | 25' 7"                                | 22' 2" e  | 18' 1" e  | 25' 7"                       | 22' 0"    | 17' 7"    | 24' 2"                                | 21' 11" e | 18' 1" e  | 25' 7"                       | 22' 0"    | 17' 7"    |
| 1200S200-68  | 50      | 26' 6"                                | 24' 1"    | 20' 7" e  | 29' 2"                       | 25' 3"    | 20' 4"    | 24' 2"                                | 21' 11"   | 19' 1"    | 27' 1"                       | 24' 6"    | 20' 4"    |
| 1200S250-68  | 33      | 26' 5"                                | 22' 11" e | 18' 8" e  | 26' 5"                       | 22' 11"   | 18' 3" e  | 25' 2"                                | 22' 10" e | 18' 8" e  | 26' 5"                       | 22' 11"   | 18' 3" e  |
| 1200S250-68  | 50      | 27' 7"                                | 25' 0"    | 21' 3" e  | 30' 1"                       | 25' 9"    | 20' 5"    | 25' 2"                                | 22' 10"   | 19' 10"   | 28' 1"                       | 25' 6"    | 20' 5"    |
| 1200S300-68  | 50      | 28' 8"                                | 26' 0"    | 21' 8" e  | 30' 8"                       | 26' 7"    | 21' 3"    | 26' 1"                                | 23' 8"    | 20' 8" e  | 29' 3"                       | 26' 6"    | 21' 3"    |
| 1200S162-97  | 33      | 28' 8"                                | 26' 1"    | 21' 7"    | 30' 6"                       | 26' 5"    | 21' 6"    | 26' 1"                                | 23' 8"    | 20' 8"    | 29' 3"                       | 26' 5"    | 21' 6"    |
| 1200S162-97  | 50      | 28' 8"                                | 26' 1"    | 22' 9"    | 32' 2"                       | 29' 3"    | 24' 10"   | 26' 1"                                | 23' 8"    | 20' 8"    | 29' 3"                       | 26' 7"    | 23' 3"    |
| 1200S200-97  | 33      | 29' 10"                               | 27' 1"    | 23' 0"    | 32' 7"                       | 28' 2"    | 22' 10"   | 27' 1"                                | 24' 8"    | 21' 6"    | 30' 5"                       | 27' 8"    | 22' 10"   |
| 1200S200-97  | 50      | 29' 10"                               | 27' 1"    | 23' 8"    | 33' 6"                       | 30' 5"    | 26' 7"    | 27' 1"                                | 24' 8"    | 21' 6"    | 30' 5"                       | 27' 8"    | 24' 2"    |
| 1200S250-97  | 33      | 31' 0"                                | 28' 2"    | 23' 10"   | 33' 9"                       | 29' 3"    | 23' 10"   | 28' 2"                                | 25' 7"    | 22' 4"    | 31' 7"                       | 28' 9"    | 23' 10"   |
| 1200S250-97  | 50      | 31' 0"                                | 28' 2"    | 24' 7"    | 34' 9"                       | 31' 7"    | 27' 5"    | 28' 2"                                | 25' 7"    | 22' 4"    | 31' 7"                       | 28' 9"    | 25' 1"    |
| 1200S300-97  | 50      | 32' 0"                                | 29' 1"    | 25' 5"    | 36' 0"                       | 32' 8"    | 28' 0"    | 29' 1"                                | 26' 5"    | 23' 1"    | 32' 8"                       | 29' 8"    | 25' 11"   |
| 1200S162-118 | 50      | 30' 5"                                | 27' 7"    | 24' 2"    | 34' 2"                       | 31' 0"    | 27' 1" i  | 27' 7"                                | 25' 1"    | 21' 11"   | 31' 0"                       | 28' 2"    | 24' 7"    |
| 1200S200-118 | 50      | 31' 8"                                | 28' 9"    | 25' 2"    | 35' 7"                       | 32' 4"    | 28' 3" i  | 28' 9"                                | 26' 2"    | 22' 10"   | 32' 4"                       | 29' 4"    | 25' 8"    |
| 1200S250-118 | 50      | 32' 11"                               | 29' 11"   | 26' 1"    | 36' 11"                      | 33' 7"    | 29' 4" i  | 29' 11"                               | 27' 2"    | 23' 9"    | 33' 7"                       | 30' 6"    | 26' 8"    |
| 1200S300-118 | 50      | 34' 0"                                | 30' 11"   | 27' 0"    | 38' 3"                       | 34' 9"    | 30' 4"    | 30' 11"                               | 28' 1"    | 24' 7"    | 34' 9"                       | 31' 7"    | 27' 7"    |
| 1200S350-118 | 50      | 35' 8"                                | 32' 5"    | 28' 4"    | 40' 1"                       | 36' 5"    | 31' 10"   | 32' 5"                                | 29' 5"    | 25' 9"    | 36' 5"                       | 33' 1"    | 28' 11"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 10 PSF DEAD LOAD AND 50 PSF LIVE LOAD

| Section      | Fy(ksi) | L/360 Live Load Deflection for 50 psf |           |           |                              |           |           | L/360 Live Load Deflection for 50 psf |           |           |                              |           |           |
|--------------|---------|---------------------------------------|-----------|-----------|------------------------------|-----------|-----------|---------------------------------------|-----------|-----------|------------------------------|-----------|-----------|
|              |         | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |           |           | Single Span Spacing (in)              |           |           | Two Equal Spans Spacing (in) |           |           |
|              |         | 12"                                   | 16"       | 24"       | 12"                          | 16"       | 24"       | 12"                                   | 16"       | 24"       | 12"                          | 16"       | 24"       |
| 1400S162-54  | 33      | 21' 4" e                              | 18' 5" e  | 15' 1" e  | 20' 5" e                     | 16' 11" e | 12' 8" e  | 21' 4" e                              | 18' 5" e  | 15' 1" e  | 20' 5" e                     | 16' 11" e | 12' 8" e  |
| 1400S162-54  | 50      | 24' 1" e                              | 20' 10" e | 17' 0" e  | 22' 9" e                     | 18' 7" e  | 13' 8" e  | 24' 0" e                              | 20' 10" e | 17' 0" e  | 22' 9" e                     | 18' 7" e  | 13' 8" e  |
| 1400S200-54  | 33      | 23' 2" e                              | 20' 0" e  | 16' 4" e  | 21' 5" e                     | 17' 8" e  | 13' 2" e  | 23' 2" e                              | 20' 0" e  | 16' 4" e  | 21' 5" e                     | 17' 8" e  | 13' 2" e  |
| 1400S200-54  | 50      | 26' 2" e                              | 22' 8" e  | 18' 6" e  | 23' 4" e                     | 19' 0" e  | 13' 10" e | 25' 0" e                              | 22' 8" e  | 18' 6" e  | 23' 4" e                     | 19' 0" e  | 13' 10" e |
| 1400S250-54  | 33      | 24' 1" e                              | 20' 10" e | 17' 0" e  | 21' 7" e                     | 17' 9" e  | 13' 2" e  | 24' 1" e                              | 20' 10" e | 17' 0" e  | 21' 7" e                     | 17' 9" e  | 13' 2" e  |
| 1400S250-54  | 50      | 27' 2" e                              | 23' 7" e  | 19' 3" e  | 23' 7" e                     | 19' 2" e  | 13' 11" e | 25' 11" e                             | 23' 6" e  | 19' 3" e  | 23' 7" e                     | 19' 2" e  | 13' 11" e |
| 1400S300-54  | 50      | 27' 10" e                             | 24' 1" e  | 19' 7" e  | 23' 9" e                     | 19' 3" e  | 14' 0" e  | 26' 9" e                              | 24' 1" e  | 19' 7" e  | 23' 9" e                     | 19' 3" e  | 14' 0" e  |
| 1400S162-68  | 33      | 25' 5"                                | 22' 0" e  | 17' 11" e | 25' 5"                       | 22' 0"    | 17' 6"    | 25' 5"                                | 22' 0" e  | 17' 11" e | 25' 5"                       | 22' 0"    | 17' 6"    |
| 1400S162-68  | 50      | 28' 8"                                | 24' 11"   | 20' 4" e  | 28' 9"                       | 24' 11"   | 20' 1"    | 26' 3"                                | 23' 9"    | 20' 4" e  | 28' 9"                       | 24' 11"   | 20' 1"    |
| 1400S200-68  | 33      | 27' 5" e                              | 23' 9" e  | 19' 4" e  | 27' 5"                       | 23' 5"    | 18' 5" e  | 27' 3" e                              | 23' 9" e  | 19' 4" e  | 27' 5"                       | 23' 5"    | 18' 5" e  |
| 1400S200-68  | 50      | 29' 11"                               | 26' 11"   | 22' 0" e  | 31' 1"                       | 26' 10"   | 20' 11"   | 27' 3"                                | 24' 9"    | 21' 6" e  | 30' 5"                       | 26' 10"   | 20' 11"   |
| 1400S250-68  | 33      | 28' 5" e                              | 24' 8" e  | 20' 1" e  | 28' 5"                       | 24' 3"    | 19' 1" e  | 28' 4" e                              | 24' 8" e  | 20' 1" e  | 28' 5"                       | 24' 3"    | 19' 1" e  |
| 1400S250-68  | 50      | 31' 0"                                | 27' 11"   | 22' 10" e | 31' 11"                      | 27' 0"    | 21' 0"    | 28' 4"                                | 25' 8"    | 22' 4" e  | 31' 7"                       | 27' 0"    | 21' 0"    |
| 1400S300-68  | 50      | 32' 0"                                | 28' 7"    | 23' 4" e  | 32' 4"                       | 27' 3"    | 21' 3"    | 29' 3"                                | 26' 6"    | 23' 0" e  | 32' 4"                       | 27' 3"    | 21' 3"    |
| 1400S162-97  | 33      | 32' 9"                                | 28' 6"    | 23' 4"    | 32' 11"                      | 28' 6"    | 23' 4"    | 29' 9"                                | 27' 0"    | 23' 4"    | 32' 11"                      | 28' 6"    | 23' 4"    |
| 1400S162-97  | 50      | 32' 9"                                | 29' 8"    | 25' 10"   | 36' 7"                       | 32' 8"    | 26' 8"    | 29' 9"                                | 27' 0"    | 23' 7"    | 33' 4"                       | 30' 3"    | 26' 4"    |
| 1400S200-97  | 33      | 34' 0"                                | 30' 6"    | 24' 11"   | 35' 3"                       | 30' 6"    | 24' 11"   | 30' 10"                               | 28' 1"    | 24' 6"    | 34' 8"                       | 30' 6"    | 24' 11"   |
| 1400S200-97  | 50      | 34' 0"                                | 30' 10"   | 26' 10"   | 38' 0"                       | 34' 6"    | 28' 7"    | 30' 10"                               | 28' 1"    | 24' 6"    | 34' 8"                       | 31' 5"    | 27' 5"    |
| 1400S250-97  | 33      | 35' 2"                                | 31' 8"    | 25' 11" e | 36' 7"                       | 31' 8"    | 25' 11"   | 31' 11"                               | 29' 0"    | 25' 4" e  | 35' 11"                      | 31' 8"    | 25' 11"   |
| 1400S250-97  | 50      | 35' 2"                                | 31' 11"   | 27' 10"   | 39' 5"                       | 35' 9"    | 29' 7"    | 31' 11"                               | 29' 0"    | 25' 4"    | 35' 11"                      | 32' 7"    | 28' 5"    |
| 1400S300-97  | 50      | 36' 3"                                | 33' 0"    | 28' 9"    | 40' 8"                       | 36' 11"   | 30' 4"    | 33' 0"                                | 29' 11"   | 26' 2"    | 37' 0"                       | 33' 8"    | 29' 4"    |
| 1400S162-118 | 50      | 34' 9"                                | 31' 7"    | 27' 7"    | 39' 0"                       | 35' 5"    | 30' 11" i | 31' 7"                                | 28' 8"    | 25' 1"    | 35' 5"                       | 32' 2"    | 28' 1"    |
| 1400S200-118 | 50      | 36' 1"                                | 32' 9"    | 28' 8"    | 40' 6"                       | 36' 10"   | 32' 2" i  | 32' 9"                                | 29' 9"    | 26' 0"    | 36' 10"                      | 33' 5"    | 29' 2"    |
| 1400S250-118 | 50      | 37' 4"                                | 33' 11"   | 29' 8"    | 41' 11"                      | 38' 1"    | 33' 4" i  | 33' 11"                               | 30' 10"   | 26' 11"   | 38' 1"                       | 34' 8"    | 30' 3"    |
| 1400S300-118 | 50      | 38' 7"                                | 35' 1"    | 30' 7"    | 43' 4"                       | 39' 4"    | 34' 4" i  | 35' 1"                                | 31' 10"   | 27' 10"   | 39' 4"                       | 35' 9"    | 31' 3" i  |
| 1400S350-118 | 50      | 40' 4"                                | 36' 8"    | 32' 0"    | 45' 4"                       | 41' 2"    | 36' 0" i  | 36' 8"                                | 33' 4"    | 29' 1"    | 41' 2"                       | 37' 5"    | 32' 8"    |
| 1600S200-68  | 50      | 32' 8"                                | 28' 4"    | 23' 2"    | 32' 8"                       | 27' 5"    | 20' 11"   | 30' 3"                                | 27' 5"    | 23' 2"    | 32' 8"                       | 27' 5"    | 20' 11"   |
| 1600S250-68  | 50      | 34' 1"                                | 29' 6"    | 24' 1"    | 33' 0"                       | 27' 7"    | 21' 0"    | 31' 4"                                | 28' 5"    | 24' 1"    | 33' 0"                       | 27' 7"    | 21' 0"    |
| 1600S300-68  | 50      | 35' 1"                                | 30' 4"    | 24' 9"    | 33' 4"                       | 27' 10"   | 21' 2"    | 32' 4"                                | 29' 4"    | 24' 9"    | 33' 4"                       | 27' 10"   | 21' 2"    |
| 1600S350-68  | 50      | 37' 1"                                | 33' 8"    | 27' 9"    | 36' 1"                       | 29' 10"   | 22' 5"    | 33' 10"                               | 30' 8"    | 26' 9"    | 36' 1"                       | 29' 10"   | 22' 5"    |
| 1600S200-97  | 50      | 37' 10"                               | 34' 4"    | 29' 10"   | 42' 3"                       | 37' 1"    | 30' 3"    | 34' 6"                                | 31' 4"    | 27' 3"    | 38' 7"                       | 35' 0"    | 30' 3"    |
| 1600S250-97  | 50      | 39' 2"                                | 35' 6"    | 30' 11"   | 43' 9"                       | 38' 7"    | 31' 6"    | 35' 8"                                | 32' 5"    | 28' 2"    | 39' 11"                      | 36' 2"    | 31' 6"    |
| 1600S300-97  | 50      | 40' 4"                                | 36' 7"    | 31' 11"   | 45' 1"                       | 39' 7"    | 32' 4"    | 36' 9"                                | 33' 4"    | 29' 1"    | 41' 2"                       | 37' 4"    | 32' 4"    |
| 1600S350-97  | 50      | 42' 2"                                | 38' 3"    | 33' 4"    | 47' 2"                       | 42' 9"    | 35' 5"    | 38' 5"                                | 34' 10"   | 30' 5"    | 43' 0"                       | 39' 0"    | 34' 0"    |
| 1600S200-118 | 50      | 40' 5"                                | 36' 9"    | 32' 1"    | 45' 5"                       | 41' 2" i  | 35' 1" i  | 36' 9"                                | 33' 4"    | 29' 2"    | 41' 3"                       | 37' 6"    | 32' 9" i  |
| 1600S250-118 | 50      | 41' 9"                                | 37' 11"   | 33' 2"    | 46' 11"                      | 42' 7" i  | 36' 6" i  | 37' 11"                               | 34' 6"    | 30' 2"    | 42' 7"                       | 38' 9"    | 33' 10" i |
| 1600S300-118 | 50      | 43' 1"                                | 39' 1"    | 34' 2"    | 48' 4"                       | 43' 11" i | 37' 6" i  | 39' 1"                                | 35' 6"    | 31' 0"    | 43' 11"                      | 39' 11"   | 34' 10" i |
| 1600S350-118 | 50      | 44' 11"                               | 40' 10"   | 35' 8"    | 50' 6"                       | 45' 10" i | 40' 0" i  | 40' 10"                               | 37' 1"    | 32' 5"    | 45' 10"                      | 41' 8"    | 36' 5" i  |

See notes located on page 74



# TRADITIONAL FLOOR JOIST SPAN TABLES - 15 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section    | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |           |          | L/360 Live Load Deflection for 125 psf |           |          |                              |           |          |
|------------|---------|--|-----------|-----------|------------------------------|-----------|----------|--|-----------|----------|------------------------------|-----------|----------|
|            |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |          | Single Span Spacing (in)               |           |          | Two Equal Spans Spacing (in) |           |          |
|            |         | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"      | 12"                                    | 16"       | 24"      | 12"                          | 16"       | 24"      |
| 600S162-33 | 33      | 6' 9" e                                | 5' 10" e  | 4' 7" e   | 5' 9" e                      | 4' 8" e   | 3' 4" e  | 6' 9" e                                | 5' 10" e  | 4' 7" e  | 5' 9" e                      | 4' 8" e   | 3' 4" e  |
| 600S200-33 | 33      | 7' 2" e                                | 6' 2" e   | 4' 7" e   | 5' 11" e                     | 4' 9" e   | 3' 4" e  | 7' 2" e                                | 6' 2" e   | 4' 7" e  | 5' 11" e                     | 4' 9" e   | 3' 4" e  |
| 600S162-43 | 33      | 8' 4" e                                | 7' 2" e   | 5' 10" e  | 8' 1" e                      | 6' 9" e   | 5' 2" e  | 8' 4" e                                | 7' 2" e   | 5' 10" e | 8' 1" e                      | 6' 9" e   | 5' 2" e  |
| 600S200-43 | 33      | 8' 7" e                                | 7' 5" e   | 6' 1" e   | 8' 2" e                      | 6' 10" e  | 5' 3" e  | 8' 7" e                                | 7' 5" e   | 6' 1" e  | 8' 2" e                      | 6' 10" e  | 5' 3" e  |
| 600S250-43 | 33      | 8' 9" e                                | 7' 7" e   | 6' 3" e   | 8' 4" e                      | 7' 0" e   | 5' 4" e  | 8' 9" e                                | 7' 7" e   | 6' 3" e  | 8' 4" e                      | 7' 0" e   | 5' 4" e  |
| 600S162-54 | 33      | 9' 8" e                                | 8' 5" e   | 6' 10" e  | 9' 6" e                      | 8' 1" e   | 6' 5" e  | 9' 1" e                                | 8' 3" e   | 6' 10" e | 9' 6" e                      | 8' 1" e   | 6' 5" e  |
| 600S162-54 | 50      | 10' 0" e                               | 9' 1" e   | 7' 10" e  | 11' 1" e                     | 9' 5" e   | 7' 4" e  | 9' 1" e                                | 8' 3" e   | 7' 3" e  | 10' 2" e                     | 9' 3" e   | 7' 4" e  |
| 600S200-54 | 33      | 10' 3" e                               | 8' 11" e  | 7' 3" e   | 10' 1" e                     | 8' 7" e   | 6' 8" e  | 9' 7" e                                | 8' 8" e   | 7' 3" e  | 10' 1" e                     | 8' 7" e   | 6' 8" e  |
| 600S200-54 | 50      | 10' 6" e                               | 9' 7" e   | 8' 1" e   | 11' 2" e                     | 9' 5" e   | 7' 4" e  | 9' 7" e                                | 8' 8" e   | 7' 7" e  | 10' 9" e                     | 9' 5" e   | 7' 4" e  |
| 600S250-54 | 33      | 10' 3" e                               | 8' 10" e  | 7' 3" e   | 9' 10" e                     | 8' 4" e   | 6' 7" e  | 10' 0" e                               | 8' 10" e  | 7' 3" e  | 9' 10" e                     | 8' 4" e   | 6' 7" e  |
| 600S250-54 | 50      | 11' 0" e                               | 10' 0" e  | 8' 3" e   | 11' 5" e                     | 9' 8" e   | 7' 6" e  | 10' 0" e                               | 9' 1" e   | 7' 11" e | 11' 3" e                     | 9' 8" e   | 7' 6" e  |
| 600S300-54 | 50      | 11' 4" e                               | 10' 3" e  | 8' 5" e   | 11' 7" e                     | 9' 9" e   | 7' 7" e  | 10' 5" e                               | 9' 5" e   | 8' 2" e  | 11' 6" e                     | 9' 9" e   | 7' 7" e  |
| 600S162-68 | 33      | 10' 9" e                               | 9' 9" e   | 8' 0" e   | 10' 10" e                    | 9' 3" e   | 7' 4" e  | 9' 9" e                                | 8' 10" e  | 7' 9" e  | 10' 10" e                    | 9' 3" e   | 7' 4" e  |
| 600S162-68 | 50      | 10' 9" e                               | 9' 9" e   | 8' 6" e   | 12' 0" e                     | 10' 11" e | 8' 11" e | 9' 9" e                                | 8' 10" e  | 7' 9" e  | 10' 11" e                    | 9' 11" e  | 8' 8" e  |
| 600S200-68 | 33      | 11' 3" e                               | 10' 3" e  | 8' 5" e   | 11' 5" e                     | 9' 9" e   | 7' 8" e  | 10' 3" e                               | 9' 4" e   | 8' 2" e  | 11' 5" e                     | 9' 9" e   | 7' 8" e  |
| 600S200-68 | 50      | 11' 3" e                               | 10' 3" e  | 8' 11" e  | 12' 8" e                     | 11' 6" e  | 9' 3" e  | 10' 3" e                               | 9' 4" e   | 8' 2" e  | 11' 6" e                     | 10' 5" e  | 9' 2" e  |
| 600S250-68 | 33      | 11' 10" e                              | 10' 7" e  | 8' 8" e   | 11' 10" e                    | 10' 1" e  | 7' 11" e | 10' 9" e                               | 9' 9" e   | 8' 6" e  | 11' 10" e                    | 10' 1" e  | 7' 11" e |
| 600S250-68 | 50      | 11' 10" e                              | 10' 9" e  | 9' 5" e   | 13' 3" e                     | 11' 5" e  | 9' 1" e  | 10' 9" e                               | 9' 9" e   | 8' 6" e  | 12' 1" e                     | 10' 11" e | 9' 1" e  |
| 600S300-68 | 50      | 12' 4" e                               | 11' 2" e  | 9' 9" e   | 13' 8" e                     | 11' 8" e  | 9' 3" e  | 11' 2" e                               | 10' 2" e  | 8' 10" e | 12' 6" e                     | 11' 4" e  | 9' 3" e  |
| 600S162-97 | 33      | 11' 11" e                              | 10' 10" e | 9' 5" e   | 12' 9" e                     | 10' 11" e | 8' 7" e  | 10' 10" e                              | 9' 10" e  | 8' 7" e  | 12' 1" e                     | 10' 11" e | 8' 7" e  |
| 600S162-97 | 50      | 11' 11" e                              | 10' 10" e | 9' 5" e   | 13' 4" e                     | 12' 1" e  | 10' 7" e | 10' 10" e                              | 9' 10" e  | 8' 7" e  | 12' 1" e                     | 11' 0" e  | 9' 7" e  |
| 600S200-97 | 33      | 12' 6" e                               | 11' 4" e  | 9' 11" e  | 13' 6" e                     | 11' 6" e  | 9' 0" e  | 11' 4" e                               | 10' 4" e  | 9' 0" e  | 12' 9" e                     | 11' 6" e  | 9' 0" e  |
| 600S200-97 | 50      | 12' 6" e                               | 11' 4" e  | 9' 11" e  | 14' 1" e                     | 12' 9" e  | 11' 2" e | 11' 4" e                               | 10' 4" e  | 9' 0" e  | 12' 9" e                     | 11' 7" e  | 10' 2" e |
| 600S250-97 | 33      | 13' 2" e                               | 11' 11" e | 10' 5" e  | 14' 3" e                     | 12' 0" e  | 9' 5" e  | 11' 11" e                              | 10' 10" e | 9' 6" e  | 13' 5" e                     | 12' 0" e  | 9' 5" e  |
| 600S250-97 | 50      | 13' 2" e                               | 11' 11" e | 10' 5" e  | 14' 9" e                     | 13' 5" e  | 11' 9" e | 11' 11" e                              | 10' 10" e | 9' 6" e  | 13' 5" e                     | 12' 2" e  | 10' 8" e |
| 600S300-97 | 50      | 13' 9" e                               | 12' 6" e  | 10' 11" e | 15' 5" e                     | 14' 0" e  | 11' 8" e | 12' 6" e                               | 11' 4" e  | 9' 11" e | 14' 0" e                     | 12' 9" e  | 11' 1" e |
| 800S162-33 | 33      | 6' 9" e                                | 5' 1" e   | 3' 5" e   | 5' 0" e                      | 3' 11" e  | 2' 8" e  | 6' 9" e                                | 5' 1" e   | 3' 5" e  | 5' 0" e                      | 3' 11" e  | 2' 8" e  |
| 800S200-33 | 33      | 6' 9" e                                | 5' 1" e   | 3' 5" e   | 5' 1" e                      | 3' 11" e  | 2' 8" e  | 6' 9" e                                | 5' 1" e   | 3' 5" e  | 5' 1" e                      | 3' 11" e  | 2' 8" e  |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 15 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           |
|-------------|---------|--|-----------|-----------|------------------------------|-----------|-----------|--|-----------|-----------|------------------------------|-----------|-----------|
|             |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           |
|             |         | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       |
| 800S162-43  | 33      | 9' 4" e                                | 8' 1" e   | 6' 7" e   | 8' 4" e                      | 6' 10" e  | 5' 1" e   | 9' 4" e                                | 8' 1" e   | 6' 7" e   | 8' 4" e                      | 6' 10" e  | 5' 1" e   |
| 800S200-43  | 33      | 10' 0" e                               | 8' 8" e   | 7' 1" e   | 9' 0" e                      | 7' 4" e   | 5' 4" e   | 10' 0" e                               | 8' 8" e   | 7' 1" e   | 9' 0" e                      | 7' 4" e   | 5' 4" e   |
| 800S250-43  | 33      | 10' 3" e                               | 8' 11" e  | 7' 3" e   | 9' 0" e                      | 7' 4" e   | 5' 4" e   | 10' 3" e                               | 8' 11" e  | 7' 3" e   | 9' 0" e                      | 7' 4" e   | 5' 4" e   |
| 800S162-54  | 33      | 10' 11" e                              | 9' 5" e   | 7' 9" e   | 10' 7" e                     | 9' 0" e   | 7' 1" e   | 10' 11" e                              | 9' 5" e   | 7' 9" e   | 10' 7" e                     | 9' 0" e   | 7' 1" e   |
| 800S162-54  | 50      | 12' 6" e                               | 10' 10" e | 8' 10" e  | 12' 3" e                     | 10' 4" e  | 8' 1" e   | 11' 5" e                               | 10' 4" e  | 8' 10" e  | 12' 3" e                     | 10' 4" e  | 8' 1" e   |
| 800S200-54  | 33      | 12' 0" e                               | 10' 5" e  | 8' 6" e   | 12' 0" e                     | 10' 3" e  | 8' 0" e   | 12' 0" e                               | 10' 5" e  | 8' 6" e   | 12' 0" e                     | 10' 3" e  | 8' 0" e   |
| 800S200-54  | 50      | 13' 2" e                               | 11' 7" e  | 9' 5" e   | 13' 4" e                     | 11' 2" e  | 8' 7" e   | 12' 0" e                               | 10' 11" e | 9' 5" e   | 13' 4" e                     | 11' 2" e  | 8' 7" e   |
| 800S250-54  | 33      | 12' 0" e                               | 10' 4" e  | 8' 6" e   | 11' 10" e                    | 10' 0" e  | 7' 10" e  | 12' 0" e                               | 10' 4" e  | 8' 6" e   | 11' 10" e                    | 10' 0" e  | 7' 10" e  |
| 800S250-54  | 50      | 13' 8" e                               | 11' 10" e | 9' 8" e   | 13' 5" e                     | 11' 3" e  | 8' 8" e   | 12' 6" e                               | 11' 4" e  | 9' 8" e   | 13' 5" e                     | 11' 3" e  | 8' 8" e   |
| 800S300-54  | 50      | 13' 10" e                              | 12' 0" e  | 9' 9" e   | 13' 5" e                     | 11' 3" e  | 8' 8" e   | 12' 11" e                              | 11' 8" e  | 9' 9" e   | 13' 5" e                     | 11' 3" e  | 8' 8" e   |
| 800S162-68  | 33      | 12' 8" e                               | 11' 0" e  | 9' 0" e   | 12' 5" e                     | 10' 8" e  | 8' 7" e   | 12' 4" e                               | 11' 0" e  | 9' 0" e   | 12' 5" e                     | 10' 8" e  | 8' 7" e   |
| 800S162-68  | 50      | 13' 6" e                               | 12' 4" e  | 10' 4" e  | 14' 8" e                     | 12' 8" e  | 10' 1" e  | 12' 4" e                               | 11' 2" e  | 9' 9" e   | 13' 10" e                    | 12' 7" e  | 10' 1" e  |
| 800S200-68  | 33      | 14' 1" e                               | 12' 3" e  | 10' 0" e  | 14' 1" e                     | 12' 1" e  | 9' 8" e   | 12' 11" e                              | 11' 8" e  | 10' 0" e  | 14' 1" e                     | 12' 1" e  | 9' 8" e   |
| 800S200-68  | 50      | 14' 2" e                               | 12' 11" e | 11' 3" e  | 15' 11" e                    | 14' 0" e  | 11' 3" e  | 12' 11" e                              | 11' 8" e  | 10' 3" e  | 14' 5" e                     | 13' 2" e  | 11' 3" e  |
| 800S250-68  | 33      | 14' 5" e                               | 12' 6" e  | 10' 2" e  | 14' 5" e                     | 12' 6" e  | 9' 11" e  | 13' 5" e                               | 12' 3" e  | 10' 2" e  | 14' 5" e                     | 12' 6" e  | 9' 11" e  |
| 800S250-68  | 50      | 14' 10" e                              | 13' 5" e  | 11' 4" e  | 16' 0" e                     | 13' 10" e | 11' 0" e  | 13' 5" e                               | 12' 3" e  | 10' 8" e  | 15' 1" e                     | 13' 9" e  | 11' 0" e  |
| 800S300-68  | 50      | 15' 4" e                               | 13' 11" e | 11' 6" e  | 16' 3" e                     | 14' 1" e  | 11' 2" e  | 14' 0" e                               | 12' 8" e  | 11' 0" e  | 15' 7" e                     | 14' 1" e  | 11' 2" e  |
| 800S162-97  | 33      | 15' 0" e                               | 13' 8" e  | 11' 9" e  | 16' 3" e                     | 14' 0" e  | 11' 3" e  | 13' 8" e                               | 12' 5" e  | 10' 10" e | 15' 4" e                     | 13' 11" e | 11' 3" e  |
| 800S162-97  | 50      | 15' 0" e                               | 13' 8" e  | 11' 11" e | 16' 11" e                    | 15' 4" e  | 12' 8" e  | 13' 8" e                               | 12' 5" e  | 10' 10" e | 15' 4" e                     | 13' 11" e | 12' 2" e  |
| 800S200-97  | 33      | 15' 9" e                               | 14' 4" e  | 12' 5" e  | 17' 2" e                     | 14' 9" e  | 11' 10" e | 14' 4" e                               | 13' 0" e  | 11' 4" e  | 16' 1" e                     | 14' 7" e  | 11' 10" e |
| 800S200-97  | 50      | 15' 9" e                               | 14' 4" e  | 12' 6" e  | 17' 8" e                     | 16' 1" e  | 14' 1" e  | 14' 4" e                               | 13' 0" e  | 11' 4" e  | 16' 1" e                     | 14' 7" e  | 12' 9" e  |
| 800S250-97  | 33      | 16' 6" e                               | 15' 0" e  | 13' 0" e  | 18' 0" e                     | 15' 5" e  | 12' 5" e  | 15' 0" e                               | 13' 7" e  | 11' 11" e | 16' 10" e                    | 15' 3" e  | 12' 5" e  |
| 800S250-97  | 50      | 16' 6" e                               | 15' 0" e  | 13' 1" e  | 18' 6" e                     | 16' 10" e | 14' 8" e  | 15' 0" e                               | 13' 7" e  | 11' 11" e | 16' 10" e                    | 15' 3" e  | 13' 4" e  |
| 800S300-97  | 50      | 17' 2" e                               | 15' 7" e  | 13' 7" e  | 19' 3" e                     | 17' 6" e  | 14' 7" e  | 15' 7" e                               | 14' 2" e  | 12' 4" e  | 17' 6" e                     | 15' 11" e | 13' 10" e |
| 1000S162-43 | 33      | 10' 4" e                               | 8' 11" e  | 6' 0" e   | 8' 1" e                      | 6' 5" e   | 4' 6" e   | 10' 4" e                               | 8' 11" e  | 6' 0" e   | 8' 1" e                      | 6' 5" e   | 4' 6" e   |
| 1000S200-43 | 33      | 11' 2" e                               | 8' 11" e  | 6' 0" e   | 8' 3" e                      | 6' 6" e   | 4' 7" e   | 11' 2" e                               | 8' 11" e  | 6' 0" e   | 8' 3" e                      | 6' 6" e   | 4' 7" e   |
| 1000S250-43 | 33      | 11' 6" e                               | 8' 11" e  | 6' 0" e   | 8' 5" e                      | 6' 7" e   | 4' 7" e   | 11' 6" e                               | 8' 11" e  | 6' 0" e   | 8' 5" e                      | 6' 7" e   | 4' 7" e   |
| 1000S162-54 | 33      | 12' 2" e                               | 10' 6" e  | 8' 7" e   | 11' 5" e                     | 9' 6" e   | 7' 3" e   | 12' 2" e                               | 10' 6" e  | 8' 7" e   | 11' 5" e                     | 9' 6" e   | 7' 3" e   |
| 1000S162-54 | 50      | 13' 10" e                              | 12' 0" e  | 9' 10" e  | 12' 10" e                    | 10' 7" e  | 7' 11" e  | 13' 7" e                               | 12' 0" e  | 9' 10" e  | 12' 10" e                    | 10' 7" e  | 7' 11" e  |
| 1000S200-54 | 33      | 13' 1" e                               | 11' 4" e  | 9' 3" e   | 12' 0" e                     | 10' 0" e  | 7' 6" e   | 13' 1" e                               | 11' 4" e  | 9' 3" e   | 12' 0" e                     | 10' 0" e  | 7' 6" e   |
| 1000S200-54 | 50      | 14' 11" e                              | 12' 11" e | 10' 6" e  | 13' 3" e                     | 10' 10" e | 8' 0" e   | 14' 2" e                               | 12' 10" e | 10' 6" e  | 13' 3" e                     | 10' 10" e | 8' 0" e   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 15 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           |
|-------------|---------|--|-----------|-----------|------------------------------|-----------|-----------|--|-----------|-----------|------------------------------|-----------|-----------|
|             |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           |
|             |         | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       |
| 1000S250-54 | 33      | 13' 5" e                               | 11' 8" e  | 9' 6" e   | 12' 8" e                     | 10' 5" e  | 7' 10" e  | 13' 5" e                               | 11' 8" e  | 9' 6" e   | 12' 8" e                     | 10' 5" e  | 7' 10" e  |
| 1000S250-54 | 50      | 15' 4" e                               | 13' 3" e  | 10' 10" e | 13' 8"                       | 11' 2"    | 8' 2" e   | 14' 11" e                              | 13' 3" e  | 10' 10" e | 13' 8"                       | 11' 2"    | 8' 2" e   |
| 1000S300-54 | 50      | 15' 6" e                               | 13' 5" e  | 11' 0" e  | 13' 8"                       | 11' 2"    | 8' 3" e   | 15' 4" e                               | 13' 5" e  | 11' 0" e  | 13' 8"                       | 11' 2"    | 8' 3" e   |
| 1000S162-68 | 33      | 14' 4" e                               | 12' 5" e  | 10' 1" e  | 14' 1"                       | 12' 1" e  | 9' 7" e   | 14' 4" e                               | 12' 5" e  | 10' 1" e  | 14' 1"                       | 12' 1" e  | 9' 7" e   |
| 1000S162-68 | 50      | 16' 2"                                 | 14' 2" e  | 11' 7" e  | 16' 5"                       | 14' 2"    | 11' 2"    | 14' 9"                                 | 13' 5"    | 11' 7" e  | 16' 5"                       | 14' 2"    | 11' 2"    |
| 1000S200-68 | 33      | 15' 3" e                               | 13' 3" e  | 10' 10" e | 15' 0"                       | 12' 10" e | 10' 2" e  | 15' 3" e                               | 13' 3" e  | 10' 10" e | 15' 0"                       | 12' 10" e | 10' 2" e  |
| 1000S200-68 | 50      | 16' 11"                                | 15' 2" e  | 12' 5" e  | 17' 6"                       | 14' 10"   | 11' 8"    | 15' 5"                                 | 14' 0" e  | 12' 2" e  | 17' 3"                       | 14' 10"   | 11' 8"    |
| 1000S250-68 | 33      | 16' 3" e                               | 14' 1" e  | 11' 6" e  | 16' 3" e                     | 14' 1" e  | 11' 3" e  | 16' 1" e                               | 14' 1" e  | 11' 6" e  | 16' 3" e                     | 14' 1" e  | 11' 3" e  |
| 1000S250-68 | 50      | 17' 8"                                 | 15' 7" e  | 12' 9" e  | 18' 0"                       | 15' 7"    | 12' 4" e  | 16' 1"                                 | 14' 7" e  | 12' 9" e  | 18' 0"                       | 15' 7"    | 12' 4" e  |
| 1000S300-68 | 50      | 18' 3"                                 | 15' 10" e | 12' 11" e | 18' 4"                       | 15' 10"   | 12' 4" e  | 16' 7"                                 | 15' 1" e  | 12' 11" e | 18' 4"                       | 15' 10"   | 12' 4" e  |
| 1000S162-97 | 33      | 17' 10"                                | 15' 6"    | 12' 8" e  | 17' 7"                       | 15' 2"    | 12' 3"    | 16' 5"                                 | 14' 11"   | 12' 8" e  | 17' 7"                       | 15' 2"    | 12' 3"    |
| 1000S162-97 | 50      | 18' 1"                                 | 16' 5"    | 14' 4"    | 20' 4"                       | 18' 2"    | 14' 9"    | 16' 5"                                 | 14' 11"   | 13' 1"    | 18' 6"                       | 16' 9"    | 14' 8"    |
| 1000S200-97 | 33      | 18' 11"                                | 16' 6"    | 13' 6" e  | 18' 9"                       | 16' 2"    | 13' 1"    | 17' 2"                                 | 15' 7"    | 13' 6" e  | 18' 9"                       | 16' 2"    | 13' 1"    |
| 1000S200-97 | 50      | 18' 11"                                | 17' 2"    | 15' 0"    | 21' 3"                       | 19' 3"    | 15' 8"    | 17' 2"                                 | 15' 7"    | 13' 8"    | 19' 3"                       | 17' 6"    | 15' 4"    |
| 1000S250-97 | 33      | 19' 8"                                 | 17' 11" e | 14' 9" e  | 20' 11"                      | 18' 1"    | 14' 8"    | 17' 11"                                | 16' 3"    | 14' 2" e  | 20' 1"                       | 18' 1"    | 14' 8"    |
| 1000S250-97 | 50      | 19' 8"                                 | 17' 11"   | 15' 8"    | 22' 1"                       | 20' 1"    | 16' 11"   | 17' 11"                                | 16' 3"    | 14' 2"    | 20' 1"                       | 18' 3"    | 15' 11"   |
| 1000S300-97 | 50      | 20' 5"                                 | 18' 7"    | 16' 2"    | 22' 11"                      | 20' 4"    | 16' 7"    | 18' 7"                                 | 16' 10"   | 14' 9"    | 20' 10"                      | 18' 11"   | 16' 6"    |
| 1200S162-54 | 33      | 13' 2" e                               | 11' 5" e  | 9' 4" e   | 11' 7" e                     | 9' 5" e   | 6' 11" e  | 13' 2" e                               | 11' 5" e  | 9' 4" e   | 11' 7" e                     | 9' 5" e   | 6' 11" e  |
| 1200S162-54 | 50      | 14' 11" e                              | 12' 11" e | 9' 10" e  | 12' 8" e                     | 10' 2" e  | 7' 3" e   | 14' 11" e                              | 12' 11" e | 9' 10" e  | 12' 8" e                     | 10' 2" e  | 7' 3" e   |
| 1200S200-54 | 33      | 14' 3" e                               | 12' 4" e  | 9' 10" e  | 12' 1" e                     | 9' 9" e   | 7' 1" e   | 14' 3" e                               | 12' 4" e  | 9' 10" e  | 12' 1" e                     | 9' 9" e   | 7' 1" e   |
| 1200S200-54 | 50      | 16' 2" e                               | 14' 0" e  | 9' 10" e  | 12' 11" e                    | 10' 4" e  | 7' 4" e   | 16' 2" e                               | 14' 0" e  | 9' 10" e  | 12' 11" e                    | 10' 4" e  | 7' 4" e   |
| 1200S250-54 | 33      | 14' 9" e                               | 12' 9" e  | 9' 10" e  | 12' 2" e                     | 9' 10" e  | 7' 1" e   | 14' 9" e                               | 12' 9" e  | 9' 10" e  | 12' 2" e                     | 9' 10" e  | 7' 1" e   |
| 1200S250-54 | 50      | 16' 8" e                               | 14' 5" e  | 9' 10" e  | 13' 1" e                     | 10' 5" e  | 7' 4" e   | 16' 8" e                               | 14' 5" e  | 9' 10" e  | 13' 1" e                     | 10' 5" e  | 7' 4" e   |
| 1200S300-54 | 50      | 17' 0" e                               | 14' 9" e  | 9' 10" e  | 13' 3" e                     | 10' 6" e  | 7' 5" e   | 17' 0" e                               | 14' 9" e  | 9' 10" e  | 13' 3" e                     | 10' 6" e  | 7' 5" e   |
| 1200S162-68 | 33      | 15' 7" e                               | 13' 6" e  | 11' 0" e  | 15' 3"                       | 12' 11" e | 10' 1" e  | 15' 7" e                               | 13' 6" e  | 11' 0" e  | 15' 3"                       | 12' 11" e | 10' 1" e  |
| 1200S162-68 | 50      | 17' 9" e                               | 15' 4" e  | 12' 7" e  | 17' 8"                       | 14' 10"   | 11' 5"    | 17' 0"                                 | 15' 4" e  | 12' 7" e  | 17' 8"                       | 14' 10"   | 11' 5"    |
| 1200S200-68 | 33      | 16' 9" e                               | 14' 6" e  | 11' 10" e | 16' 2" e                     | 13' 8" e  | 10' 7" e  | 16' 9" e                               | 14' 6" e  | 11' 10" e | 16' 2" e                     | 13' 8" e  | 10' 7" e  |
| 1200S200-68 | 50      | 19' 1" e                               | 16' 6" e  | 13' 6" e  | 18' 6"                       | 15' 6"    | 11' 10" e | 17' 9" e                               | 16' 1" e  | 13' 6" e  | 18' 6"                       | 15' 6"    | 11' 10" e |
| 1200S250-68 | 33      | 17' 4" e                               | 15' 0" e  | 12' 3" e  | 16' 9" e                     | 14' 1" e  | 10' 11" e | 17' 4" e                               | 15' 0" e  | 12' 3" e  | 16' 9" e                     | 14' 1" e  | 10' 11" e |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 15 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |          |           |                              |          |           | L/360 Live Load Deflection for 125 psf |           |           |                              |          |           |
|-------------|---------|--|----------|-----------|------------------------------|----------|-----------|--|-----------|-----------|------------------------------|----------|-----------|
|             |         | Single Span Spacing (in)               |          |           | Two Equal Spans Spacing (in) |          |           | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |          |           |
|             |         | 12"                                    | 16"      | 24"       | 12"                          | 16"      | 24"       | 12"                                    | 16"       | 24"       | 12"                          | 16"      | 24"       |
| 1200S250-68 | 50      | 19' 9" e                               | 17' 1" e | 13' 11" e | 18' 7"                       | 15' 7"   | 11' 11" e | 18' 5" e                               | 16' 9" e  | 13' 11" e | 18' 7"                       | 15' 7"   | 11' 11" e |
| 1200S300-68 | 50      | 20' 1" e                               | 17' 5" e | 14' 3" e  | 19' 4"                       | 16' 2"   | 12' 3" e  | 19' 2" e                               | 17' 5" e  | 14' 3" e  | 19' 4"                       | 16' 2"   | 12' 3" e  |
| 1200S162-97 | 33      | 20' 0"                                 | 17' 4" e | 14' 2" e  | 19' 11"                      | 17' 2"   | 13' 10"   | 19' 2"                                 | 17' 4" e  | 14' 2" e  | 19' 11"                      | 17' 2"   | 13' 10"   |
| 1200S162-97 | 50      | 21' 2"                                 | 19' 2"   | 16' 3"    | 23' 0"                       | 19' 11"  | 16' 3"    | 19' 2"                                 | 17' 5"    | 15' 3"    | 21' 7"                       | 19' 7"   | 16' 3"    |
| 1200S200-97 | 33      | 21' 4"                                 | 18' 6" e | 15' 1" e  | 21' 2"                       | 18' 2"   | 14' 8"    | 20' 0"                                 | 18' 2" e  | 15' 1" e  | 21' 2"                       | 18' 2"   | 14' 8"    |
| 1200S200-97 | 50      | 22' 0"                                 | 20' 0"   | 17' 5" e  | 24' 7"                       | 21' 3"   | 17' 5"    | 20' 0"                                 | 18' 2"    | 15' 10"   | 22' 5"                       | 20' 5"   | 17' 5"    |
| 1200S250-97 | 33      | 22' 1"                                 | 19' 2" e | 15' 7" e  | 22' 1"                       | 19' 2"   | 15' 6" e  | 20' 9"                                 | 18' 10" e | 15' 7" e  | 22' 1"                       | 19' 2"   | 15' 6" e  |
| 1200S250-97 | 50      | 22' 10"                                | 20' 9"   | 17' 11" e | 25' 5"                       | 22' 0"   | 17' 11"   | 20' 9"                                 | 18' 10"   | 16' 6"    | 23' 3"                       | 21' 2"   | 17' 11"   |
| 1200S300-97 | 50      | 23' 7"                                 | 21' 5"   | 18' 4" e  | 25' 11"                      | 22' 5"   | 18' 4"    | 21' 5"                                 | 19' 6"    | 17' 0" e  | 24' 1"                       | 21' 11"  | 18' 4"    |
| 1400S162-54 | 33      | 13' 11" e                              | 12' 1" e | 8' 5" e   | 11' 4" e                     | 9' 0" e  | 6' 4" e   | 13' 11" e                              | 12' 1" e  | 8' 5" e   | 11' 4" e                     | 9' 0" e  | 6' 4" e   |
| 1400S162-54 | 50      | 15' 9" e                               | 12' 7" e | 8' 5" e   | 12' 0" e                     | 9' 5" e  | 6' 6" e   | 15' 9" e                               | 12' 7" e  | 8' 5" e   | 12' 0" e                     | 9' 5" e  | 6' 6" e   |
| 1400S200-54 | 33      | 15' 2" e                               | 12' 7" e | 8' 5" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   | 15' 2" e                               | 12' 7" e  | 8' 5" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   |
| 1400S200-54 | 50      | 16' 10" e                              | 12' 7" e | 8' 5" e   | 12' 2" e                     | 9' 6" e  | 6' 6" e   | 16' 10" e                              | 12' 7" e  | 8' 5" e   | 12' 2" e                     | 9' 6" e  | 6' 6" e   |
| 1400S250-54 | 33      | 15' 9" e                               | 12' 7" e | 8' 5" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   | 15' 9" e                               | 12' 7" e  | 8' 5" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   |
| 1400S250-54 | 50      | 16' 10" e                              | 12' 7" e | 8' 5" e   | 12' 3" e                     | 9' 6" e  | 6' 6" e   | 16' 10" e                              | 12' 7" e  | 8' 5" e   | 12' 3" e                     | 9' 6" e  | 6' 6" e   |
| 1400S300-54 | 50      | 16' 10" e                              | 12' 7" e | 8' 5" e   | 12' 3" e                     | 9' 6" e  | 6' 6" e   | 16' 10" e                              | 12' 7" e  | 8' 5" e   | 12' 3" e                     | 9' 6" e  | 6' 6" e   |
| 1400S162-68 | 33      | 16' 7" e                               | 14' 5" e | 11' 9" e  | 16' 0" e                     | 13' 4" e | 10' 2" e  | 16' 7" e                               | 14' 5" e  | 11' 9" e  | 16' 0" e                     | 13' 4" e | 10' 2" e  |
| 1400S162-68 | 50      | 18' 10" e                              | 16' 4" e | 13' 4" e  | 18' 2"                       | 15' 0"   | 11' 2"    | 18' 10" e                              | 16' 4" e  | 13' 4" e  | 18' 2"                       | 15' 0"   | 11' 2"    |
| 1400S200-68 | 33      | 17' 11" e                              | 15' 6" e | 12' 8" e  | 16' 9" e                     | 14' 0" e | 10' 7" e  | 17' 11" e                              | 15' 6" e  | 12' 8" e  | 16' 9" e                     | 14' 0" e | 10' 7" e  |
| 1400S200-68 | 50      | 20' 4" e                               | 17' 8" e | 14' 5" e  | 18' 11"                      | 15' 6"   | 11' 6" e  | 20' 0" e                               | 17' 8" e  | 14' 5" e  | 18' 11"                      | 15' 6"   | 11' 6" e  |
| 1400S250-68 | 33      | 18' 7" e                               | 16' 2" e | 13' 2" e  | 17' 4" e                     | 14' 4" e | 10' 10" e | 18' 7" e                               | 16' 2" e  | 13' 2" e  | 17' 4" e                     | 14' 4" e | 10' 10" e |
| 1400S250-68 | 50      | 21' 2" e                               | 18' 4" e | 14' 11" e | 19' 0"                       | 15' 7"   | 11' 6" e  | 20' 9" e                               | 18' 4" e  | 14' 11" e | 19' 0"                       | 15' 7"   | 11' 6" e  |
| 1400S300-68 | 50      | 21' 8" e                               | 18' 9" e | 15' 4" e  | 19' 2"                       | 15' 9"   | 11' 7" e  | 21' 4" e                               | 18' 9" e  | 15' 4" e  | 19' 2"                       | 15' 9"   | 11' 7" e  |
| 1400S162-97 | 33      | 21' 7"                                 | 18' 8" e | 15' 3" e  | 21' 7"                       | 18' 8"   | 15' 1" e  | 21' 7"                                 | 18' 8" e  | 15' 3" e  | 21' 7"                       | 18' 8"   | 15' 1" e  |
| 1400S162-97 | 50      | 24' 0"                                 | 21' 5"   | 17' 5" e  | 24' 8"                       | 21' 5"   | 17' 5"    | 21' 11"                                | 19' 10"   | 17' 3" e  | 24' 5"                       | 21' 5"   | 17' 5"    |
| 1400S200-97 | 33      | 23' 1" e                               | 20' 0" e | 16' 4" e  | 23' 1"                       | 19' 10"  | 16' 0" e  | 22' 9" e                               | 20' 0" e  | 16' 4" e  | 23' 1"                       | 19' 10"  | 16' 0" e  |
| 1400S200-97 | 50      | 24' 11"                                | 22' 7"   | 18' 8" e  | 26' 5"                       | 22' 11"  | 18' 8"    | 22' 9"                                 | 20' 8"    | 18' 0" e  | 25' 5"                       | 22' 11"  | 18' 8"    |
| 1400S250-97 | 33      | 24' 0" e                               | 20' 9" e | 16' 11" e | 24' 0"                       | 20' 9"   | 16' 9" e  | 23' 7" e                               | 20' 9" e  | 16' 11" e | 24' 0"                       | 20' 9"   | 16' 9" e  |
| 1400S250-97 | 50      | 25' 10"                                | 23' 5"   | 19' 5" e  | 27' 5"                       | 23' 9"   | 19' 4"    | 23' 7"                                 | 21' 4"    | 18' 8" e  | 26' 4"                       | 23' 9"   | 19' 4"    |
| 1400S300-97 | 50      | 26' 8"                                 | 24' 3"   | 19' 10" e | 28' 1"                       | 24' 4"   | 19' 10"   | 24' 4"                                 | 22' 1"    | 19' 3" e  | 27' 3"                       | 24' 4"   | 19' 10"   |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 40 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section    | Fy(ksi) | L/360 Live Load Deflection for 125 psf |          |          |                              |         |          | L/360 Live Load Deflection for 125 psf |          |          |                              |         |          |
|------------|---------|--|----------|----------|------------------------------|---------|----------|--|----------|----------|------------------------------|---------|----------|
|            |         | Single Span Spacing (in)               |          |          | Two Equal Spans Spacing (in) |         |          | Single Span Spacing (in)               |          |          | Two Equal Spans Spacing (in) |         |          |
|            |         | 12"                                    | 16"      | 24"      | 12"                          | 16"     | 24"      | 12"                                    | 16"      | 24"      | 12"                          | 16"     | 24"      |
| 600S162-33 | 33      | 6' 2" e                                | 5' 4" e  | 3' 10" e | 5' 1" e                      | 4' 1" e | 2' 11" e | 6' 2" e                                | 5' 4" e  | 3' 10" e | 5' 1" e                      | 4' 1" e | 2' 11" e |
| 600S200-33 | 33      | 6' 7" e                                | 5' 9" e  | 3' 10" e | 5' 2" e                      | 4' 2" e | 2' 11" e | 6' 7" e                                | 5' 9" e  | 3' 10" e | 5' 2" e                      | 4' 2" e | 2' 11" e |
| 600S162-43 | 33      | 7' 8" e                                | 6' 7" e  | 5' 5" e  | 7' 4" e                      | 6' 1" e | 4' 8" e  | 7' 8" e                                | 6' 7" e  | 5' 5" e  | 7' 4" e                      | 6' 1" e | 4' 8" e  |
| 600S200-43 | 33      | 7' 11" e                               | 6' 10" e | 5' 7" e  | 7' 5" e                      | 6' 2" e | 4' 8" e  | 7' 11" e                               | 6' 10" e | 5' 7" e  | 7' 5" e                      | 6' 2" e | 4' 8" e  |
| 600S250-43 | 33      | 8' 1" e                                | 7' 0" e  | 5' 9" e  | 7' 7" e                      | 6' 3" e | 4' 9" e  | 8' 1" e                                | 7' 0" e  | 5' 9" e  | 7' 7" e                      | 6' 3" e | 4' 9" e  |
| 600S162-54 | 33      | 8' 11" e                               | 7' 9" e  | 6' 4" e  | 8' 8" e                      | 7' 4" e | 5' 9" e  | 8' 11" e                               | 7' 9" e  | 6' 4" e  | 8' 8" e                      | 7' 4" e | 5' 9" e  |
| 600S162-54 | 50      | 10' 0"                                 | 8' 10" e | 7' 3" e  | 10' 2"                       | 8' 7"   | 6' 7"    | 9' 1"                                  | 8' 3"    | 7' 3" e  | 10' 2"                       | 8' 7"   | 6' 7"    |
| 600S200-54 | 33      | 9' 5" e                                | 8' 2" e  | 6' 8" e  | 9' 2"                        | 7' 9" e | 6' 1" e  | 9' 5" e                                | 8' 2" e  | 6' 8" e  | 9' 2"                        | 7' 9" e | 6' 1" e  |
| 600S200-54 | 50      | 10' 6"                                 | 9' 1" e  | 7' 5" e  | 10' 2"                       | 8' 7"   | 6' 7"    | 9' 7"                                  | 8' 8" e  | 7' 5" e  | 10' 2"                       | 8' 7"   | 6' 7"    |
| 600S250-54 | 33      | 9' 5" e                                | 8' 2" e  | 6' 8" e  | 9' 0"                        | 7' 7" e | 5' 11" e | 9' 5" e                                | 8' 2" e  | 6' 8" e  | 9' 0"                        | 7' 7" e | 5' 11" e |
| 600S250-54 | 50      | 10' 9"                                 | 9' 4" e  | 7' 7" e  | 10' 5"                       | 8' 9"   | 6' 9"    | 10' 0"                                 | 9' 1" e  | 7' 7" e  | 10' 5"                       | 8' 9"   | 6' 9"    |
| 600S300-54 | 50      | 10' 11"                                | 9' 6" e  | 7' 9" e  | 10' 6"                       | 8' 10"  | 6' 10"   | 10' 4"                                 | 9' 4" e  | 7' 9" e  | 10' 6"                       | 8' 10"  | 6' 10"   |
| 600S162-68 | 33      | 10' 5"                                 | 9' 0" e  | 7' 4" e  | 9' 10"                       | 8' 5"   | 6' 8"    | 9' 9"                                  | 8' 10" e | 7' 4" e  | 9' 10"                       | 8' 5"   | 6' 8"    |
| 600S162-68 | 50      | 10' 9"                                 | 9' 9"    | 8' 6" e  | 12' 0"                       | 10' 3"  | 8' 1"    | 9' 9"                                  | 8' 10"   | 7' 9"    | 10' 11"                      | 9' 11"  | 8' 1"    |
| 600S200-68 | 33      | 11' 0" e                               | 9' 6" e  | 7' 9" e  | 10' 5"                       | 8' 10"  | 7' 0"    | 10' 3"                                 | 9' 4" e  | 7' 9" e  | 10' 5"                       | 8' 10"  | 7' 0"    |
| 600S200-68 | 50      | 11' 3"                                 | 10' 3"   | 8' 11" e | 12' 7"                       | 10' 8"  | 8' 5"    | 10' 3"                                 | 9' 4"    | 8' 2"    | 11' 6"                       | 10' 5"  | 8' 5"    |
| 600S250-68 | 33      | 11' 3" e                               | 9' 9" e  | 8' 0" e  | 10' 10"                      | 9' 2"   | 7' 2"    | 10' 9"                                 | 9' 9" e  | 8' 0" e  | 10' 10"                      | 9' 2"   | 7' 2"    |
| 600S250-68 | 50      | 11' 10"                                | 10' 9"   | 8' 11" e | 12' 3"                       | 10' 5"  | 8' 3"    | 10' 9"                                 | 9' 9"    | 8' 6" e  | 12' 1"                       | 10' 5"  | 8' 3"    |
| 600S300-68 | 50      | 12' 3"                                 | 11' 1"   | 9' 1" e  | 12' 6"                       | 10' 8"  | 8' 4"    | 11' 2"                                 | 10' 2"   | 8' 10" e | 12' 6"                       | 10' 8"  | 8' 4"    |
| 600S162-97 | 33      | 11' 11"                                | 10' 9"   | 8' 10"   | 11' 8"                       | 9' 11"  | 7' 9"    | 10' 10"                                | 9' 10"   | 8' 7"    | 11' 8"                       | 9' 11"  | 7' 9"    |
| 600S162-97 | 50      | 11' 11"                                | 10' 10"  | 9' 5"    | 13' 4"                       | 12' 1"  | 9' 10"   | 10' 10"                                | 9' 10"   | 8' 7"    | 12' 1"                       | 11' 0"  | 9' 7"    |
| 600S200-97 | 33      | 12' 6"                                 | 11' 4"   | 9' 4"    | 12' 4"                       | 10' 5"  | 8' 1"    | 11' 4"                                 | 10' 4"   | 9' 0"    | 12' 4"                       | 10' 5"  | 8' 1"    |
| 600S200-97 | 50      | 12' 6"                                 | 11' 4"   | 9' 11"   | 14' 1"                       | 12' 9"  | 10' 5"   | 11' 4"                                 | 10' 4"   | 9' 0"    | 12' 9"                       | 11' 7"  | 10' 2"   |
| 600S250-97 | 33      | 13' 2"                                 | 11' 11"  | 9' 11"   | 12' 11"                      | 10' 11" | 8' 5"    | 11' 11"                                | 10' 10"  | 9' 6"    | 12' 11"                      | 10' 11" | 8' 5"    |
| 600S250-97 | 50      | 13' 2"                                 | 11' 11"  | 10' 5"   | 14' 9"                       | 13' 5"  | 10' 8"   | 11' 11"                                | 10' 10"  | 9' 6"    | 13' 5"                       | 12' 2"  | 10' 8"   |
| 600S300-97 | 50      | 13' 9"                                 | 12' 6"   | 10' 11"  | 15' 5"                       | 13' 4"  | 10' 7"   | 12' 6"                                 | 11' 4"   | 9' 11"   | 14' 0"                       | 12' 9"  | 10' 7"   |
| 800S162-33 | 33      | 5' 9" e                                | 4' 4" e  | 2' 10" e | 4' 4" e                      | 3' 4" e | 2' 3" e  | 5' 9" e                                | 4' 4" e  | 2' 10" e | 4' 4" e                      | 3' 4" e | 2' 3" e  |
| 800S200-33 | 33      | 5' 9" e                                | 4' 4" e  | 2' 10" e | 4' 5" e                      | 3' 4" e | 2' 3" e  | 5' 9" e                                | 4' 4" e  | 2' 10" e | 4' 5" e                      | 3' 4" e | 2' 3" e  |
| 800S162-43 | 33      | 8' 7" e                                | 7' 5" e  | 6' 1" e  | 7' 5" e                      | 6' 1" e | 4' 5" e  | 8' 7" e                                | 7' 5" e  | 6' 1" e  | 7' 5" e                      | 6' 1" e | 4' 5" e  |
| 800S200-43 | 33      | 9' 2" e                                | 8' 0" e  | 6' 4" e  | 8' 0" e                      | 6' 5" e | 4' 8" e  | 9' 2" e                                | 8' 0" e  | 6' 4" e  | 8' 0" e                      | 6' 5" e | 4' 8" e  |
| 800S250-43 | 33      | 9' 5" e                                | 8' 2" e  | 6' 4" e  | 8' 0" e                      | 6' 6" e | 4' 8" e  | 9' 5" e                                | 8' 2" e  | 6' 4" e  | 8' 0" e                      | 6' 6" e | 4' 8" e  |

See notes located on page 74



# TRADITIONAL FLOOR JOIST SPAN TABLES - 40 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |          |          | L/360 Live Load Deflection for 125 psf |           |           |                              |          |          |
|-------------|---------|--|-----------|-----------|------------------------------|----------|----------|--|-----------|-----------|------------------------------|----------|----------|
|             |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |          |          | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |          |          |
|             |         | 12"                                    | 16"       | 24"       | 12"                          | 16"      | 24"      | 12"                                    | 16"       | 24"       | 12"                          | 16"      | 24"      |
| 800S162-54  | 33      | 10' 1" e                               | 8' 8" e   | 7' 1" e   | 9' 8" e                      | 8' 2" e  | 6' 5" e  | 10' 1" e                               | 8' 8" e   | 7' 1" e   | 9' 8" e                      | 8' 2" e  | 6' 5" e  |
| 800S162-54  | 50      | 11' 6" e                               | 10' 0" e  | 8' 2" e   | 11' 2"                       | 9' 4"    | 7' 3" e  | 11' 5" e                               | 10' 0" e  | 8' 2" e   | 11' 2"                       | 9' 4"    | 7' 3" e  |
| 800S200-54  | 33      | 11' 1" e                               | 9' 7" e   | 7' 10" e  | 11' 0" e                     | 9' 3" e  | 7' 2" e  | 11' 1" e                               | 9' 7" e   | 7' 10" e  | 11' 0" e                     | 9' 3" e  | 7' 2" e  |
| 800S200-54  | 50      | 12' 3" e                               | 10' 8" e  | 8' 8" e   | 12' 1"                       | 10' 1"   | 7' 8" e  | 12' 0" e                               | 10' 8" e  | 8' 8" e   | 12' 1"                       | 10' 1"   | 7' 8" e  |
| 800S250-54  | 33      | 11' 0" e                               | 9' 7" e   | 7' 10" e  | 10' 9" e                     | 9' 1" e  | 7' 0" e  | 11' 0" e                               | 9' 7" e   | 7' 10" e  | 10' 9" e                     | 9' 1" e  | 7' 0" e  |
| 800S250-54  | 50      | 12' 7" e                               | 10' 11" e | 8' 11" e  | 12' 2"                       | 10' 2"   | 7' 9" e  | 12' 6" e                               | 10' 11" e | 8' 11" e  | 12' 2"                       | 10' 2"   | 7' 9" e  |
| 800S300-54  | 50      | 12' 9" e                               | 11' 0" e  | 9' 0" e   | 12' 2"                       | 10' 2"   | 7' 9" e  | 12' 9" e                               | 11' 0" e  | 9' 0" e   | 12' 2"                       | 10' 2"   | 7' 9" e  |
| 800S162-68  | 33      | 11' 8" e                               | 10' 2" e  | 8' 3" e   | 11' 5"                       | 9' 9"    | 7' 10" e | 11' 8" e                               | 10' 2" e  | 8' 3" e   | 11' 5"                       | 9' 9"    | 7' 10" e |
| 800S162-68  | 50      | 13' 6"                                 | 11' 8"    | 9' 7" e   | 13' 6"                       | 11' 6"   | 9' 2"    | 12' 4"                                 | 11' 2"    | 9' 7" e   | 13' 6"                       | 11' 6"   | 9' 2"    |
| 800S200-68  | 33      | 13' 0" e                               | 11' 3" e  | 9' 2" e   | 13' 0"                       | 11' 1" e | 8' 9" e  | 12' 11" e                              | 11' 3" e  | 9' 2" e   | 13' 0"                       | 11' 1" e | 8' 9" e  |
| 800S200-68  | 50      | 14' 2"                                 | 12' 10" e | 10' 6" e  | 14' 10"                      | 12' 10"  | 10' 2"   | 12' 11"                                | 11' 8"    | 10' 3" e  | 14' 5"                       | 12' 10"  | 10' 2"   |
| 800S250-68  | 33      | 13' 3" e                               | 11' 6" e  | 9' 5" e   | 13' 3"                       | 11' 5" e | 9' 0" e  | 13' 3" e                               | 11' 6" e  | 9' 5" e   | 13' 3"                       | 11' 5" e | 9' 0" e  |
| 800S250-68  | 50      | 14' 9"                                 | 12' 9" e  | 10' 5" e  | 14' 9"                       | 12' 8"   | 9' 11"   | 13' 5"                                 | 12' 3" e  | 10' 5" e  | 14' 9"                       | 12' 8"   | 9' 11"   |
| 800S300-68  | 50      | 15' 0"                                 | 13' 0" e  | 10' 7" e  | 15' 0"                       | 12' 10"  | 10' 1"   | 13' 11"                                | 12' 7" e  | 10' 7" e  | 15' 0"                       | 12' 10"  | 10' 1"   |
| 800S162-97  | 33      | 15' 0"                                 | 13' 3"    | 10' 10" e | 14' 11"                      | 12' 10"  | 10' 3"   | 13' 8"                                 | 12' 5"    | 10' 10" e | 14' 11"                      | 12' 10"  | 10' 3"   |
| 800S162-97  | 50      | 15' 0"                                 | 13' 8"    | 11' 11"   | 16' 9"                       | 14' 5"   | 11' 7"   | 13' 8"                                 | 12' 5"    | 10' 10"   | 15' 4"                       | 13' 11"  | 11' 7"   |
| 800S200-97  | 33      | 15' 9"                                 | 14' 1"    | 11' 6" e  | 15' 9"                       | 13' 6"   | 10' 10"  | 14' 4"                                 | 13' 0"    | 11' 4" e  | 15' 9"                       | 13' 6"   | 10' 10"  |
| 800S200-97  | 50      | 15' 9"                                 | 14' 4"    | 12' 6"    | 17' 8"                       | 16' 1"   | 13' 2"   | 14' 4"                                 | 13' 0"    | 11' 4"    | 16' 1"                       | 14' 7"   | 12' 9"   |
| 800S250-97  | 33      | 16' 6"                                 | 14' 8"    | 11' 11" e | 16' 6"                       | 14' 2"   | 11' 3"   | 15' 0"                                 | 13' 7"    | 11' 11" e | 16' 6"                       | 14' 2"   | 11' 3"   |
| 800S250-97  | 50      | 16' 6"                                 | 15' 0"    | 13' 1"    | 18' 6"                       | 16' 10"  | 13' 6"   | 15' 0"                                 | 13' 7"    | 11' 11"   | 16' 10"                      | 15' 3"   | 13' 4"   |
| 800S300-97  | 50      | 17' 2"                                 | 15' 7"    | 13' 6"    | 19' 1"                       | 16' 6"   | 13' 4"   | 15' 7"                                 | 14' 2"    | 12' 4"    | 17' 6"                       | 15' 11"  | 13' 4"   |
| 1000S162-43 | 33      | 9' 6" e                                | 7' 7" e   | 5' 1" e   | 7' 1" e                      | 5' 7" e  | 3' 11" e | 9' 6" e                                | 7' 7" e   | 5' 1" e   | 7' 1" e                      | 5' 7" e  | 3' 11" e |
| 1000S200-43 | 33      | 10' 2" e                               | 7' 7" e   | 5' 1" e   | 7' 3" e                      | 5' 8" e  | 3' 11" e | 10' 2" e                               | 7' 7" e   | 5' 1" e   | 7' 3" e                      | 5' 8" e  | 3' 11" e |
| 1000S250-43 | 33      | 10' 2" e                               | 7' 7" e   | 5' 1" e   | 7' 4" e                      | 5' 9" e  | 3' 11" e | 10' 2" e                               | 7' 7" e   | 5' 1" e   | 7' 4" e                      | 5' 9" e  | 3' 11" e |
| 1000S162-54 | 33      | 11' 3" e                               | 9' 9" e   | 7' 11" e  | 10' 3" e                     | 8' 6" e  | 6' 5" e  | 11' 3" e                               | 9' 9" e   | 7' 11" e  | 10' 3" e                     | 8' 6" e  | 6' 5" e  |
| 1000S162-54 | 50      | 12' 9" e                               | 11' 1" e  | 9' 0" e   | 11' 6"                       | 9' 5"    | 6' 11" e | 12' 9" e                               | 11' 1" e  | 9' 0" e   | 11' 6"                       | 9' 5"    | 6' 11" e |
| 1000S200-54 | 33      | 12' 0" e                               | 10' 5" e  | 8' 6" e   | 10' 10" e                    | 8' 11" e | 6' 8" e  | 12' 0" e                               | 10' 5" e  | 8' 6" e   | 10' 10" e                    | 8' 11" e | 6' 8" e  |
| 1000S200-54 | 50      | 13' 9" e                               | 11' 11" e | 9' 8" e   | 11' 10"                      | 9' 8"    | 7' 1" e  | 13' 9" e                               | 11' 11" e | 9' 8" e   | 11' 10"                      | 9' 8"    | 7' 1" e  |
| 1000S250-54 | 33      | 12' 5" e                               | 10' 9" e  | 8' 9" e   | 11' 4" e                     | 9' 4" e  | 6' 11" e | 12' 5" e                               | 10' 9" e  | 8' 9" e   | 11' 4" e                     | 9' 4" e  | 6' 11" e |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 40 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |          |           | L/360 Live Load Deflection for 125 psf |           |           |                              |          |           |
|-------------|---------|--|-----------|-----------|------------------------------|----------|-----------|--|-----------|-----------|------------------------------|----------|-----------|
|             |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |          |           | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |          |           |
|             |         | 12"                                    | 16"       | 24"       | 12"                          | 16"      | 24"       | 12"                                    | 16"       | 24"       | 12"                          | 16"      | 24"       |
| 1000S250-54 | 50      | 14' 1" e                               | 12' 2" e  | 10' 0" e  | 12' 2"                       | 9' 11"   | 7' 2" e   | 14' 1" e                               | 12' 2" e  | 10' 0" e  | 12' 2"                       | 9' 11"   | 7' 2" e   |
| 1000S300-54 | 50      | 14' 4" e                               | 12' 5" e  | 10' 1" e  | 12' 3"                       | 9' 11"   | 7' 2" e   | 14' 4" e                               | 12' 5" e  | 10' 1" e  | 12' 3"                       | 9' 11"   | 7' 2" e   |
| 1000S162-68 | 33      | 13' 2" e                               | 11' 5" e  | 9' 4" e   | 12' 11"                      | 11' 0" e | 8' 9" e   | 13' 2" e                               | 11' 5" e  | 9' 4" e   | 12' 11"                      | 11' 0" e | 8' 9" e   |
| 1000S162-68 | 50      | 15' 1"                                 | 13' 1" e  | 10' 8" e  | 15' 1"                       | 12' 11"  | 10' 1"    | 14' 8"                                 | 13' 1" e  | 10' 8" e  | 15' 1"                       | 12' 11"  | 10' 1"    |
| 1000S200-68 | 33      | 14' 1" e                               | 12' 2" e  | 9' 11" e  | 13' 9" e                     | 11' 8" e | 9' 3" e   | 14' 1" e                               | 12' 2" e  | 9' 11" e  | 13' 9" e                     | 11' 8" e | 9' 3" e   |
| 1000S200-68 | 50      | 16' 2" e                               | 14' 0" e  | 11' 5" e  | 16' 0"                       | 13' 6"   | 10' 7" e  | 15' 4"                                 | 13' 11" e | 11' 5" e  | 16' 0"                       | 13' 6"   | 10' 7" e  |
| 1000S250-68 | 33      | 15' 0" e                               | 13' 0" e  | 10' 7" e  | 15' 0" e                     | 13' 0" e | 10' 2" e  | 15' 0" e                               | 13' 0" e  | 10' 7" e  | 15' 0" e                     | 13' 0" e | 10' 2" e  |
| 1000S250-68 | 50      | 16' 7" e                               | 14' 4" e  | 11' 9" e  | 16' 7"                       | 14' 3"   | 11' 1" e  | 16' 1" e                               | 14' 4" e  | 11' 9" e  | 16' 7"                       | 14' 3"   | 11' 1" e  |
| 1000S300-68 | 50      | 16' 10" e                              | 14' 7" e  | 11' 11" e | 16' 10"                      | 14' 4"   | 11' 1" e  | 16' 7" e                               | 14' 7" e  | 11' 11" e | 16' 10"                      | 14' 4"   | 11' 1" e  |
| 1000S162-97 | 33      | 16' 6"                                 | 14' 3"    | 11' 8" e  | 16' 2"                       | 13' 11"  | 11' 3"    | 16' 5"                                 | 14' 3"    | 11' 8" e  | 16' 2"                       | 13' 11"  | 11' 3"    |
| 1000S162-97 | 50      | 18' 1"                                 | 16' 5"    | 13' 8"    | 19' 4"                       | 16' 9"   | 13' 6"    | 16' 5"                                 | 14' 11"   | 13' 1"    | 18' 6"                       | 16' 9"   | 13' 6"    |
| 1000S200-97 | 33      | 17' 7"                                 | 15' 3" e  | 12' 5" e  | 17' 3"                       | 14' 10"  | 11' 11"   | 17' 2"                                 | 15' 3" e  | 12' 5" e  | 17' 3"                       | 14' 10"  | 11' 11"   |
| 1000S200-97 | 50      | 18' 11"                                | 17' 2"    | 14' 7"    | 20' 7"                       | 17' 10"  | 14' 4"    | 17' 2"                                 | 15' 7"    | 13' 8"    | 19' 3"                       | 17' 6"   | 14' 4"    |
| 1000S250-97 | 33      | 19' 3"                                 | 16' 8" e  | 13' 7" e  | 19' 3"                       | 16' 8"   | 13' 5" e  | 17' 11"                                | 16' 3" e  | 13' 7" e  | 19' 3"                       | 16' 8"   | 13' 5" e  |
| 1000S250-97 | 50      | 19' 8"                                 | 17' 11"   | 15' 7" e  | 22' 0"                       | 19' 1"   | 15' 7"    | 17' 11"                                | 16' 3"    | 14' 2"    | 20' 1"                       | 18' 3"   | 15' 7"    |
| 1000S300-97 | 50      | 20' 5"                                 | 18' 7"    | 15' 3" e  | 21' 7"                       | 18' 9"   | 15' 3"    | 18' 7"                                 | 16' 10"   | 14' 9" e  | 20' 10"                      | 18' 9"   | 15' 3"    |
| 1200S162-54 | 33      | 12' 1" e                               | 10' 6" e  | 8' 4" e   | 10' 4" e                     | 8' 4" e  | 6' 0" e   | 12' 1" e                               | 10' 6" e  | 8' 4" e   | 10' 4" e                     | 8' 4" e  | 6' 0" e   |
| 1200S162-54 | 50      | 13' 9" e                               | 11' 11" e | 8' 4" e   | 11' 3" e                     | 8' 11" e | 6' 3" e   | 13' 9" e                               | 11' 11" e | 8' 4" e   | 11' 3" e                     | 8' 11" e | 6' 3" e   |
| 1200S200-54 | 33      | 13' 1" e                               | 11' 4" e  | 8' 4" e   | 10' 9" e                     | 8' 7" e  | 6' 2" e   | 13' 1" e                               | 11' 4" e  | 8' 4" e   | 10' 9" e                     | 8' 7" e  | 6' 2" e   |
| 1200S200-54 | 50      | 14' 10" e                              | 12' 6" e  | 8' 4" e   | 11' 5" e                     | 9' 0" e  | 6' 4" e   | 14' 10" e                              | 12' 6" e  | 8' 4" e   | 11' 5" e                     | 9' 0" e  | 6' 4" e   |
| 1200S250-54 | 33      | 13' 7" e                               | 11' 9" e  | 8' 4" e   | 10' 10" e                    | 8' 8" e  | 6' 2" e   | 13' 7" e                               | 11' 9" e  | 8' 4" e   | 10' 10" e                    | 8' 8" e  | 6' 2" e   |
| 1200S250-54 | 50      | 15' 4" e                               | 12' 6" e  | 8' 4" e   | 11' 6" e                     | 9' 1" e  | 6' 4" e   | 15' 4" e                               | 12' 6" e  | 8' 4" e   | 11' 6" e                     | 9' 1" e  | 6' 4" e   |
| 1200S300-54 | 50      | 15' 8" e                               | 12' 6" e  | 8' 4" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   | 15' 8" e                               | 12' 6" e  | 8' 4" e   | 11' 8" e                     | 9' 2" e  | 6' 5" e   |
| 1200S162-68 | 33      | 14' 4" e                               | 12' 5" e  | 10' 2" e  | 13' 11" e                    | 11' 9" e | 9' 1" e   | 14' 4" e                               | 12' 5" e  | 10' 2" e  | 13' 11" e                    | 11' 9" e | 9' 1" e   |
| 1200S162-68 | 50      | 16' 4" e                               | 14' 2" e  | 11' 7" e  | 16' 0"                       | 13' 5"   | 10' 2" e  | 16' 4" e                               | 14' 2" e  | 11' 7" e  | 16' 0"                       | 13' 5"   | 10' 2" e  |
| 1200S200-68 | 33      | 15' 5" e                               | 13' 4" e  | 10' 11" e | 14' 8" e                     | 12' 4" e | 9' 6" e   | 15' 5" e                               | 13' 4" e  | 10' 11" e | 14' 8" e                     | 12' 4" e | 9' 6" e   |
| 1200S200-68 | 50      | 17' 7" e                               | 15' 3" e  | 12' 5" e  | 16' 9"                       | 13' 11"  | 10' 6" e  | 17' 7" e                               | 15' 3" e  | 12' 5" e  | 16' 9"                       | 13' 11"  | 10' 6" e  |
| 1200S250-68 | 33      | 15' 11" e                              | 13' 10" e | 11' 3" e  | 15' 2" e                     | 12' 9" e | 9' 9" e   | 15' 11" e                              | 13' 10" e | 11' 3" e  | 15' 2" e                     | 12' 9" e | 9' 9" e   |
| 1200S250-68 | 50      | 18' 2" e                               | 15' 9" e  | 12' 10" e | 16' 10"                      | 14' 0"   | 10' 7" e  | 18' 2" e                               | 15' 9" e  | 12' 10" e | 16' 10"                      | 14' 0"   | 10' 7" e  |
| 1200S300-68 | 50      | 18' 6" e                               | 16' 0" e  | 13' 1" e  | 17' 6"                       | 14' 6"   | 10' 10" e | 18' 6" e                               | 16' 0" e  | 13' 1" e  | 17' 6"                       | 14' 6"   | 10' 10" e |

See notes located on page 74

# TRADITIONAL FLOOR JOIST SPAN TABLES - 40 PSF DEAD LOAD AND 125 PSF LIVE LOAD

| Section     | Fy(ksi) | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           | L/360 Live Load Deflection for 125 psf |           |           |                              |           |           |
|-------------|---------|--|-----------|-----------|------------------------------|-----------|-----------|--|-----------|-----------|------------------------------|-----------|-----------|
|             |         | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           | Single Span Spacing (in)               |           |           | Two Equal Spans Spacing (in) |           |           |
|             |         | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       | 12"                                    | 16"       | 24"       | 12"                          | 16"       | 24"       |
| 1200S162-97 | 33      | 18' 5"                                 | 15' 11" e | 13' 0" e  | 18' 3"                       | 15' 9"    | 12' 9" e  | 18' 5"                                 | 15' 11" e | 13' 0" e  | 18' 3"                       | 15' 9"    | 12' 9" e  |
| 1200S162-97 | 50      | 21' 1"                                 | 18' 4"    | 15' 0" e  | 21' 2"                       | 18' 4"    | 15' 0"    | 19' 2"                                 | 17' 5"    | 15' 0" e  | 21' 2"                       | 18' 4"    | 15' 0"    |
| 1200S200-97 | 33      | 19' 8" e                               | 17' 0" e  | 13' 11" e | 19' 5"                       | 16' 8"    | 13' 6" e  | 19' 8" e                               | 17' 0" e  | 13' 11" e | 19' 5"                       | 16' 8"    | 13' 6" e  |
| 1200S200-97 | 50      | 22' 0"                                 | 19' 7"    | 16' 0" e  | 22' 8"                       | 19' 7"    | 15' 11"   | 20' 0"                                 | 18' 2"    | 15' 10" e | 22' 5"                       | 19' 7"    | 15' 11"   |
| 1200S250-97 | 33      | 20' 4" e                               | 17' 8" e  | 14' 5" e  | 20' 4"                       | 17' 8"    | 14' 2" e  | 20' 4" e                               | 17' 8" e  | 14' 5" e  | 20' 4"                       | 17' 8"    | 14' 2" e  |
| 1200S250-97 | 50      | 22' 10"                                | 20' 3"    | 16' 6" e  | 23' 5"                       | 20' 3"    | 16' 5"    | 20' 9"                                 | 18' 10"   | 16' 6" e  | 23' 3"                       | 20' 3"    | 16' 5"    |
| 1200S300-97 | 50      | 23' 7"                                 | 20' 8"    | 16' 11" e | 23' 10"                      | 20' 8"    | 16' 11"   | 21' 5"                                 | 19' 6"    | 16' 11" e | 23' 10"                      | 20' 8"    | 16' 11"   |
| 1400S162-54 | 33      | 12' 10" e                              | 10' 8" e  | 7' 2" e   | 9' 11" e                     | 7' 10" e  | 5' 5" e   | 12' 10" e                              | 10' 8" e  | 7' 2" e   | 9' 11" e                     | 7' 10" e  | 5' 5" e   |
| 1400S162-54 | 50      | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 5" e                     | 8' 1" e   | 5' 7" e   | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 5" e                     | 8' 1" e   | 5' 7" e   |
| 1400S200-54 | 33      | 13' 11" e                              | 10' 8" e  | 7' 2" e   | 10' 2" e                     | 7' 11" e  | 5' 6" e   | 13' 11" e                              | 10' 8" e  | 7' 2" e   | 10' 2" e                     | 7' 11" e  | 5' 6" e   |
| 1400S200-54 | 50      | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 7" e                     | 8' 2" e   | 5' 7" e   | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 7" e                     | 8' 2" e   | 5' 7" e   |
| 1400S250-54 | 33      | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 3" e                     | 8' 0" e   | 5' 6" e   | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 3" e                     | 8' 0" e   | 5' 6" e   |
| 1400S250-54 | 50      | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 7" e                     | 8' 2" e   | 5' 7" e   | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 7" e                     | 8' 2" e   | 5' 7" e   |
| 1400S300-54 | 50      | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 8" e                     | 8' 2" e   | 5' 7" e   | 14' 3" e                               | 10' 8" e  | 7' 2" e   | 10' 8" e                     | 8' 2" e   | 5' 7" e   |
| 1400S162-68 | 33      | 15' 4" e                               | 13' 3" e  | 10' 10" e | 14' 5" e                     | 12' 0" e  | 9' 1" e   | 15' 4" e                               | 13' 3" e  | 10' 10" e | 14' 5" e                     | 12' 0" e  | 9' 1" e   |
| 1400S162-68 | 50      | 17' 4" e                               | 15' 0" e  | 12' 3" e  | 16' 4"                       | 13' 4"    | 9' 10" e  | 17' 4" e                               | 15' 0" e  | 12' 3" e  | 16' 4"                       | 13' 4"    | 9' 10" e  |
| 1400S200-68 | 33      | 16' 6" e                               | 14' 4" e  | 11' 8" e  | 15' 2" e                     | 12' 6" e  | 9' 4" e   | 16' 6" e                               | 14' 4" e  | 11' 8" e  | 15' 2" e                     | 12' 6" e  | 9' 4" e   |
| 1400S200-68 | 50      | 18' 9" e                               | 16' 3" e  | 13' 3" e  | 16' 11"                      | 13' 9"    | 10' 1" e  | 18' 9" e                               | 16' 3" e  | 13' 3" e  | 16' 11"                      | 13' 9"    | 10' 1" e  |
| 1400S250-68 | 33      | 17' 2" e                               | 14' 10" e | 12' 2" e  | 15' 7" e                     | 12' 10" e | 9' 7" e   | 17' 2" e                               | 14' 10" e | 12' 2" e  | 15' 7" e                     | 12' 10" e | 9' 7" e   |
| 1400S250-68 | 50      | 19' 6" e                               | 16' 10" e | 13' 9" e  | 17' 0"                       | 13' 10"   | 10' 1" e  | 19' 6" e                               | 16' 10" e | 13' 9" e  | 17' 0"                       | 13' 10"   | 10' 1" e  |
| 1400S300-68 | 50      | 19' 11" e                              | 17' 3" e  | 14' 1" e  | 17' 2"                       | 13' 11"   | 10' 2" e  | 19' 11" e                              | 17' 3" e  | 14' 1" e  | 17' 2"                       | 13' 11"   | 10' 2" e  |
| 1400S162-97 | 33      | 19' 10" e                              | 17' 2" e  | 14' 1" e  | 19' 10"                      | 17' 2"    | 13' 10" e | 19' 10" e                              | 17' 2" e  | 14' 1" e  | 19' 10"                      | 17' 2"    | 13' 10" e |
| 1400S162-97 | 50      | 22' 9"                                 | 19' 8"    | 16' 1" e  | 22' 9"                       | 19' 8"    | 16' 1"    | 21' 10"                                | 19' 8"    | 16' 1" e  | 22' 9"                       | 19' 8"    | 16' 1"    |
| 1400S200-97 | 33      | 21' 3" e                               | 18' 5" e  | 15' 0" e  | 21' 2"                       | 18' 2"    | 14' 7" e  | 21' 3" e                               | 18' 5" e  | 15' 0" e  | 21' 2"                       | 18' 2"    | 14' 7" e  |
| 1400S200-97 | 50      | 24' 4"                                 | 21' 1" e  | 17' 3" e  | 24' 4"                       | 21' 1"    | 17' 1"    | 22' 8"                                 | 20' 7"    | 17' 3" e  | 24' 4"                       | 21' 1"    | 17' 1"    |
| 1400S250-97 | 33      | 22' 1" e                               | 19' 1" e  | 15' 7" e  | 22' 1"                       | 19' 1" e  | 15' 4" e  | 22' 1" e                               | 19' 1" e  | 15' 7" e  | 22' 1"                       | 19' 1" e  | 15' 4" e  |
| 1400S250-97 | 50      | 25' 3"                                 | 21' 11" e | 17' 10" e | 25' 3"                       | 21' 11"   | 17' 7"    | 23' 6"                                 | 21' 4" e  | 17' 10" e | 25' 3"                       | 21' 11"   | 17' 7"    |
| 1400S300-97 | 50      | 25' 10"                                | 22' 5" e  | 18' 3" e  | 25' 10"                      | 22' 5"    | 18' 0"    | 24' 3"                                 | 22' 0" e  | 18' 3" e  | 25' 10"                      | 22' 5"    | 18' 0"    |

See notes located on page 74

## TITAN FLOOR JOISTS (TJ): NOTES

### Bridging Recommendations:

Floor joist bridging may be spaced as indicated below, except where member design requires an alternate spacing.

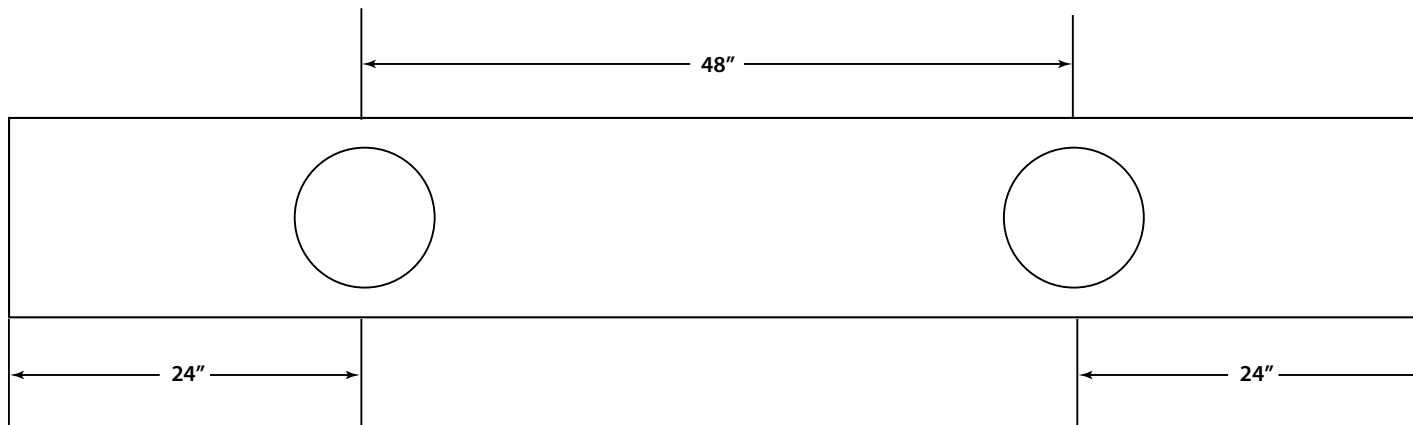
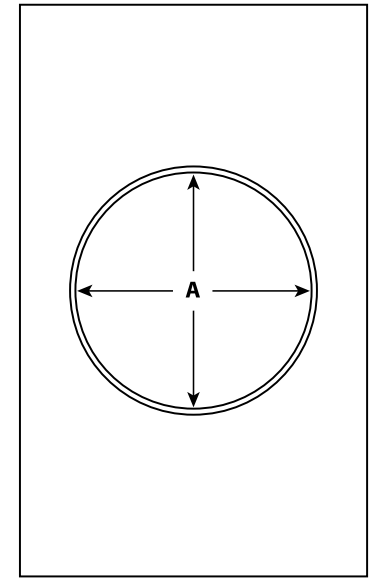
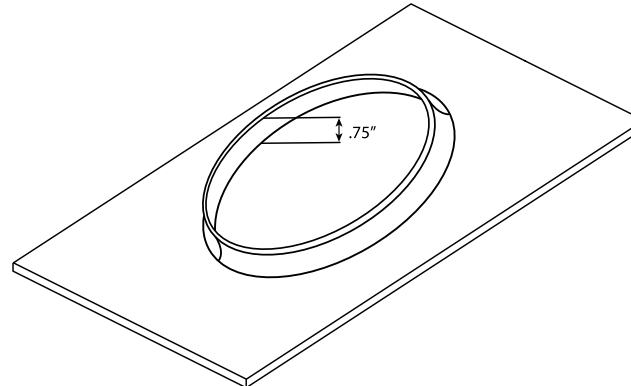
| Span(ft) | Minimum Number of Rows |
|----------|------------------------|
| up to 14 | 1 at mid span          |
| 14 to 20 | 2 at 1/3 point         |
| 20 to 26 | 3 at 1/4 point         |
| > 26'    | 8' oc                  |

### Titan Joist Hole Spacing

| Joist Web (in) | Min Hole Spacing S (in) |
|----------------|-------------------------|
| 10"            | 48" OC, 24"OC from Ends |
| 12"            | 48" OC, 24"OC from Ends |
| 14"            | 48" OC, 24"OC from Ends |

### Punch Hole Data

| Joist Web Size | Punch Diameter | Hole Opening Size (A) | Hole Return Flange Lip |
|----------------|----------------|-----------------------|------------------------|
| 10"            | 6"             | 6.3"                  | 0.75"                  |
| 12"            | 8"             | 8.3"                  | 0.75"                  |
| 14"            | 10"            | 10.3"                 | 0.75"                  |



## TITAN FLOOR JOISTS (TJ): SECTION PROPERTIES

### TITAN FLOOR JOISTS (TJ): ROUND HOLE WITH 0.75" RETURN LIP

| Section                   | Design Thickness (in) | Gross Properties <sup>2</sup> |         |                    |                |                    |                | 50 ksi Effective Properties |                    |        |       |        | Torsional Properties <sup>2</sup> |                    |        |       |       |
|---------------------------|-----------------------|-------------------------------|---------|--------------------|----------------|--------------------|----------------|-----------------------------|--------------------|--------|-------|--------|-----------------------------------|--------------------|--------|-------|-------|
|                           |                       | Area                          | Weight  | I <sub>xx</sub>    | R <sub>x</sub> | I <sub>yy</sub>    | R <sub>y</sub> | I <sub>xx</sub>             | S <sub>xx</sub>    | Ma     | Va(4) | Vah(5) | Jx1000                            | Cw                 | Xo     | Ro    | β     |
|                           |                       | (in <sup>2</sup> )            | (lb/ft) | (in <sup>4</sup> ) | (in)           | (in <sup>4</sup> ) | (in)           | (in <sup>4</sup> )          | (in <sup>3</sup> ) | (in-k) | (lb)  | (lb)   | (in <sup>4</sup> )                | (in <sup>6</sup> ) | (in)   | (in)  |       |
| 1000TJ200-54              | 0.0566                | 0.839                         | 2.86    | 11.278             | 3.666          | 0.378              | 0.671          | 9.79                        | 1.71               | 51.1   | 1661  | 1867   | 0.896                             | 7.665              | -1.135 | 3.896 | 0.915 |
| 1000TJ200-68              | 0.0713                | 1.050                         | 3.57    | 13.994             | 3.652          | 0.460              | 0.662          | 12.32                       | 2.42               | 72.5   | 3345  | 2351   | 1.779                             | 9.401              | -1.120 | 3.876 | 0.917 |
| 1000TJ200-97              | 0.1017                | 1.474                         | 5.02    | 19.336             | 3.622          | 0.609              | 0.643          | 17.54                       | 3.74               | 112.0  | 9864  | 5343   | 5.082                             | 12.679             | -1.088 | 3.836 | 0.920 |
| 1000TJ250-54              | 0.0566                | 0.896                         | 3.05    | 12.677             | 3.762          | 0.653              | 0.854          | 11.39                       | 1.88               | 56.3   | 1661  | 1867   | 0.957                             | 12.922             | -1.505 | 4.140 | 0.868 |
| 1000TJ250-68              | 0.0713                | 1.121                         | 3.81    | 15.751             | 3.749          | 0.799              | 0.844          | 14.17                       | 2.77               | 82.9   | 3345  | 2351   | 1.899                             | 15.909             | -1.488 | 4.121 | 0.870 |
| 1000TJ250-97              | 0.1017                | 1.576                         | 5.36    | 21.827             | 3.722          | 1.072              | 0.825          | 19.64                       | 4.18               | 140.6  | 9864  | 5343   | 5.433                             | 21.632             | -1.454 | 4.080 | 0.873 |
| 1000TJ300-54              | 0.0566                | 0.960                         | 3.27    | 14.210             | 3.848          | 1.059              | 1.050          | 12.30                       | 1.99               | 59.5   | 1661  | 1867   | 1.025                             | 20.788             | -1.933 | 4.432 | 0.810 |
| 1000TJ300-68              | 0.0713                | 1.201                         | 4.09    | 17.677             | 3.836          | 1.302              | 1.041          | 15.31                       | 2.88               | 86.3   | 3345  | 2351   | 2.035                             | 25.668             | -1.915 | 4.412 | 0.812 |
| 1000TJ300-97              | 0.1017                | 1.690                         | 5.75    | 24.558             | 3.812          | 1.764              | 1.022          | 21.84                       | 4.59               | 137.5  | 9864  | 5343   | 5.827                             | 35.113             | -1.879 | 4.371 | 0.815 |
| 1200TJ200-54 <sup>1</sup> | 0.0566                | 0.953                         | 3.24    | 17.662             | 4.306          | 0.393              | 0.643          | 15.94                       | 2.07               | 62.1   | 1377  | 1860   | 1.017                             | 11.550             | -1.032 | 4.474 | 0.947 |
| 1200TJ200-68              | 0.0713                | 1.192                         | 4.06    | 21.947             | 4.291          | 0.479              | 0.634          | 19.26                       | 2.96               | 88.7   | 2771  | 2570   | 2.020                             | 14.176             | -1.017 | 4.455 | 0.948 |
| 1200TJ200-97              | 0.1017                | 1.677                         | 5.71    | 30.417             | 4.258          | 0.635              | 0.615          | 28.06                       | 4.66               | 139.5  | 8147  | 3342   | 5.783                             | 19.150             | -0.987 | 4.414 | 0.950 |
| 1200TJ250-54 <sup>1</sup> | 0.0566                | 1.009                         | 3.43    | 19.681             | 4.416          | 0.683              | 0.823          | 16.59                       | 2.15               | 64.3   | 1377  | 1860   | 1.078                             | 19.505             | -1.378 | 4.699 | 0.914 |
| 1200TJ250-68              | 0.0713                | 1.263                         | 4.30    | 24.484             | 4.402          | 0.836              | 0.813          | 21.22                       | 3.01               | 90.0   | 2771  | 2570   | 2.141                             | 24.034             | -1.362 | 4.679 | 0.915 |
| 1200TJ250-97              | 0.1017                | 1.779                         | 6.05    | 34.016             | 4.373          | 1.121              | 0.794          | 30.45                       | 5.04               | 150.8  | 8147  | 3342   | 6.134                             | 32.734             | -1.329 | 4.639 | 0.918 |
| 1200TJ300-54 <sup>1</sup> | 0.0566                | 1.073                         | 3.65    | 21.901             | 4.518          | 1.112              | 1.018          | 20.33                       | 2.37               | 71.0   | 1377  | 1860   | 1.146                             | 31.326             | -1.781 | 4.962 | 0.871 |
| 1200TJ300-68              | 0.0713                | 1.344                         | 4.57    | 27.274             | 4.505          | 1.367              | 1.009          | 25.61                       | 3.41               | 102.2  | 2771  | 2570   | 2.277                             | 38.711             | -1.764 | 4.943 | 0.873 |
| 1200TJ300-97              | 0.1017                | 1.894                         | 6.44    | 37.979             | 4.478          | 1.852              | 0.989          | 34.27                       | 5.94               | 178.0  | 8147  | 3342   | 6.528                             | 53.048             | -1.730 | 4.902 | 0.875 |
| 1400TJ200-68              | 0.0713                | 1.335                         | 4.54    | 32.284             | 4.918          | 0.494              | 0.608          | 27.28                       | 3.51               | 104.9  | 2365  | 2680   | 2.262                             | 20.083             | -0.932 | 5.043 | 0.966 |
| 1400TJ200-97              | 0.1017                | 1.881                         | 6.40    | 44.853             | 4.883          | 0.655              | 0.590          | 40.36                       | 5.58               | 167.1  | 6939  | 5002   | 6.484                             | 27.156             | -0.904 | 5.001 | 0.967 |
| 1400TJ250-68              | 0.0713                | 1.406                         | 4.78    | 35.743             | 5.042          | 0.865              | 0.784          | 30.21                       | 3.55               | 106.3  | 2365  | 2680   | 2.383                             | 34.118             | -1.257 | 5.255 | 0.943 |
| 1400TJ250-97              | 0.1017                | 1.983                         | 6.75    | 49.764             | 5.010          | 1.160              | 0.765          | 43.79                       | 6.01               | 180.0  | 6939  | 5002   | 6.835                             | 46.520             | -1.225 | 5.214 | 0.945 |
| 1400TJ300-68              | 0.0713                | 1.486                         | 5.06    | 39.559             | 5.159          | 1.420              | 0.977          | 34.51                       | 3.76               | 112.5  | 2365  | 2680   | 2.519                             | 54.930             | -1.637 | 5.500 | 0.911 |
| 1400TJ300-97              | 0.1017                | 2.097                         | 7.14    | 55.186             | 5.130          | 1.924              | 0.958          | 49.22                       | 6.51               | 195.0  | 6939  | 5002   | 7.230                             | 75.361             | -1.604 | 5.460 | 0.914 |

**Notes:**

1. Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points, end conditions and concentrated loads.
2. Gross and Torsional Properties are based on the full, unreduced section, away from lip reinforced holes.
3. Effective section modulus, S<sub>xx</sub>, and allowable moment, Ma, are calculated for an unperforated section. Independent confirmatory tests have been performed showing that the flexural strength for these sections is predictable using NASPEC formulations for unpunched members.
4. Effective moment of inertia has been reduced based on testing. For sections without tests, values are interpolated or extrapolated.
5. Listed allowable shear, Va, is based on the full web away from lip reinforced holes.
6. Listed allowable shear, Vah, is based on tests including interpolation/extrapolation of untested sections for shear at the perforations.

# TITAN FLOOR JOISTS (TJ) SIMPLE SPANS

## 10 psf DL, 20 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 27'-9"  | 25'-2"  | 22'-0"  |
| 1000TJ200-68                               | 29'-11" | 27'-2"  | 23'-9"  |
| 1000TJ200-97                               | 33'-8"  | 30'-7"  | 26'-9"  |
| 1000TJ250-54                               | 29'-2"  | 26'-6"  | 23'-2"  |
| 1000TJ250-68                               | 31'-4"  | 28'-6"  | 24'-11" |
| 1000TJ250-97                               | 35'-0"  | 31'-9"  | 27'-9"  |
| 1000TJ300-54                               | 29'-11" | 27'-2"  | 23'-9"  |
| 1000TJ300-68                               | 32'-2"  | 29'-3"  | 25'-6"  |
| 1000TJ300-97                               | 36'-3"  | 32'-11" | 28'-9"  |
| 1200TJ200-54 <sup>1</sup>                  | 32'-7"  | 29'-8"  | 25'-11" |
| 1200TJ200-68                               | 34'-9"  | 31'-7"  | 27'-7"  |
| 1200TJ200-97                               | 39'-5"  | 35'-9"  | 31'-3"  |
| 1200TJ250-54 <sup>1</sup>                  | 33'-1"  | 30'-0"  | 26'-3"  |
| 1200TJ250-68                               | 35'-11" | 32'-7"  | 28'-6"  |
| 1200TJ250-97                               | 40'-6"  | 36'-9"  | 32'-1"  |
| 1200TJ300-54 <sup>1</sup>                  | 35'-4"  | 32'-2"  | 28'-1"  |
| 1200TJ300-68                               | 38'-2"  | 34'-9"  | 30'-4"  |
| 1200TJ300-97                               | 42'-1"  | 38'-3"  | 33'-5"  |
| 1400TJ200-68                               | 39'-0"  | 35'-5"  | 31'-0"  |
| 1400TJ200-97                               | 44'-6"  | 40'-5"  | 35'-3"  |
| 1400TJ250-68                               | 40'-4"  | 36'-8"  | 32'-0"  |
| 1400TJ250-97                               | 45'-8"  | 41'-6"  | 36'-3"  |
| 1400TJ300-68                               | 42'-2"  | 38'-4"  | 33'-6"  |
| 1400TJ300-97                               | 47'-6"  | 43'-2"  | 37'-8"  |

## 10 psf DL, 30 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 24'-2"  | 22'-0"  | 19'-2"  |
| 1000TJ200-68                               | 26'-2"  | 23'-9"  | 20'-9"  |
| 1000TJ200-97                               | 29'-5"  | 26'-9"  | 23'-4"  |
| 1000TJ250-54                               | 25'-6"  | 23'-2"  | 20'-2"  |
| 1000TJ250-68                               | 27'-5"  | 24'-11" | 21'-9"  |
| 1000TJ250-97                               | 30'-7"  | 27'-9"  | 24'-3"  |
| 1000TJ300-54                               | 26'-2"  | 23'-9"  | 20'-9"  |
| 1000TJ300-68                               | 28'-1"  | 25'-6"  | 22'-4"  |
| 1000TJ300-97                               | 31'-8"  | 28'-9"  | 25'-1"  |
| 1200TJ200-54 <sup>1</sup>                  | 28'-6"  | 25'-11" | 22'-7"  |
| 1200TJ200-68                               | 30'-4"  | 27'-7"  | 24'-1"  |
| 1200TJ200-97                               | 34'-5"  | 31'-3"  | 27'-4"  |
| 1200TJ250-54 <sup>1</sup>                  | 28'-10" | 26'-3"  | 22'-11" |
| 1200TJ250-68                               | 31'-4"  | 28'-6"  | 24'-10" |
| 1200TJ250-97                               | 35'-4"  | 32'-1"  | 28'-1"  |
| 1200TJ300-54 <sup>1</sup>                  | 30'-11" | 28'-1"  | 24'-3"  |
| 1200TJ300-68                               | 33'-4"  | 30'-4"  | 26'-6"  |
| 1200TJ300-97                               | 36'-9"  | 33'-5"  | 29'-2"  |
| 1400TJ200-68                               | 34'-1"  | 31'-0"  | 27'-1"  |
| 1400TJ200-97                               | 38'-10" | 35'-3"  | 30'-10" |
| 1400TJ250-68                               | 35'-3"  | 32'-0"  | 28'-0"  |
| 1400TJ250-97                               | 39'-11" | 36'-3"  | 31'-8"  |
| 1400TJ300-68                               | 36'-10" | 33'-6"  | 29'-3"  |
| 1400TJ300-97                               | 41'-6"  | 37'-8"  | 32'-11" |

## 10 psf DL, 20 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 25'-2"  | 22'-10" | 20'-0"  |
| 1000TJ200-68                               | 27'-2"  | 24'-8"  | 21'-7"  |
| 1000TJ200-97                               | 30'-7"  | 27'-10" | 24'-3"  |
| 1000TJ250-54                               | 26'-6"  | 24'-1"  | 21'-0"  |
| 1000TJ250-68                               | 28'-6"  | 25'-11" | 22'-7"  |
| 1000TJ250-97                               | 31'-9"  | 28'-10" | 25'-2"  |
| 1000TJ300-54                               | 27'-2"  | 24'-8"  | 21'-7"  |
| 1000TJ300-68                               | 29'-3"  | 26'-7"  | 23'-2"  |
| 1000TJ300-97                               | 32'-11" | 29'-11" | 26'-1"  |
| 1200TJ200-54 <sup>1</sup>                  | 29'-8"  | 26'-11" | 23'-6"  |
| 1200TJ200-68                               | 31'-7"  | 28'-8"  | 25'-0"  |
| 1200TJ200-97                               | 35'-9"  | 32'-6"  | 28'-5"  |
| 1200TJ250-54 <sup>1</sup>                  | 30'-0"  | 27'-3"  | 23'-10" |
| 1200TJ250-68                               | 32'-7"  | 29'-7"  | 25'-10" |
| 1200TJ250-97                               | 36'-9"  | 33'-5"  | 29'-2"  |
| 1200TJ300-54 <sup>1</sup>                  | 32'-2"  | 29'-2"  | 25'-6"  |
| 1200TJ300-68                               | 34'-9"  | 31'-6"  | 27'-6"  |
| 1200TJ300-97                               | 38'-3"  | 34'-9"  | 30'-4"  |
| 1400TJ200-68                               | 35'-5"  | 32'-2"  | 28'-2"  |
| 1400TJ200-97                               | 40'-5"  | 36'-8"  | 32'-1"  |
| 1400TJ250-68                               | 36'-8"  | 33'-4"  | 29'-1"  |
| 1400TJ250-97                               | 41'-6"  | 37'-9"  | 32'-11" |
| 1400TJ300-68                               | 38'-4"  | 34'-10" | 30'-5"  |
| 1400TJ300-97                               | 43'-2"  | 39'-3"  | 34'-3"  |

## 10 psf DL, 30 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 22'-0"  | 20'-0"  | 17'-5"  |
| 1000TJ200-68                               | 23'-9"  | 21'-7"  | 18'-10" |
| 1000TJ200-97                               | 26'-9"  | 24'-3"  | 21'-2"  |
| 1000TJ250-54                               | 23'-2"  | 21'-0"  | 18'-4"  |
| 1000TJ250-68                               | 24'-11" | 22'-7"  | 19'-9"  |
| 1000TJ250-97                               | 27'-9"  | 25'-2"  | 22'-0"  |
| 1000TJ300-54                               | 23'-9"  | 21'-7"  | 18'-10" |
| 1000TJ300-68                               | 25'-6"  | 23'-2"  | 20'-3"  |
| 1000TJ300-97                               | 28'-9"  | 26'-1"  | 22'-10" |
| 1200TJ200-54 <sup>1</sup>                  | 25'-11" | 23'-6"  | 20'-6"  |
| 1200TJ200-68                               | 27'-7"  | 25'-0"  | 21'-10" |
| 1200TJ200-97                               | 31'-3"  | 28'-5"  | 24'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 26'-3"  | 23'-10" | 20'-10" |
| 1200TJ250-68                               | 28'-6"  | 25'-10" | 22'-7"  |
| 1200TJ250-97                               | 32'-1"  | 29'-2"  | 25'-6"  |
| 1200TJ300-54 <sup>1</sup>                  | 28'-1"  | 25'-6"  | 22'-3"  |
| 1200TJ300-68                               | 30'-4"  | 27'-6"  | 24'-1"  |
| 1200TJ300-97                               | 33'-5"  | 30'-4"  | 26'-6"  |
| 1400TJ200-68                               | 31'-0"  | 28'-2"  | 24'-7"  |
| 1400TJ200-97                               | 35'-3"  | 32'-1"  | 28'-0"  |
| 1400TJ250-68                               | 32'-0"  | 29'-1"  | 25'-5"  |
| 1400TJ250-97                               | 36'-3"  | 32'-11" | 28'-9"  |
| 1400TJ300-68                               | 33'-6"  | 30'-5"  | 26'-7"  |
| 1400TJ300-97                               | 37'-8"  | 34'-3"  | 29'-11" |

### Titan Floor Joist Simple Span Limiting Wall Height Notes (applicable for all psfs)

1. Allowable Span based on flexural strength, end shear (perforated or unperforated), L/240 Total Load deflection and Live Load (LL) deflection as noted.
2. Spans are based on continuous support of each flange over the full length of the joist.
3. Web stiffeners required at all supports
4. Joists must be braced against rotation at all supports.



# TITAN FLOOR JOISTS (TJ) SIMPLE SPANS

## 10 psf DL, 40 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 22'-0"  | 20'-0"  | 17'-5"  |
| 1000TJ200-68                               | 23'-9"  | 21'-7"  | 18'-10" |
| 1000TJ200-97                               | 26'-9"  | 24'-3"  | 21'-2"  |
| 1000TJ250-54                               | 23'-2"  | 21'-0"  | 18'-4"  |
| 1000TJ250-68                               | 24'-11" | 22'-7"  | 19'-9"  |
| 1000TJ250-97                               | 27'-9"  | 25'-2"  | 22'-0"  |
| 1000TJ300-54                               | 23'-9"  | 21'-7"  | 18'-10" |
| 1000TJ300-68                               | 25'-6"  | 23'-2"  | 20'-3"  |
| 1000TJ300-97                               | 28'-9"  | 26'-1"  | 22'-10" |
| 1200TJ200-54 <sup>1</sup>                  | 25'-11" | 23'-6"  | 20'-4"  |
| 1200TJ200-68                               | 27'-7"  | 25'-0"  | 21'-10" |
| 1200TJ200-97                               | 31'-3"  | 28'-5"  | 24'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 26'-3"  | 23'-10" | 20'-8"  |
| 1200TJ250-68                               | 28'-6"  | 25'-10" | 22'-7"  |
| 1200TJ250-97                               | 32'-1"  | 29'-2"  | 25'-6"  |
| 1200TJ300-54 <sup>1</sup>                  | 28'-1"  | 25'-6"  | 21'-9"  |
| 1200TJ300-68                               | 30'-4"  | 27'-6"  | 24'-1"  |
| 1200TJ300-97                               | 33'-5"  | 30'-4"  | 26'-6"  |
| 1400TJ200-68                               | 31'-0"  | 28'-2"  | 24'-7"  |
| 1400TJ200-97                               | 35'-3"  | 32'-1"  | 28'-0"  |
| 1400TJ250-68                               | 32'-0"  | 29'-1"  | 25'-5"  |
| 1400TJ250-97                               | 36'-3"  | 32'-11" | 28'-9"  |
| 1400TJ300-68                               | 33'-6"  | 30'-5"  | 26'-7"  |
| 1400TJ300-97                               | 37'-8"  | 34'-3"  | 29'-11" |

## 10 psf DL, 50 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 20'-5"  | 18'-6"  | 16'-2"  |
| 1000TJ200-68                               | 22'-0"  | 20'-0"  | 17'-6"  |
| 1000TJ200-97                               | 24'-10" | 22'-6"  | 19'-8"  |
| 1000TJ250-54                               | 21'-6"  | 19'-6"  | 17'-0"  |
| 1000TJ250-68                               | 23'-1"  | 21'-0"  | 18'-4"  |
| 1000TJ250-97                               | 25'-9"  | 23'-5"  | 20'-5"  |
| 1000TJ300-54                               | 22'-0"  | 20'-0"  | 17'-6"  |
| 1000TJ300-68                               | 23'-8"  | 21'-6"  | 18'-10" |
| 1000TJ300-97                               | 26'-8"  | 24'-3"  | 21'-2"  |
| 1200TJ200-54 <sup>1</sup>                  | 24'-0"  | 21'-10" | 18'-6"  |
| 1200TJ200-68                               | 25'-7"  | 23'-3"  | 20'-4"  |
| 1200TJ200-97                               | 29'-0"  | 26'-4"  | 23'-0"  |
| 1200TJ250-54 <sup>1</sup>                  | 24'-4"  | 22'-1"  | 18'-10" |
| 1200TJ250-68                               | 26'-5"  | 24'-0"  | 21'-0"  |
| 1200TJ250-97                               | 29'-10" | 27'-1"  | 23'-8"  |
| 1200TJ300-54 <sup>1</sup>                  | 26'-1"  | 23'-8"  | 19'-10" |
| 1200TJ300-68                               | 28'-2"  | 25'-7"  | 22'-4"  |
| 1200TJ300-97                               | 31'-0"  | 28'-2"  | 24'-7"  |
| 1400TJ200-68                               | 28'-9"  | 26'-1"  | 22'-10" |
| 1400TJ200-97                               | 32'-9"  | 29'-9"  | 26'-0"  |
| 1400TJ250-68                               | 29'-9"  | 27'-0"  | 23'-7"  |
| 1400TJ250-97                               | 33'-8"  | 30'-7"  | 26'-8"  |
| 1400TJ300-68                               | 31'-1"  | 28'-3"  | 24'-8"  |
| 1400TJ300-97                               | 35'-0"  | 31'-10" | 27'-9"  |

## 10 psf DL, 40 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 20'-0"  | 18'-2"  | 15'-10" |
| 1000TJ200-68                               | 21'-7"  | 19'-7"  | 17'-1"  |
| 1000TJ200-97                               | 24'-3"  | 22'-1"  | 19'-3"  |
| 1000TJ250-54                               | 21'-0"  | 19'-1"  | 16'-8"  |
| 1000TJ250-68                               | 22'-7"  | 20'-6"  | 17'-11" |
| 1000TJ250-97                               | 25'-2"  | 22'-11" | 20'-0"  |
| 1000TJ300-54                               | 21'-7"  | 19'-7"  | 17'-1"  |
| 1000TJ300-68                               | 23'-2"  | 21'-1"  | 18'-5"  |
| 1000TJ300-97                               | 26'-1"  | 23'-9"  | 20'-9"  |
| 1200TJ200-54 <sup>1</sup>                  | 23'-6"  | 21'-4"  | 18'-8"  |
| 1200TJ200-68                               | 25'-0"  | 22'-9"  | 19'-10" |
| 1200TJ200-97                               | 28'-5"  | 25'-10" | 22'-6"  |
| 1200TJ250-54 <sup>1</sup>                  | 23'-10" | 21'-8"  | 18'-11" |
| 1200TJ250-68                               | 25'-10" | 23'-6"  | 20'-6"  |
| 1200TJ250-97                               | 29'-2"  | 26'-6"  | 23'-2"  |
| 1200TJ300-54 <sup>1</sup>                  | 25'-6"  | 23'-2"  | 20'-3"  |
| 1200TJ300-68                               | 27'-6"  | 25'-0"  | 21'-10" |
| 1200TJ300-97                               | 30'-4"  | 27'-7"  | 24'-1"  |
| 1400TJ200-68                               | 28'-2"  | 25'-7"  | 22'-4"  |
| 1400TJ200-97                               | 32'-1"  | 29'-1"  | 25'-5"  |
| 1400TJ250-68                               | 29'-1"  | 26'-5"  | 23'-1"  |
| 1400TJ250-97                               | 32'-11" | 29'-11" | 26'-2"  |
| 1400TJ300-68                               | 30'-5"  | 27'-8"  | 24'-2"  |
| 1400TJ300-97                               | 34'-3"  | 31'-1"  | 27'-2"  |

## 10 psf DL, 50 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 18'-6"  | 16'-10" | 14'-8"  |
| 1000TJ200-68                               | 20'-0"  | 18'-2"  | 15'-11" |
| 1000TJ200-97                               | 22'-6"  | 20'-6"  | 17'-10" |
| 1000TJ250-54                               | 19'-6"  | 17'-9"  | 15'-6"  |
| 1000TJ250-68                               | 21'-0"  | 19'-1"  | 16'-8"  |
| 1000TJ250-97                               | 23'-5"  | 21'-3"  | 18'-7"  |
| 1000TJ300-54                               | 20'-0"  | 18'-2"  | 15'-11" |
| 1000TJ300-68                               | 21'-6"  | 19'-7"  | 17'-1"  |
| 1000TJ300-97                               | 24'-3"  | 22'-0"  | 19'-3"  |
| 1200TJ200-54 <sup>1</sup>                  | 21'-10" | 19'-10" | 17'-4"  |
| 1200TJ200-68                               | 23'-3"  | 21'-1"  | 18'-5"  |
| 1200TJ200-97                               | 26'-4"  | 23'-11" | 20'-11" |
| 1200TJ250-54 <sup>1</sup>                  | 22'-1"  | 20'-1"  | 17'-7"  |
| 1200TJ250-68                               | 24'-0"  | 21'-10" | 19'-1"  |
| 1200TJ250-97                               | 27'-1"  | 24'-7"  | 21'-6"  |
| 1200TJ300-54 <sup>1</sup>                  | 23'-8"  | 21'-6"  | 18'-9"  |
| 1200TJ300-68                               | 25'-7"  | 23'-3"  | 20'-3"  |
| 1200TJ300-97                               | 28'-2"  | 25'-7"  | 22'-4"  |
| 1400TJ200-68                               | 26'-1"  | 23'-9"  | 20'-9"  |
| 1400TJ200-97                               | 29'-9"  | 27'-0"  | 23'-7"  |
| 1400TJ250-68                               | 27'-0"  | 24'-6"  | 21'-5"  |
| 1400TJ250-97                               | 30'-7"  | 27'-9"  | 24'-3"  |
| 1400TJ300-68                               | 28'-3"  | 25'-8"  | 22'-5"  |
| 1400TJ300-97                               | 31'-10" | 28'-11" | 25'-3"  |

# TITAN FLOOR JOISTS (TJ) SIMPLE SPANS

## 15 psf DL, 125 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 15'-0"  | 13'-6"  | 11'-0"  |
| 1000TJ200-68                               | 16'-3"  | 14'-9"  | 12'-10" |
| 1000TJ200-97                               | 18'-3"  | 16'-7"  | 14'-6"  |
| 1000TJ250-54                               | 15'-10" | 14'-2"  | 11'-6"  |
| 1000TJ250-68                               | 17'-0"  | 15'-5"  | 13'-6"  |
| 1000TJ250-97                               | 19'-0"  | 17'-3"  | 15'-1"  |
| 1000TJ300-54                               | 16'-3"  | 14'-6"  | 11'-10" |
| 1000TJ300-68                               | 17'-5"  | 15'-10" | 13'-10" |
| 1000TJ300-97                               | 19'-8"  | 17'-10" | 15'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 17'-2"  | 14'-9"  | 9'-10"  |
| 1200TJ200-68                               | 18'-10" | 17'-1"  | 14'-6"  |
| 1200TJ200-97                               | 21'-4"  | 19'-5"  | 16'-11" |
| 1200TJ250-54 <sup>1</sup>                  | 17'-6"  | 14'-9"  | 9'-10"  |
| 1200TJ250-68                               | 19'-6"  | 17'-8"  | 14'-7"  |
| 1200TJ250-97                               | 21'-11" | 19'-11" | 17'-5"  |
| 1200TJ300-54 <sup>1</sup>                  | 18'-4"  | 14'-9"  | 9'-10"  |
| 1200TJ300-68                               | 20'-9"  | 18'-10" | 15'-7"  |
| 1200TJ300-97                               | 22'-10" | 20'-9"  | 18'-1"  |
| 1400TJ200-68                               | 21'-2"  | 19'-3"  | 15'-9"  |
| 1400TJ200-97                               | 24'-1"  | 21'-11" | 19'-2"  |
| 1400TJ250-68                               | 21'-11" | 19'-5"  | 15'-10" |
| 1400TJ250-97                               | 24'-9"  | 22'-6"  | 19'-8"  |
| 1400TJ300-68                               | 22'-11" | 20'-0"  | 16'-4"  |
| 1400TJ300-97                               | 25'-9"  | 23'-5"  | 20'-5"  |

## 40 psf DL, 125 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 14'-4"  | 12'-5"  | 10'-0"  |
| 1000TJ200-68                               | 16'-3"  | 14'-9"  | 12'-1"  |
| 1000TJ200-97                               | 18'-3"  | 16'-7"  | 14'-6"  |
| 1000TJ250-54                               | 15'-0"  | 13'-0"  | 10'-0"  |
| 1000TJ250-68                               | 17'-0"  | 15'-5"  | 12'-11" |
| 1000TJ250-97                               | 19'-0"  | 17'-3"  | 15'-1"  |
| 1000TJ300-54                               | 15'-6"  | 13'-5"  | 10'-0"  |
| 1000TJ300-68                               | 17'-5"  | 15'-10" | 13'-2"  |
| 1000TJ300-97                               | 19'-8"  | 17'-10" | 15'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 15'-10" | 12'-6"  | 8'-4"   |
| 1200TJ200-68                               | 18'-10" | 16'-4"  | 13'-4"  |
| 1200TJ200-97                               | 21'-4"  | 19'-5"  | 16'-9"  |
| 1200TJ250-54 <sup>1</sup>                  | 16'-1"  | 12'-6"  | 8'-4"   |
| 1200TJ250-68                               | 19'-0"  | 16'-6"  | 13'-5"  |
| 1200TJ250-97                               | 21'-11" | 19'-11" | 17'-5"  |
| 1200TJ300-54 <sup>1</sup>                  | 16'-8"  | 12'-6"  | 8'-4"   |
| 1200TJ300-68                               | 20'-3"  | 17'-7"  | 14'-4"  |
| 1200TJ300-97                               | 22'-10" | 20'-9"  | 18'-1"  |
| 1400TJ200-68                               | 22'-7"  | 17'-9"  | 14'-4"  |
| 1400TJ200-97                               | 24'-1"  | 21'-11" | 18'-4"  |
| 1400TJ250-68                               | 20'-8"  | 17'-11" | 14'-4"  |
| 1400TJ250-97                               | 24'-9"  | 22'-6"  | 19'-0"  |
| 1400TJ300-68                               | 21'-3"  | 18'-5"  | 14'-4"  |
| 1400TJ300-97                               | 25'-9"  | 23'-5"  | 19'-10" |

## 15 psf DL, 125 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 13'-8"  | 12'-5"  | 10'-10" |
| 1000TJ200-68                               | 14'-9"  | 13'-5"  | 11'-8"  |
| 1000TJ200-97                               | 16'-7"  | 15'-1"  | 13'-2"  |
| 1000TJ250-54                               | 14'-4"  | 13'-1"  | 11'-5"  |
| 1000TJ250-68                               | 15'-5"  | 14'-0"  | 12'-3"  |
| 1000TJ250-97                               | 17'-3"  | 15'-8"  | 13'-8"  |
| 1000TJ300-54                               | 14'-9"  | 13'-5"  | 11'-8"  |
| 1000TJ300-68                               | 15'-10" | 14'-5"  | 12'-7"  |
| 1000TJ300-97                               | 17'-10" | 16'-3"  | 14'-2"  |
| 1200TJ200-54 <sup>1</sup>                  | 16'-1"  | 14'-7"  | 9'-10"  |
| 1200TJ200-68                               | 17'-1"  | 15'-7"  | 13'-7"  |
| 1200TJ200-97                               | 19'-5"  | 17'-8"  | 15'-5"  |
| 1200TJ250-54 <sup>1</sup>                  | 16'-3"  | 14'-9"  | 9'-10"  |
| 1200TJ250-68                               | 17'-8"  | 16'-1"  | 14'-0"  |
| 1200TJ250-97                               | 19'-11" | 18'-1"  | 15'-10" |
| 1200TJ300-54 <sup>1</sup>                  | 17'-5"  | 14'-9"  | 9'-10"  |
| 1200TJ300-68                               | 18'-10" | 17'-1"  | 14'-11" |
| 1200TJ300-97                               | 20'-9"  | 18'-10" | 16'-6"  |
| 1400TJ200-68                               | 19'-3"  | 17'-6"  | 15'-3"  |
| 1400TJ200-97                               | 21'-11" | 19'-11" | 17'-5"  |
| 1400TJ250-68                               | 19'-11" | 18'-1"  | 15'-9"  |
| 1400TJ250-97                               | 22'-6"  | 20'-5"  | 17'-10" |
| 1400TJ300-68                               | 20'-10" | 18'-11" | 16'-4"  |
| 1400TJ300-97                               | 23'-5"  | 21'-3"  | 18'-7"  |

## 40 psf DL, 125 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 13'-8"  | 12'-5"  | 10'-0"  |
| 1000TJ200-68                               | 14'-9"  | 13'-5"  | 11'-8"  |
| 1000TJ200-97                               | 16'-7"  | 15'-1"  | 13'-2"  |
| 1000TJ250-54                               | 14'-4"  | 13'-0"  | 10'-0"  |
| 1000TJ250-68                               | 15'-5"  | 14'-0"  | 12'-3"  |
| 1000TJ250-97                               | 17'-3"  | 15'-8"  | 13'-8"  |
| 1000TJ300-54                               | 14'-9"  | 13'-5"  | 10'-0"  |
| 1000TJ300-68                               | 15'-10" | 14'-5"  | 12'-7"  |
| 1000TJ300-97                               | 17'-10" | 16'-3"  | 14'-2"  |
| 1200TJ200-54 <sup>1</sup>                  | 15'-10" | 12'-6"  | 8'-4"   |
| 1200TJ200-68                               | 17'-1"  | 15'-7"  | 13'-4"  |
| 1200TJ200-97                               | 19'-5"  | 17'-8"  | 15'-5"  |
| 1200TJ250-54 <sup>1</sup>                  | 16'-1"  | 12'-6"  | 8'-4"   |
| 1200TJ250-68                               | 17'-8"  | 16'-1"  | 13'-5"  |
| 1200TJ250-97                               | 19'-11" | 18'-1"  | 15'-10" |
| 1200TJ300-54 <sup>1</sup>                  | 16'-8"  | 12'-6"  | 8'-4"   |
| 1200TJ300-68                               | 18'-10" | 17'-1"  | 14'-4"  |
| 1200TJ300-97                               | 20'-9"  | 18'-10" | 16'-6"  |
| 1400TJ200-68                               | 19'-3"  | 17'-6"  | 14'-4"  |
| 1400TJ200-97                               | 21'-11" | 19'-11" | 17'-5"  |
| 1400TJ250-68                               | 19'-11" | 17'-11" | 14'-4"  |
| 1400TJ250-97                               | 22'-6"  | 20'-5"  | 17'-10" |
| 1400TJ300-68                               | 20'-10" | 18'-5"  | 14'-4"  |
| 1400TJ300-97                               | 23'-5"  | 21'-3"  | 18'-7"  |

# TITAN FLOOR JOISTS (TJ) TWO EQUAL SPANS

## 10 psf DL, 20 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 31'-1"  | 28'-3"  | 23'-9"  |
| 1000TJ200-68                               | 33'-7"  | 30'-6"  | 26'-8"  |
| 1000TJ200-97                               | 37'-10" | 34'-4"  | 30'-0"  |
| 1000TJ250-54                               | 32'-9"  | 29'-9"  | 25'-0"  |
| 1000TJ250-68                               | 35'-2"  | 32'-0"  | 27'-11" |
| 1000TJ250-97                               | 39'-3"  | 35'-8"  | 31'-2"  |
| 1000TJ300-54                               | 33'-7"  | 30'-6"  | 25'-8"  |
| 1000TJ300-68                               | 36'-1"  | 32'-10" | 28'-8"  |
| 1000TJ300-97                               | 40'-8"  | 36'-11" | 32'-3"  |
| 1200TJ200-54 <sup>1</sup>                  | 36'-7"  | 32'-1"  | 26'-0"  |
| 1200TJ200-68                               | 39'-0"  | 35'-5"  | 30'-11" |
| 1200TJ200-97                               | 44'-3"  | 40'-2"  | 35'-1"  |
| 1200TJ250-54 <sup>1</sup>                  | 37'-1"  | 32'-8"  | 26'-4"  |
| 1200TJ250-68                               | 40'-3"  | 36'-7"  | 31'-7"  |
| 1200TJ250-97                               | 45'-5"  | 41'-3"  | 36'-1"  |
| 1200TJ300-54 <sup>1</sup>                  | 39'-8"  | 34'-4"  | 27'-1"  |
| 1200TJ300-68                               | 42'-11" | 39'-0"  | 33'-8"  |
| 1200TJ300-97                               | 47'-3"  | 42'-11" | 37'-6"  |
| 1400TJ200-68                               | 43'-10" | 39'-10" | 34'-1"  |
| 1400TJ200-97                               | 49'-11" | 45'-4"  | 39'-7"  |
| 1400TJ250-68                               | 45'-4"  | 41'-2"  | 34'-4"  |
| 1400TJ250-97                               | 51'-4"  | 46'-7"  | 40'-8"  |
| 1400TJ300-68                               | 47'-5"  | 43'-1"  | 35'-4"  |
| 1400TJ300-97                               | 53'-4"  | 48'-5"  | 42'-4"  |

## 10 psf DL, 30 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |        |
|--|---------|---------|--------|
| Section                                    | 12      | 16      | 24     |
| 1000TJ200-54                               | 27'-2"  | 24'-8"  | 20'-7" |
| 1000TJ200-68                               | 29'-4"  | 26'-8"  | 23'-3" |
| 1000TJ200-97                               | 33'-0"  | 30'-0"  | 26'-2" |
| 1000TJ250-54                               | 28'-7"  | 26'-0"  | 21'-7" |
| 1000TJ250-68                               | 30'-9"  | 27'-11" | 24'-5" |
| 1000TJ250-97                               | 34'-3"  | 31'-2"  | 27'-2" |
| 1000TJ300-54                               | 29'-4"  | 26'-8"  | 22'-3" |
| 1000TJ300-68                               | 31'-7"  | 28'-8"  | 25'-0" |
| 1000TJ300-97                               | 35'-6"  | 32'-3"  | 28'-2" |
| 1200TJ200-54 <sup>1</sup>                  | 32'-0"  | 27'-10" | 21'-3" |
| 1200TJ200-68                               | 34'-1"  | 30'-11" | 27'-0" |
| 1200TJ200-97                               | 38'-7"  | 35'-1"  | 30'-8" |
| 1200TJ250-54 <sup>1</sup>                  | 32'-5"  | 28'-4"  | 21'-6" |
| 1200TJ250-68                               | 35'-2"  | 32'-0"  | 27'-4" |
| 1200TJ250-97                               | 39'-8"  | 36'-1"  | 31'-6" |
| 1200TJ300-54 <sup>1</sup>                  | 34'-4"  | 29'-5"  | 22'-1" |
| 1200TJ300-68                               | 37'-6"  | 34'-0"  | 29'-2" |
| 1200TJ300-97                               | 41'-3"  | 37'-6"  | 32'-9" |
| 1400TJ200-68                               | 38'-3"  | 34'-9"  | 29'-6" |
| 1400TJ200-97                               | 43'-7"  | 39'-7"  | 34'-7" |
| 1400TJ250-68                               | 39'-7"  | 36'-0"  | 29'-9" |
| 1400TJ250-97                               | 44'-10" | 40'-8"  | 35'-7" |
| 1400TJ300-68                               | 41'-5"  | 37'-6"  | 30'-7" |
| 1400TJ300-97                               | 46'-7"  | 42'-4"  | 37'-0" |

## 10 psf DL, 20 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 28'-3"  | 25'-8"  | 22'-5"  |
| 1000TJ200-68                               | 30'-6"  | 27'-9"  | 24'-3"  |
| 1000TJ200-97                               | 34'-4"  | 31'-2"  | 27'-3"  |
| 1000TJ250-54                               | 29'-9"  | 27'-0"  | 23'-7"  |
| 1000TJ250-68                               | 32'-0"  | 29'-1"  | 25'-4"  |
| 1000TJ250-97                               | 35'-8"  | 32'-5"  | 28'-4"  |
| 1000TJ300-54                               | 30'-6"  | 27'-9"  | 24'-2"  |
| 1000TJ300-68                               | 32'-10" | 29'-10" | 26'-0"  |
| 1000TJ300-97                               | 36'-11" | 33'-7"  | 29'-4"  |
| 1200TJ200-54 <sup>1</sup>                  | 33'-3"  | 30'-3"  | 26'-0"  |
| 1200TJ200-68                               | 35'-5"  | 32'-2"  | 28'-1"  |
| 1200TJ200-97                               | 40'-2"  | 36'-6"  | 31'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 33'-9"  | 30'-7"  | 26'-4"  |
| 1200TJ250-68                               | 36'-7"  | 33'-3"  | 29'-0"  |
| 1200TJ250-97                               | 41'-3"  | 37'-6"  | 32'-9"  |
| 1200TJ300-54 <sup>1</sup>                  | 36'-1"  | 32'-9"  | 27'-1"  |
| 1200TJ300-68                               | 39'-0"  | 35'-5"  | 30'-11" |
| 1200TJ300-97                               | 42'-11" | 39'-0"  | 34'-1"  |
| 1400TJ200-68                               | 39'-10" | 36'-2"  | 31'-7"  |
| 1400TJ200-97                               | 45'-4"  | 41'-2"  | 36'-0"  |
| 1400TJ250-68                               | 41'-2"  | 37'-5"  | 32'-8"  |
| 1400TJ250-97                               | 46'-7"  | 42'-4"  | 37'-0"  |
| 1400TJ300-68                               | 43'-1"  | 39'-1"  | 34'-2"  |
| 1400TJ300-97                               | 48'-5"  | 44'-0"  | 38'-5"  |

## 10 psf DL, 30 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 24'-8"  | 22'-5"  | 19'-7"  |
| 1000TJ200-68                               | 26'-8"  | 24'-3"  | 21'-2"  |
| 1000TJ200-97                               | 30'-0"  | 27'-3"  | 23'-10" |
| 1000TJ250-54                               | 26'-0"  | 23'-7"  | 20'-7"  |
| 1000TJ250-68                               | 27'-11" | 25'-4"  | 22'-2"  |
| 1000TJ250-97                               | 31'-2"  | 28'-4"  | 24'-9"  |
| 1000TJ300-54                               | 26'-8"  | 24'-2"  | 21'-2"  |
| 1000TJ300-68                               | 28'-8"  | 26'-0"  | 22'-9"  |
| 1000TJ300-97                               | 32'-3"  | 29'-4"  | 25'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 29'-1"  | 26'-5"  | 21'-3"  |
| 1200TJ200-68                               | 30'-11" | 28'-1"  | 24'-7"  |
| 1200TJ200-97                               | 35'-1"  | 31'-10" | 27'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 29'-5"  | 26'-9"  | 21'-6"  |
| 1200TJ250-68                               | 32'-0"  | 29'-0"  | 25'-4"  |
| 1200TJ250-97                               | 36'-1"  | 32'-9"  | 28'-7"  |
| 1200TJ300-54 <sup>1</sup>                  | 31'-6"  | 28'-7"  | 22'-1"  |
| 1200TJ300-68                               | 34'-0"  | 30'-11" | 27'-0"  |
| 1200TJ300-97                               | 37'-6"  | 34'-1"  | 29'-9"  |
| 1400TJ200-68                               | 34'-9"  | 31'-7"  | 27'-7"  |
| 1400TJ200-97                               | 39'-7"  | 36'-0"  | 31'-5"  |
| 1400TJ250-68                               | 36'-0"  | 32'-8"  | 28'-6"  |
| 1400TJ250-97                               | 40'-8"  | 37'-0"  | 32'-4"  |
| 1400TJ300-68                               | 37'-7"  | 34'-2"  | 29'-10" |
| 1400TJ300-97                               | 42'-4"  | 38'-5"  | 33'-7"  |

## TITAN FLOOR JOISTS (TJ) TWO EQUAL SPANS

### 10 psf DL, 40 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 24'-8"  | 22'-5"  | 18'-5"  |
| 1000TJ200-68                               | 26'-8"  | 24'-3"  | 21'-2"  |
| 1000TJ200-97                               | 30'-0"  | 27'-3"  | 23'-10" |
| 1000TJ250-54                               | 26'-0"  | 23'-7"  | 19'-0"  |
| 1000TJ250-68                               | 27'-11" | 25'-4"  | 22'-2"  |
| 1000TJ250-97                               | 31'-2"  | 28'-4"  | 24'-9"  |
| 1000TJ300-54                               | 26'-8"  | 24'-2"  | 19'-4"  |
| 1000TJ300-68                               | 28'-8"  | 26'-0"  | 22'-9"  |
| 1000TJ300-97                               | 32'-3"  | 29'-4"  | 25'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 28'-9"  | 24'-2"  | 18'-1"  |
| 1200TJ200-68                               | 30'-11" | 28'-1"  | 24'-3"  |
| 1200TJ200-97                               | 35'-1"  | 31'-10" | 27'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 29'-3"  | 24'-5"  | 18'-3"  |
| 1200TJ250-68                               | 32'-0"  | 29'-0"  | 24'-6"  |
| 1200TJ250-97                               | 36'-1"  | 32'-9"  | 28'-7"  |
| 1200TJ300-54 <sup>1</sup>                  | 30'-9"  | 25'-2"  | 18'-9"  |
| 1200TJ300-68                               | 34'-0"  | 30'-11" | 26'-1"  |
| 1200TJ300-97                               | 37'-6"  | 34'-1"  | 29'-9"  |
| 1400TJ200-68                               | 34'-9"  | 31'-7"  | 26'-5"  |
| 1400TJ200-97                               | 39'-7"  | 36'-0"  | 31'-5"  |
| 1400TJ250-68                               | 36'-0"  | 32'-7"  | 26'-6"  |
| 1400TJ250-97                               | 40'-8"  | 37'-0"  | 32'-4"  |
| 1400TJ300-68                               | 37'-7"  | 33'-6"  | 27'-0"  |
| 1400TJ300-97                               | 42'-4"  | 38'-5"  | 33'-7"  |

### 10 psf DL, 50 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 22'-11" | 20'-7"  | 16'-3"  |
| 1000TJ200-68                               | 24'-9"  | 22'-6"  | 19'-8"  |
| 1000TJ200-97                               | 27'-10" | 25'-4"  | 22'-1"  |
| 1000TJ250-54                               | 24'-1"  | 21'-7"  | 16'-9"  |
| 1000TJ250-68                               | 25'-11" | 23'-7"  | 20'-7"  |
| 1000TJ250-97                               | 28'-11" | 26'-3"  | 22'-11" |
| 1000TJ300-54                               | 24'-9"  | 22'-3"  | 17'-0"  |
| 1000TJ300-68                               | 26'-7"  | 24'-2"  | 21'-1"  |
| 1000TJ300-97                               | 29'-11" | 27'-3"  | 23'-9"  |
| 1200TJ200-54 <sup>1</sup>                  | 26'-0"  | 21'-3"  | 15'-10" |
| 1200TJ200-68                               | 28'-9"  | 26'-1"  | 22'-2"  |
| 1200TJ200-97                               | 32'-7"  | 29'-7"  | 25'-10" |
| 1200TJ250-54 <sup>1</sup>                  | 26'-3"  | 21'-6"  | 15'-11" |
| 1200TJ250-68                               | 29'-8"  | 26'-11" | 22'-4"  |
| 1200TJ250-97                               | 33'-6"  | 30'-5"  | 26'-7"  |
| 1200TJ300-54 <sup>1</sup>                  | 27'-1"  | 22'-1"  | 16'-4"  |
| 1200TJ300-68                               | 31'-7"  | 28'-8"  | 23'-9"  |
| 1200TJ300-97                               | 34'-10" | 31'-8"  | 27'-7"  |
| 1400TJ200-68                               | 32'-3"  | 29'-4"  | 23'-3"  |
| 1400TJ200-97                               | 36'-9"  | 33'-5"  | 29'-2"  |
| 1400TJ250-68                               | 33'-5"  | 29'-9"  | 23'-4"  |
| 1400TJ250-97                               | 37'-9"  | 34'-4"  | 30'-0"  |
| 1400TJ300-68                               | 34'-11" | 30'-7"  | 23'-9"  |
| 1400TJ300-97                               | 39'-3"  | 35'-8"  | 31'-2"  |

### 10 psf DL, 40 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 22'-5"  | 20'-4"  | 17'-9"  |
| 1000TJ200-68                               | 24'-3"  | 22'-0"  | 19'-3"  |
| 1000TJ200-97                               | 27'-3"  | 24'-9"  | 21'-7"  |
| 1000TJ250-54                               | 23'-7"  | 21'-5"  | 18'-9"  |
| 1000TJ250-68                               | 25'-4"  | 23'-1"  | 20'-2"  |
| 1000TJ250-97                               | 28'-4"  | 25'-8"  | 22'-5"  |
| 1000TJ300-54                               | 24'-2"  | 22'-0"  | 19'-2"  |
| 1000TJ300-68                               | 26'-0"  | 23'-8"  | 20'-8"  |
| 1000TJ300-97                               | 29'-4"  | 26'-8"  | 23'-3"  |
| 1200TJ200-54 <sup>1</sup>                  | 26'-5"  | 24'-0"  | 18'-1"  |
| 1200TJ200-68                               | 28'-1"  | 25'-6"  | 22'-4"  |
| 1200TJ200-97                               | 31'-10" | 28'-11" | 25'-3"  |
| 1200TJ250-54 <sup>1</sup>                  | 26'-9"  | 24'-4"  | 18'-3"  |
| 1200TJ250-68                               | 29'-0"  | 26'-5"  | 23'-0"  |
| 1200TJ250-97                               | 32'-9"  | 29'-9"  | 26'-0"  |
| 1200TJ300-54 <sup>1</sup>                  | 28'-7"  | 25'-2"  | 18'-9"  |
| 1200TJ300-68                               | 30'-11" | 28'-1"  | 24'-6"  |
| 1200TJ300-97                               | 34'-1"  | 30'-11" | 27'-0"  |
| 1400TJ200-68                               | 31'-7"  | 28'-8"  | 25'-1"  |
| 1400TJ200-97                               | 36'-0"  | 32'-8"  | 28'-7"  |
| 1400TJ250-68                               | 32'-8"  | 29'-8"  | 25'-11" |
| 1400TJ250-97                               | 37'-0"  | 33'-7"  | 29'-4"  |
| 1400TJ300-68                               | 34'-2"  | 31'-0"  | 27'-0"  |
| 1400TJ300-97                               | 38'-5"  | 34'-11" | 30'-6"  |

### 10 psf DL, 50 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 20'-10" | 18'-11" | 16'-3"  |
| 1000TJ200-68                               | 22'-6"  | 20'-5"  | 17'-10" |
| 1000TJ200-97                               | 25'-4"  | 23'-0"  | 20'-1"  |
| 1000TJ250-54                               | 21'-11" | 19'-11" | 16'-9"  |
| 1000TJ250-68                               | 23'-7"  | 21'-5"  | 18'-8"  |
| 1000TJ250-97                               | 26'-3"  | 23'-10" | 20'-10" |
| 1000TJ300-54                               | 22'-6"  | 20'-5"  | 17'-0"  |
| 1000TJ300-68                               | 24'-2"  | 21'-11" | 19'-2"  |
| 1000TJ300-97                               | 27'-3"  | 24'-9"  | 21'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 24'-6"  | 21'-3"  | 15'-10" |
| 1200TJ200-68                               | 26'-1"  | 23'-8"  | 20'-8"  |
| 1200TJ200-97                               | 29'-7"  | 26'-11" | 23'-6"  |
| 1200TJ250-54 <sup>1</sup>                  | 24'-10" | 21'-6"  | 15'-11" |
| 1200TJ250-68                               | 26'-11" | 24'-6"  | 21'-5"  |
| 1200TJ250-97                               | 30'-5"  | 27'-7"  | 24'-2"  |
| 1200TJ300-54 <sup>1</sup>                  | 26'-7"  | 22'-1"  | 16'-4"  |
| 1200TJ300-68                               | 28'-8"  | 26'-1"  | 22'-9"  |
| 1200TJ300-97                               | 31'-8"  | 28'-9"  | 25'-1"  |
| 1400TJ200-68                               | 29'-4"  | 26'-8"  | 23'-3"  |
| 1400TJ200-97                               | 33'-5"  | 30'-4"  | 26'-6"  |
| 1400TJ250-68                               | 30'-4"  | 27'-7"  | 23'-4"  |
| 1400TJ250-97                               | 34'-4"  | 31'-2"  | 27'-3"  |
| 1400TJ300-68                               | 31'-8"  | 28'-10" | 23'-9"  |
| 1400TJ300-97                               | 35'-8"  | 32'-5"  | 28'-4"  |

## TITAN FLOOR JOISTS (TJ) TWO EQUAL SPANS

### 15 psf DL, 125 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 14'-7"  | 11'-10" | 8'-8"   |
| 1000TJ200-68                               | 18'-3"  | 15'-3"  | 11'-4"  |
| 1000TJ200-97                               | 20'-6"  | 18'-8"  | 16'-3"  |
| 1000TJ250-54                               | 15'-0"  | 12'-2"  | 8'-11"  |
| 1000TJ250-68                               | 19'-1"  | 15'-10" | 11'-9"  |
| 1000TJ250-97                               | 21'-4"  | 19'-4"  | 16'-11" |
| 1000TJ300-54                               | 15'-3"  | 12'-4"  | 9'-0"   |
| 1000TJ300-68                               | 19'-7"  | 16'-0"  | 11'-10" |
| 1000TJ300-97                               | 22'-1"  | 20'-0"  | 17'-6"  |
| 1200TJ200-54 <sup>1</sup>                  | 14'-1"  | 11'-3"  | 7'-10"  |
| 1200TJ200-68                               | 20'-6"  | 16'-9"  | 12'-6"  |
| 1200TJ200-97                               | 24'-0"  | 21'-4"  | 15'-11" |
| 1200TJ250-54 <sup>1</sup>                  | 14'-2"  | 11'-4"  | 7'-10"  |
| 1200TJ250-68                               | 20'-7"  | 16'-10" | 12'-6"  |
| 1200TJ250-97                               | 24'-8"  | 21'-10" | 16'-3"  |
| 1200TJ300-54 <sup>1</sup>                  | 14'-6"  | 11'-7"  | 7'-10"  |
| 1200TJ300-68                               | 21'-5"  | 17'-6"  | 12'-11" |
| 1200TJ300-97                               | 25'-8"  | 22'-11" | 16'-11" |
| 1400TJ200-68                               | 20'-10" | 16'-11" | 12'-5"  |
| 1400TJ200-97                               | 27'-1"  | 24'-5"  | 19'-11" |
| 1400TJ250-68                               | 20'-11" | 17'-0"  | 12'-6"  |
| 1400TJ250-97                               | 27'-10" | 25'-3"  | 20'-5"  |
| 1400TJ300-68                               | 21'-4"  | 17'-3"  | 12'-8"  |
| 1400TJ300-97                               | 28'-11" | 26'-3"  | 20'-11" |

### 40 psf DL, 125 psf LL

| Controlling Allowable Span: L/360 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 13'-0"  | 10'-6"  | 7'-8"   |
| 1000TJ200-68                               | 16'-7"  | 13'-7"  | 10'-0"  |
| 1000TJ200-97                               | 20'-6"  | 18'-5"  | 15'-0"  |
| 1000TJ250-54                               | 13'-4"  | 10'-9"  | 7'-10"  |
| 1000TJ250-68                               | 17'-4"  | 14'-1"  | 10'-4"  |
| 1000TJ250-97                               | 21'-4"  | 19'-4"  | 16'-10" |
| 1000TJ300-54                               | 13'-6"  | 10'-10" | 7'-11"  |
| 1000TJ300-68                               | 17'-6"  | 14'-3"  | 10'-5"  |
| 1000TJ300-97                               | 22'-1"  | 20'-0"  | 16'-7"  |
| 1200TJ200-54 <sup>1</sup>                  | 12'-5"  | 9'-10"  | 6'-8"   |
| 1200TJ200-68                               | 18'-4"  | 14'-11" | 11'-0"  |
| 1200TJ200-97                               | 23'-3"  | 19'-0"  | 14'-1"  |
| 1200TJ250-54 <sup>1</sup>                  | 12'-6"  | 9'-11"  | 6'-8"   |
| 1200TJ250-68                               | 18'-5"  | 15'-0"  | 11'-1"  |
| 1200TJ250-97                               | 23'-10" | 19'-5"  | 14'-5"  |
| 1200TJ300-54 <sup>1</sup>                  | 12'-9"  | 10'-0"  | 6'-8"   |
| 1200TJ300-68                               | 19'-1"  | 15'-6"  | 11'-5"  |
| 1200TJ300-97                               | 25'-1"  | 20'-4"  | 14'-11" |
| 1400TJ200-68                               | 18'-7"  | 15'-0"  | 10'-11" |
| 1400TJ200-97                               | 25'-11" | 22'-6"  | 17'-9"  |
| 1400TJ250-68                               | 18'-7"  | 15'-0"  | 11'-0"  |
| 1400TJ250-97                               | 26'-11" | 23'-4"  | 18'-2"  |
| 1400TJ300-68                               | 18'-11" | 15'-3"  | 11'-1"  |
| 1400TJ300-97                               | 28'-0"  | 24'-3"  | 18'-7"  |

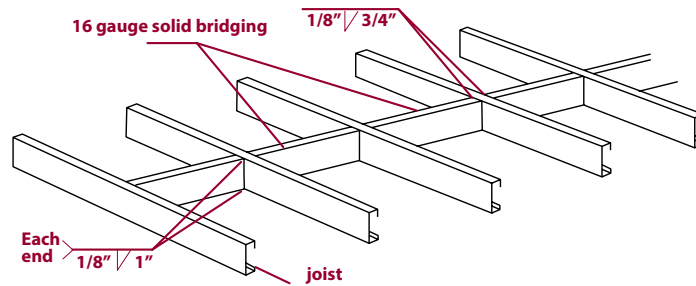
### 15 psf DL, 125 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 14'-7"  | 11'-10" | 8'-8"   |
| 1000TJ200-68                               | 16'-7"  | 15'-0"  | 11'-4"  |
| 1000TJ200-97                               | 18'-8"  | 16'-11" | 14'-9"  |
| 1000TJ250-54                               | 15'-0"  | 12'-2"  | 8'-11"  |
| 1000TJ250-68                               | 17'-4"  | 15'-9"  | 11'-9"  |
| 1000TJ250-97                               | 19'-4"  | 17'-7"  | 15'-4"  |
| 1000TJ300-54                               | 15'-3"  | 12'-4"  | 9'-0"   |
| 1000TJ300-68                               | 17'-10" | 16'-0"  | 11'-10" |
| 1000TJ300-97                               | 20'-0"  | 18'-2"  | 15'-11" |
| 1200TJ200-54 <sup>1</sup>                  | 14'-1"  | 11'-3"  | 7'-10"  |
| 1200TJ200-68                               | 19'-3"  | 16'-9"  | 12'-6"  |
| 1200TJ200-97                               | 21'-9"  | 19'-10" | 15'-11" |
| 1200TJ250-54 <sup>1</sup>                  | 14'-2"  | 11'-4"  | 7'-10"  |
| 1200TJ250-68                               | 19'-10" | 16'-10" | 12'-6"  |
| 1200TJ250-97                               | 22'-5"  | 20'-4"  | 16'-3"  |
| 1200TJ300-54 <sup>1</sup>                  | 14'-6"  | 11'-7"  | 7'-10"  |
| 1200TJ300-68                               | 21'-2"  | 17'-6"  | 12'-11" |
| 1200TJ300-97                               | 23'-4"  | 21'-2"  | 16'-11" |
| 1400TJ200-68                               | 20'-10" | 16'-11" | 12'-5"  |
| 1400TJ200-97                               | 24'-7"  | 22'-4"  | 19'-6"  |
| 1400TJ250-68                               | 20'-11" | 17'-0"  | 12'-6"  |
| 1400TJ250-97                               | 25'-3"  | 23'-0"  | 20'-1"  |
| 1400TJ300-68                               | 21'-4"  | 17'-3"  | 12'-8"  |
| 1400TJ300-97                               | 28'-11" | 26'-3"  | 20'-11" |

### 40 psf DL, 125 psf LL

| Controlling Allowable Span: L/480 LL Defl. |         |         |         |
|--|---------|---------|---------|
| Section                                    | 12      | 16      | 24      |
| 1000TJ200-54                               | 13'-0"  | 10'-6"  | 7'-8"   |
| 1000TJ200-68                               | 16'-7"  | 13'-7"  | 10'-0"  |
| 1000TJ200-97                               | 18'-8"  | 16'-11" | 14'-9"  |
| 1000TJ250-54                               | 13'-4"  | 10'-9"  | 7'-10"  |
| 1000TJ250-68                               | 17'-4"  | 14'-1"  | 10'-4"  |
| 1000TJ250-97                               | 19'-4"  | 17'-7"  | 15'-4"  |
| 1000TJ300-54                               | 13'-6"  | 10'-10" | 7'-11"  |
| 1000TJ300-68                               | 17'-6"  | 14'-3"  | 10'-5"  |
| 1000TJ300-97                               | 20'-0"  | 18'-2"  | 15'-11" |
| 1200TJ200-54 <sup>1</sup>                  | 12'-5"  | 9'-10"  | 6'-8"   |
| 1200TJ200-68                               | 18'-4"  | 14'-11" | 11'-0"  |
| 1200TJ200-97                               | 21'-9"  | 19'-0"  | 14'-1"  |
| 1200TJ250-54 <sup>1</sup>                  | 12'-6"  | 9'-11"  | 6'-8"   |
| 1200TJ250-68                               | 18'-5"  | 15'-0"  | 11'-1"  |
| 1200TJ250-97                               | 22'-5"  | 19'-5"  | 14'-5"  |
| 1200TJ300-54 <sup>1</sup>                  | 12'-9"  | 10'-0"  | 6'-8"   |
| 1200TJ300-68                               | 19'-1"  | 15'-6"  | 11'-5"  |
| 1200TJ300-97                               | 23'-4"  | 20'-4"  | 14'-11" |
| 1400TJ200-68                               | 18'-7"  | 15'-0"  | 10'-11" |
| 1400TJ200-97                               | 24'-7"  | 22'-4"  | 17'-9"  |
| 1400TJ250-68                               | 18'-7"  | 15'-0"  | 11'-0"  |
| 1400TJ250-97                               | 25'-3"  | 23'-0"  | 18'-2"  |
| 1400TJ300-68                               | 18'-11" | 15'-3"  | 11'-1"  |
| 1400TJ300-97                               | 26'-3"  | 23'-11" | 18'-7"  |

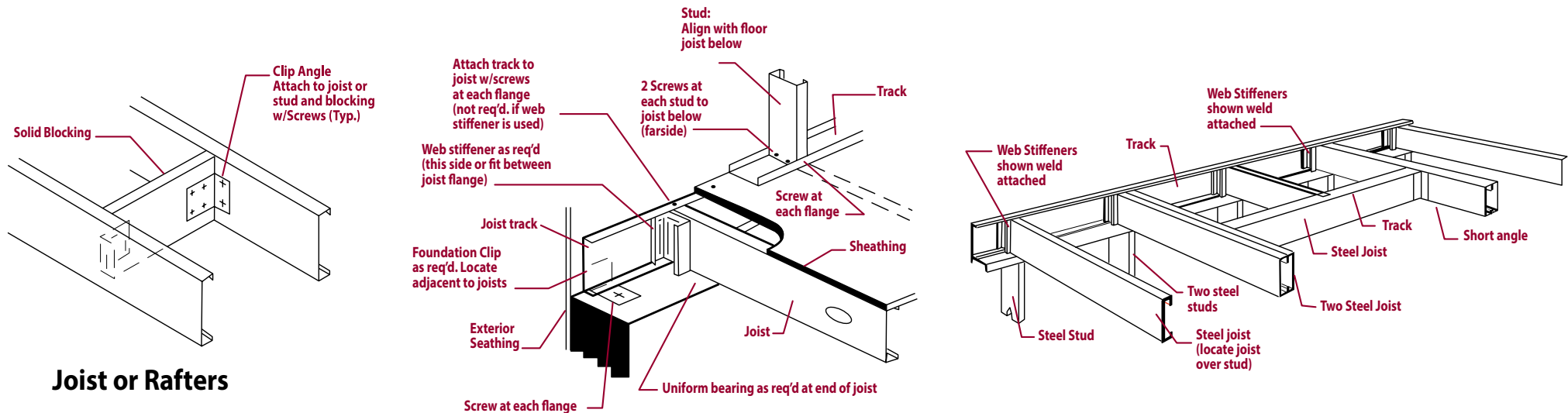
## FLOOR ASSEMBLY DETAILS



### Notes

1. Install mechanical bridging spaced at the following intervals:
  - a. 5'-0" on center maximum for any 1-5/8" flanged components or
  - b. 7'-0" on center maximum for all remaining member types.
2. Proper attachment of diaphragm rated products, such as plywood or metal deck, will prevent rotation of the compression flange of the joists. These may be used in lieu of the installation of the top flat strap. Installation of these products and the balance of the mechanical bridging components must be completed before any loads are applied to the joists.
3. Install 16 gauge solid bridging in the first two and last two joist spaces. Starting at third joist space, install bridging, top and bottom, extending for 10' 0" run. Follow with solid bridging in one space.
4. Repeat to completion, with each 10' 0" run of strap bridging follow by one space of solid bridging. (Based on calculations, additional rows of bridging may be required.) **Note:** Solid bridging shall not be less than 2" maximum reduction to section depth.

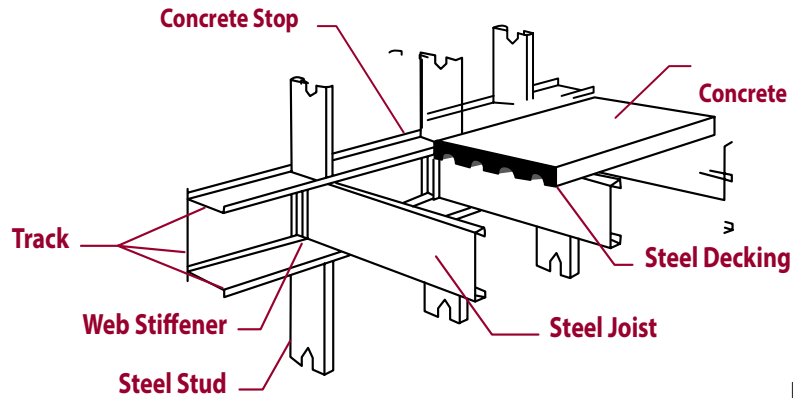
### Construction Detail



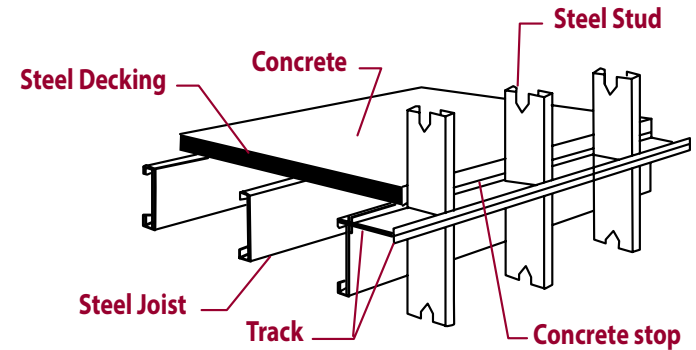


## FLOOR ASSEMBLY DETAILS

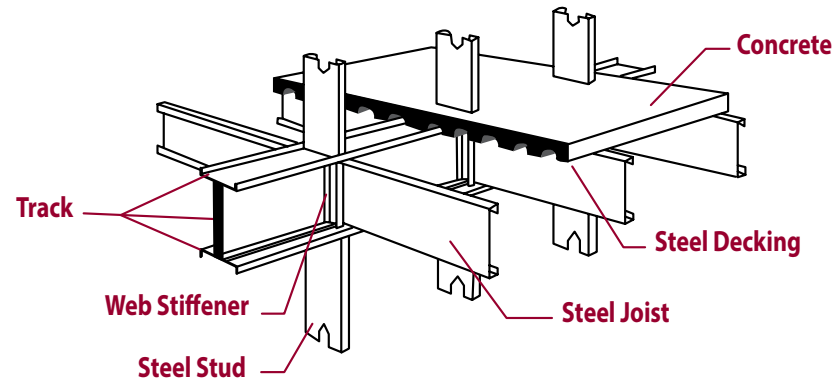
### Load Bearing Exterior Wall



### Non-Bearing Exterior Wall

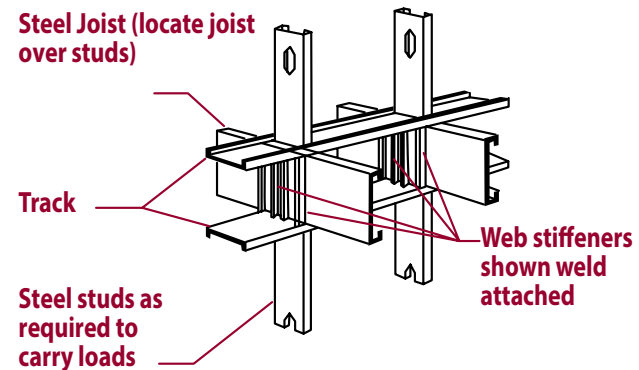


### Load Bearing Interior Wall



### Interior Support Condition

Steel Joist (locate joist over studs)



### Web Stiffening Requirements

To develop adequate bearing strength for the loads shown in the joist span tables, each joist requires the following:

- For simple span conditions-a web stiffener at each end.
- For two span conditions-a web stiffener at each end plus single stiffener permissible in single story construction.
- For cantilevered conditions-a web stiffener at the ends plus a single stiffener at support adjacent to cantilever

## TELLING HEADER DATA TABLES - NOTES

### Header allowable uniform load table notes:

1. Deflection limit is  $L/360$
2. Allowable loads have not been modified for strength or deflection checks.
3. Headers consist of two members, boxed or back-to-back.
4. Allowable moment, shear, web crippling and moment of inertia are based on twice the value for a single member.
5. For distortional buckling allowable moment,  $K\Phi=0$ .
6. Web crippling check based on 1 inch end bearing. Where listed allowable loads are followed by "e" web stiffeners are required.
7. Web crippling and shear checks are based on unpunched webs. If web punchouts occur near supports members must be checked for reduced shear and web crippling in accordance with AISI S100.
8. Members are assumed adequately braced to develop their full flexural strength.
9. Allowable loads are for simply supported headers with uniform bending loads only.
10. Moment of inertia for deflection is calculated at the maximum service level stress for the span and load listed. Note that this value may be higher than the effective  $I_{xx}$  listed in section property tables.

## TELLING HEADER DATA TABLES

Allowable Uniform Loads in Lbs./Ft. Span (ft.)

| Section     | Fy (ksi) | 3        | 4       | 5       | 6       | 8       | 10     | 12     |
|-------------|----------|----------|---------|---------|---------|---------|--------|--------|
| 550S162-33  | 33       | 931.4e 6 | 98.5e   | 460.1e  | 319.5e  | 179.7e  | 115.0e | 73.8e  |
| 550S162-43  | 33       | 1946.5e  | 1094.9e | 700.8e  | 486.6e  | 273.7e  | 164.6e | 95.3e  |
| 550S162-54  | 33       | 2647.9e  | 1489.4e | 953.2e  | 662.0e  | 372.4e  | 203.2e | 117.6  |
| 550S162-54  | 50       | 3484.7e  | 1960.1e | 1254.5e | 871.2e  | 396.8e  | 203.2  | 117.6  |
| 550S162-68  | 33       | 3514.1e  | 1976.7e | 1265.1e | 878.5e  | 488.5e  | 250.1e | 144.7  |
| 550S162-68  | 50       | 4782.6e  | 2690.2e | 1721.7e | 1157.8e | 488.5e  | 250.1  | 144.7  |
| 600S137-33  | 33       | 850.8e   | 638.1e  | 436.5e  | 303.1e  | 170.5e  | 109.1e | 75.8e  |
| 600S137-43  | 33       | 1751.1e  | 985.0e  | 630.4e  | 437.8e  | 246.3e  | 157.6e | 103.2e |
| 600S137-54  | 33       | 2362.9e  | 1329.1e | 850.6e  | 590.7e  | 332.3e  | 212.7e | 127.3  |
| 600S137-54  | 50       | 3146.8e  | 1770.1e | 1132.9e | 786.7e  | 429.8e  | 220.1  | 127.3  |
| 600S137-68  | 33       | 3562.8e  | 2004.1e | 1282.6e | 890.7e  | 501.0e  | 270.5e | 156.5  |
| 600S137-68  | 50       | 4280.5e  | 2407.8e | 1541.0e | 1070.1e | 528.3e  | 270.5  | 156.5  |
| 600S137-97  | 33       | 5108.5e  | 2873.5e | 1839.1e | 1277.1e | 715.0e  | 366.1  | 211.8  |
| 600S137-97  | 50       | 7526.5e  | 4233.7e | 2709.5e | 1694.8e | 715     | 366.1  | 211.8  |
| 600S162-33  | 33       | 850.8e   | 638.1e  | 504.9e  | 350.6e  | 197.2e  | 126.2e | 87.6e  |
| 600S162-43  | 33       | 1887.6e  | 1205.1e | 771.3e  | 535.6e  | 301.3e  | 192.8e | 117.1e |
| 600S162-54  | 33       | 2925.9e  | 1645.8e | 1053.3e | 731.5e  | 411.5e  | 250.0e | 144.7e |
| 600S162-54  | 50       | 3763.8e  | 2158.3e | 1381.3e | 959.3e  | 488.3e  | 250.0e | 144.7  |
| 600S162-68  | 33       | 3968.2e  | 2232.1e | 1428.5e | 992.0e  | 558.0e  | 308.1e | 178.3  |
| 600S162-68  | 50       | 5288.3e  | 2974.7e | 1903.8e | 1322.1e | 601.7e  | 308.1  | 178.3  |
| 600S162-97  | 33       | 5685.0e  | 3197.8e | 2046.6e | 1421.2e | 799.5e  | 419.3  | 242.7  |
| 600S162-97  | 50       | 8403.7e  | 4727.1e | 3025.3e | 1941.3e | 819     | 419.3  | 242.7  |
| 600S162-118 | 50       | 10212.8e | 5744.7e | 3676.6e | 2287.3e | 965     | 494.1  | 285.9  |
| 600S200-33  | 33       | 850.8e   | 638.1e  | 510.5e  | 398.7e  | 224.2e  | 143.5e | 99.7e  |
| 600S200-43  | 33       | 1887.6e  | 1282.4e | 820.7e  | 569.9e  | 320.6e  | 205.2e | 135.7e |
| 600S200-54  | 33       | 3270.3e  | 1839.5e | 1177.3e | 817.6e  | 459.9e  | 290.1e | 167.9e |
| 600S200-54  | 50       | 3763.8e  | 2281.9e | 1460.4e | 1014.2e | 566.7e  | 290.1e | 167.9  |
| 600S200-68  | 33       | 4439.7e  | 2497.3e | 1598.3e | 1109.9e | 624.3e  | 358.4e | 207.4e |
| 600S200-68  | 50       | 5880.1e  | 3307.5e | 2116.8e | 1470.0e | 700.0e  | 358.4  | 207.4  |
| 600S200-97  | 33       | 6443.5e  | 3624.5e | 2319.7e | 1610.9e | 906.1e  | 490.5e | 283.9  |
| 600S200-97  | 50       | 9432.6e  | 5305.9e | 3395.7e | 2270.9e | 958.0e  | 490.5  | 283.9  |
| 600S200-118 | 50       | 11620.3e | 6536.4e | 4183.3e | 2687.4e | 1133.7  | 580.5  | 335.9  |
| 600S250-43  | 33       | 1887.6e  | 1350.7e | 864.4e  | 600.3e  | 337.7e  | 216.1e | 150.1e |
| 600S250-54  | 33       | 3244.0e  | 1824.8e | 1167.8e | 811.0e  | 456.2e  | 292.0e | 193.2e |
| 600S250-54  | 50       | 3763.8e  | 2392.7e | 1531.4e | 1063.4e | 598.2e  | 329.1e | 190.5  |
| 600S250-68  | 33       | 4667.3e  | 2625.4e | 1680.2e | 1166.8e | 656.3e  | 413.2e | 239.1e |
| 600S250-68  | 50       | 5788.2e  | 3255.8e | 2083.7e | 1447.0e | 806.3e  | 412.8e | 238.9  |
| 600S250-97  | 33       | 7230.4e  | 4067.1e | 2603.0e | 1807.6e | 1016.8e | 567.8e | 328.6  |

See notes located on page 104

## TELLING HEADER DATA TABLES

**Allowable Uniform Loads in Lbs./Ft. Span (ft.)**

| Section     | Fy (ksi) | 3        | 4       | 5       | 6       | 8       | 10      | 12     |
|-------------|----------|----------|---------|---------|---------|---------|---------|--------|
| 600S250-97  | 50       | 9898.1e  | 5567.7e | 3563.3e | 2474.5e | 1109.0e | 567.8   | 328.6  |
| 600S250-118 | 50       | 12729.2e | 7160.2e | 4582.5e | 3121.2e | 1316.7e | 674.2   | 390.1  |
| 600S300-54  | 33       | 3377.6e  | 1899.9e | 1215.9e | 844.4e  | 475.0e  | 304.0e  | 211.1e |
| 600S300-54  | 50       | 3763.8e  | 2468.6e | 1579.9e | 1097.1e | 617.1e  | 350.9e  | 203.1e |
| 600S300-68  | 33       | 4575.3e  | 2573.6e | 1647.1e | 1143.8e | 643.4e  | 411.8e  | 270.3e |
| 600S300-68  | 50       | 6004.1e  | 3377.3e | 2161.5e | 1501.0e | 844.3e  | 456.3e  | 264.1  |
| 600S300-97  | 33       | 7714.5e  | 4339.4e | 2777.2e | 1928.6e | 1084.8e | 645.1e  | 373.3  |
| 600S300-97  | 50       | 9580.9e  | 5389.2e | 3449.1e | 2395.2e | 1242.8e | 636.3   | 368.2  |
| 600S300-118 | 50       | 13387.4e | 7530.4e | 4819.5e | 3346.9e | 1487.5e | 761.6   | 440.7  |
| 600S350-54  | 50       | 3763.8e  | 2822.9e | 1949.9e | 1354.1e | 761.7e  | 412.7e  | 238.8e |
| 600S350-68  | 50       | 7133.7e  | 4141.3e | 2650.5e | 1840.6e | 1035.3e | 539.0e  | 311.9e |
| 600S350-97  | 50       | 11501.8e | 6469.8e | 4140.7e | 2875.5e | 1473.5e | 754.4e  | 436.6  |
| 600S350-118 | 50       | 15949.5e | 8971.6e | 5741.8e | 3987.4e | 1759.0e | 900.6   | 521.2  |
| 800S137-33  | 33       | 632.0e   | 474.0e  | 379.2e  | 316.0e  | 223.2e  | 142.8e  | 99.2e  |
| 800S137-43  | 33       | 1401.5e  | 1051.2e | 840.9e  | 584.3e  | 328.7e  | 210.3e  | 146.1e |
| 800S137-54  | 33       | 2788.4e  | 1811.6e | 1159.4e | 805.2e  | 452.9e  | 289.9e  | 201.3e |
| 800S137-54  | 50       | 2788.4e  | 2091.3e | 1518.3e | 1054.4e | 593.1e  | 379.6e  | 251.6e |
| 800S137-68  | 33       | 4407.4e  | 2479.2e | 1586.7e | 1101.8e | 619.8e  | 396.7e  | 275.5e |
| 800S137-68  | 50       | 5627.6e  | 3297.6e | 2110.4e | 1465.6e | 824.4e  | 527.6e  | 317.9e |
| 800S137-97  | 33       | 7865.2e  | 4424.2e | 2831.5e | 1966.3e | 1106.0e | 707.9e  | 434.9e |
| 800S137-97  | 50       | 9468.1e  | 5325.8e | 3408.5e | 2367.0e | 1331.5e | 751.5e  | 434.9  |
| 800S162-33  | 33       | 632.0e   | 474.0e  | 379.2e  | 316.0e  | 237.0e  | 168.1e  | 116.7e |
| 800S162-43  | 33       | 1401.5e  | 1051.2e | 840.9e  | 678.8e  | 381.8e  | 244.4e  | 169.7e |
| 800S162-54  | 33       | 2788.4e  | 2081.8e | 1332.3e | 925.2e  | 520.4e  | 333.1e  | 231.3e |
| 800S162-54  | 50       | 2788.4e  | 2091.3e | 1673.0e | 1215.2e | 683.6e  | 437.5e  | 283.3e |
| 800S162-68  | 33       | 5013.4e  | 2820.0e | 1804.8e | 1253.3e | 705.0e  | 451.2e  | 313.3e |
| 800S162-68  | 50       | 5627.6e  | 3759.1e | 2405.8e | 1670.7e | 939.8e  | 601.4e  | 357.6e |
| 800S162-97  | 50       | 10657.1e | 5994.6e | 3836.6e | 2664.3e | 1498.7e | 849.0e  | 491.3  |
| 800S162-97  | 33       | 8632.9e  | 4856.0e | 3107.8e | 2158.2e | 1214.0e | 777.0e  | 491.3e |
| 800S162-118 | 50       | 15589.2e | 8768.9e | 5612.1e | 3897.3e | 1964.0e | 1005.5e | 581.9  |
| 800S200-33  | 33       | 632.0e   | 474.0e  | 379.2e  | 316.0e  | 237.0e  | 189.6e  | 134.5e |
| 800S200-43  | 33       | 1401.5e  | 1051.2e | 840.9e  | 700.8e  | 437.2e  | 279.8e  | 194.3e |
| 800S200-54  | 33       | 2788.4e  | 2091.3e | 1619.9e | 1124.9e | 632.8e  | 405.0e  | 281.2e |
| 800S200-54  | 50       | 2788.4e  | 2091.3e | 1673.0e | 1384.1e | 778.6e  | 498.3e  | 332.5e |
| 800S200-68  | 50       | 5627.6e  | 4220.7e | 2917.3e | 2025.9e | 1139.6e | 711.5e  | 411.8e |
| 800S200-68  | 33       | 5627.6e  | 3482.7e | 2228.9e | 1547.9e | 870.7e  | 557.2e  | 387.0e |
| 800S200-97  | 50       | 13297.5e | 7479.8e | 4787.1e | 3324.4e | 1870.0e | 979.3e  | 566.7  |
| 800S200-97  | 33       | 9647.8e  | 5426.9e | 3473.2e | 2411.9e | 1356.7e | 868.3e  | 566.7e |
| 800S200-118 | 50       | 17414.8e | 9795.8e | 6269.3e | 4353.7e | 2273.2e | 1163.9e | 673.5  |

See notes located on page 104

## TELLING HEADER DATA TABLES

Allowable Uniform Loads in Lbs./Ft. Span (ft.)

| Section      | Fy (ksi) | 3        | 4        | 5       | 6       | 8       | 10      | 12      |
|--------------|----------|----------|----------|---------|---------|---------|---------|---------|
| 800S250-43   | 33       | 1401.5e  | 1051.2e  | 840.9e  | 700.8e  | 459.5e  | 294.1e  | 204.2e  |
| 800S250-54   | 33       | 2788.4e  | 2091.3e  | 1603.4e | 1113.5e | 626.3e  | 400.9e  | 278.4e  |
| 800S250-54   | 50       | 2788.4e  | 2091.3e  | 1673.0e | 1394.2e | 815.2e  | 521.7e  | 362.3e  |
| 800S250-68   | 33       | 5627.6e  | 3635.8e  | 2326.9e | 1615.9e | 909.0e  | 581.7e  | 404.0e  |
| 800S250-68   | 50       | 5627.6e  | 4220.7e  | 2866.9e | 1990.9e | 1119.9e | 716.7e  | 467.4e  |
| 800S250-97   | 33       | 10476.4e | 5893.0e  | 3771.5e | 2619.1e | 1473.2e | 942.9e  | 646.9e  |
| 800S250-97   | 50       | 13839.9e | 7785.0e  | 4982.4e | 3460.0e | 1946.2e | 1117.9e | 646.9e  |
| 800S250-118  | 50       | 18210.1e | 10243.2e | 6555.6e | 4552.5e | 2560.8e | 1332.2e | 771     |
| 800S300-54   | 33       | 2788.4e  | 2091.3e  | 1660.1e | 1152.9e | 648.5e  | 415.0e  | 288.2e  |
| 800S300-54   | 50       | 2788.4e  | 2091.3e  | 1673.0e | 1394.2e | 838.0e  | 536.3e  | 372.4e  |
| 800S300-68   | 33       | 5627.6e  | 3545.0e  | 2268.8e | 1575.5e | 886.2e  | 567.2e  | 393.9e  |
| 800S300-68   | 50       | 5627.6e  | 4220.7e  | 2958.2e | 2054.3e | 1155.6e | 739.6e  | 510.0e  |
| 800S300-97   | 33       | 10852.0e | 6104.3e  | 3906.7e | 2713.0e | 1526.1e | 976.7e  | 678.3e  |
| 800S300-97   | 50       | 13316.2e | 7490.4e  | 4793.8e | 3329.1e | 1872.6e | 1198.5e | 716.8e  |
| 800S300-118  | 50       | 18768.4e | 10557.3e | 6756.6e | 4692.1e | 2639.3e | 1487.8e | 861.0e  |
| 800S350-54   | 50       | 2788.4e  | 2091.3e  | 1673.0e | 1394.2e | 1036.3e | 663.2e  | 460.6e  |
| 800S350-68   | 50       | 5627.6e  | 4220.7e  | 3376.6e | 2520.3e | 1417.7e | 907.3e  | 602.4e  |
| 800S350-97   | 50       | 14513.7e | 9055.9e  | 5795.8e | 4024.9e | 2264.0e | 1449.0e | 846.6e  |
| 800S350-118  | 50       | 21646.1e | 12530.9e | 8019.8e | 5569.3e | 3132.7e | 1751.7e | 1013.7e |
| 1000S162-43  | 33       | 1114.6e  | 835.9e   | 668.7e  | 557.3e  | 418.0e  | 299.9e  | 208.2e  |
| 1000S162-54  | 33       | 2214.5e  | 1660.8e  | 1328.7e | 1107.2e | 648.1e  | 414.8e  | 288.0e  |
| 1000S162-54  | 50       | 2214.5e  | 1660.8e  | 1328.7e | 1107.2e | 830.4e  | 538.3e  | 373.8e  |
| 1000S162-68  | 50       | 4460.5e  | 3345.4e  | 2676.3e | 2087.2e | 1174.0e | 751.4e  | 521.8e  |
| 1000S162-68  | 33       | 4460.5e  | 3345.4e  | 2288.6e | 1589.3e | 894.0e  | 572.1e  | 397.3e  |
| 1000S162-97  | 50       | 13151.6e | 7712.9e  | 4936.2e | 3427.9e | 1928.2e | 1234.1e | 857.0e  |
| 1000S162-97  | 33       | 9934.1e  | 5588.0e  | 3576.3e | 2483.5e | 1397.0e | 894.1e  | 620.9e  |
| 1000S162-118 | 50       | 17827.7e | 10028.1e | 6418.0e | 4456.9e | 2507.0e | 1604.5e | 1020.2e |
| 1000S200-43  | 33       | 114.6e   | 835.9e   | 668.7e  | 557.3e  | 418.0e  | 334.4e  | 242.1e  |
| 1000S200-54  | 33       | 2214.5e  | 1660.8e  | 1328.7e | 1107.2e | 747.2e  | 478.2e  | 332.1e  |
| 1000S200-54  | 50       | 2214.5e  | 1660.8e  | 1328.7e | 1107.2e | 830.4e  | 621.6e  | 431.6e  |
| 1000S200-68  | 33       | 4460.5e  | 3345.4e  | 2616.9e | 1817.3e | 1022.2e | 654.2e  | 454.3e  |
| 1000S200-68  | 50       | 4460.5e  | 3345.4e  | 2676.3e | 2230.3e | 1343.8e | 860.0e  | 597.2e  |
| 1000S200-97  | 33       | 11321.2e | 6368.2e  | 4075.6e | 2830.3e | 1592.0e | 1018.9e | 707.6e  |
| 1000S200-97  | 50       | 13151.6e | 8727.6e  | 5585.7e | 3878.9e | 2181.9e | 1396.4e | 969.7e  |
| 1000S200-118 | 50       | 20110.4e | 11312.1e | 7239.8e | 5027.6e | 2828.0e | 1809.9e | 1166.0e |
| 1000S250-43  | 33       | 1114.6e  | 835.9e   | 668.7e  | 557.3e  | 418.0e  | 334.4e  | 256.2e  |
| 1000S250-54  | 33       | 2214.5e  | 1660.8e  | 1328.7e | 1107.2e | 792.2e  | 507.0e  | 352.1e  |

See notes located on page 104

## TELLING HEADER DATA TABLES

**Allowable Uniform Loads in Lbs./Ft. Span (ft.)**

| Section             | Fy (ksi) | 3        | 4        | 5        | 6       | 8       | 10      | 12      |
|---------------------|----------|----------|----------|----------|---------|---------|---------|---------|
| <b>1000S250-54</b>  | 50       | 2214.5e  | 1660.8e  | 1328.7e  | 1107.2e | 830.4e  | 655.5e  | 455.2e  |
| <b>1000S250-68</b>  | 33       | 4460.5e  | 3345.4e  | 2676.3e  | 2059.9e | 1158.7e | 741.6e  | 515.0e  |
| <b>1000S250-68</b>  | 50       | 4460.5e  | 3345.4e  | 2676.3e  | 2230.3e | 1419.4e | 908.4e  | 630.8e  |
| <b>1000S250-97</b>  | 50       | 13151.6e | 9863.7e  | 6407.1e  | 4449.4e | 2502.8e | 1601.8e | 1104.1e |
| <b>1000S250-97</b>  | 33       | 11791.0e | 7647.8e  | 4894.6e  | 3399.0e | 1912.0e | 1223.6e | 849.8e  |
| <b>1000S250-118</b> | 50       | 21646.1e | 13316.3e | 8522.4e  | 5918.4e | 3329.1e | 2130.6e | 1319.2e |
| <b>1000S300-54</b>  | 33       | 2214.5e  | 1660.8e  | 1328.7e  | 1107.2e | 821.1e  | 525.5e  | 364.9e  |
| <b>1000S300-54</b>  | 50       | 2214.5e  | 1660.8e  | 1328.7e  | 1107.2e | 830.4e  | 664.3e  | 469.4e  |
| <b>1000S300-68</b>  | 33       | 4460.5e  | 3345.4e  | 2676.3e  | 2010.6e | 1131.0e | 723.8e  | 502.6e  |
| <b>1000S300-68</b>  | 50       | 4460.5e  | 3345.4e  | 2676.3e  | 2230.3e | 1466.5e | 938.6e  | 651.8e  |
| <b>1000S300-97</b>  | 33       | 11791.0e | 7891.7e  | 5050.7e  | 3507.4e | 1972.9e | 1262.7e | 876.9e  |
| <b>1000S300-97</b>  | 50       | 13151.6e | 9635.3e  | 6166.6e  | 4282.4e | 2408.8e | 1541.7e | 1070.6e |
| <b>1000S300-118</b> | 50       | 21646.1e | 13682.0e | 8756.5e  | 6080.9e | 3420.5e | 2189.1e | 1459.9e |
| <b>1000S350-54</b>  | 50       | 2214.5e  | 1660.8e  | 1328.7e  | 1107.2e | 830.4e  | 664.3e  | 553.6e  |
| <b>1000S350-68</b>  | 50       | 4460.5e  | 3345.4e  | 2676.3e  | 2230.3e | 1672.7e | 1154.6e | 801.8e  |
| <b>1000S350-97</b>  | 50       | 13151.6e | 9863.7e  | 7452.6e  | 5175.4e | 2911.2e | 1863.1e | 1293.8e |
| <b>1000S350-118</b> | 50       | 21646.1e | 16205.0e | 10371.2e | 7202.2e | 4051.3e | 2592.8e | 1708.3e |
| <b>1200S162-54</b>  | 33       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 485.0e  | 336.8e  |
| <b>1200S162-54</b>  | 50       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 432.9e  |
| <b>1200S162-68</b>  | 33       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1061.6e | 679.4e  | 471.8e  |
| <b>1200S162-68</b>  | 50       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1377.9e | 881.8e  | 612.4e  |
| <b>1200S162-97</b>  | 33       | 10862.7e | 6988.2e  | 4472.4e  | 3105.8e | 1747.0e | 1118.1e | 776.5e  |
| <b>1200S162-97</b>  | 50       | 10862.7e | 8147.0e  | 5936.1e  | 4122.3e | 2318.8e | 1484.0e | 1030.6e |
| <b>1200S162-118</b> | 50       | 19980.7e | 12269.5e | 7852.5e  | 5453.1e | 3067.4e | 1963.1e | 1363.3e |
| <b>1200S200-54</b>  | 33       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 393.2e  |
| <b>1200S200-54</b>  | 50       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 459.1e  |
| <b>1200S200-68</b>  | 33       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1225.6e | 784.4e  | 544.7e  |
| <b>1200S200-68</b>  | 50       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1385.4e | 1020.7e | 708.8e  |
| <b>1200S200-97</b>  | 33       | 10862.7e | 7952.6e  | 5089.7e  | 3534.5e | 1988.2e | 1272.4e | 883.6e  |
| <b>1200S200-97</b>  | 50       | 10862.7e | 8147.0e  | 6517.6e  | 4698.7e | 2643.0e | 1691.5e | 1174.7e |
| <b>1200S200-118</b> | 50       | 19980.7e | 13900.1e | 8896.1e  | 6177.8e | 3475.0e | 2224.0e | 1544.5e |
| <b>1200S250-54</b>  | 33       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 420.7e  |
| <b>1200S250-54</b>  | 50       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 459.1e  |
| <b>1200S250-68</b>  | 33       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1311.5e | 839.3e  | 582.9e  |
| <b>1200S250-68</b>  | 50       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1385.4e | 1087.9e | 755.5e  |
| <b>1200S250-97</b>  | 33       | 10862.7e | 8147.0e  | 5467.8e  | 3797.1e | 2135.9e | 1367.0e | 949.3e  |
| <b>1200S250-97</b>  | 50       | 10862.7e | 8147.0e  | 6517.6e  | 5013.8e | 2820.3e | 1805.0e | 1253.5e |
| <b>1200S250-118</b> | 50       | 19980.7e | 14880.8e | 9523.7e  | 6613.7e | 3720.2e | 2380.9e | 1653.4e |

See notes located on page 104



## TELLING HEADER DATA TABLES

Allowable Uniform Loads in Lbs./Ft. Span (ft.)

| Section      | Fy (ksi) | 3        | 4        | 5        | 6       | 8       | 10      | 12      |
|--------------|----------|----------|----------|----------|---------|---------|---------|---------|
| 1200S300-54  | 33       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 438.5e  |
| 1200S300-54  | 50       | 836.5e   | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 459.1e  |
| 1200S300-68  | 50       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1385.4e | 1108.3e | 785.1e  |
| 1200S300-68  | 33       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1369.2e | 876.3e  | 608.5e  |
| 1200S300-97  | 33       | 10862.7e | 8147.0e  | 6189.9e  | 4298.6e | 2417.9e | 1547.5e | 1074.6e |
| 1200S300-97  | 50       | 10862.7e | 8147.0e  | 6517.6e  | 5224.2e | 2938.6e | 1880.7e | 1306.0e |
| 1200S300-118 | 50       | 19980.7e | 14985.5e | 10756.0e | 7469.4e | 4201.6e | 2689.0e | 1867.4e |
| 1200S350-54  | 50       | 1836.5e  | 1377.4e  | 1101.9e  | 918.2e  | 688.7e  | 550.9e  | 459.1e  |
| 1200S350-68  | 50       | 3694.3e  | 2770.7e  | 2216.6e  | 1847.2e | 1385.4e | 1108.3e | 923.6e  |
| 1200S350-97  | 50       | 10862.7e | 8147.0e  | 6517.6e  | 5431.3e | 3559.2e | 2277.9e | 1581.9e |
| 1200S350-118 | 50       | 19980.7e | 14985.5e | 11988.4e | 8850.4e | 4978.3e | 3186.1e | 2212.6e |
| 1400S162-54  | 33       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 378.3e  |
| 1400S162-54  | 50       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S162-68  | 33       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 772.8e  | 536.7e  |
| 1400S162-68  | 50       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 690.3e  |
| 1400S162-97  | 33       | 9252.4e  | 6939.3e  | 5210.4e  | 3618.4e | 2035.3e | 1302.6e | 904.6e  |
| 1400S162-97  | 50       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 2665.9e | 1706.2e | 1184.8e |
| 1400S162-118 | 50       | 16993.8e | 12745.4e | 9153.4e  | 6356.5e | 3575.5e | 2288.3e | 1589.1e |
| 1400S200-54  | 33       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S200-54  | 50       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S200-68  | 33       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 900.0e  | 625.0e  |
| 1400S200-68  | 50       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 788.2e  |
| 1400S200-97  | 33       | 9252.4e  | 6939.3e  | 5551.4e  | 4143.4e | 2330.6e | 1491.6e | 1035.8e |
| 1400S200-97  | 50       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 3062.0e | 1959.7e | 1360.9e |
| 1400S200-118 | 50       | 16993.8e | 12745.4e | 10196.3e | 7245.3e | 4075.5e | 2608.3e | 1811.3e |
| 1400S250-54  | 33       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S250-54  | 50       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S250-68  | 33       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 674.3e  |
| 1400S250-68  | 50       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 788.2e  |
| 1400S250-97  | 33       | 9252.4e  | 6939.3e  | 5551.4e  | 4468.4e | 2513.5e | 1608.6e | 1117.1e |
| 1400S250-97  | 50       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 3290.4e | 2105.8e | 1462.4e |
| 1400S250-118 | 50       | 16993.8e | 12745.4e | 10196.3e | 7793.3e | 4383.7e | 2805.6e | 1948.3e |
| 1400S300-54  | 33       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S300-54  | 50       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| 1400S300-68  | 33       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 708.4e  |
| 1400S300-68  | 50       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 788.2e  |
| 1400S300-97  | 33       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 2645.7e | 1693.3e | 1175.9e |
| 1400S300-97  | 50       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 3446.8e | 2206.0e | 1531.9e |

See notes located on page 104

## TELLING HEADER DATA TABLES

**Allowable Uniform Loads in Lbs./Ft. Span (ft.)**

| Section             | Fy (ksi) | 3        | 4        | 5        | 6       | 8       | 10      | 12      |
|---------------------|----------|----------|----------|----------|---------|---------|---------|---------|
| <b>1400S300-118</b> | 50       | 16993.8e | 12745.4e | 10196.3e | 8178.0e | 4600.1e | 2944.1e | 2044.5e |
| <b>1400S350-54</b>  | 50       | 1568.7e  | 1176.5e  | 941.2e   | 784.4e  | 588.3e  | 470.6e  | 392.2e  |
| <b>1400S350-68</b>  | 50       | 3152.8e  | 2364.6e  | 1891.7e  | 1576.4e | 1182.3e | 945.8e  | 788.2e  |
| <b>1400S350-97</b>  | 50       | 9252.4e  | 6939.3e  | 5551.4e  | 4626.2e | 3469.6e | 2683.4e | 1863.5e |
| <b>1400S350-118</b> | 50       | 16993.8e | 12745.4e | 10196.3e | 8496.9e | 5892.6e | 3771.3e | 2618.9e |
| <b>1600S200-68</b>  | 50       | 2749.7e  | 2062.3e  | 1649.8e  | 1374.8e | 1031.1e | 824.9e  | 687.4e  |
| <b>1600S200-97</b>  | 50       | 8057.9e  | 6043.4e  | 4834.7e  | 4028.9e | 3021.7e | 2199.8e | 1527.7e |
| <b>1600S200-118</b> | 50       | 14783.8e | 11087.9e | 8870.3e  | 7391.9e | 4622.1e | 2958.1e | 2054.3e |
| <b>1600S250-68</b>  | 50       | 2749.7e  | 2062.3e  | 1649.8e  | 1374.8e | 1031.1e | 824.9e  | 687.4e  |
| <b>1600S250-97</b>  | 50       | 8057.9e  | 6043.4e  | 4834.7e  | 4028.9e | 3021.7e | 2381.4e | 1653.7e |
| <b>1600S250-118</b> | 50       | 14783.8e | 11087.9e | 8870.3e  | 7391.9e | 5001.5e | 3201.0e | 2222.9e |
| <b>1600S300-68</b>  | 50       | 2749.7e  | 2062.3e  | 1649.8e  | 1374.8e | 1031.1e | 824.9e  | 687.4e  |
| <b>1600S300-97</b>  | 50       | 8057.9e  | 6043.4e  | 4834.7e  | 4028.9e | 3021.7e | 2417.4e | 1743.7e |
| <b>1600S300-118</b> | 50       | 14783.8e | 11087.9e | 8870.3e  | 7391.9e | 5275.8e | 3376.5e | 2344.8e |
| <b>1600S350-68</b>  | 50       | 2749.7e  | 2062.3e  | 1649.8e  | 1374.8e | 1031.1e | 824.9e  | 687.4e  |
| <b>1600S350-97</b>  | 50       | 8057.9e  | 6043.4e  | 4834.7e  | 4028.9e | 3021.7e | 2417.4e | 2014.5e |
| <b>1600S350-118</b> | 50       | 14783.8e | 11087.9e | 8870.3e  | 7391.9e | 5543.9e | 4061.0e | 2820.1e |

See notes located on page 104

## TITAN HEADER SYSTEM - ONE PIECE HEADER FRAMING



The Titan one piece wide flange header and jamb offers a better solution for framing multiple openings than the conventional lay-in or boxed headers.

### System Advantages:

- Saves over 50% in installation and material over convention framing
- Substantial reduction in number of screws needed over conventional framing.
- No more built-up jambs and headers.
- Header quickly attaches to jamb with fully tested, pre-drilled Titan Header Clip.

### Material Specifications:

ASTM 1003, Grade 50

### Product Availability:

Titan Header & Jamb

- **Widths:** 3-5/8", 4", 6", & 8"
- **Flanges:** 2, 2-1/2" & 3"
- **Lip/Return:** 7/8"
- **Thickness:**
  - 54 mils (16ga) 50KSI
  - 68 mils (14ga) 50KSI
  - 97 mils (12ga) 50KSI

### Titan Header Clip

- **Sizes:** 3-5/8", 6" & 8" x 2-1/4"
- **Thickness:** 68 mils (14ga) 50KSI



# TITAN HEADER SYSTEM - ONE PIECE HEADER FRAMING

| Physical Properties |                |          |          | Gross Properties        |                |                       |                       |         |                       |                       |         | Effective Properties   |                        |            |                |                        |                        |            | Torsional Properties |                           |                       |         |        |         |       |
|---------------------|----------------|----------|----------|-------------------------|----------------|-----------------------|-----------------------|---------|-----------------------|-----------------------|---------|------------------------|------------------------|------------|----------------|------------------------|------------------------|------------|----------------------|---------------------------|-----------------------|---------|--------|---------|-------|
| Section             | Thickness (in) | Lip (in) | Fy (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ix (in <sup>4</sup> ) | Sx (in <sup>3</sup> ) | Rx (in) | Iy (in <sup>4</sup> ) | Sy (in <sup>3</sup> ) | Ry (in) | Ixe (in <sup>4</sup> ) | Sxe (in <sup>3</sup> ) | Max (in-k) | Vax (web) (lb) | Iye (in <sup>4</sup> ) | Sye (in <sup>3</sup> ) | May (in-k) | Vay (flanges) (lb)   | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 362TH250-54         | 0.0566         | 0.875    | 50       | 0.563                   | 1.917          | 1.242                 | 0.685                 | 1.485   | 0.535                 | 0.362                 | 0.975   | 1.242                  | 0.589                  | 17.64      | 3372           | 0.422                  | 0.314                  | 9.40       | 4706                 | 0.602                     | 2.137                 | -2.373  | 1.381  | 2.964   | 0.359 |
| 362TH250-68         | 0.0713         | 0.875    | 50       | 0.702                   | 2.389          | 1.531                 | 0.845                 | 1.477   | 0.656                 | 0.443                 | 0.967   | 1.531                  | 0.781                  | 23.37      | 4370           | 0.534                  | 0.404                  | 12.10      | 5731                 | 1.190                     | 2.612                 | -2.355  | 1.371  | 2.943   | 0.360 |
| 362TH250-97         | 0.1017         | 0.875    | 50       | 0.978                   | 3.329          | 2.085                 | 1.150                 | 1.460   | 0.882                 | 0.595                 | 0.950   | 2.085                  | 1.134                  | 38.15      | 5943           | 0.714                  | 0.547                  | 16.37      | 7595                 | 3.373                     | 3.497                 | -2.317  | 1.351  | 2.898   | 0.361 |
| 362TH300-54         | 0.0566         | 0.875    | 50       | 0.620                   | 2.110          | 1.422                 | 0.785                 | 1.515   | 0.822                 | 0.469                 | 1.151   | 1.386                  | 0.628                  | 18.81      | 3372           | 0.653                  | 0.408                  | 12.20      | 5767                 | 0.662                     | 3.237                 | -2.860  | 1.640  | 3.435   | 0.307 |
| 362TH300-68         | 0.0713         | 0.875    | 50       | 0.773                   | 2.631          | 1.756                 | 0.969                 | 1.507   | 1.010                 | 0.576                 | 1.143   | 1.756                  | 0.812                  | 24.31      | 4370           | 0.828                  | 0.525                  | 15.70      | 7068                 | 1.310                     | 3.965                 | -2.841  | 1.630  | 3.413   | 0.307 |
| 362TH300-97         | 0.1017         | 0.875    | 50       | 1.080                   | 3.675          | 2.400                 | 1.324                 | 1.491   | 1.368                 | 0.779                 | 1.126   | 2.400                  | 1.259                  | 37.68      | 5943           | 1.115                  | 0.715                  | 21.41      | 9502                 | 3.723                     | 5.337                 | -2.803  | 1.610  | 3.369   | 0.307 |
| 400TH250-54         | 0.0566         | 0.875    | 50       | 0.585                   | 1.989          | 1.556                 | 0.778                 | 1.632   | 0.555                 | 0.366                 | 0.975   | 1.556                  | 0.662                  | 19.82      | 3372           | 0.432                  | 0.321                  | 9.60       | 4706                 | 0.624                     | 2.519                 | -2.311  | 1.355  | 2.992   | 0.404 |
| 400TH250-68         | 0.0713         | 0.875    | 50       | 0.729                   | 2.480          | 1.920                 | 0.960                 | 1.623   | 0.681                 | 0.449                 | 0.967   | 1.920                  | 0.880                  | 26.33      | 4871           | 0.563                  | 0.408                  | 12.22      | 5731                 | 1.235                     | 3.081                 | -2.292  | 1.345  | 2.971   | 0.405 |
| 400TH250-97         | 0.1017         | 0.875    | 50       | 1.016                   | 3.459          | 2.621                 | 1.311                 | 1.606   | 0.917                 | 0.603                 | 0.950   | 2.621                  | 1.296                  | 43.59      | 6658           | 0.762                  | 0.562                  | 16.82      | 7595                 | 3.504                     | 4.135                 | -2.254  | 1.325  | 2.926   | 0.406 |
| 400TH300-54         | 0.0566         | 0.875    | 50       | 0.641                   | 2.182          | 1.777                 | 0.888                 | 1.664   | 0.852                 | 0.476                 | 1.153   | 1.734                  | 0.705                  | 21.11      | 3372           | 0.667                  | 0.415                  | 12.43      | 5767                 | 0.685                     | 3.819                 | -2.792  | 1.613  | 3.449   | 0.345 |
| 400TH300-68         | 0.0713         | 0.875    | 50       | 0.800                   | 2.722          | 2.195                 | 1.098                 | 1.657   | 1.048                 | 0.584                 | 1.145   | 2.195                  | 0.913                  | 27.33      | 4871           | 0.870                  | 0.530                  | 15.85      | 7068                 | 1.356                     | 4.683                 | -2.774  | 1.603  | 3.428   | 0.345 |
| 400TH300-97         | 0.1017         | 0.875    | 50       | 1.118                   | 3.805          | 3.007                 | 1.504                 | 1.640   | 1.421                 | 0.791                 | 1.127   | 3.007                  | 1.430                  | 42.81      | 6658           | 1.858                  | 0.735                  | 21.99      | 9502                 | 3.855                     | 6.317                 | -2.735  | 1.583  | 3.383   | 0.346 |
| 600TH250-54         | 0.0566         | 0.875    | 50       | 0.698                   | 2.375          | 3.963                 | 1.321                 | 2.383   | 0.642                 | 0.384                 | 0.959   | 3.963                  | 1.203                  | 32.21      | 2823           | 0.455                  | 0.329                  | 9.84       | 4706                 | 0.745                     | 5.344                 | -2.031  | 1.230  | 3.275   | 0.615 |
| 600TH250-68         | 0.0713         | 0.875    | 50       | 0.871                   | 2.965          | 4.908                 | 1.636                 | 2.373   | 0.788                 | 0.471                 | 0.951   | 4.908                  | 1.551                  | 43.46      | 5350           | 0.610                  | 0.417                  | 12.48      | 5731                 | 1.476                     | 6.563                 | -2.013  | 1.221  | 3.254   | 0.617 |
| 600TH250-97         | 0.1017         | 0.875    | 50       | 1.220                   | 4.151          | 6.754                 | 2.251                 | 2.353   | 1.063                 | 0.635                 | 0.934   | 6.754                  | 2.251                  | 73.36      | 10472          | 0.928                  | 0.590                  | 17.66      | 7595                 | 4.205                     | 8.880                 | -1.976  | 1.201  | 3.211   | 0.622 |
| 600TH300-54         | 0.0566         | 0.875    | 50       | 0.754                   | 2.567          | 4.462                 | 1.488                 | 2.432   | 0.986                 | 0.501                 | 1.143   | 4.390                  | 1.277                  | 33.68      | 2823           | 0.700                  | 0.425                  | 12.72      | 5767                 | 0.806                     | 8.115                 | -2.483  | 1.481  | 3.659   | 0.539 |
| 600TH300-68         | 0.0713         | 0.875    | 50       | 0.943                   | 3.207          | 5.534                 | 1.845                 | 2.423   | 1.214                 | 0.616                 | 1.135   | 5.534                  | 1.610                  | 45.70      | 5350           | 0.937                  | 0.541                  | 16.19      | 7068                 | 1.597                     | 9.992                 | -2.465  | 1.471  | 3.638   | 0.541 |
| 600TH300-97         | 0.1017         | 0.875    | 50       | 1.322                   | 4.497          | 7.639                 | 2.546                 | 2.404   | 1.649                 | 0.835                 | 1.117   | 7.639                  | 2.442                  | 71.74      | 10472          | 1.431                  | 0.771                  | 23.09      | 9502                 | 4.556                     | 13.587                | -2.427  | 1.451  | 3.594   | 0.544 |
| 800TH250-54         | 0.0566         | 0.875    | 50       | 0.811                   | 2.760          | 7.765                 | 1.941                 | 3.094   | 0.705                 | 0.395                 | 0.932   | 7.765                  | 1.756                  | 44.21      | 2091           | 0.463                  | 0.330                  | 9.88       | 4706                 | 0.866                     | 9.639                 | -1.818  | 1.130  | 3.708   | 0.759 |
| 800TH250-68         | 0.0713         | 0.875    | 50       | 1.014                   | 3.450          | 9.638                 | 2.409                 | 3.083   | 0.865                 | 0.485                 | 0.924   | 9.638                  | 2.291                  | 60.19      | 4221           | 0.628                  | 0.420                  | 12.57      | 5731                 | 1.718                     | 11.864                | -1.801  | 1.120  | 3.688   | 0.762 |
| 800TH300-97         | 0.1017         | 0.875    | 50       | 1.423                   | 4.843          | 13.327                | 3.332                 | 3.060   | 1.167                 | 0.654                 | 0.906   | 13.327                 | 3.332                  | 103.13     | 10885          | 0.977                  | 0.598                  | 17.89      | 7595                 | 4.907                     | 16.123                | -1.765  | 1.102  | 3.647   | 0.766 |
| 800TH300-54         | 0.0566         | 0.875    | 50       | 0.868                   | 2.952          | 8.657                 | 2.164                 | 3.159   | 1.085                 | 0.517                 | 1.118   | 8.579                  | 1.826                  | 45.96      | 2091           | 0.712                  | 0.427                  | 12.78      | 5767                 | 0.927                     | 14.643                | -2.244  | 1.372  | 4.033   | 0.690 |
| 800TH300-68         | 0.0713         | 0.875    | 50       | 1.085                   | 3.693          | 10.758                | 2.164                 | 3.149   | 1.336                 | 0.636                 | 1.110   | 10.758                 | 2.371                  | 62.83      | 4221           | 0.962                  | 0.545                  | 16.30      | 7068                 | 1.839                     | 18.066                | -2.226  | 1.363  | 4.012   | 0.692 |
| 800TH300-97         | 0.1017         | 0.875    | 50       | 1.525                   | 5.189          | 14.913                | 3.728                 | 3.127   | 1.817                 | 0.863                 | 1.092   | 14.913                 | 3.576                  | 100.11     | 10885          | 1.502                  | 0.781                  | 23.39      | 9502                 | 5.257                     | 24.677                | -2.188  | 1.343  | 3.970   | 0.696 |

1. Section properties are based on the AISI S100-07 with Supplement S2-10 with U.S. provisions.
2. The structural properties are based on allowable strength design (ASD).
3. The distortional buckling calculations are based on  $K\Phi=0$ .
4. Effective properties incorporate the strength increase from the cold work of forming.
5. Tabulated gross properties are based on the full-unreduced cross section away from punch outs.

## Titan Header Clip (THC) Allowable Vertical and Horizontal Loads

| Header Size      |                   | Titan Header Clip Allowable Load Capacity |                       |
|------------------|-------------------|---|-----------------------|
| Web Depth (in)   | Flange Width (in) | Vertical Load (lbs)                       | Horizontal Load (lbs) |
| 03-5/8<br>6<br>8 | 2-1/2             | 1140                                      | 1520                  |
|                  |                   | 1140                                      | 1740                  |
|                  |                   | 1140                                      | 1930                  |
| 3-5/8<br>6<br>8  | 3                 | 1140                                      | 1520                  |
|                  |                   | 1140                                      | 1740                  |
|                  |                   | 1140                                      | 1930                  |

1. Attach THC with (4) #10-16 screws to Titan Jamb and Titan Header respectively.
2. Listed values are based on 54 mil(16 gauge), 50 ksi Titan Header and Jamb.
3. For combined vertical and horizontal, use linear interaction equation.
4. Tabulated values are based on testing in accordance with the requirements of ICC-ES AC261.
5. Allowable loads are calculated with Safety factor,  $\Omega$ , of 2.711 for vertical and 2.606 for horizontal.
6. Safety factors are calculated in accordance with the provisions of Section F1 of AISI S100 with the statistical parameters given in AC261

## CEILING SPAN TABLES - NOTES

### Ceiling Span Table Notes

1. For unbraced sections, allowable moment based on AISI S100 section C3.1.2 with  $K_y L_y = K_t L_t =$  listed span. For mid-span braced sections, allowable moment based on AISI S100 C3.1.2 with  $K_y L_y = K_t L_t = (\text{listed span})/2$
2. Safety factors based on  $0.9\Omega$  per AISI S220-11, B1(a).
3. For spans listed with "e", web stiffeners are required at end reactions.
4. For distortional buckling allowable moment,  $k_0 = 0$ .
5. Web crippling calculation based on bearing length = 1 inch.
6. Web crippling and shear capacity have not been reduced for punchouts. If web punchouts occur near supports members must be checked for reduced shear and web crippling in accordance with AISI S100.
7. Values are for simple span conditions.
8. Moment of inertia for deflection is calculated at the maximum service level stress for the span and load listed. Note that this value may be higher than the effective  $I_{xx}$  listed in section property tables.

# INTERIOR ALLOWABLE CEILING/SOFFIT SPANS (S-SECTIONS) - L240

| Section     | Fy(ksi) | 4 psf                                 |        |        |                                 |        |        | 6 psf                                 |        |        |                                 |        |        | 13 psf                                |        |        |                                 |        |        |
|-------------|---------|---------------------------------------|--------|--------|---------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------|--------|--------|
|             |         | Lateral Support of Compression Flange |        |        |                                 |        |        | Lateral Support of Compression Flange |        |        |                                 |        |        | Lateral Support of Compression Flange |        |        |                                 |        |        |
|             |         | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        |
|             | 12      | 16                                    | 24     | 12     | 16                              | 24     | 12     | 16                                    | 24     | 12     | 16                              | 24     | 12     | 16                                    | 24     | 12     | 16                              | 24     |        |
| 162S125-18  | 33      | 7'3"                                  | 6'7"   | 5'10"  | 8'6"                            | 7'8"   | 6'7"   | 6'5"                                  | 5'10"  | 5'1"   | 7'4"                            | 6'7"   | 5'9"   | 5'0"                                  | 4'5"   | 3'9"   | 5'7"                            | 4'10"  | 3'11"  |
| 162S125-27  | 33      | 8'7"                                  | 7'11"  | 7'1"   | 9'8"                            | 8'10"  | 7'8"   | 7'8"                                  | 7'1"   | 6'3"   | 8'6"                            | 7'8"   | 6'8"   | 6'1"                                  | 5'6"   | 4'9"   | 6'6"                            | 5'11"  | 5'2"   |
| 162S125-30  | 33      | 9'0"                                  | 8'3"   | 7'4"   | 10'0"                           | 9'1"   | 7'11"  | 8'0"                                  | 7'4"   | 6'7"   | 8'9"                            | 7'11"  | 6'11"  | 6'5"                                  | 5'10"  | 5'0"   | 6'9"                            | 6'1"   | 5'4"   |
| 162S125-33  | 33      | 9'6"                                  | 8'8"   | 7'8"   | 10'4"                           | 9'5"   | 8'2"   | 8'4"                                  | 7'8"   | 6'10"  | 9'0"                            | 8'2"   | 7'2"   | 6'8"                                  | 6'1"   | 5'4"   | 7'0"                            | 6'4"   | 5'6"   |
| 162S137-27  | 33      | 9'11"                                 | 9'2"   | 8'0"   | 10'1"                           | 9'2"   | 8'0"   | 8'10"                                 | 8'0"   | 7'0"   | 8'10"                           | 8'0"   | 7'0"   | 6'10"                                 | 6'2"   | 5'5"   | 6'10"                           | 6'2"   | 5'5"   |
| 162S137-30  | 33      | 10'4"                                 | 9'6"   | 8'3"   | 10'5"                           | 9'6"   | 8'3"   | 9'1"                                  | 8'3"   | 7'3"   | 9'1"                            | 8'3"   | 7'3"   | 7'0"                                  | 6'5"   | 5'7"   | 7'0"                            | 6'5"   | 5'7"   |
| 162S137-33  | 33      | 10'9"                                 | 9'9"   | 8'7"   | 10'9"                           | 9'9"   | 8'7"   | 9'5"                                  | 8'7"   | 7'6"   | 9'5"                            | 8'7"   | 7'6"   | 7'3"                                  | 6'7"   | 5'9"   | 7'3"                            | 6'7"   | 5'9"   |
| 250S125-18  | 33      | 8'5"                                  | 7'9"   | 6'11"  | 11'7"                           | 10'6"  | 9'1"   | 7'6"                                  | 6'11"  | 6'2"   | 10'1"                           | 9'1"   | 7'8"   | 6'0"                                  | 5'6"   | 4'10"e | 7'5"                            | 6'3"e  | 5'2"e  |
| 250S125-27  | 33      | 9'8"                                  | 8'11"  | 8'0"   | 13'5"                           | 12'2"  | 10'7"  | 8'8"                                  | 8'0"   | 7'2"   | 11'8"                           | 10'7"  | 9'3"   | 7'0"                                  | 6'6"   | 5'9"   | 9'0"                            | 8'2"   | 6'10"  |
| 250S125-30  | 33      | 10'1"                                 | 9'3"   | 8'3"   | 13'10"                          | 12'7"  | 10'11" | 9'0"                                  | 8'3"   | 7'5"   | 12'1"                           | 10'11" | 9'7"   | 7'3"                                  | 6'8"   | 6'0"   | 9'4"                            | 8'5"   | 7'3"   |
| 250S125-33  | 33      | 10'6"                                 | 9'8"   | 8'7"   | 14'3"                           | 13'0"  | 11'4"  | 9'4"                                  | 8'7"   | 7'8"   | 12'6"                           | 11'4"  | 9'11"  | 7'6"                                  | 6'11"  | 6'2"   | 9'7"                            | 8'9"   | 7'7"   |
| 250S125-43  | 33      | 11'9"                                 | 10'10" | 9'7"   | 15'6"                           | 14'1"  | 12'4"  | 10'5"                                 | 9'7"   | 8'6"   | 13'7"                           | 12'4"  | 10'9"  | 8'4"                                  | 7'8"   | 6'10"  | 10'6"                           | 9'6"   | 8'4"   |
| 250S137-27  | 33      | 11'0"                                 | 10'2"  | 9'2"   | 14'0"                           | 12'9"  | 11'1"  | 9'10"                                 | 9'2"   | 8'2"   | 12'3"                           | 11'1"  | 9'9"   | 8'0"                                  | 7'5"   | 6'8"   | 9'6"                            | 8'7"   | 7'6"   |
| 250S137-30  | 33      | 11'5"                                 | 10'6"  | 9'5"   | 14'5"                           | 13'2"  | 11'6"  | 10'2"                                 | 9'5"   | 8'5"   | 12'8"                           | 11'6"  | 10'0"  | 8'3"                                  | 7'8"   | 6'10"  | 9'9"                            | 8'10"  | 7'9"   |
| 250S137-33  | 33      | 11'10"                                | 10'11" | 9'9"   | 14'11"                          | 13'7"  | 11'10" | 10'7"                                 | 9'9"   | 8'9"   | 13'1"                           | 11'10" | 10'4"  | 8'7"                                  | 7'11"  | 7'1"   | 10'1"                           | 9'2"   | 8'0"   |
| 250S137-43  | 33      | 13'3"                                 | 12'2"  | 10'10" | 16'3"                           | 14'9"  | 12'11" | 11'9"                                 | 10'10" | 9'7"   | 14'2"                           | 12'11" | 11'3"  | 9'5"                                  | 8'8"   | 7'9"   | 10'11"                          | 9'11"  | 8'8"   |
| 250S162-33  | 33      | 13'6"                                 | 12'5"  | 11'2"  | 15'8"                           | 14'3"  | 12'5"  | 12'1"                                 | 11'2"  | 10'0"  | 13'8"                           | 12'5"  | 10'10" | 9'10"                                 | 9'1"   | 8'1"   | 10'7"                           | 9'7"   | 8'5"   |
| 250S162-43  | 33      | 15'0"                                 | 13'9"  | 12'3"  | 17'1"                           | 15'6"  | 13'6"  | 13'4"                                 | 12'3"  | 10'11" | 14'11"                          | 13'6"  | 11'10" | 10'9"                                 | 9'11"  | 8'10"  | 11'6"                           | 10'5"  | 9'2"   |
| 350S125-18  | 33      | 9'2"                                  | 8'6"7" | 6'12"  | 6'11"                           | 5'9"   | 11'8"  | 3'7"                                  | 6'6"   | 8'11"  | 0'9"                            | 11'8"  | 5'e 6' | 6'5"                                  | 11'e   | 5'3"e  | 8'2"e                           | 7'2"e  | 6'0"e  |
| 350S125-27  | 33      | 10'7"                                 | 9'9"   | 8'9"   | 14'11"                          | 13'9"  | 12'3"  | 9'5"                                  | 8'9"   | 7'9"   | 13'4"                           | 12'3"  | 10'7"  | 7'7"                                  | 7'1"   | 6'4"   | 10'4"                           | 9'3"   | 7'9"   |
| 350S125-30  | 33      | 10'11"                                | 10'1"  | 9'0"   | 15'5"                           | 14'2"  | 12'9"  | 9'9"                                  | 9'0"   | 8'1"   | 13'9"                           | 12'9"  | 11'2"  | 7'11"                                 | 7'3"   | 6'6"   | 10'11"                          | 9'9"   | 8'3"   |
| 350S125-33  | 33      | 11'4"                                 | 10'5"  | 9'4"   | 16'0"                           | 14'9"  | 13'2"  | 10'1"                                 | 9'4"   | 8'4"   | 14'3"                           | 13'2"  | 11'9"  | 8'2"                                  | 7'7"   | 6'9"   | 11'5"                           | 10'4"  | 8'10"  |
| 350S125-43  | 33      | 12'7"                                 | 11'7"  | 10'4"  | 17'7"                           | 16'3"  | 14'6"  | 11'2"                                 | 10'4"  | 9'2"   | 15'8"                           | 14'6"  | 12'11" | 9'0"                                  | 8'3"   | 7'5"   | 12'7"                           | 11'6"  | 10'1"  |
| 350S137-27  | 33      | 11'11"                                | 11'0"  | 9'11"  | 17'0"                           | 15'9"  | 14'1"  | 10'8"                                 | 9'11"  | 8'11"  | 15'3"                           | 14'1"  | 12'4"  | 8'8"                                  | 8'1"   | 7'3"   | 11'11"                          | 10'7"  | 8'11"e |
| 350S137-30  | 33      | 12'4"                                 | 11'5"  | 10'3"  | 17'7"                           | 16'3"  | 14'7"  | 11'0"                                 | 10'3"  | 9'2"   | 15'9"                           | 14'7"  | 12'10" | 9'0"                                  | 8'4"   | 7'6"   | 12'6"                           | 11'3"  | 9'6"   |
| 350S137-33  | 33      | 12'9"                                 | 11'10" | 10'7"  | 18'2"                           | 16'9"  | 15'1"  | 11'5"                                 | 10'7"  | 9'6"   | 16'3"                           | 15'1"  | 13'4"  | 9'3"                                  | 8'7"   | 7'8"   | 13'0"                           | 11'9"  | 10'0"  |
| 350S137-43  | 33      | 14'2"                                 | 13'0"  | 11'7"  | 19'10"                          | 18'4"  | 16'5"  | 12'7"                                 | 11'7"  | 10'4"  | 17'9"                           | 16'5"  | 14'7"  | 10'2"                                 | 9'4"   | 8'5"   | 12'11"                          | 11'11" | 11'3"  |
| 350S162-33  | 33      | 14'6"                                 | 13'5"  | 12'1"  | 20'3"                           | 18'5"  | 16'1"  | 13'0"                                 | 12'1"  | 10'10" | 17'9"                           | 16'1"  | 14'1"  | 10'7"                                 | 9'10"  | 8'10"  | 13'8"                           | 12'5"  | 10'10" |
| 350S162-43  | 33      | 16'0"                                 | 14'9"  | 13'2"  | 22'1"                           | 20'0"  | 17'6"  | 14'3"                                 | 13'2"  | 11'9"  | 19'3"                           | 17'6"  | 15'3"  | 11'6"                                 | 10'8"  | 9'7"   | 14'11"                          | 13'6"  | 11'10" |
| 362S125-18  | 33      | 9'3'8"                                | 7'7"   | 7'12"  | 8'11"                           | 7'10"  | 0'8"   | 4'7"                                  | 7'6"   | 9'11"  | 1'10"                           | 0'8"   | 6'e    | 6'7"                                  | 6'0"e  | 5'4"e  | 8'3"e                           | 7'4"e  | 6'1"e  |
| 362S125-27  | 33      | 10'8"                                 | 9'10"  | 8'10"  | 15'0"                           | 13'11" | 12'4"  | 9'6"                                  | 8'10"  | 7'10"  | 13'5"                           | 12'4"  | 10'9"  | 7'8"                                  | 7'1"   | 6'5"   | 10'5"                           | 9'4"   | 7'11"  |
| 362S125-30  | 33      | 11'0"                                 | 10'2"  | 9'1"   | 15'6"                           | 14'4"  | 12'10" | 9'10"                                 | 9'1"   | 8'2"   | 13'11"                          | 12'10" | 11'4"  | 8'0"                                  | 7'4"   | 6'7"   | 11'0"                           | 9'11"  | 8'5"   |
| 362S125-33  | 33      | 11'5"                                 | 10'7"  | 9'5"   | 16'2"                           | 14'10" | 13'3"  | 10'3"                                 | 9'5"   | 8'5"   | 14'5"                           | 13'3"  | 11'10" | 8'3"                                  | 7'8"   | 6'10"  | 11'7"                           | 10'6"  | 9'0"   |
| 362S125-43  | 33      | 12'8"                                 | 11'8"  | 10'5"  | 17'9"                           | 16'5"  | 14'8"  | 11'3"                                 | 10'5"  | 9'3"   | 15'10"                          | 14'8"  | 13'0"  | 9'1"                                  | 8'4"   | 7'6"   | 12'9"                           | 11'8"  | 10'2"  |
| 362S137-27  | 33      | 12'0"                                 | 11'2"  | 10'0"  | 17'2"                           | 15'11" | 14'3"  | 10'10"                                | 10'0"  | 9'0"   | 15'5"                           | 14'3"  | 12'6"  | 8'9"                                  | 8'2"   | 7'4"   | 12'1"                           | 10'9"  | 9'1"e  |
| 362S137-30  | 33      | 12'5"                                 | 11'6"  | 10'4"  | 17'8"                           | 16'5"  | 14'8"  | 11'2"                                 | 10'4"  | 9'3"   | 15'10"                          | 14'8"  | 13'0"  | 9'1"                                  | 8'5"   | 7'6"   | 12'8"                           | 11'5"  | 9'8"   |
| 362S137-33  | 33      | 12'11"                                | 11'11" | 10'8"  | 18'4"                           | 16'11" | 15'2"  | 11'6"                                 | 10'8"  | 9'7"   | 16'5"                           | 15'2"  | 13'6"  | 9'4"                                  | 8'8"   | 7'9"   | 13'2"                           | 11'11" | 10'2"  |
| 362S137-43  | 33      | 14'3"                                 | 13'2"  | 11'8"  | 20'0"                           | 18'6"  | 16'7"  | 12'8"                                 | 11'8"  | 10'5"  | 17'11"                          | 16'7"  | 14'9"  | 10'3"                                 | 9'5"   | 8'6"   | 14'5"                           | 13'2"  | 11'5"  |
| 362S162-33  | 33      | 14'8"                                 | 13'7"  | 12'2"  | 20'10"                          | 18'11" | 16'6"  | 13'2"                                 | 12'2"  | 10'11" | 18'2"                           | 16'6"  | 14'5"  | 10'8"                                 | 9'11"  | 8'11"  | 14'1"                           | 12'9"  | 11'2"  |
| 362S162-43  | 33      | 16'2"                                 | 14'11" | 13'4"  | 22'8"                           | 20'7"  | 18'0"  | 14'5"                                 | 13'4"  | 11'11" | 19'10"                          | 18'0"  | 15'9"  | 11'8"                                 | 10'9"  | 9'8"   | 15'4"                           | 13'11" | 12'2"  |
| 362S162-118 | 50      | 27'8"                                 | 25'2"  | 22'0"  | 30'2"                           | 27'5"  | 23'11" | 24'2"                                 | 22'0"  | 19'3"  | 26'4"                           | 23'11" | 20'11" | 20'6"                                 | 18'8"  | 16'4"  | 22'3"                           | 20'2"  | 17'8"  |
| 362S200-118 | 50      | 31'6"                                 | 28'8"  | 25'1"  | 32'0"                           | 29'1"  | 25'5"  | 27'7"                                 | 25'2"  | 22'0"  | 28'0"                           | 25'5"  | 22'3"  | 23'5"                                 | 21'4"  | 18'9"  | 23'7"                           | 21'5"  | 18'9"  |
| 362S250-118 | 50      | 33'11"                                | 30'10" | 26'11" | 33'11"                          | 30'10" | 26'11" | 29'8"                                 | 26'11" | 23'6"  | 29'8"                           | 26'11" | 23'6"  | 25'0"                                 | 22'9"  | 19'10" | 25'0"                           | 22'9"  | 19'10" |
| 362S300-118 | 50      | 35'8"                                 | 32'5"  | 28'4"  | 35'8"                           | 32'5"  | 28'4"  | 31'2"                                 | 28'4"  | 24'9"  | 31'2"                           | 28'4"  | 24'9"  | 26'3"                                 | 23'10" | 20'10" | 26'3"                           | 23'10" | 20'10" |
| 362S350-54  | 50      | 29'10"                                | 27'1"  | 23'8"  | 29'10"                          | 27'1"  | 23'8"  | 26'0"                                 | 23'8"  | 20'8"  | 26'0"                           | 23'8"  | 20'8"  | 21'11"                                | 19'11" | 17'5"  | 21'11"                          | 19'11" | 17'5"  |
| 362S350-68  | 50      | 32'0"                                 | 29'1"  | 25'5"  | 32'0"                           | 29'1"  | 25'5"  | 27'11"                                | 25'5"  | 22'2"  | 27'11"                          | 25'5"  | 22'2"  | 23'7"                                 | 21'5"  | 18'8"  | 23'7"                           | 21'5"  | 18'8"  |
| 362S350-97  | 50      | 35'6"                                 | 32'3"  | 28'2"  | 35'6"                           | 32'3"  | 28'2"  | 31'0"                                 | 28'2"  | 24'8"  | 31'0"                           | 28'2"  | 24'8"  | 26'2"                                 | 23'9"  | 20'9"  | 26'2"                           | 23'9"  | 20'9"  |
| 362S350-118 | 50      | 37'7"                                 | 34'2"  | 29'10" | 37'7"                           | 34'2"  | 29'10" | 32'10"                                | 29'10" | 26'1"  | 32'10"                          | 29'10" | 26'1"  | 27'8"                                 | 25'2"  | 22'0"  | 27'8"                           | 25'2"  | 22'0"  |

See notes located on page 116



# INTERIOR ALLOWABLE CEILING/SOFFIT SPANS (S-SECTIONS) - L240

| Section     | Fy(ksi) | 4 psf                                 |        |        |                                 |         |        | 6 psf                                 |        |        |                                 |        |        | 13 psf                                |        |        |                                 |         |         |
|-------------|---------|---------------------------------------|--------|--------|---------------------------------|---------|--------|---------------------------------------|--------|--------|---------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------|---------|---------|
|             |         | Lateral Support of Compression Flange |        |        |                                 |         |        | Lateral Support of Compression Flange |        |        |                                 |        |        | Lateral Support of Compression Flange |        |        |                                 |         |         |
|             |         | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |         |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |         |         |
|             | 12      | 16                                    | 24     | 12     | 16                              | 24      | 12     | 16                                    | 24     | 12     | 16                              | 24     | 12     | 16                                    | 24     | 12     | 16                              | 24      |         |
| 400S125-18  | 33      | 9'6"e                                 | 8'9"e  | 7'10"e | 13'0"e                          | 11'11"e | 10'5"e | 8'6"e                                 | 7'10"e | 6'11"e | 11'6"e                          | 10'5"e | 8'11"e | 6'9"e                                 | 6'2"e  | 5'6"e  | 8'7"e                           | 7'8"e   | 6'5"e   |
| 400S125-27  | 33      | 10'11"                                | 10'1"  | 9'1"   | 15'5"                           | 14'3"   | 12'9"  | 9'9"                                  | 9'1"   | 8'1"   | 13'10"                          | 12'9"  | 11'2"  | 7'11"                                 | 7'4"   | 6'7"   | 10'10"                          | 9'9"    | 8'3"    |
| 400S125-30  | 33      | 11'4"                                 | 10'5"  | 9'4"   | 16'0"                           | 14'9"   | 13'2"  | 10'1"                                 | 9'4"   | 8'4"   | 14'3"                           | 13'2"  | 11'9"  | 8'2"                                  | 7'7"   | 6'9"   | 11'5"                           | 10'4"   | 8'9"    |
| 400S125-33  | 33      | 11'9"                                 | 10'10" | 9'8"   | 16'7"                           | 15'3"   | 13'8"  | 10'6"                                 | 9'8"   | 8'8"   | 14'9"                           | 13'8"  | 12'2"  | 8'6"                                  | 7'10"  | 7'0"   | 11'11"                          | 10'11"  | 9'4"    |
| 400S125-43  | 33      | 13'0"                                 | 12'0"  | 10'8"  | 18'3"                           | 16'10"  | 15'0"  | 11'7"                                 | 10'8"  | 9'6"   | 16'3"                           | 15'0"  | 13'5"  | 9'4"                                  | 8'7"   | 7'8"   | 13'1"                           | 12'0"   | 10'7"   |
| 400S137-27  | 33      | 12'4"                                 | 11'5"  | 10'3"  | 17'7"                           | 16'4"   | 14'8"  | 11'1"                                 | 10'3"  | 9'2"   | 15'10"                          | 14'8"  | 13'0"  | 9'0"                                  | 8'4"   | 7'6"   | 12'7"                           | 11'3"   | 9'6"e   |
| 400S137-30  | 33      | 12'9"                                 | 11'10" | 10'7"  | 18'2"                           | 16'10"  | 15'1"  | 11'5"                                 | 10'7"  | 9'6"   | 16'4"                           | 15'1"  | 13'5"  | 9'3"                                  | 8'7"   | 7'9"   | 13'1"                           | 11'10"  | 10'1"   |
| 400S137-33  | 33      | 13'3"                                 | 12'3"  | 10'11" | 18'9"                           | 17'4"   | 15'7"  | 11'10"                                | 10'11" | 9'10"  | 16'10"                          | 15'7"  | 13'11" | 9'7"                                  | 8'11"  | 8'0"   | 13'7"                           | 12'4"   | 10'8"   |
| 400S137-43  | 33      | 14'7"                                 | 13'6"  | 12'0"  | 20'7"                           | 19'0"   | 17'0"  | 13'0"                                 | 12'0"  | 10'9"  | 18'4"                           | 17'0"  | 15'2"  | 10'6"                                 | 9'8"   | 8'8"   | 14'10"                          | 13'7"   | 11'10"  |
| 400S162-33  | 33      | 15'0"                                 | 13'11" | 12'6"  | 21'5"                           | 19'10"  | 17'9"  | 13'6"                                 | 12'6"  | 11'2"  | 19'3"                           | 17'9"  | 15'7"  | 10'11"                                | 10'2"  | 9'1"   | 15'2"                           | 13'9"   | 11'9"   |
| 400S162-43  | 33      | 16'7"                                 | 15'3"  | 13'8"  | 23'4"                           | 21'7"   | 19'4"  | 14'9"                                 | 13'8"  | 12'2"  | 20'11"                          | 19'4"  | 16'11" | 11'11"                                | 11'0"  | 9'11"  | 16'6"                           | 15'0"   | 13'1"   |
| 400S162-118 | 50      | 28'1"                                 | 25'7"  | 22'5"  | 32'7"                           | 29'8"   | 25'11" | 24'7"                                 | 22'5"  | 19'8"  | 28'6"                           | 25'11" | 22'7"  | 20'10"                                | 19'0"  | 16'8"  | 24'0"                           | 21'10"  | 19'1"   |
| 400S200-118 | 50      | 32'0"                                 | 29'2"  | 25'7"  | 34'7"                           | 31'5"   | 27'6"  | 28'1"                                 | 25'7"  | 22'5"  | 30'3"                           | 27'6"  | 24'0"  | 23'9"                                 | 21'8"  | 19'1"  | 25'6"                           | 23'2"   | 20'3"   |
| 400S250-118 | 50      | 35'11"                                | 32'9"  | 28'8"  | 36'8"                           | 33'3"   | 29'1"  | 31'6"                                 | 28'8"  | 25'2"  | 32'0"                           | 29'1"  | 25'5"  | 26'9"                                 | 24'5"  | 21'5"  | 27'0"                           | 24'6"   | 21'5"   |
| 400S300-118 | 50      | 38'5"                                 | 34'11" | 30'6"  | 38'5"                           | 34'11"  | 30'6"  | 33'7"                                 | 30'6"  | 26'8"  | 33'7"                           | 30'6"  | 26'8"  | 28'4"                                 | 25'9"  | 22'6"  | 28'4"                           | 25'9"   | 22'6"   |
| 400S350-54  | 50      | 31'1"                                 | 28'8"  | 25'5"  | 32'1"                           | 29'2"   | 25'5"  | 27'9"                                 | 25'5"  | 22'3"  | 28'0"                           | 25'5"  | 22'3"  | 23'8"                                 | 21'6"  | 18'9"  | 23'8"                           | 21'6"   | 18'9"   |
| 400S350-68  | 50      | 34'0"                                 | 31'3"  | 27'4"  | 34'5"                           | 31'3"   | 27'4"  | 30'1"                                 | 27'4"  | 23'10" | 30'1"                           | 27'4"  | 23'10" | 25'4"                                 | 23'1"  | 20'2"  | 25'4"                           | 23'1"   | 20'2"   |
| 400S350-97  | 50      | 38'3"                                 | 34'9"  | 30'5"  | 38'3"                           | 34'9"   | 30'5"  | 33'5"                                 | 30'5"  | 26'6"  | 33'5"                           | 30'5"  | 26'6"  | 28'2"                                 | 25'8"  | 22'5"  | 28'2"                           | 25'8"   | 22'5"   |
| 400S350-118 | 50      | 40'6"                                 | 36'10" | 32'2"  | 40'6"                           | 36'10"  | 32'2"  | 35'5"                                 | 32'2"  | 28'1"  | 35'5"                           | 32'2"  | 28'1"  | 29'10"                                | 27'2"  | 23'8"  | 29'10"                          | 27'2"   | 23'8"   |
| 550S125-27  | 33      | 12'1"                                 | 11'3"  | 10'1"  | 17'6"                           | 16'1"   | 14'5"  | 10'11"                                | 10'1"  | 9'1"   | 15'7"                           | 14'5"  | 12'11" | 8'11"                                 | 8'3"   | 7'5"   | 12'7"                           | 11'7"   | 10'0"e  |
| 550S125-30  | 33      | 12'6"                                 | 11'7"  | 10'5"  | 17'11"                          | 16'8"   | 14'11" | 11'7"                                 | 10'5"  | 9'4"   | 16'2"                           | 14'11" | 13'4"  | 9'2"                                  | 8'6"   | 7'8"   | 13'0"                           | 12'1"   | 10'7"e  |
| 550S125-33  | 33      | 12'10"                                | 11'11" | 10'8"  | 18'6"                           | 17'1"   | 15'5"  | 11'7"                                 | 10'8"  | 9'7"   | 16'7"                           | 15'5"  | 13'10" | 9'5"                                  | 8'9"   | 7'10"  | 13'6"                           | 12'5"   | 11'1"   |
| 550S125-43  | 33      | 14'2"                                 | 13'0"  | 11'8"  | 20'0"                           | 18'6"   | 16'7"  | 12'7"                                 | 11'8"  | 10'5"  | 17'11"                          | 16'7"  | 14'11" | 10'2"                                 | 9'5"   | 8'6"   | 14'7"                           | 13'6"   | 12'2"   |
| 550S137-27  | 33      | 13'8"                                 | 12'8"  | 11'5"  | 19'9"                           | 18'4"   | 16'7"  | 12'4"                                 | 11'5"  | 10'4"  | 17'10"                          | 16'7"  | 14'11" | 10'1"                                 | 9'4"   | 8'5"e  | 14'8"                           | 13'6"e  | 11'11"e |
| 550S137-30  | 33      | 14'1"                                 | 13'0"  | 11'9"  | 20'3"                           | 18'10"  | 17'0"  | 12'8"                                 | 11'9"  | 10'7"  | 18'3"                           | 17'0"  | 15'4"  | 10'4"                                 | 9'7"   | 8'8"   | 15'0"                           | 13'11"  | 12'4"e  |
| 550S137-33  | 33      | 14'6"                                 | 13'5"  | 12'1"  | 20'10"                          | 19'4"   | 17'5"  | 13'0"                                 | 12'1"  | 10'10" | 18'9"                           | 17'5"  | 15'9"  | 10'8"                                 | 9'10"  | 8'11"  | 15'5"                           | 14'3"   | 12'9"e  |
| 550S137-43  | 33      | 15'11"                                | 14'8"  | 13'1"  | 22'7"                           | 20'11"  | 18'9"  | 14'2"                                 | 13'1"  | 11'9"  | 20'3"                           | 18'9"  | 16'10" | 11'6"                                 | 10'8"  | 9'7"   | 16'6"                           | 15'4"   | 13'9"   |
| 550S162-33  | 33      | 16'6"                                 | 15'3"  | 13'9"  | 23'9"                           | 22'1"   | 19'11" | 14'10"                                | 13'9"  | 12'4"  | 21'5"                           | 19'11" | 17'11" | 12'2"                                 | 11'3"  | 10'2"  | 17'7"                           | 16'2"   | 14'3"e  |
| 550S162-43  | 33      | 18'0"                                 | 16'7"  | 14'11" | 25'8"                           | 23'9"   | 21'4"  | 16'1"                                 | 14'11" | 13'4"  | 23'1"                           | 21'4"  | 19'3"  | 13'1"                                 | 12'1"  | 10'11" | 18'10"                          | 17'6"1  | 5'6"    |
| 600S125-27  | 33      | 12'5"e                                | 11'6"e | 10'4"e | 17'11"e                         | 16'6"e  | 14'9"e | 11'2"e                                | 10'4"e | 9'4"e  | 16'0"e                          | 14'9"e | 13'2"e | 9'2"e                                 | 8'6"e  | 7'7"e  | 12'11"e                         | 11'10"e | 10'4"e  |
| 600S125-30  | 33      | 12'9"                                 | 11'10" | 10'8"  | 18'5"                           | 17'1"   | 15'3"  | 11'6"                                 | 10'8"  | 9'7"   | 16'7"                           | 15'3"  | 13'8"  | 9'5'8"                                | 9'7"   | 10'13" | 4'12"                           | 4'10"   | 11"e    |
| 600S125-33  | 33      | 13'2"                                 | 12'3"  | 11'0"  | 18'11"                          | 17'7"   | 15'10" | 11'10"                                | 11'0"  | 9'10"  | 17'0"                           | 15'10" | 14'2"  | 9'8"                                  | 8'11"  | 8'1"   | 13'10"                          | 12'9"   | 11'5"   |
| 600S125-43  | 33      | 14'6"                                 | 13'4"  | 11'11" | 20'6"                           | 19'0"   | 17'0"  | 12'11"                                | 11'11" | 10'8"  | 18'4"                           | 17'0"  | 15'3"  | 10'5"                                 | 9'8"   | 8'8"   | 15'0"                           | 13'11"  | 12'6"   |
| 600S137-27  | 33      | 14'0"e                                | 13'0"e | 11'9"e | 20'2"e                          | 18'8"e  | 16'9"e | 12'7"e                                | 11'9"e | 10'6"e | 18'1"e                          | 16'9"e | 15'0"e | 10'4"e                                | 9'7"e  | 8'7"e  | 14'8"e                          | 13'7"e  | 11'10"e |
| 600S137-30  | 33      | 14'5"                                 | 13'4"  | 12'0"  | 20'10"                          | 19'3"   | 17'3"  | 13'0"                                 | 12'0"  | 10'10" | 18'8"                           | 17'3"  | 15'6"  | 10'7"                                 | 9'10"  | 8'10"  | 15'2"                           | 14'0"   | 12'5"e  |
| 600S137-33  | 33      | 14'11"                                | 13'9"  | 12'5"  | 21'5"                           | 19'10"  | 17'10" | 13'4"                                 | 12'5"  | 11'2"  | 19'3"                           | 17'10" | 16'0"  | 10'11"                                | 10'2"  | 9'2"   | 15'8"                           | 14'6"   | 12'11"e |
| 600S137-43  | 33      | 16'3"                                 | 15'0"  | 13'5"  | 23'1"                           | 21'5"   | 19'3"  | 14'6"                                 | 13'5"  | 12'0"  | 20'9"                           | 19'3"  | 17'4"  | 11'9"                                 | 10'11" | 9'10"  | 16'11"                          | 15'9"   | 14'2"   |
| 600S162-33  | 33      | 16'11"                                | 15'8"  | 14'1"  | 24'5"                           | 22'8"   | 20'5"  | 15'2"                                 | 14'1"  | 12'8"  | 22'0"                           | 20'5"  | 18'5"  | 12'5"                                 | 11'7"  | 10'5"  | 18'0"                           | 16'8"   | 14'9"e  |
| 600S162-43  | 33      | 18'5"                                 | 17'0"  | 15'3"  | 26'4"                           | 24'4"   | 21'11" | 16'6"                                 | 15'3"  | 13'8"  | 23'8"                           | 21'11" | 19'9"  | 13'5"                                 | 12'5"  | 11'2"  | 19'4"                           | 17'11"  | 16'0"   |
| 600S162-118 | 50      | 30'2"                                 | 27'6"  | 24'2"  | 40'3"                           | 36'10"  | 32'6"  | 26'6"                                 | 24'2"  | 21'2"  | 35'6"                           | 32'6"  | 28'8"  | 22'6"                                 | 20'6"  | 18'1"  | 30'3"                           | 27'9"   | 24'6"   |
| 600S200-118 | 50      | 34'4"                                 | 31'4"  | 27'6"  | 46'1"                           | 42'2"   | 37'2"  | 30'2"                                 | 27'6"  | 24'2"  | 40'7"                           | 37'2"  | 32'11" | 25'8"                                 | 23'5"  | 20'8"  | 34'9"                           | 31'10"  | 27'11"  |
| 600S250-118 | 50      | 38'5"                                 | 35'1"  | 30'10" | 50'2"                           | 45'7"   | 39'10" | 33'10"                                | 30'10" | 27'2"  | 43'10"                          | 39'10" | 34'10" | 28'9"                                 | 26'4"  | 23'3"  | 37'0"                           | 33'7"   | 29'4"   |
| 600S300-118 | 50      | 42'4"                                 | 38'7"  | 34'0"  | 52'5"                           | 47'7"   | 41'7"  | 37'2"                                 | 34'0"  | 30'0"  | 45'9"                           | 41'7"  | 36'4"  | 31'8"                                 | 29'0"  | 25'8"  | 38'7"                           | 35'1"   | 30'8"   |
| 600S350-54  | 50      | 34'1"                                 | 31'6"  | 28'4"  | 43'6"                           | 39'6"   | 34'6"  | 30'7"                                 | 28'4"  | 25'5"  | 38'0"                           | 34'6"  | 30'2"  | 26'8"                                 | 24'9"  | 22'3"  | 32'1"                           | 29'1"   | 25'5"   |
| 600S350-68  | 50      | 37'1"                                 | 34'2"  | 30'6"  | 46'9"                           | 42'6"   | 37'1"  | 33'1"                                 | 30'6"  | 27'4"  | 40'10"                          | 37'1"  | 32'5"  | 28'9"                                 | 26'7"  | 23'10" | 34'5"                           | 31'4"   | 27'4"   |
| 600S350-97  | 50      | 43'3"                                 | 39'8"  | 35'2"  | 52'1"                           | 47'4"   | 41'4"  | 38'3"                                 | 35'2"  | 31'3"  | 45'6"                           | 41'4"  | 36'2"  | 32'11"                                | 30'3"  | 26'11" | 38'5"                           | 34'11"  | 30'6"   |
| 600S350-118 | 50      | 47'10"                                | 43'9"  | 38'7"  | 55'3"                           | 50'3"   | 43'10" | 42'2"                                 | 38'7"  | 34'1"  | 48'3"                           | 43'10" | 38'4"  | 36'1"                                 | 33'1"  | 29'3"  | 40'9"                           | 37'0"   | 32'4"   |

See notes located on page 116

# EXTERIOR ALLOWABLE CEILING/SOFFIT SPANS (S-SECTIONS) -L/360

| Section     | Fy(ksi) | 4 psf                                 |        |        |                                 |        |        | 6 psf                                 |        |        |                                 |        |        | 13 psf                                |         |         |                                 |          |           |
|-------------|---------|---------------------------------------|--------|--------|---------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------|--------|--------|---------------------------------------|---------|---------|---------------------------------|----------|-----------|
|             |         | Lateral Support of Compression Flange |        |        |                                 |        |        | Lateral Support of Compression Flange |        |        |                                 |        |        | Lateral Support of Compression Flange |         |         |                                 |          |           |
|             |         | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c. |        |        | Unsupported Joist Spacing (in) o.c.   |         |         | Midspan Joist Spacing (in) o.c. |          |           |
|             |         | 12                                    | 16     | 24     | 12                              | 16     | 24     | 12                                    | 16     | 24     | 12                              | 16     | 24     | 12                                    | 16      | 24      | 12                              | 16       | 24        |
| 162S125-18  | 33      | 7'3"                                  | 6'7"   | 5'10"  | 7'5"                            | 6'9"   | 5'11"  | 6'5"                                  | 5'10"  | 5'1"   | 6'6"                            | 5'11"  | 5'1"   | 4'11"                                 | 4'5"    | 3'9"    | 4'11"                           | 4'6"     | 3'10"     |
| 162S125-27  | 33      | 8'6"                                  | 7'8"   | 6'9"   | 8'6"                            | 7'8"   | 6'9"   | 7'5"                                  | 6'9"   | 5'10"  | 7'5"                            | 6'9"   | 5'10"  | 5'9"                                  | 5'2"    | 4'6"    | 5'9"                            | 5'2"     | 4'6"      |
| 162S125-30  | 33      | 8'9"                                  | 7'11"  | 6'11"  | 8'9"                            | 7'11"  | 6'11"  | 7'8"                                  | 6'11"  | 6'1"   | 7'8"                            | 6'11"  | 6'1"   | 5'11"                                 | 5'4"    | 4'8"    | 5'11"                           | 5'4"     | 4'8"      |
| 162S125-33  | 33      | 9'0"                                  | 8'2"   | 7'2"   | 9'0"                            | 8'2"   | 7'2"   | 7'11"                                 | 7'2"   | 6'3"   | 7'11"                           | 7'2"   | 6'3"   | 6'1"                                  | 5'6"    | 4'10"   | 6'1"                            | 5'6"     | 4'10"     |
| 162S137-27  | 33      | 8'10"                                 | 8'0"   | 7'0"   | 8'10"                           | 8'0"   | 7'0"   | 7'9"                                  | 7'0"   | 6'2"   | 7'9"                            | 7'0"   | 6'2"   | 6'0"                                  | 5'5"    | 4'9"    | 6'0"                            | 5'5"     | 4'9"      |
| 162S137-30  | 33      | 9'1"                                  | 8'3"   | 7'3"   | 9'1"                            | 8'3"   | 7'3"   | 8'0"                                  | 7'3"   | 6'4"   | 8'0"                            | 7'3"   | 6'4"   | 6'2"                                  | 5'7"    | 4'11"   | 6'2"                            | 5'7"     | 4'11"     |
| 162S137-33  | 33      | 9'5"                                  | 8'7"   | 7'6"   | 9'5"                            | 8'7"   | 7'6"   | 8'3"                                  | 7'6"   | 6'6"   | 8'3"                            | 7'6"   | 6'6"   | 6'4"                                  | 5'9"    | 5'1"    | 6'4"                            | 5'9"     | 5'1"      |
| 250S125-18  | 33      | 8'5"                                  | 7'9"   | 6'11"  | 10'3"                           | 9'3"   | 8'1"   | 7'6"                                  | 6'11"  | 6'2"   | 8'11"                           | 8'1"   | 7'0"   | 6'0"                                  | 5'6"    | 4'10" e | 6'10"                           | 6'2" e   | 5'2" e    |
| 250S125-27  | 33      | 9'8"                                  | 8'11"  | 8'0"   | 11'9"                           | 10'8"  | 9'4"   | 8'8"                                  | 8'0"   | 7'2"   | 10'3"                           | 9'4"   | 8'1"   | 7'0"                                  | 6'6"    | 5'9"    | 7'11"                           | 7'2"     | 6'3"      |
| 250S125-30  | 33      | 10'1"                                 | 9'3"   | 8'3"   | 12'1"                           | 11'0"  | 9'7"   | 9'0"                                  | 8'3"   | 7'5"   | 10'7"                           | 9'7"   | 8'5"   | 7'3"                                  | 6'8"    | 6'0"    | 8'2"                            | 7'5"     | 6'5"      |
| 250S125-33  | 33      | 10'6"                                 | 9'8"   | 8'7"   | 12'6"                           | 11'4"  | 9'11"  | 9'4"                                  | 8'7"   | 7'8"   | 10'11"                          | 9'11"  | 8'8"   | 7'6"                                  | 6'11"   | 6'2"    | 8'5"                            | 7'8"     | 6'8"      |
| 250S125-43  | 33      | 11'9"                                 | 10'10" | 9'7"   | 13'7"                           | 12'4"  | 10'9"  | 10'5"                                 | 9'7"   | 8'6"   | 11'10"                          | 10'9"  | 9'5"   | 8'4"                                  | 7'8"    | 6'10"   | 9'2"                            | 8'4"     | 7'3"      |
| 250S137-27  | 33      | 11'0"                                 | 10'2"  | 9'2"   | 12'3"                           | 11'1"  | 9'9"   | 9'10"                                 | 9'2"   | 8'2"   | 10'8"                           | 9'9"   | 8'6"   | 8'0"                                  | 7'5"    | 6'7"    | 8'3"                            | 7'6"     | 6'7"      |
| 250S137-30  | 33      | 11'5"                                 | 10'6"  | 9'5"   | 12'8"                           | 11'6"  | 10'0"  | 10'2"                                 | 9'5"   | 8'5"   | 11'0"                           | 10'0"  | 8'9"   | 8'3"                                  | 7'8"    | 6'9"    | 8'6"                            | 7'9"     | 6'9"      |
| 250S137-33  | 33      | 11'10"                                | 10'11" | 9'9"   | 3'1"                            | 11'10" | 10'4"  | 10'7"                                 | 9'9"   | 8'9"   | 11'5"                           | 10'4"  | 9'1"   | 8'7"                                  | 7'11"   | 7'0"    | 8'10"                           | 8'0"     | 7'0"      |
| 250S137-43  | 33      | 13'3"                                 | 12'2"  | 10'10" | 14'2"                           | 12'11" | 11'3"  | 11'9"                                 | 10'10" | 9'7"   | 12'5"                           | 11'3"  | 9'10"  | 9'5"                                  | 8'8"    | 7'7"    | 9'7"                            | 8'8"     | 7'7"      |
| 250S162-33  | 33      | 13'6"                                 | 12'5"  | 10'10" | 13'8"                           | 12'5"  | 10'10" | 12'0"                                 | 10'    | 10'9"  | 6'12'                           | 0'10'  | 10"    | 9'6"                                  | 9'3"    | 8'5"    | 7'4"                            | 9'3"     | 8'5" 7'4" |
| 250S162-43  | 33      | 14'11"                                | 13'6"  | 11'10" | 14'11"                          | 13'6"  | 11'10" | 13'0"                                 | 11'    | 10'10" | 4'13'                           | 0'11'  | 10"    | 10'4"                                 | 10'1"   | 9'2"    | 8'0"                            | 10'1"    | 9'2" 8'0" |
| 350S125-18  | 33      | 9'2"                                  | 8'6"   | 7'6"   | 12'6"                           | 11'5"  | 9'11"  | 8'3"                                  | 7'6"   | 6'8"   | 11'0"                           | 9'11"  | 8'5" e | 6'6"                                  | 5'11" e | 5'3" e  | 8'2" e                          | 7'2" e   | 6'0" e    |
| 350S125-27  | 33      | 10'7"                                 | 9'9"   | 8'9"   | 14'11"                          | 13'9"  | 12'0"  | 9'5"                                  | 8'9"   | 7'9"   | 13'3"                           | 12'0"  | 10'6"  | 7'7"                                  | 7'1"    | 6'4"    | 10'2"                           | 9'3"     | 7'9"      |
| 350S125-30  | 33      | 10'11"                                | 10'1"  | 9'0"   | 15'5"                           | 14'2"  | 12'5"  | 9'9"                                  | 9'0"   | 8'1"   | 13'8"                           | 12'5"  | 10'10" | 7'11"                                 | 7'3"    | 6'6"    | 10'7"                           | 9'7"     | 8'3"      |
| 350S125-33  | 33      | 11'4"                                 | 10'5"  | 9'4"   | 16'0"                           | 14'8"  | 12'10" | 10'1"                                 | 9'4"   | 8'4"   | 14'2"                           | 12'10" | 11'3"  | 8'2"                                  | 7'7"    | 6'9"    | 10'11"                          | 9'11"    | 8'8"      |
| 350S125-43  | 33      | 12'7"                                 | 11'7"  | 10'4"  | 17'7"                           | 16'0"  | 13'11" | 11'2"                                 | 10'4"  | 9'2"   | 15'4"                           | 13'11" | 12'2"  | 9'0"                                  | 8'3"    | 7'5"    | 11'10"                          | 10'9"    | 9'5"      |
| 350S137-27  | 33      | 11'11"                                | 11'0"  | 9'11"  | 15'10"                          | 14'5"  | 12'7"  | 10'8"                                 | 9'11"  | 8'11"  | 13'10"                          | 12'7"  | 11'0"  | 8'8"                                  | 8'1"    | 7'3"    | 10'8"                           | 9'9"     | 8'6"      |
| 350S137-30  | 33      | 12'4"                                 | 11'5"  | 10'3"  | 16'4"                           | 14'10" | 13'0"  | 11'0"                                 | 10'3"  | 9'2"   | 14'3"                           | 13'0"  | 11'4"  | 9'0"                                  | 8'4"    | 7'6"    | 11'0"                           | 10'0"    | 8'9"      |
| 350S137-33  | 33      | 12'9"                                 | 11'10" | 10'7"  | 16'11"                          | 15'4"  | 13'5"  | 11'5"                                 | 10'7"  | 9'6"   | 14'9"                           | 13'5"  | 11'9"  | 9'3"                                  | 8'7"    | 7'8"    | 11'5"                           | 10'4"    | 9'1"      |
| 350S137-43  | 33      | 14'2"                                 | 13'0"  | 11'7"  | 18'4"                           | 16'8"  | 14'7"  | 12'7"                                 | 11'7"  | 10'4"  | 16'1"                           | 14'7"  | 12'9"  | 10'2"                                 | 9'4"    | 8'5"    | 12'5"                           | 11'3"    | 9'10"     |
| 350S162-33  | 33      | 14'6"                                 | 13'5"  | 12'1"  | 17'9"                           | 16'1"  | 14'1"  | 13'0"                                 | 12'1"  | 10'10" | 15'6"                           | 14'1"  | 12'3"  | 10'7"                                 | 9'10"   | 8'10"   | 11'11"                          | 10'10"   | 9'6"      |
| 350S162-43  | 33      | 16'0"                                 | 14'9"  | 13'2"  | 19'3"                           | 17'6"  | 15'3"  | 14'3"                                 | 13'2"  | 11'9"  | 16'10"                          | 15'3"  | 13'4"  | 11'6"                                 | 10'8"   | 9'7"    | 13'0"                           | 11'10" 1 | 0'4"      |
| 362S125-18  | 33      | 9'3"                                  | 8'7"   | 7'7"   | 12'8"                           | 11'7"  | 10'0"  | 8'4"                                  | 7'7"   | 6'9"   | 11'1"                           | 10'0"  | 8'6" e | 6'7"                                  | 6'0" e  | 5'4" e  | 8'3" e                          | 7'4" e   | 6'1" e    |
| 362S125-27  | 33      | 10'8"                                 | 9'10"  | 8'10"  | 15'0"                           | 13'11" | 12'4"  | 9'6"                                  | 8'10"  | 7'10"  | 13'5"                           | 12'4"  | 10'9"  | 7'8"                                  | 7'1"    | 6'5"    | 10'5"                           | 9'4"     | 7'11"     |
| 362S125-30  | 33      | 11'0"                                 | 10'2"  | 9'1"   | 15'6"                           | 14'4"  | 12'9"  | 9'10"                                 | 9'1"   | 8'2"   | 13'11"                          | 12'9"  | 11'2"  | 8'0"                                  | 7'4"    | 6'7"    | 10'10"                          | 9'10"    | 8'5"      |
| 362S125-33  | 33      | 11'5"                                 | 10'7"  | 9'5"   | 16'2"                           | 14'10" | 13'2"  | 10'3"                                 | 9'5"   | 8'5"   | 14'5"                           | 13'2"  | 11'6"  | 8'3"                                  | 7'8"    | 6'10"   | 11'3"                           | 10'2"    | 8'11"     |
| 362S125-43  | 33      | 12'8"                                 | 11'8"  | 10'5"  | 17'9"                           | 16'5"  | 14'4"  | 11'3"                                 | 10'5"  | 9'3"   | 15'9"                           | 14'4"  | 12'6"  | 9'1"                                  | 8'4"    | 7'6"    | 12'2"                           | 11'1"    | 9'8"      |
| 362S137-27  | 33      | 12'0"                                 | 11'2"  | 10'0"  | 16'3"                           | 14'9"  | 12'11" | 10'10"                                | 10'0"  | 9'0"   | 14'3"                           | 12'11" | 11'3"  | 8'9"                                  | 8'2"    | 7'4"    | 11'0"                           | 10'0"    | 8'9" e    |
| 362S137-30  | 33      | 12'5"                                 | 11'6"  | 10'4"  | 16'10"                          | 15'3"  | 13'4"  | 11'2"                                 | 10'4"  | 9'3"   | 14'8"                           | 13'4"  | 11'8"  | 9'1"                                  | 8'5"    | 7'6"    | 11'4"                           | 10'4"    | 9'0"      |
| 362S137-33  | 33      | 12'11"                                | 11'11" | 10'8"  | 17'4"                           | 15'9"  | 13'9"  | 11'6"                                 | 10'8"  | 9'7"   | 15'2"                           | 13'9"  | 12'0"  | 9'4"                                  | 8'8"    | 7'9"    | 11'9"                           | 10'8"    | 9'4"      |
| 362S137-43  | 33      | 14'3"                                 | 13'2"  | 11'8"  | 18'11"                          | 17'2"  | 15'0"  | 12'8"                                 | 11'8"  | 10'5"  | 16'6"                           | 15'0"  | 13'1"  | 10'3"                                 | 9'5"    | 8'6"    | 12'9"                           | 11'7"    | 10'1"     |
| 362S162-33  | 33      | 14'8"                                 | 13'7"  | 12'2"  | 18'2"                           | 16'6"  | 14'5"  | 13'2"                                 | 12'2"  | 10'11" | 15'11"                          | 14'5"  | 12'7"  | 10'8"                                 | 9'11"   | 8'11"   | 12'3"                           | 11'2"    | 9'9"      |
| 362S162-43  | 33      | 16'2"                                 | 14'11" | 13'4"  | 19'10"                          | 18'0"  | 15'9"  | 14'5"                                 | 13'4"  | 11'11" | 17'3"                           | 15'9"  | 13'9"  | 11'8"                                 | 10'9"   | 9'8"    | 13'4"                           | 12'2"    | 10'7"     |
| 362S162-118 | 50      | 26'4"                                 | 23'11" | 20'11" | 26'4"                           | 23'11" | 20'11" | 23'0"                                 | 20'11" | 18'3"  | 23'0"                           | 20'11" | 18'3"  | 19'5"                                 | 17'8"   | 15'5"   | 19'5"                           | 17'8"    | 15'5"     |
| 362S200-118 | 50      | 28'0"                                 | 25'5"  | 22'3"  | 28'0"                           | 25'5"  | 22'3"  | 24'5"                                 | 22'3"  | 19'5"  | 24'5"                           | 22'3"  | 19'5"  | 20'7"                                 | 18'9"   | 16'4"   | 20'7"                           | 18'9"    | 16'4"     |
| 362S250-118 | 50      | 29'8"                                 | 26'11" | 23'6"  | 29'8"                           | 26'11" | 23'6"  | 25'11"                                | 23'6"  | 20'7"  | 25'11"                          | 23'6"  | 20'7"  | 21'10"                                | 19'10"  | 17'4"   | 21'10"                          | 19'10"   | 17'4"     |
| 362S300-118 | 50      | 31'2"                                 | 28'4"  | 24'9"  | 31'2"                           | 28'4"  | 24'9"  | 27'3"                                 | 24'9"  | 21'7"  | 27'3"                           | 24'9"  | 21'7"  | 22'11"                                | 20'10"  | 18'3"   | 22'11"                          | 20'10"   | 18'3"     |
| 362S350-54  | 50      | 26'0"                                 | 23'8"  | 20'8"  | 26'0"                           | 23'8"  | 20'8"  | 22'9"                                 | 20'8"  | 18'1"  | 22'9"                           | 20'8"  | 18'1"  | 19'2"                                 | 17'5"   | 15'3"   | 19'2"                           | 17'5"    | 15'3"     |
| 362S350-68  | 50      | 27'11"                                | 25'5"  | 22'2"  | 27'11"                          | 25'5"  | 22'2"  | 24'5"                                 | 22'2"  | 19'4"  | 24'5"                           | 22'2"  | 19'4"  | 20'7"                                 | 18'8"   | 16'4"   | 20'7"                           | 18'8"    | 16'4"     |
| 362S350-97  | 50      | 31'0"                                 | 28'2"  | 24'8"  | 31'0"                           | 28'2"  | 24'8"  | 27'1"                                 | 24'8"  | 21'6"  | 27'1"                           | 24'8"  | 21'6"  | 22'10"                                | 20'9"   | 18'2"   | 22'10"                          | 20'9"    | 18'2"     |
| 362S350-118 | 50      | 32'10"                                | 29'10" | 26'1"  | 32'10"                          | 29'10" | 26'1"  | 28'8"                                 | 26'1"  | 22'9"  | 28'8"                           | 26'1"  | 22'9"  | 24'2"                                 | 22'0"   | 19'2"   | 24'2"                           | 22'0"    | 19'2"     |

See notes located on page 116

# EXTERIOR ALLOWABLE CEILING/SOFFIT SPANS (S-SECTIONS) -L/360

| Section     | Fy(ksi) | 4 psf                                 |        |        |                                       |         |        | 6 psf                                 |        |        |                                       |        |        | 13 psf                                |        |        |                                       |         |         |    |    |
|-------------|---------|---------------------------------------|--------|--------|---------------------------------------|---------|--------|---------------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------------|--------|--------|---------------------------------------|---------|---------|----|----|
|             |         | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |         |        | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |         |         |    |    |
|             |         | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c.       |         |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c.       |        |        | Unsupported Joist Spacing (in) o.c.   |        |        | Midspan Joist Spacing (in) o.c.       |         |         |    |    |
|             | 12      | 16                                    | 24     | 12     | 16                                    | 24      | 12     | 16                                    | 24     | 12     | 16                                    | 24     | 12     | 16                                    | 24     | 12     | 16                                    | 24      | 12      | 16 | 24 |
| 400S125-18  | 33      | 9'6"e                                 | 8'9"e  | 7'10"e | 13'0"e                                | 11'11"e | 10'5"e | 8'6"e                                 | 7'10"e | 6'11"e | 11'6"e                                | 10'5"e | 8'11"e | 6'9"e                                 | 6'2"e  | 5'6"e  | 8'7"e                                 | 7'8"e   | 6'5"e   |    |    |
| 400S125-27  | 33      | 10'11"                                | 10'1"  | 9'1"   | 15'5"                                 | 14'3"   | 12'9"  | 9'9"                                  | 9'1"   | 8'1"   | 13'10"                                | 12'9"  | 11'2"  | 7'11"                                 | 7'4"   | 6'7"   | 10'10"                                | 9'9"    | 8'3"    |    |    |
| 400S125-30  | 33      | 11'4"                                 | 10'5"  | 9'4"   | 16'0"                                 | 14'9"   | 13'2"  | 10'1"                                 | 9'4"   | 8'4"   | 14'3"                                 | 13'2"  | 11'9"  | 8'2"                                  | 7'7"   | 6'9"   | 11'5"                                 | 10'4"   | 8'9"    |    |    |
| 400S125-33  | 33      | 11'9"                                 | 10'10" | 9'8"   | 16'7"                                 | 15'3"   | 13'8"  | 10'6"                                 | 9'8"   | 8'8"   | 14'9"                                 | 13'8"  | 12'2"  | 8'6"                                  | 7'10"  | 7'0"   | 11'11"                                | 10'11"  | 9'4"    |    |    |
| 400S125-43  | 33      | 13'0"                                 | 12'0"  | 10'8"  | 18'3"                                 | 16'10"  | 15'0"  | 11'7"                                 | 10'8"  | 9'6"   | 16'3"                                 | 15'0"  | 13'5"  | 9'4"                                  | 8'7"   | 7'8"   | 13'1"                                 | 12'0"   | 10'6"   |    |    |
| 400S137-27  | 33      | 12'4"                                 | 11'5"  | 10'3"  | 17'7"                                 | 16'0"   | 13'11" | 11'1"                                 | 10'3"  | 9'2"   | 15'4"                                 | 13'11" | 12'2"  | 9'0"                                  | 8'4"   | 7'6"   | 11'10"                                | 10'9"   | 9'5"e   |    |    |
| 400S137-30  | 33      | 12'9"                                 | 11'10" | 10'7"  | 18'2"                                 | 16'6"   | 14'5"  | 11'5"                                 | 10'7"  | 9'6"   | 15'10"                                | 14'5"  | 12'7"  | 9'3"                                  | 8'7"   | 7'9"   | 12'3"                                 | 11'1"   | 9'9"    |    |    |
| 400S137-33  | 33      | 13'3"                                 | 12'3"  | 10'11" | 18'9"                                 | 17'0"   | 14'11" | 11'10"                                | 10'11" | 9'10"  | 16'5"                                 | 14'11" | 13'0"  | 9'7"                                  | 8'11"  | 8'0"   | 12'8"                                 | 11'6"   | 10'1"   |    |    |
| 400S137-43  | 33      | 14'7"                                 | 13'6"  | 12'0"  | 20'5"                                 | 18'6"   | 16'2"  | 13'0"                                 | 12'0"  | 10'9"  | 17'10"                                | 16'2"  | 14'2"  | 10'6"                                 | 9'8"   | 8'8"   | 13'9"                                 | 12'6"   | 10'11"  |    |    |
| 400S162-33  | 33      | 15'0"                                 | 13'11" | 12'6"  | 19'8"                                 | 17'10"  | 15'7"  | 13'6"                                 | 12'6"  | 11'2"  | 17'2"                                 | 15'7"  | 13'7"  | 10'11"                                | 10'2"  | 9'1"   | 13'3"                                 | 12'0"   | 10'6"   |    |    |
| 400S162-43  | 33      | 16'7"                                 | 15'3"  | 13'8"  | 21'4"                                 | 19'5"   | 16'11" | 14'9"                                 | 13'8"  | 12'2"  | 18'8"                                 | 16'11" | 14'10" | 11'11"                                | 11'0"  | 9'11"  | 14'5"                                 | 13'1"   | 11'5"   |    |    |
| 400S162-118 | 50      | 28'1"                                 | 25'7"  | 22'5"  | 28'6"                                 | 25'11"  | 22'7"  | 24'7"                                 | 22'5"  | 19'8"  | 24'11"                                | 22'7"  | 19'9"  | 20'10"                                | 19'0"  | 16'8"  | 21'0"                                 | 19'1"   | 16'8"   |    |    |
| 400S200-118 | 50      | 30'3"                                 | 27'6"  | 24'0"  | 30'3"                                 | 27'6"   | 24'0"  | 26'5"                                 | 24'0"  | 21'0"  | 26'5"                                 | 24'0"  | 21'0"  | 22'3"                                 | 20'3"  | 17'8"  | 22'3"                                 | 20'3"   | 17'8"   |    |    |
| 400S250-118 | 50      | 32'0"                                 | 29'1"  | 25'5"  | 32'0"                                 | 29'1"   | 25'5"  | 27'11"                                | 25'5"  | 22'2"  | 27'11"                                | 25'5"  | 22'2"  | 23'7"                                 | 21'5"  | 18'9"  | 23'7"                                 | 21'5"   | 18'9"   |    |    |
| 400S300-118 | 50      | 33'7"                                 | 30'6"  | 26'8"  | 33'7"                                 | 30'6"   | 26'8"  | 29'4"                                 | 26'8"  | 23'3"  | 29'4"                                 | 26'8"  | 23'3"  | 24'9"                                 | 22'6"  | 19'8"  | 24'9"                                 | 22'6"   | 19'8"   |    |    |
| 400S350-54  | 50      | 28'0"                                 | 25'5"  | 22'3"  | 28'0"                                 | 25'5"   | 22'3"  | 24'6"                                 | 22'3"  | 19'5"  | 24'6"                                 | 22'3"  | 19'5"  | 20'8"                                 | 18'9"  | 16'5"  | 20'8"                                 | 18'9"   | 16'5"   |    |    |
| 400S350-68  | 50      | 30'1"                                 | 27'4"  | 23'10" | 30'1"                                 | 27'4"   | 23'10" | 26'3"                                 | 23'10" | 20'10" | 26'3"                                 | 23'10" | 20'10" | 22'2"                                 | 20'2"  | 17'7"  | 22'2"                                 | 20'2"   | 17'7"   |    |    |
| 400S350-97  | 50      | 33'5"                                 | 30'5"  | 26'6"  | 33'5"                                 | 30'5"   | 26'6"  | 29'3"                                 | 26'6"  | 23'2"  | 29'3"                                 | 26'6"  | 23'2"  | 24'8"                                 | 22'5"  | 19'7"  | 24'8"                                 | 22'5"   | 19'7"   |    |    |
| 400S350-118 | 50      | 35'5"                                 | 32'2"  | 28'1"  | 35'5"                                 | 32'2"   | 28'1"  | 30'11"                                | 28'1"  | 24'7"  | 30'11"                                | 28'1"  | 24'7"  | 26'1"                                 | 23'8"  | 20'8"  | 26'1"                                 | 23'8"   | 20'8"   |    |    |
| 550S125-27  | 33      | 12'1"                                 | 11'3"  | 10'1"  | 17'6"                                 | 16'1"   | 14'5"  | 10'11"                                | 10'1"  | 9'1"   | 15'7"                                 | 14'5"  | 12'11" | 8'11"                                 | 8'3"   | 7'5"   | 12'7"                                 | 11'7"   | 10'0"e  |    |    |
| 550S125-30  | 33      | 12'6"                                 | 11'7"  | 10'5"  | 17'11"                                | 16'8"   | 14'11" | 11'2"                                 | 10'5"  | 9'4"   | 16'2"                                 | 14'11" | 13'4"  | 9'2"                                  | 8'6"   | 7'8"   | 13'0"                                 | 12'1"   | 10'7"e  |    |    |
| 550S125-33  | 33      | 12'10"                                | 11'11" | 10'8"  | 18'6"                                 | 17'1"   | 15'5"  | 11'7"                                 | 10'8"  | 9'7"   | 16'7"                                 | 15'5"  | 13'10" | 9'5"                                  | 8'9"   | 7'10"  | 13'6"                                 | 12'5"   | 11'1"   |    |    |
| 550S125-43  | 33      | 14'2"                                 | 13'0"  | 11'8"  | 20'0"                                 | 18'6"   | 16'7"  | 12'7"                                 | 11'8"  | 10'5"  | 17'11"                                | 16'7"  | 14'11" | 10'2"                                 | 9'5"   | 8'6"   | 14'7"                                 | 13'6"   | 12'2"   |    |    |
| 550S137-27  | 33      | 13'8"                                 | 12'8"  | 11'5"  | 19'9"                                 | 18'4"   | 16'7"  | 12'4"                                 | 11'5"  | 10'4"  | 17'10"                                | 16'7"  | 14'11" | 10'1"                                 | 9'4"   | 8'5"e  | 14'8"                                 | 13'6"e  | 11'11"e |    |    |
| 550S137-30  | 33      | 14'1"                                 | 13'0"  | 11'9"  | 20'3"                                 | 18'10"  | 17'0"  | 12'8"                                 | 11'9"  | 10'7"  | 18'3"                                 | 17'0"  | 15'4"  | 10'4"                                 | 9'7"   | 8'8"   | 15'0"                                 | 13'11"  | 12'4"e  |    |    |
| 550S137-33  | 33      | 14'6"                                 | 13'5"  | 12'1"  | 20'10"                                | 19'4"   | 17'5"  | 13'0"                                 | 12'1"  | 10'10" | 18'9"                                 | 17'5"  | 15'9"  | 10'8"                                 | 9'10"  | 8'11"  | 15'5"                                 | 14'3"   | 12'9"e  |    |    |
| 550S137-43  | 33      | 15'11"                                | 14'8"  | 13'1"  | 22'7"                                 | 20'11"  | 18'9"  | 14'2"                                 | 13'1"  | 11'9"  | 20'3"                                 | 18'9"  | 16'10" | 11'6"                                 | 10'8"  | 9'7"   | 16'6"                                 | 15'4"   | 13'9"   |    |    |
| 550S162-33  | 33      | 16'6"                                 | 15'3"  | 13'9"  | 23'9"                                 | 22'1"   | 19'11" | 14'10"                                | 13'9"  | 12'4"  | 21'5"                                 | 19'11" | 17'5"  | 12'2"                                 | 11'3"  | 10'2"  | 17'0"                                 | 15'5"   | 13'6"e  |    |    |
| 550S162-43  | 33      | 18'0"                                 | 16'7"  | 14'11" | 25'8"                                 | 23'9"   | 21'4"  | 16'1"                                 | 14'11" | 13'4"  | 23'1"                                 | 21'4"  | 19'0"  | 13'1"                                 | 12'1"  | 10'11" | 18'6"                                 | 16'10"  | 14'8"   |    |    |
| 600S125-27  | 33      | 12'5"e                                | 11'6"e | 10'4"e | 17'11"e                               | 16'6"e  | 14'9"e | 11'2"e                                | 10'4"e | 9'4"e  | 16'0"e                                | 14'9"e | 13'2"e | 9'2"e                                 | 8'6"e  | 7'7"e  | 12'11"e                               | 11'10"e | 10'4"e  |    |    |
| 600S125-30  | 33      | 12'9"                                 | 11'10" | 10'8"  | 18'5"                                 | 17'1"   | 15'3"  | 11'6"                                 | 10'8"  | 9'7"   | 16'7"                                 | 15'3"  | 13'8"  | 9'5'8"                                | 9'7"   | 10'13" | 4'12"                                 | 4'10"   | 11"e    |    |    |
| 600S125-33  | 33      | 13'2"                                 | 12'3"  | 11'0"  | 18'11"                                | 17'7"   | 15'10" | 11'10"                                | 11'0"  | 9'10"  | 17'0"                                 | 15'10" | 14'2"  | 9'8"                                  | 8'11"  | 8'1"   | 13'10"                                | 12'9"   | 11'5"e  |    |    |
| 600S125-43  | 33      | 14'6"                                 | 13'4"  | 11'11" | 20'6"                                 | 19'0"   | 17'0"  | 12'11"                                | 11'11" | 10'8"  | 18'4"                                 | 17'0"  | 15'3"  | 10'5"                                 | 9'8"   | 8'8"   | 15'0"                                 | 13'11"  | 12'6"   |    |    |
| 600S137-27  | 33      | 14'0"e                                | 13'0"e | 11'9"e | 20'2"e 1                              | 8'8"e   | 16'9"e | 12'7"e                                | 11'9"e | 10'6"e | 18'1"e                                | 16'9"e | 15'0"e | 10'4"e                                | 9'7"e  | 8'7"e  | 14'8"e                                | 13'7"e  | 11'10"e |    |    |
| 600S137-30  | 33      | 14'5"                                 | 13'4"  | 12'0"  | 20'10"                                | 19'3"   | 17'3"  | 13'0"                                 | 12'0"  | 10'10" | 18'8"                                 | 17'3"  | 15'6"  | 10'7"                                 | 9'10"  | 8'10"  | 15'2"                                 | 14'0"   | 12'5"e  |    |    |
| 600S137-33  | 33      | 14'11"                                | 13'9"  | 12'5"  | 21'5"                                 | 19'10"  | 17'10" | 13'4"                                 | 12'5"  | 11'2"  | 19'3"                                 | 17'10" | 16'0"  | 10'11"                                | 10'2"  | 9'2"   | 15'8"                                 | 14'6"   | 12'11"e |    |    |
| 600S137-43  | 33      | 16'3"                                 | 15'0"  | 13'5"  | 23'1"                                 | 21'5"   | 19'3"  | 14'6"                                 | 13'5"  | 12'0"  | 20'9"                                 | 19'3"  | 17'4"  | 11'9"                                 | 10'11" | 9'10"  | 16'11"                                | 15'9"   | 14'2"   |    |    |
| 600S162-33  | 33      | 16'11"                                | 15'8"  | 14'1"  | 24'5"                                 | 22'8"   | 20'5"  | 15'2"                                 | 14'1"  | 12'8"  | 22'0"                                 | 20'5"  | 18'5"  | 12'5"                                 | 11'7"  | 10'5"  | 18'0"                                 | 16'6"   | 14'5"e  |    |    |
| 600S162-43  | 33      | 18'5"                                 | 17'0"  | 15'3"  | 26'4"                                 | 24'4"   | 21'11" | 16'6"                                 | 15'3"  | 13'8"  | 23'8"                                 | 21'11" | 19'9"1 | 3'5"                                  | 12'5"  | 11'2"  | 19'4"                                 | 17'11"  | 15'9"   |    |    |
| 600S162-118 | 50      | 30'2"                                 | 27'6"  | 24'2"  | 39'6"                                 | 35'11"  | 31'4"  | 26'6"                                 | 24'2"  | 21'2"  | 34'6"                                 | 31'4"  | 27'5"  | 22'6"                                 | 20'6"  | 18'1"  | 29'1"                                 | 26'6"   | 23'1"   |    |    |
| 600S200-118 | 50      | 34'4"                                 | 31'4"  | 27'6"  | 41'9"                                 | 37'11"  | 33'1"  | 30'2"                                 | 27'6"  | 24'2"  | 36'5"                                 | 33'1"  | 28'11" | 25'8"                                 | 23'5"  | 20'8"  | 30'9"                                 | 27'11"  | 24'5"   |    |    |
| 600S250-118 | 50      | 38'5"                                 | 35'1"  | 30'10" | 43'10"                                | 39'10"  | 34'10" | 33'10"                                | 30'10" | 27'2"  | 38'4"                                 | 34'10" | 30'5"  | 26'4"                                 | 23'3"  | 32'4"  | 29'4"                                 | 25'8"   | 25'8"   |    |    |
| 600S300-118 | 50      | 42'4"                                 | 38'7"  | 34'0"  | 45'9"                                 | 41'7"   | 36'4"  | 37'2"                                 | 34'0"  | 30'0"  | 40'0"                                 | 36'4"  | 31'9"  | 31'8"                                 | 29'0"  | 25'8"  | 33'9"                                 | 30'8"   | 26'9"   |    |    |
| 600S350-54  | 50      | 34'1"                                 | 31'6"  | 28'4"  | 38'0"                                 | 34'6"   | 30'2"  | 30'7"                                 | 28'4"  | 25'5"  | 33'2"                                 | 30'2"  | 26'4"  | 26'8"                                 | 24'9"  | 22'3"  | 28'0"                                 | 25'5"   | 22'3"   |    |    |
| 600S350-68  | 50      | 37'1"                                 | 34'2"  | 30'6"  | 40'10"                                | 37'1"   | 32'5"  | 33'1"                                 | 30'6"  | 27'4"  | 35'8"                                 | 32'5"  | 28'4"  | 28'9"                                 | 26'7"  | 23'10" | 30'1"                                 | 27'4"   | 23'11"  |    |    |
| 600S350-97  | 50      | 43'3"                                 | 39'8"  | 35'2"  | 45'6"                                 | 41'4"   | 36'2"  | 38'3"                                 | 35'2"  | 31'3"  | 39'9"                                 | 36'2"  | 31'7"  | 32'11"                                | 30'3"  | 26'7"  | 33'6"                                 | 30'6"   | 26'7"   |    |    |
| 600S350-118 | 50      | 47'10"                                | 43'9"  | 38'4"  | 48'3"                                 | 43'10"  | 38'4"  | 42'2"                                 | 38'4"  | 33'6"  | 42'2"                                 | 38'4"  | 33'6"  | 35'7"                                 | 32'4"  | 28'3"  | 35'7"                                 | 32'4"   | 28'3"   |    |    |

See notes located on page 116

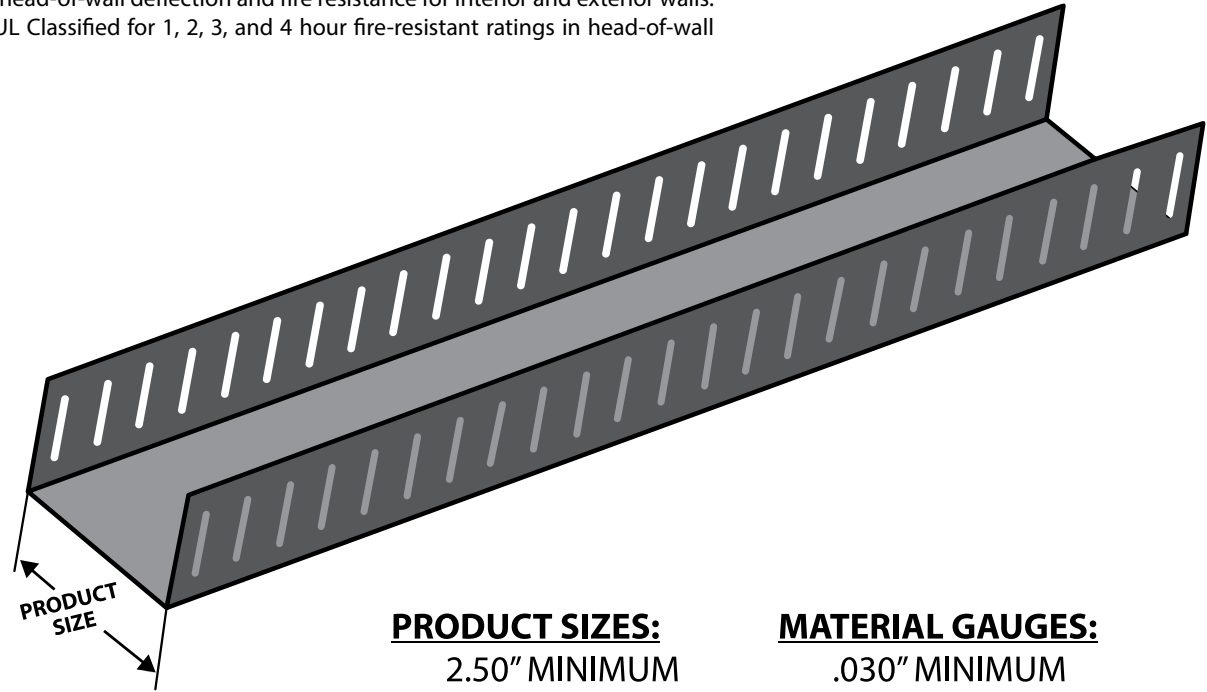
# TRUE-ACTION™ SLOTTED TRACK - HEAD OF WALL DEFLECTION SYSTEM

## What is True-Action™ Slotted Track - Head of Wall Deflection System?

True-Action™ Slotted Track is the industry preferred system for achieving head-of-wall deflection and fire resistance for interior and exterior walls. It meets movement and cycling requirements for ANSI/UL 2079 and is UL Classified for 1, 2, 3, and 4 hour fire-resistant ratings in head-of-wall fire-rated joint systems.

### Benefits

- Fire-rated deflection system
- UL Classified in over 80 approved fire-rated systems
- Standard Slotted Track allows vertical movement
- Custom shapes and slot sizes available
- Custom widths and thicknesses available
- Positive attachment provided for wall strength
- Absorbs head-of-wall and floor extension or compression movement
- Integrated with traditional wall systems
- Easy installation reduces labor costs

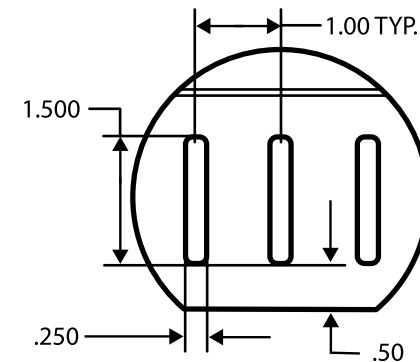
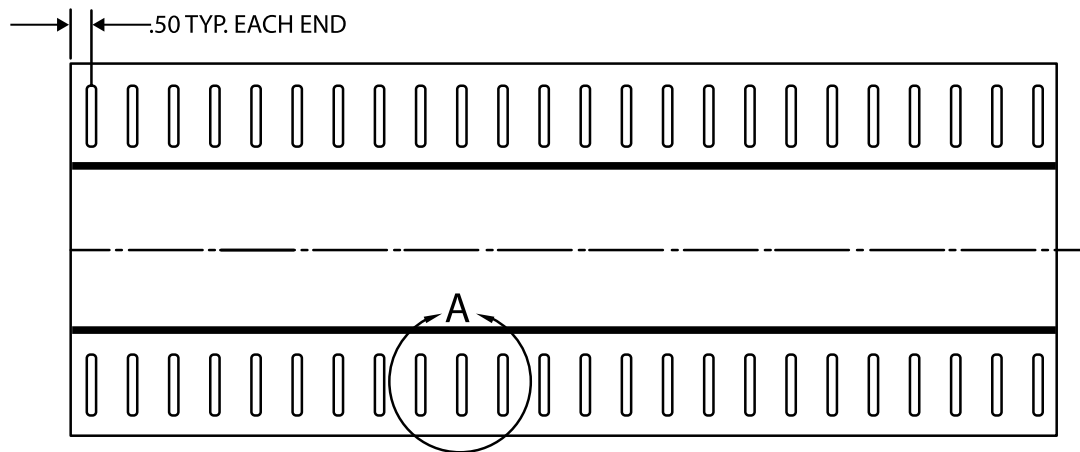


### PRODUCT SIZES:

2.50" MINIMUM  
8.00" MAXIMUM

### MATERIAL GAUGES:

.030" MINIMUM  
.071" MAXIMUM



DETAIL A  
SCALE 2 : 3

# TRUE-ACTION™ SLOTTED TRACK - HEAD OF WALL DEFLECTION SYSTEM

## UL Rated Designs

### True-Action™ Slotted Track Framing Members For Use In Joint Systems Numbers

|           |            |           |           |           |           |           |           |
|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| HW-D-0003 | HW-D-0016  | HW-D-0020 | HW-D-0021 | HW-D-0024 | HW-D-0025 | HW-D-0029 | HW-D-0031 |
| HW-D-0034 | HW-D-0036  | HW-D-0042 | HW-D-0043 | HW-D-0044 | HW-D-0045 | HW-D-0046 | HW-D-0047 |
| HW-D-0048 | HW-D-0049  | HW-D-0054 | HW-D-0062 | HW-D-0063 | HW-D-0067 | HW-D-0068 | HW-D-0069 |
| HW-D-0071 | HW-D-0072  | HW-D-0073 | HW-D-0076 | HW-D-0077 | HW-D-0082 | HW-D-0083 | HW-D-0084 |
| HW-D-0085 | HW-D-0087  | HW-D-0088 | HW-D-0089 | HW-D-0091 | HW-D-0099 | HW-D-0101 | HW-D-0102 |
| HW-D-0106 | HW-D-0107  | HW-D-0108 | HW-D-0111 | HW-D-0134 | HW-D-0136 | HW-D-0137 | HW-D-0144 |
| HW-D-0146 | HW-D-0152  | HW-D-0154 | HW-D-0160 | HW-D-0162 | HW-D-0167 | HW-D-0170 | HW-D-0173 |
| HW-D-0183 | HW-D-0184  | HW-D-0185 | HW-D-0186 | HW-D-0190 | HW-D-0193 | HW-D-0194 | HW-D-0195 |
| HW-D-0205 | HW-D-0210  | HW-D-0217 | HW-D-0218 | HW-D-0241 | HW-D-0242 | HW-D-0243 | HW-D-0246 |
| HW-D-0259 | HW-D-0260  | HW-D-0263 | HW-D-0265 | HW-D-0271 | HW-D-0272 | HW-D-0275 | HW-D-0277 |
| HW-D-0278 | HW- D-0293 | HW-D-0313 | HW-D-0322 | HW-D-0341 | HW-D-0420 | HW-D-0421 | HW-D-0453 |
| HW-D-0455 | HW-D-0461  | HW-D-0462 | HW-D-0463 | HW-D-0467 | HW-D-0468 | HW-D-0475 | HW-D-0476 |
| HW-D-0477 | HW-D-0480  | HW-D-0485 | HW-D-0486 | HW-D-0517 | HW-D-0532 | HW-D-0541 | HW-D-0542 |
| HW-D-0548 | HW-D-0549  | HW-D-0564 | HW-D-0569 | HW-D-0570 | HW-D-0571 | HW-D-0572 |           |

**Note:** Details of UL Rated Designs available at [www.BuildStrong.com](http://www.BuildStrong.com).

## Allowable Wall Heights (ft)

| Gauge                 |                       | Strength |                              | Lateral Pressure (PSF) |       |       |                   |       |      |                   |       |       |                   |       |       |
|-----------------------|-----------------------|----------|------------------------------|------------------------|-------|-------|-------------------|-------|------|-------------------|-------|-------|-------------------|-------|-------|
| Mill Thickness (mils) | Design Thickness (in) | Fy (ksi) | Allowable Reaction (lb/stud) | 5 PSF                  |       |       | 10 PSF            |       |      | 20 PSF            |       |       | 30 PSF            |       |       |
|                       |                       |          |                              | Stud Spacing (in)      |       |       | Stud Spacing (in) |       |      | Stud Spacing (in) |       |       | Stud Spacing (in) |       |       |
|                       |                       |          |                              | 12                     | 16    | 24    | 12                | 16    | 24   | 12                | 16    | 24    | 12                | 16    | 24    |
| 33                    | .0346                 | 33       | 98                           | 39.2                   | 29.4  | 19.6  | 19.6              | 14.7  | 9.8  | 9.8               | 7.35  | 4.9   | 6.533             | 4.9   | 3.267 |
| 43                    | .0451                 | 33       | 172                          | 68.8                   | 51.6  | 34.4  | 34.4              | 25.8  | 17.2 | 17.2              | 12.9  | 8.6   | 11.47             | 8.6   | 5.733 |
| 54                    | .0566                 | 50       | 423                          | 169.2                  | 126.9 | 84.6  | 84.6              | 63.45 | 42.3 | 42.3              | 31.73 | 21.15 | 28.2              | 21.15 | 14.1  |
| 68                    | .0713                 | 50       | 626                          | 250.4                  | 187.8 | 125.2 | 125.2             | 93.9  | 62.6 | 62.6              | 46.95 | 31.3  | 41.73             | 31.3  | 20.87 |

- Note:**
1. Based on testing and analysis by Structural Testing and Research (STaR) Report No. 3160903 dated March 29, 2010 (Amended May 19, 2010).
  2. Testing based on maximum 7/8" gap between end of stud and track web.
  3. Testing based on #8 screws each leg for 33-mil track, #10 each leg for 43, 54 and 68-mil track. All screws were pan head, 0.43 inch head diameter.
  4. Loads have not been modified for duration of load.

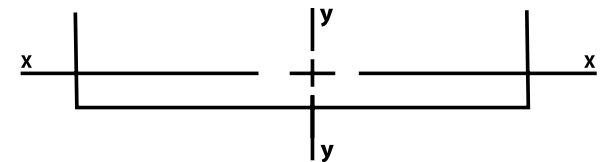


# TRUE-ACTION™ SLOTTED TRACK - SECTION PROPERTIES

| Section                   | Design Thickness (in) | F <sub>y</sub> (ksi) | Gross Properties <sup>1</sup> |  |                          |                                    |                      |                                    |                     | Effective Properties <sup>4,5</sup> |                                    |                          |
|---------------------------|-----------------------|----------------------|-------------------------------|--|--------------------------|------------------------------------|----------------------|------------------------------------|---------------------|-------------------------------------|------------------------------------|--------------------------|
|                           |                       |                      | Area (in <sup>2</sup> )       | Net Area <sub>2</sub> (in <sup>2</sup> ) | Wt. <sup>3</sup> (lb/ft) | I <sub>xx</sub> (in <sup>4</sup> ) | R <sub>xs</sub> (in) | I <sub>yy</sub> (in <sup>4</sup> ) | R <sub>y</sub> (in) | S <sub>yy</sub> (in <sup>3</sup> )  | S <sub>yy</sub> (in <sup>3</sup> ) | M <sub>ay-y</sub> (in-k) |
| 250TAT250-33              | 0.0346                | 33                   | 0.259                         | 0.156                                    | 0.88                     | 0.178                              | 0.827                | 0.339                              | 1.144               | 0.129                               | 0.087                              | 1.72                     |
| 250TAT250-43              | 0.0451                | 33                   | 0.338                         | 0.203                                    | 1.15                     | 0.23                               | 0.826                | 0.443                              | 1.146               | 0.168                               | 0.113                              | 2.23                     |
| 250TAT250-54              | 0.0566                | 50                   | 0.424                         | 0.254                                    | 1.44                     | 0.287                              | 0.824                | 0.565                              | 1.155               | 0.213                               | 0.141                              | 4.22                     |
| 250TAT250-68              | 0.0713                | 50                   | 0.534                         | 0.32                                     | 1.82                     | 0.36                               | 0.821                | 0.728                              | 1.168               | 0.273                               | 0.177                              | 5.29                     |
| 350TAT250-33              | 0.0346                | 33                   | 0.294                         | 0.19                                     | 1                        | 0.198                              | 0.821                | 0.687                              | 1.528               | 0.286                               | 0.138                              | 2.73                     |
| 350TAT250-43              | 0.0451                | 33                   | 0.383                         | 0.248                                    | 1.3                      | 0.257                              | 0.819                | 0.896                              | 1.53                | 0.373                               | 0.185                              | 3.66                     |
| 350TAT250-54              | 0.0566                | 50                   | 0.48                          | 0.311                                    | 1.63                     | 0.321                              | 0.817                | 1.137                              | 1.538               | 0.471                               | 0.232                              | 6.93                     |
| 350TAT250-68              | 0.0713                | 50                   | 0.605                         | 0.391                                    | 2.06                     | 0.401                              | 0.814                | 1.454                              | 1.55                | 0.598                               | 0.29                               | 8.69                     |
| 362TAT250-33              | 0.0346                | 33                   | 0.298                         | 0.194                                    | 1.01                     | 0.2                                | 0.82                 | 0.74                               | 1.575               | 0.312                               | 0.144                              | 2.85                     |
| 362TAT250-43              | 0.0451                | 33                   | 0.389                         | 0.253                                    | 1.32                     | 0.26                               | 0.818                | 0.966                              | 1.577               | 0.406                               | 0.195                              | 3.86                     |
| 362TAT250-54              | 0.0566                | 50                   | 0.487                         | 0.318                                    | 1.66                     | 0.324                              | 0.816                | 1.224                              | 1.585               | 0.512                               | 0.244                              | 7.32                     |
| 362TAT250-68              | 0.0713                | 50                   | 0.614                         | 0.4                                      | 2.09                     | 0.406                              | 0.813                | 1.565                              | 1.597               | 0.65                                | 0.306                              | 9.17                     |
| 400TAT250-33              | 0.0346                | 33                   | 0.311                         | 0.207                                    | 1.06                     | 0.207                              | 0.815                | 0.914                              | 1.714               | 0.396                               | 0.162                              | 3.21                     |
| 400TAT250-43              | 0.0451                | 33                   | 0.405                         | 0.27                                     | 1.38                     | 0.268                              | 0.813                | 1.193                              | 1.715               | 0.516                               | 0.227                              | 4.49                     |
| 400TAT250-54              | 0.0566                | 50                   | 0.509                         | 0.339                                    | 1.73                     | 0.335                              | 0.811                | 1.511                              | 1.723               | 0.65                                | 0.284                              | 8.51                     |
| 400TAT250-68              | 0.0713                | 50                   | 0.641                         | 0.427                                    | 2.18                     | 0.418                              | 0.808                | 1.928                              | 1.735               | 0.825                               | 0.356                              | 10.67                    |
| 550TAT250-33              | 0.0346                | 33                   | 0.363                         | 0.259                                    | 1.24                     | 0.228                              | 0.792                | 1.839                              | 2.251               | 0.837                               | 0.236                              | 4.66                     |
| 550TAT250-43              | 0.0451                | 33                   | 0.473                         | 0.338                                    | 1.61                     | 0.295                              | 0.79                 | 2.399                              | 2.252               | 1.142                               | 0.34                               | 6.72                     |
| 550TAT250-54              | 0.0566                | 50                   | 0.594                         | 0.424                                    | 2.02                     | 0.368                              | 0.788                | 3.029                              | 2.259               | 1.436                               | 0.43                               | 12.87                    |
| 550TAT250-68              | 0.0713                | 50                   | 0.748                         | 0.534                                    | 2.54                     | 0.46                               | 0.785                | 3.849                              | 2.269               | 1.817                               | 0.584                              | 17.48                    |
| 600TAT250-33              | 0.0346                | 33                   | 0.38                          | 0.277                                    | 1.29                     | 0.233                              | 0.783                | 2.236                              | 2.424               | 1.026                               | 0.26                               | 5.14                     |
| 600TAT250-43              | 0.0451                | 33                   | 0.496                         | 0.36                                     | 1.69                     | 0.303                              | 0.781                | 2.916                              | 2.425               | 1.407                               | 0.378                              | 7.47                     |
| 600TAT250-54              | 0.0566                | 50                   | 0.622                         | 0.452                                    | 2.12                     | 0.377                              | 0.779                | 3.678                              | 2.432               | 1.777                               | 0.478                              | 14.31                    |
| 600TAT250-68              | 0.0713                | 50                   | 0.783                         | 0.569                                    | 2.67                     | 0.472                              | 0.776                | 4.67                               | 2.442               | 2.266                               | 0.655                              | 19.61                    |
| 800TAT250-33 <sup>6</sup> | 0.0346                | 33                   | 0.45                          | 0.346                                    | 1.53                     | 0.252                              | 0.748                | 4.318                              | 3.099               | 2.003                               | 0.358                              | 7.07                     |
| 800TAT250-43              | 0.0451                | 33                   | 0.586                         | 0.451                                    | 1.99                     | 0.326                              | 0.746                | 5.629                              | 3.1                 | 2.801                               | 0.53                               | 10.47                    |
| 800TAT250-54              | 0.0566                | 50                   | 0.735                         | 0.565                                    | 2.5                      | 0.407                              | 0.744                | 7.09                               | 3.106               | 3.54                                | 0.671                              | 20.1                     |
| 800TAT250-68              | 0.0713                | 50                   | 0.926                         | 0.712                                    | 3.15                     | 0.509                              | 0.741                | 8.978                              | 3.114               | 4.698                               | 0.942                              | 28.21                    |

**Notes:**

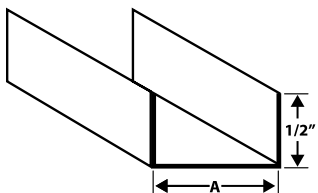
1. Gross properties are based on the full section away from flange slots.
2. Net area is based on the section through the flange slots.
3. Weight is nominal weight of the gross section, not reduced for flange slots.
4. Effective properties are calculated in accordance with the 2007 NASPEC with 2010 Supplement (AISI S100-07/S2-10).  
For effective flange widths, the compression flange (before local buckling) is taken as the portion of the flange between the web and the slot (the slot and any steel beyond the slot is considered absent). The tension flange is taken as the net flange at the slots.
5. Cold-work of forming has not been considered for effective properties.
6. Web width-to-thickness ratio exceeds 200. Web stiffeners are required at points of concentrated loads or reactions.
7. IBC 2006, 2009, and 2012 compliant.





# BRIDGING AND BRACING

## (CRC) Cold-Rolled Channel



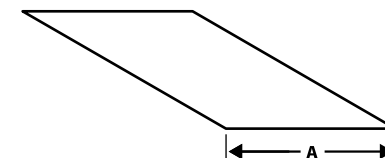
### Product Data:

- Available in galvanized steel meeting ASTM A-1003 or hot-dipped galvanized steel meeting ASTM A-653, G60.
- Lengths: 16' stock length. (Other lengths available)

### Uses:

- Bridging, (lateral support) in walls carrying axial and/or wind loads.
- Bracing studs at door bucks and furring for ceilings.
- Used in conjunction with metal lath and plaster in partitions, ceilings, column and beam enclosures, etc.

## (FS) Flat Strapping



### Product Data:

- Designation: Width-FS- Gauge
- o Ex 2" FS- 20Ga

- Stock widths: 2", 4", 6"
- Custom Widths are available in increments of even inches.
  - o Examples: 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48"
- Length: 10' Standard (Alt. Lengths Available, ie. 8')
- Gauges:
  - o 33KSI: 25, 22, 20, 20S& 18 gauge
  - o 50KSI: 20S, 22, 16, 14 & 12 gauge
- Coating:
  - o Drywall: Standard G-40 Hot Dipped Galvanized.
  - Also Available in G-60 and G-90
  - o Structural: G-60 Hot Dipped Galvanized.
  - Also Available in G-60 and G-90
- Meets applicable ASTM's for Structural and Drywall applications:
  - o ASTM- A1003, A-653, A924, C-645, C754, C955, C1007

## U-Channel (CRC) Properties and Spans

| Section | Design Thickness (in) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Gross                             |                     |                                   |                     | Effective Properties 33 ksi Gross |                                   |                       |                     |
|---------|-----------------------|-------------------------|----------------|-----------------------------------|---------------------|-----------------------------------|---------------------|-----------------------------------|-----------------------------------|-----------------------|---------------------|
|         |                       |                         |                | I <sub>x</sub> (in <sup>4</sup> ) | R <sub>x</sub> (in) | I <sub>y</sub> (in <sup>4</sup> ) | R <sub>y</sub> (in) | I <sub>x</sub> (in <sup>4</sup> ) | S <sub>x</sub> (in <sup>3</sup> ) | M <sub>a</sub> (in-k) | V <sub>a</sub> (lb) |
| CRC-075 | 0.0566                | 0.087                   | 0.30           | 0.007                             | 0.288               | 0.002                             | 0.155               | 0.007                             | 0.019                             | 0.45                  | 315                 |
| CRC-150 | 0.0566                | 0.129                   | 0.44           | 0.039                             | 0.547               | 0.003                             | 0.144               | 0.039                             | 0.052                             | 1.22                  | 840                 |
| CRC-200 | 0.0566                | 0.157                   | 0.54           | 0.079                             | 0.709               | 0.003                             | 0.136               | 0.079                             | 0.079                             | 1.87                  | 1190                |
| CRC-250 | 0.0566                | 0.186                   | 0.63           | 0.139                             | 0.866               | 0.003                             | 0.128               | 0.139                             | 0.111                             | 2.64                  | 1540                |

### Notes:

1. Minimum deliverable base metal thickness is 95% of design thickness. 2. Inside bend radius taken as 3/32". 3. Effective properties based on F<sub>y</sub> = 33 ksi. 4. For deflection calculations, use the effective moment of inertia.

## Allowable U-Channel (CRC) Ceiling Spans - L/240

| Section | Spans    | 4 psf                     |       |       |       | 6 psf |       |       |       | 13 psf                    |       |       |      | 15 psf |       |       |       |      |       |       |       |
|---------|----------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|-------|-------|------|--------|-------|-------|-------|------|-------|-------|-------|
|         |          | Channel Spacing (in) o.c. |       |       |       |       |       |       |       | Channel Spacing (in) o.c. |       |       |      |        |       |       |       |      |       |       |       |
|         |          | 24                        | 36    | 48    | 60    | 72    | 24    | 36    | 48    | 60                        | 72    | 24    | 36   | 48     | 60    | 72    | 24    | 36   | 48    | 60    | 72    |
| CRC-075 | Single   | 3'11"                     | 3'5"  | 3'1"  | 2'10" | 2'8"  | 3'5"  | 3'0"  | 2'8"  | 2'6"                      | 2'4"  | 2'7"  | 2'4" | 2'1"   | 1'11" | 1'9"  | 2'6"  | 2'2" | 2'0"  | 1'10" | 1'8"  |
|         | Multiple | 4'10"                     | 4'2"  | 3'10" | 3'7"  | 3'4"  | 4'2"  | 3'8"  | 3'4"  | 3'1"                      | 2'10" | 3'3"  | 2'9" | 2'4"   | 2'1"  | 1'11" | 3'1"  | 2'7" | 2'2"  | 2'0"  | 1'9"  |
| CRC-150 | Single   | 5'6"                      | 4'10" | 4'5"  | 4'1"  | 3'10" | 4'10" | 4'3"  | 3'10" | 3'7"                      | 3'5"  | 3'9"  | 3'3" | 3'0"   | 2'9"  | 2'7"  | 3'7"  | 3'2" | 2'10" | 2'7"  | 2'5"  |
|         | Multiple | 7'1"                      | 6'2"  | 5'8"  | 5'3"  | 4'11" | 6'2"  | 5'5"  | 4'11" | 4'7"                      | 4'4"  | 4'10" | 4'2" | 3'9"   | 3'4"  | 3'0"  | 4'7"  | 4'0" | 3'6"  | 3'1"  | 2'9"  |
| CRC-200 | Single   | 5'10"                     | 5'1"  | 4'8"  | 4'4"  | 4'1"  | 5'1"  | 4'6"  | 4'1"  | 3'10"                     | 3'7"  | 4'0"  | 3'6" | 3'2"   | 3'0"  | 2'10" | 3'10" | 3'4" | 3'1"  | 2'10" | 2'8"  |
|         | Multiple | 7'5"                      | 6'6"  | 5'11" | 5'6"  | 5'2"  | 6'6"  | 5'8"  | 5'2"  | 4'10"                     | 4'7"  | 5'1"  | 4'5" | 4'0"   | 3'9"  | 3'6"  | 4'10" | 4'3" | 3'10" | 3'7"  | 3'2"  |
| CRC-250 | Single   | 6'1"                      | 5'4"  | 4'10" | 4'6"  | 4'3"  | 5'4"  | 4'8"  | 4'3"  | 4'0"                      | 3'9"  | 4'2"  | 3'8" | 3'4"   | 3'1"  | 2'11" | 4'0"  | 3'6" | 3'2"  | 3'0"  | 2'10" |
|         | Multiple | 7'9"                      | 6'9"  | 6'2"  | 5'9"  | 5'5"  | 6'9"  | 5'11" | 5'5"  | 5'0"                      | 4'9"  | 5'3"  | 4'7" | 4'3"   | 3'11" | 3'9"  | 5'0"  | 4'5" | 4'0"  | 3'9"  | 3'7"  |

## Allowable U-Channel (CRC) Ceiling Spans - L/360

| Section | Spans    | 4 psf                     |       |       |      |       | 6 psf |       |       |       |      | 12 psf                    |      |       |       |       | 15 psf |       |       |       |       |
|---------|----------|---------------------------|-------|-------|------|-------|-------|-------|-------|-------|------|---------------------------|------|-------|-------|-------|--------|-------|-------|-------|-------|
|         |          | Channel Spacing (in) o.c. |       |       |      |       |       |       |       |       |      | Channel Spacing (in) o.c. |      |       |       |       |        |       |       |       |       |
|         |          | 24                        | 36    | 48    | 60   | 72    | 24    | 36    | 48    | 60    | 72   | 24                        | 36   | 48    | 60    | 72    | 24     | 36    | 48    | 60    | 72    |
| CRC-075 | Single   | 3'5"                      | 3'0"  | 2'8"  | 2'6" | 2'4"  | 3'0"  | 2'7"  | 2'4"  | 2'2"  | 2'1" | 2'4"                      | 2'0" | 1'10" | 1'8"  | 1'7"  | 2'2"   | 1'11" | 1'9"  | 1'7"  | 1'6"  |
|         | Multiple | 4'2"                      | 3'8"  | 3'4"  | 3'1" | 2'11" | 3'8"  | 3'2"  | 2'11" | 2'8"  | 2'7" | 2'10"                     | 2'6" | 2'3"  | 2'1"  | 1'11" | 2'8"   | 2'4"  | 2'2"  | 2'0"  | 1'9"  |
| CRC-150 | Single   | 5'6"                      | 4'10" | 4'5"  | 4'1" | 3'10" | 4'10" | 4'3"  | 3'10" | 3'7"  | 3'5" | 3'9"                      | 3'3" | 3'0"  | 2'9"  | 2'7"  | 3'7"   | 3'2"  | 2'10" | 2'7"  | 2'5"  |
|         | Multiple | 7'1"                      | 6'2"  | 5'8"  | 5'3" | 4'11" | 6'2"  | 5'5"  | 4'11" | 4'7"  | 4'4" | 4'10"                     | 4'2" | 3'9"  | 3'4"  | 3'0"  | 4'7"   | 4'0"  | 3'6"  | 3'1"  | 2'9"  |
| CRC-200 | Single   | 5'10"                     | 5'1"  | 4'8"  | 4'4" | 4'1"  | 5'1"  | 4'6"  | 4'1"  | 3'10" | 3'7" | 4'0"                      | 3'6" | 3'2"  | 3'0"  | 2'10" | 3'10"  | 3'4"  | 3'1"  | 2'10" | 2'8"  |
|         | Multiple | 7'5"                      | 6'6"  | 5'11" | 5'6" | 5'2"  | 6'6"  | 5'8"  | 5'2"  | 4'10" | 4'7" | 5'1"                      | 4'5" | 4'0"  | 3'9"  | 3'6"  | 4'10"  | 4'3"  | 3'10" | 3'7"  | 3'2"  |
| CRC-250 | Single   | 6'1"                      | 5'4"  | 4'10" | 4'6" | 4'3"  | 5'4"  | 4'8"  | 4'3"  | 4'0"  | 3'9" | 4'2"                      | 3'8" | 3'4"  | 3'1"  | 2'11" | 4'0"   | 3'6"  | 3'2"  | 3'0"  | 2'10" |
|         | Multiple | 7'9"                      | 6'9"  | 6'2"  | 5'9" | 5'5"  | 6'9"  | 5'11" | 5'5"  | 5'0"  | 4'9" | 5'3"                      | 4'7" | 4'3"  | 3'11" | 3'9"  | 5'0"   | 4'5"  | 4'0"  | 3'9"  | 3'7"  |

### Notes:

- Multiple span indicates two or more equal spans with channel continuous over interior supports.
- End and interior bearing length = 0.75". Web stiffeners are not required.
- Listed spans are based on unbraced compression flanges.
- Moment of inertia for deflection is calculated at the maximum service level stress for the span and load listed. Note that this value may be higher than the effective I<sub>xx</sub> listed in section property tables.

### Uses:

- Provides tension force resistance in shear wall assemblies.
- Backing plates for fixtures, railings and where ever additional pullout strength is required.
- Resists racking of prefabricated wall assemblies while handling, transporting, and erecting.

# FASTENING SYSTEMS

## Allowable Screw Connection Capacity (Lb/Screw)

| Thickness (mils) | Design Thickness (in) | Fy (ksi) | Fu (ksi) | #6 Screw 0.138" dia; 5/16" head |         | #8 Screw 0.164" dia; 5/16" head |         | #10 Screw 0.190" dia; 5/16" head |         | #12 Screw 0.216" dia; 0.340" head |         |
|------------------|-----------------------|----------|----------|---------------------------------|---------|---------------------------------|---------|----------------------------------|---------|-----------------------------------|---------|
|                  |                       |          |          | Shear                           | Tension | Shear                           | Tension | Shear                            | Tension | Shear                             | Tension |
| 18               | 0.0188                | 33       | 45       | 60                              | 33      | 66                              | 39      | 71                               | 46      | 75                                | 52      |
| 27               | 0.0283                | 33       | 45       | 111                             | 50      | 121                             | 59      | 131                              | 69      | 139                               | 78      |
| 30               | 0.0312                | 33       | 45       | 129                             | 55      | 141                             | 65      | 151                              | 76      | 161                               | 86      |
| 33               | 0.0346                | 33       | 45       | 151                             | 61      | 164                             | 72      | 177                              | 84      | 188                               | 95      |
| 43               | 0.0451                | 33       | 45       | 214                             | 79      | 244                             | 94      | 263                              | 109     | 280                               | 124     |
| 54               | 0.0566                | 33       | 45       | 214                             | 84      | 303                             | 118     | 370                              | 137     | 394                               | 156     |
| 68               | 0.0713                | 33       | 45       | 214                             | 84      | 303                             | 118     | 406                              | 159     | 525                               | 196     |
| 54               | 0.0566                | 50       | 65       | 214                             | 84      | 303                             | 118     | 406                              | 159     | 525                               | 205     |
| 68               | 0.0713                | 50       | 65       | 214                             | 84      | 303                             | 118     | 406                              | 159     | 525                               | 205     |

### Screw Table Notes:

- Capacities based on section E4 of AISI S100-07/2-10 (2007 NASPEC with 2010 Supplement No. 2).
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected
- Where multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal screw diameter, d.
- Screws are assumed to have a center-of-screw to edge-of-steel dimension of at least 1.5 times the nominal screw diameter, d.
- Tension capacity is based on the lesser of pullout capacity in sheet closest to screw tip, or pullover capacity for sheet closest to the screw head (based on head diameter shown)
- Tension values shown in this table, pullover values have been reduced by 50% assuming eccentrically loaded connections producing a non-uniform pullover force on the fastener.
- Values are for pure shear or tension loads. See AISI section E4.5 for combined shear and pull-over.
- Higher values, especially for screw strength, may be obtained by specifying screws from a specific manufacturer. See manufacturer's data for specific values and installation instructions.
- Shear and tension data for screws was developed with the assistance of the Wei-Wen Yu Center for Cold-Formed Steel Structures (CCFSS), using manufacturers' data and evaluation reports available at the time of publication.

## Allowable Weld Capacity - 2007 NASPEC with 2010 Supplement (AISI S100-7/2-10)

| Thickness (mils) | Design Thickness (in) | Fy (ksi) | Fu (ksi) | Nominal Weld Size | Fillet Welds <sup>7</sup> |            | Fxx Limit            | Flare Groove Welds <sup>7</sup> |            | Fxx Limit            |
|------------------|-----------------------|----------|----------|-------------------|---------------------------|------------|----------------------|---------------------------------|------------|----------------------|
|                  |                       |          |          |                   | Longitudinal <sup>1</sup> | Transverse | (E60xx) <sup>3</sup> | Longitudinal <sup>2</sup>       | Transverse | (E60xx) <sup>4</sup> |
| 43               | 0.0451                | 33       | 45       | 1/16              | 499                       | 864        | NA                   | 544                             | 663        | NA                   |
| 54               | 0.0566                | 33       | 45       | 3/32              | 626                       | 1084       | NA                   | 682                             | 832        | NA                   |
| 68               | 0.0713                | 33       | 45       | 1/8               | 789                       | 1365       | NA                   | 859                             | 1048       | NA                   |
| 97               | 0.1017                | 33       | 45       | 1/8               | 1125                      | 1269       | 1269                 | 1226                            | 1402       | 1402                 |
| 118              | 0.1242                | 33       | 45       | 1/8               | 1374                      | 1550       | 1550                 | 1497                            | 1712       | 1712                 |
| 54               | 0.0566                | 50       | 65       | 3/32              | 905                       | 1566       | NA                   | 985                             | 1202       | NA                   |
| 68               | 0.0713                | 50       | 65       | 1/8               | 1140                      | 1972       | NA                   | 1241                            | 1514       | NA                   |
| 97               | 0.1017                | 50       | 65       | 1/8               | 1269                      | 1269       | 1269                 | 1402                            | 1402       | 1402                 |
| 118              | 0.1242                | 40       | 65       | 1/8               | 1550                      | 1550       | 1550                 | 1712 <sup>1</sup>               | 712        | 1712                 |

### Weld Table Notes

- For welds with  $L/t > 25$  where L is weld length and t is the thickness of the welded member.
- For  $t \leq t_w < 2t$  where t = thickness of welded member and  $t_w$  is effective throat thickness of weld.
- Based on weld effective throat,  $t_w = .707t$
- Based on weld effective throat,  $t_w = 5/16R$ , R= outside corner radius = 2.5t. Verify with AISI Eq. 2.5-5 for particular weld geometry.
- Weld capacities based on 2007 NASPEC with 2010 Supplement No. 2 (AISI S100-07/2-10), Sections E2.4 and E2.5
- When connecting materials of different steel thickness or tensile strength (Fu), the lowest applicable values should be used
- Where highlighted indicates that weld capacity is controlled by electrode tensile strength, Fxx = 60 ksi. Only applies to welds of materials > 0.10" thick.

## FASTENING SYSTEMS

### Allowable Working Values for Low Velocity Fasteners into Steel (Pounds)

| Catalog Number Series                                | Shank Diameter (inches) | Type of Shank | Min. Edge Distance | Min. Spacing | Base Steel Thickness ( inches ) |       |         |       |         |       |
|--|-------------------------|---------------|--------------------|--------------|---------------------------------|-------|---------|-------|---------|-------|
|  |                         |               |                    |              | 3/16                            |       | 1/4     |       | 3/8     |       |
|  |                         |               |                    |              | Tension                         | Shear | Tension | Shear | Tension | Shear |
| <b>1500, 1600 &amp; 1900 Series Shank Drive Pins</b> | .140                    | Smooth        | 1/2                | 1            | 130                             | 665   | 270     | 700   | 370     | 840   |
| <b>Ladd ceiling System Drive Pins</b>                | .152                    | Smooth        | 3/4                | 1-1/2        | 137                             | NA    | 133     | NA    | 132     | NA    |
| <b>3300 Series Drive Pins</b>                        | .170                    | Smooth        | 5/8                | 1-1/8        | 85                              | 820   | 180     | 895   | 330     | 900   |
| <b>9140K Threaded Stud</b>                           | .205                    | Knurled       | 3/4                | 1-3/8        | NA                              | NA    | 480     | 1565  | 550     | 1950  |

1. Holding values shown are for fasteners that have the entire pointed end of the fastener driven through the steel plate.
2. Holding values shown incorporate a 10 to 1 safety factor for tension and a 5 to 1 safety factor for shear. Wood or steel connecting members must be investigated separately.

### Allowable Working Values for Low Velocity Fasteners into Stone Aggregate Concrete (Pounds)

| Catalog Number Series   | Shank Diameter (inches) | Penetration | Min. Edge Distance | Min. Spacing | Concrete Compressive Strength (psi) |       |         |       |         |       |
|---|-------------------------|-------------|--------------------|--------------|-------------------------------------|-------|---------|-------|---------|-------|
|   |                         |             |                    |              | 2000                                |       | 3000    |       | 4000    |       |
|   |                         |             |                    |              | Tension                             | Shear | Tension | Shear | Tension | Shear |
| <b>1506SM 1508SM Step Shank Drive Pin</b>                     | .130                    | 3/4         | 3                  | 3            | 55*                                 | 60*   | 49**    | 45**  | 44*     | 30*   |
|   |                         | 1           | 3                  | 3            | 112                                 | 87    | 87**    | 99**  | 62      | 112   |
|   |                         | 1-1/4       | 3                  | 3            | 200                                 | 118   | 134**   | 152** | 68      | 187   |
| <b>1500, 1600 &amp; 1900 Series Straight Shank Drive Pins</b> | .140                    | 3/4         | 3                  | 3            | 45*                                 | 80*   | 70*     | 115*  | 90*     | 145*  |
|   |                         | 1           | 3                  | 3            | 110                                 | 165   | 175     | 185   | 235     | 205   |
|   |                         | 1-1/4       | 3                  | 3            | 130                                 | 190   | 180     | 215   | 230     | 240   |
|   |                         | 1-1/2       | 3                  | 3            | 187                                 | 200   | 227**   | 223** | 268     | 247   |
| <b>1524, 1524SD Drive Pins</b>                                | .152                    | 1           | 3                  | 3            | 105                                 | 150   | 150     | 215   | 197     | 262   |
|   |                         | 1-1/4       | 3                  | 3            | 115                                 | 170   | 162     | 225   | 220     | 280   |
| <b>3300 Series Drive Pins</b>                                 | .170                    | 1-1/4       | 3                  | 4            | 165                                 | 225   | 185     | 225   | 210     | 280   |
|   |                         | 1-1/2       | 3                  | 4            | 220                                 | 330   | 225     | 315   | 225     | 300   |
| <b>9100 Series Threaded Studs</b>                             | .205                    | 13/16       | 3                  | 5            | 80                                  | 125   | 90      | 145   | 105     | 170   |
|   |                         | 1-1/16      | 3                  | 5            | 115                                 | 265   | 150     | 250   | 190     | 230   |
|   |                         | 1-1/4       | 3                  | 5            | 165                                 | 315   | 230     | 330   | 295     | 350   |
|   |                         | 1-1/2       | 3                  | 5            | 300                                 | 375   | 310     | 420   | 320     | 460   |
| <b>9100 Series Threaded Studs</b>                             | .140                    | 1-1/8       | 3                  | NA           | -                                   | -     | 96      | 180   | 98      | 193   |

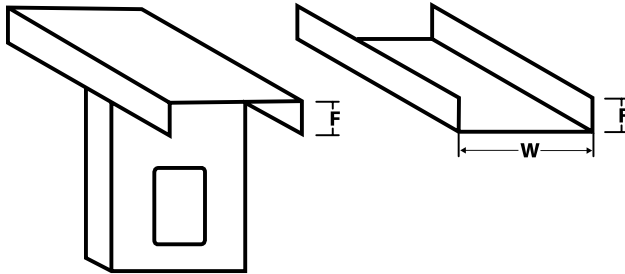
1. Except as noted, values shown reflect an 8 to 1 safety factor
2. Values shown are for concrete at the designated strength and are for the fastener or clip system only. Wood, Steel, etc. connected members must be investigated separately.
3. Cyclic, fatigue or shock loads and other design criteria may require a different safety factor.
4. Job-site testing may be required to determine actual job-site values.

\* 10 to 1 safety factor used due to shallow embedment.  
 \*\* Interpolated values.

Values are suggested only. Instructural or load bearing applications, always consult a professional design engineer for proper use of fasteners.

## ACCESSORIES

### Allowable Working Values for Low Velocity Fasteners into Steel (Pounds)



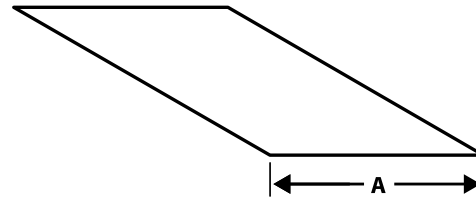
#### Product Data:

- Designation: CLT or VST Width x Gauge
- Widths: Multiple Sizes and Gauges available
- Gauge: Multiple Sizes available
- Lengths: Standard 10'

#### Uses:

- CLT used for standard stick built construction with channel or bracing attached within 2' of track member to each stud.
- For attachment at top of infill curtain wall systems to primary frame; allows for one half inch of live load deflection or settlement of the primary frame without transferring the load to the exterior wall while bracing the wall against lateral forces.
- Variable width and height for track-in-track applications such as panel construction.

### (FS) Flat Strapping



#### Product Data:

- Designation: Width-FS- Gauge
  - o Ex 2" FS- 20Ga
- Stock widths: 2", 4", 6"
- Custom Widths are available in increments of even inches.
  - o Examples: 1.5, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48"
- Length: 10' Standard (Alt. Lengths Available, ie. 8')
- Gauges:
  - o 33KSI: 25, 22, 20, 20S & 18 gauge
  - o 50KSI: 20S, 22, 16, 14 & 12 gauge
- Coating:
  - o Drywall: Standard G-40 Hot Dipped Galvanized.

Also Available in G-60 and G-90

- o Structural: G-60 Hot Dipped Galvanized. Also Available in G-60 and G-90

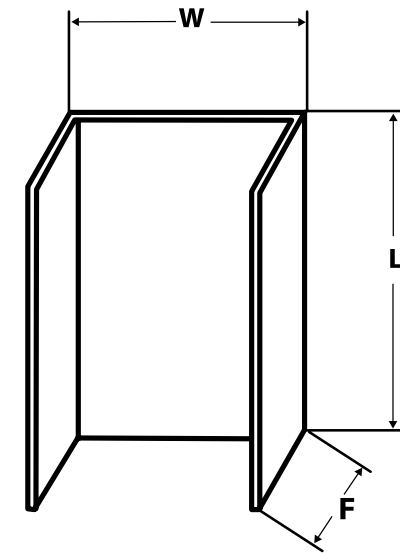
- Meets applicable ASTM's for Structural and Drywall applications:
  - o ASTM- A1003, A-653, A924, C-645, C754, C955, C1007

#### Uses

Provides tension force resistance in shear wall assemblies.

- Backing plates for fixtures, railings and where ever additional pullout strength is required.
- Resists racking of prefabricated wall assemblies while handling, transporting, and erecting.

### (WS) Web Stiffeners



#### Product Data:

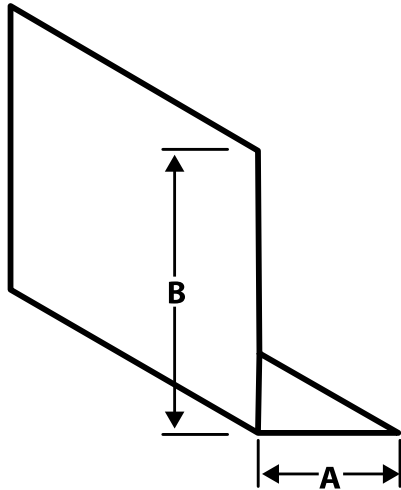
- Designation: WS W x F x gauge.
- Length: 4, 6, 7-1/4, 8, 9-1/4, 10, 12 inch
- Galvanized finish
- For axial capacities contact Telling Industries Engineering

#### Uses:

- For web reinforcement of C shaped framing members
- Allow transfer of axial loads through joists at bearing conditions of platform frames

## ACCESSORIES

### (RA) Rolled Angles



**Product Data:**

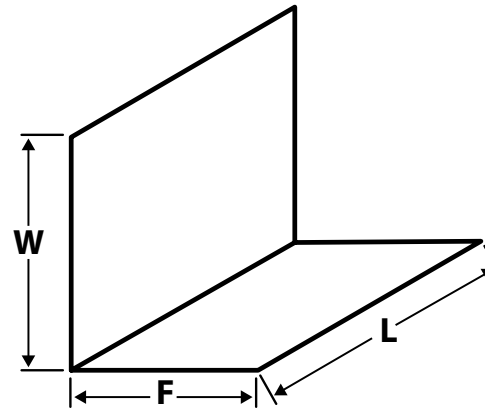
- Available in most sizes, lengths, and gauges.

**Uses:**

- For 90 degree corner enclosures at lapped framing location; provides in-plane stability of framework.

| (A&B) Product   | Gauges                 | Length |
|-----------------|------------------------|--------|
| 7/8" x 1-3/8"   | 25, 22, 20, 18         | 10'    |
| 1-5/8" x 1-5/8" | 25, 22, 20, 18, 16     | 10'    |
| 2" x 2"         | 25, 22, 20, 18, 16, 14 | 10'    |
| 3" x 3"         | 20, 18, 16, 14, 12     | 10'    |
| 2" x 4"         | 20, 18, 16, 14, 12     | 10'    |
| 3" x 6"         | 20, 18, 16, 14, 12     | 10'    |

### (CA) Clip Angles



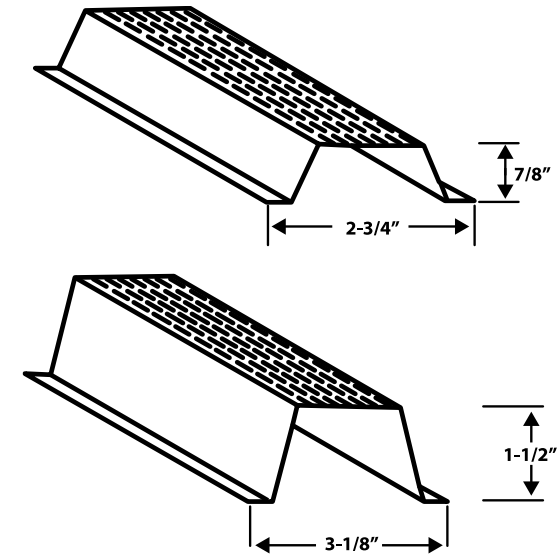
**Product Data:**

- Designation: SA Length (L) x gauge.
- Designed for 3-5/8, 4, 6, 7-1/4, 8, 9-1/4, 10 and 12 inch studs
- Gauges: 18 ga (3-5/8, 4, or 6 inch only), 14 ga (all lengths), 12 ga (6, 7-1/4, 8, 9-1/4, 10 and 12 inch only)
- W and F dimensions per request. Standard 2" x 2"

**Uses:**

- For miscellaneous attachments of intersecting framing components
- For attachment of joist framing components to flush mounted headers
- For attachment of solid blocking sections to adjacent studs of joists
- For alternate screw attachment of CRC briding to stud webs in lieu direct weld

### (DWFC) Drywall Furring Channel



**Product Data:**

- Available in 7/8" and 1-1/2" sizes
- Gauge: Standard 25 through 16 gauges
- Lengths: 12' 0" Stock Length, (other lengths available)
- Consult Telling Industries' Light Gage Structural Framing & Accessories brochure for structural properties and span tables

**Uses:**

- Convenient accessory components for use in furring out ceilings and masonry walls. Knurled face prevents screw "ride" when attaching gypsum wallboard
- 1-1/2" DWFC is economical with respect to furring walls with electrical boxes, (no need to set into concrete).

# ACCESSORIES

## Physical/Structural Properties for Drywall Furring Channels (DWFC)

| Section    | Fy (ksi) | Design Thickness (in) | Gross Properties        |                |                       |         |                       |         | Effective Properties  |                       |            |
|------------|----------|-----------------------|-------------------------|----------------|-----------------------|---------|-----------------------|---------|-----------------------|-----------------------|------------|
|            |          |                       | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ix (in <sup>4</sup> ) | Rx (in) | Iy (in <sup>4</sup> ) | Ry (in) | Ix (in <sup>4</sup> ) | Sx (in <sup>3</sup> ) | Ma (Ft-lb) |
| DWFC088-18 | 33       | 0.0188                | 0.070                   | 0.239          | 0.009                 | 0.356   | 0.035                 | 0.710   | 0.009                 | 0.016                 | 26.4       |
| DWFC088-30 | 33       | 0.0312                | 0.115                   | 0.391          | 0.014                 | 0.353   | 0.058                 | 0.710   | 0.014                 | 0.031                 | 50.5       |
| DWFC088-43 | 33       | 0.0451                | 0.162                   | 0.550          | 0.020                 | 0.348   | 0.082                 | 0.711   | 0.020                 | 0.042                 | 69.2       |
| DWFC088-54 | 50       | 0.0566                | 0.197                   | 0.669          | 0.023                 | 0.345   | 0.099                 | 0.711   | 0.023                 | 0.050                 | 124.9      |
| DWFC150-18 | 33       | 0.0188                | 0.094                   | 0.320          | 0.031                 | 0.575   | 0.047                 | 0.705   | 0.030                 | 0.034                 | 56.6       |
| DWFC150-30 | 33       | 0.0312                | 0.154                   | 0.525          | 0.050                 | 0.571   | 0.077                 | 0.705   | 0.050                 | 0.064                 | 105.3      |
| DWFC150-43 | 33       | 0.0451                | 0.219                   | 0.745          | 0.070                 | 0.565   | 0.109                 | 0.705   | 0.070                 | 0.089                 | 146.3      |
| DWFC150-54 | 50       | 0.0566                | 0.269                   | 0.914          | 0.084                 | 0.561   | 0.134                 | 0.705   | 0.084                 | 0.107                 | 267.2      |

**Notes:**

- Properties based on the NASPEC (Applicable Edition)
- Design thickness used for determination of properties. Minimum delivered thickness must be no less than 95% of design thickness.
- For deflection calculations, use effective Ixx. Effective Ixx is based on Procedure 1 of the NASPEC
- Effective properties are given as the minimum value for positive or negative bending.

## Drywall Furring Channel (DWFC) Allowable Ceiling Spans - L/240

| Section    | Fy(ksi) | Spans    | 4 psf Spacing (in) oc |        |         | Uniform Load 6 psf Spacing (in) oc |         |        | 13 psf Spacing (in) oc |        |        |
|------------|---------|----------|-----------------------|--------|---------|------------------------------------|---------|--------|------------------------|--------|--------|
|            |         |          | 12                    | 16     | 24      | 12                                 | 16      | 24     | 12                     | 16     | 24     |
| DWFC088-18 | 33      | Single   | 5'-2"                 | 4'-9"  | 4'-1"   | 4'-6"                              | 4'-1"   | 3'-7"  | 3'-6"                  | 3'-2"  | 2'-9"  |
|            |         | Multiple | 6'-5"                 | 5'-10" | 5'-1"   | 5'-7"                              | 5'-1"   | 4'-2"  | 4'-0"                  | 3'-6"  | 2'-9"  |
| DWFC088-30 | 33      | Single   | 6'-2"                 | 5'-7"  | 4'-11"  | 5'-5"                              | 4'-11"  | 4'-3"  | 4'-2"                  | 3'-9"  | 3'-4"  |
|            |         | Multiple | 7'-7"                 | 6'-11" | 6'-1"   | 6'-8"                              | 6'-1"   | 5'-3"  | 5'-2"                  | 4'-8"  | 3'-11" |
| DWFC088-43 | 33      | Single   | 6'-10"                | 6'-3"  | 5'-5"   | 6'-0"                              | 5'-5"   | 4'-9"  | 4'-7"                  | 4'-2"  | 3'-8"  |
|            |         | Multiple | 8'-6"                 | 7'-8"  | 6'-9"   | 7'-5"                              | 6'-9"   | 5'-10" | 5'-9"                  | 5'-2"  | 4'-6"  |
| DWFC088-54 | 50      | Single   | 7'-3"                 | 6'-7"  | 5'-9"   | 6'-4"                              | 5'-9"   | 5'-0"  | 4'-11"                 | 4'-5"  | 3'-11" |
|            |         | Multiple | 9'-0"                 | 8'-2"  | 7'-2"   | 7'-10"                             | 7'-2"   | 6'-3"  | 6'-1"                  | 5'-6"  | 4'-10" |
| DWFC150-18 | 33      | Single   | 7'-11"                | 7'-2"  | 6'-3"   | 6'-11"                             | 6'-3"   | 5'-6"  | 5'-4"                  | 4'-10" | 4'-2"  |
|            |         | Multiple | 9'-9"                 | 8'-10" | 7'-5"   | 8'-6"                              | 7'-5"   | 5'-11" | 5'-7"                  | 4'-9"  | 3'-8"  |
| DWFC150-30 | 33      | Single   | 9'-5"                 | 8'-6"  | 7'-5"   | 8'-2"                              | 7'-5"   | 6'-6"  | 6'-4"                  | 5'-9"  | 5'-0"  |
|            |         | Multiple | 11'-7"                | 10'-6" | 9'-2"   | 10'-2"                             | 9'-2"   | 8'-0"  | 7'-10"                 | 7'-0"  | 5'-8"  |
| DWFC150-43 | 33      | Single   | 10'-6"                | 9'-6"  | 8'-4"   | 9'-2"                              | 8'-4"   | 7'-3"  | 7'-1"                  | 6'-5"  | 5'-7"  |
|            |         | Multiple | 12'-11"               | 11'-9" | 10'-3"  | 11'-4"                             | 10'-3"  | 9'-0"  | 8'-9"                  | 7'-11" | 6'-8"  |
| DWFC150-54 | 50      | Single   | 11'-2"                | 10'-1" | 8'-10"  | 9'-9"                              | 8'-10"  | 7'-9"  | 7'-6"                  | 6'-10" | 6'-0"  |
|            |         | Multiple | 13'-9"                | 12'-6" | 10'-11" | 12'-0"                             | 10'-11" | 9'-7"  | 9'-4"                  | 8'-5"  | 7'-5"  |

## Drywall Furring Channel (DWFC) Allowable Ceiling Spans - L/360

| Section    | Fy(ksi) | Spans    | 4 psf Spacing (in) oc |         |        | Uniform Load 6 psf Spacing (in) oc |        |        | 13 psf Spacing (in) oc |        |        |
|------------|---------|----------|-----------------------|---------|--------|------------------------------------|--------|--------|------------------------|--------|--------|
|            |         |          | 12                    | 16      | 24     | 12                                 | 16     | 24     | 12                     | 16     | 24     |
| DFWC088-18 | 33      | Single   | 4'-6"                 | 4'-1"   | 3'-7"  | 4'-0"                              | 3'-7"  | 3'-2"  | 3'-1"                  | 2'-9"  | 2'-5"  |
|            |         | Multiple | 5'-7"                 | 5'-1"   | 4'-5"  | 4'-11"                             | 4'-5"  | 3'-11" | 3'-9"                  | 3'-5"  | 2'-9"  |
| DWFC088-30 | 33      | Single   | 5'-5"                 | 4'-11"  | 4'-3"  | 4'-8"                              | 4'-3"  | 3'-9"  | 3'-8"                  | 3'-4"  | 2'-11" |
|            |         | Multiple | 6'-8"                 | 6'-1"   | 5'-3"  | 5'-10"                             | 5'-3"  | 4'-7"  | 4'-7"                  | 4'-1"  | 3'-7"  |
| DWFC088-43 | 33      | Single   | 6'-0"                 | 5'-5"   | 4'-9"  | 5'-3"                              | 4'-9"  | 4'-2"  | 4'-0"                  | 3'-8"  | 3'-2"  |
|            |         | Multiple | 7'-5"                 | 6'-9"   | 5'-10" | 6'-6"                              | 5'-10" | 5'-2"  | 5'-0"                  | 4'-6"  | 4'-0"  |
| DWFC088-54 | 50      | Single   | 6'-4"                 | 5'-9"   | 5'-0"  | 5'-9"                              | 4'-5"  | 4'-5"  | 4'-3"                  | 3'-11" | 3'-5"  |
|            |         | Multiple | 7'-10"                | 7'-2"   | 6'-3"  | 6'-10"                             | 6'-3"  | 5'-5"  | 5'-4"                  | 4'-10" | 4'-2"  |
| DWFC150-18 | 33      | Single   | 6'-11"                | 6'-3"   | 5'-6"  | 6'-0"                              | 5'-6"  | 4'-9"  | 4'-8"                  | 4'-3"  | 3'-8"  |
|            |         | Multiple | 8'-6"                 | 7'-9"   | 6'-9"  | 7'-5"                              | 6'-9"  | 5'-11" | 5'-7"                  | 4'-9"  | 3'-8"  |
| DWFC150-30 | 33      | Single   | 8'-2"                 | 7'-5"   | 6'-6"  | 7'-2"                              | 6'-6"  | 5'-8"  | 5'-6"                  | 5'-0"  | 4'-5"  |
|            |         | Multiple | 10'-2"                | 9'-2"   | 8'-0"  | 8'-10"                             | 8'-0"  | 7'-0"  | 6'-10"                 | 6'-3"  | 5'-5"  |
| DFWC150-43 | 33      | Single   | 9'-2"                 | 8'-4"   | 7'-3"  | 8'-0"                              | 7'-3"  | 6'-4"  | 6'-2"                  | 5'-7"  | 4'-11" |
|            |         | Multiple | 11'-4"                | 10'-3"  | 9'-0"  | 9'-11"                             | 9'-0"  | 7'-10" | 7'-8"                  | 6'-11" | 6'-1"  |
| DFWC150-54 | 50      | Single   | 9'-9"                 | 8'-10"  | 7'-9"  | 8'-6"                              | 7'-9"  | 6'-9"  | 6'-7"                  | 6'-0"  | 5'-3"  |
|            |         | Multiple | 12'-0"                | 10'-11" | 9'-7"  | 10'-6"                             | 9'-7"  | 8'-4"  | 8'-2"                  | 7'-5"  | 6'-5"  |

**Notes:**

- Single spans taken as the minimum span based on moment, shear, web crippling or deflection.
- Multiple spans indicate two or more equal, continuous spans with span length measured support to support.
- Multiple spans taken as the minimum span based on moment, shear, web crippling, deflection combined bending and shear or combined and web crippling.
- Web crippling values based on 1" bearing at end and interior supports.



# ARCHITECTURAL SPECIFICATION

## PART 1.00 - GENERAL

### Summary

Section includes axial and wind loaded steel stud exterior wall framing and bridging. The architect has provided engineering of exterior framed wall construction.

### References

American Iron and Steel Institute  
 AISI - North American Specification for the Design of Cold-Formed Steel Structural Members (Applicable Edition)  
 American Society of Civil Engineers (ASCE) – Minimum design loads for buildings and other structures.

### ASTM International:

**ASTM A 653** – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

**ASTM C645**- Standard Specification for Nonstructural Steel Framing Members

**ASTM C 955** – Standard Specification for Load Bearing (Transverse and Axial) Steel Studs and Track.

**ASTM A1003** - Standard Specification for Steel Sheet, Carbon, Metallic-and Nonmetallic-Coated for Cold-Formed Framing Members

### Design Requirements

Exterior framed wall engineering provided by Architect.

### Submittals

Section 01330 – Submittal Procedures:

### Submittal requirements

All material is to be supplied by Telling Industries, LLC.

Product Data: All submittal data can be accessed on Telling Industries, LLC. Website, [www.tellingindustries.com](http://www.tellingindustries.com)

### Quality Insurance

#### Qualifications

Installer: Company performing work to have a minimum of three years experience and approved by Telling Industries, LLC.

#### Sequencing and Scheduling

Deliver materials to allow for minimum storage time at project site.  
 Coordinate delivery with scheduled time of installation.

## PART 2.00 - PRODUCTS

### 2.01 Manufacturers

**A.** All material to be supplied by Telling Industries, LLC.

### 2.03 Accessories

**A.** All accessories to be supplied by Telling Industries, LLC.

### 2.04 Finishes

**A.** Cold-Formed framing: Galvanized to a G60 (load bearing) coating class or equivalent.

## PART 3.00 - EXECUTION

### 3.01 Examination

**A.** Verify substrate surfaces and primary building framing components are ready to receive work.

**B.** It is the erecting contractor's responsibility to ensure that bearing criteria is met by work set by another trade.

**C.** Verify rough – in utilities are in proper location.

### 3.02 Erection (Non load – bearing)

**A.** Align floor and ceiling tracks; locate to layout and securely anchor to the supporting structure.

**B.** Jack studs shall be installed below window sills, above door and window headers and elsewhere as required to provide support.

**C.** Lateral bracing shall be provided by the use of wall sheathing and or cold rolled channel or strapping.

**D.** Provisions for vertical movement of supporting structure shall be provided where indicated by architect.

### 3.03 Erection (Axially – loaded walls)

**A.** Track should be securely anchored to supporting structure.

**B.** Complete, uniform and level bearing shall be provided for the bottom runner.

**C.** Framing of openings shall include headers and support studs as required and as shown on contract and shop drawings.

**D.** Diagonally braced walls shall be installed as "shear walls" where indicated for lateral load resistance and framing stability.

**E.** Temporary bracing of walls shall be provided until erection is complete.

**F.** Provisions for vertical movement of supporting structure shall be provided where indicated by architect.

### 3.04 Inspection

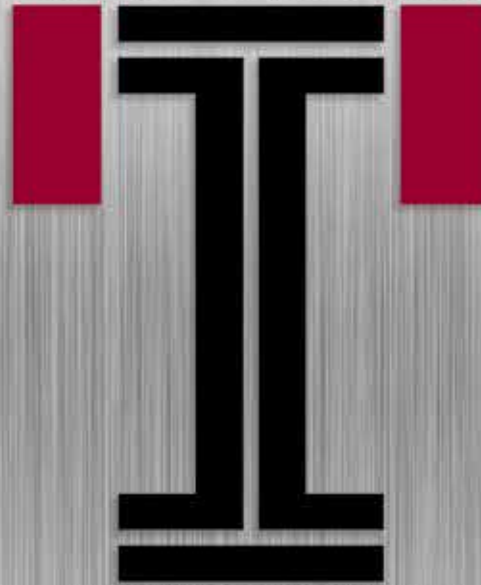
**A.** Inspection shall be provided to assure strict conformance to shop drawings at all phases of construction.

**B.** All members shall be checked for proper alignment, bearing, completeness of attachments, reinforcement, etc.

**C.** General inspection of structure shall be completed prior to applying loads to these members.

**D.** Inspections where and as required by local codes shall be controlled inspections.

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