## ICC-ES Evaluation Report

ESR-1464

| Reissued January 2024 | This report also contains: |
| :--- | :--- |
|  | - CBC Supplement |
| Subject to renewal January 2026 | - FBC Supplement |

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| DIVISION: 0500 00— METALS | REPORT HOLDER: <br> CLARKDIETRICH ${ }^{\circledR}$ | EVALUATION SUBJECT: <br> TRAKLOC ${ }^{\circledR}$ NONLOAD- |  |
| :---: | :---: | :---: | :---: |
| Section: 0540 00—ColdFormed Metal Framing |  | BEARING WALL STUD FRAMING SYSTEM |  |
| DIVISION: 0900 00— FINISHES |  |  |  |
| Section: 0922 16.13-Non-Structural Metal Stud Framing |  |  |  |

### 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2015 and 2012 International Building Code ${ }^{\circledR}$ (IBC)

Property evaluated:

- Structural


### 2.0 USES

The TRAKLOC nonload-bearing wall steel framing system is used for framing of interior nonload-bearing walls.

### 3.0 DESCRIPTION

### 3.1 General:

The TRAKLOC nonload-bearing wall steel framing system is constructed from the TRAKLOC studs and tracks which are available in four depths and four material thicknesses as noted in Table 2. The studs and tracks have a twist and lock system that permits stud installation into the top and bottom tracks without the use of fasteners. The TRAKLOC studs are available as single-unit fixed-length studs and as two-part adjustablelength studs.
3.1.1 TRAKLOC Fixed Length Stud: The TRAKLOC Fixed Length Stud (TLF) is not adjustable and is a single piece component. It is swaged at each end to interlock with TRAKLOC Track. The TLF is provided to job specific fixed lengths. The single-unit fixed-length studs (TLF) have the designation xxxTLFxxx-xx.
3.1.2 TRAKLOC Adjustable Stud: The TRAKLOC Adjustable Stud (TLA) is a two-piece stud that is adjustable in length at the top of the stud. It is used where small allowances for live-load and/or seismicinduced inter-floor vertical deflection is not needed. The adjustable-length studs are made up of two parts, the outer stud base (TSO) and the short inner stud TRAKLOC extension piece (TSE). See Figure 3. The TSE is fitted into the TSO, allowing the length of the TRAKLOC stud to be adjusted in the field. The TRAKLOC Adjustable Studs (TLA) have the designation xxxTLAxxx-xx.
3.1.3 TRAKLOC Deflection Stud: The TRAKLOC Deflection Stud (TLD) is a two-piece stud that is adjustable in length to accommodate small allowances for live-load and/or seismic-induced inter-floor vertical deflection. The short inner stud TRAKLOC extension insert (TSE) has slots cut out of the flanges to allow the drywall screw to penetrate through the drywall and the outer portion of the stud (TSO) while passing through the slot. The slot allows the drywall to be attached while still allowing for deflection at the head-of-wall joint. See Figure 3. The TSE is fitted into the TSO, allowing the length of the TRAKLOC stud to be adjusted in the field. The TRAKLOC Deflection Studs (TLD) have the designation xxxTLDxxx-xx.
3.1.4 TRAKLOC Extension Insert: The TRAKLOC extension insert (TSE) is used with the TLA and TLD to allow for small amounts of vertical deflection. It has a base metal thickness of 33 mils. The minimum overall length of the TSE is 12 inches ( 305 mm ) with a required minimum overlap length of 8 inches ( 204 mm ) and a maximum unlapped length of 4 inches ( 102 mm ). It is manufactured without web punch-outs, and with and without flange punch-outs. The flange punch-outs, when present, are $3 / 4$-inch by 3.0 inch ( 19 mm by 76 mm ). The TSE without flange punch-outs is used with the TSO for the adjustable length studs (TLA). The TSE with flange punch-outs is used with the TSO for the deflection stud (TLD). See Figure 3.
3.1.5 TRAKLOC Elevator Stud: The TRAKLOC Elevator Stud (TLE) is comprised of two approximately equal length TSO \& TSE parts of like thicknesses and is supplied in collapsed or retracted position to accommodate transport in a building elevator. It is then extended (telescoped) to the required fully extended length at the point of installation. The minimum overlap length for the elevator studs (TLE) is 11 inches $(280 \mathrm{~mm})$. The TSE and TSO components for use with the elevator stud are manufactured with web punchouts. Each component is approximately 6 inches ( 152 mm ) longer than one-half of the required span (telescoped) length. The TRAKLOC Elevator Studs (TLE) have the designation xxxTLExxx-xx.
3.1.6 TRAKLOC Track: The TRAKLOC Track has a V-groove rolled into the flanges of the track to match the swaged ends of the TRAKLOC stud and dimples pressed into the center of the web. The TRAKLOC Track is typically provided in 10 foot ( 3048 mm ) lengths. Custom lengths are available. The tracks are channelshaped with an inward ridge to twist and lock the studs to the track and have the designation xxxTTSxxx-xx. See Figure 1 for stud and track configurations. See Figure 2 for punch-out configurations.
3.1.7 TRAKLOC Punch-outs: The TLF fixed length stud and the TSO for the adjustable length studs (TLA) and the deflection studs (TLD) are manufactured with web punch-outs. The punch-outs are $3 / 4$-inch by 4.0 inches ( 19 mm by 102 mm ) for TSOs with web depth of less than 3 inches ( 76 mm ). For all other TSO web depths the punch-outs are $1 \frac{1}{2}$-inches by 4.0 inches ( 38 mm by 102 mm ). Punch-outs are spaced a minimum of 24 inches ( 610 mm ) on center along the centerline of the TSO, with a minimum distance of 10 inches $(254 \mathrm{~mm})$ from the end of the member to the near edge of the punch-out.

### 3.2 Material:

3.2.1 Steel: The 24 mil studs and tracks are formed from coils of steel complying with ASTM A1003, NS57. All other studs and tracks are formed from coils of steel complying with ASTM A1003, NS33. The uncoated minimum base-metal thickness is specified in Table 2. The coating on the steel is a metallic coating conforming to ASTM A653/A653M with a minimum G 40 (Z120) coating.
3.2.2 Gypsum Wallboard: Gypsum wallboard must be a minimum of $5 / 8$-inch ( 15.9 mm ) thick and Type X , complying with ASTM C1396 and manufactured by of the following companies: American Gypsum; CertainTeed; Georgia Pacific; Continental; National Gypsum; or United States Gypsum.
3.2.3 Fasteners: Fasteners attaching the gypsum wallboard to the studs and tracks must be No. 6, Type S, fine thread drywall bugle head screws conforming to ASTM C1002.

### 4.0 DESIGN AND INSTALLATION

### 4.1 Design:

The allowable values and tabulated limiting heights for both non-composite and composite designs are for use with the Allowable Strength Design (ASD).
4.1.1 Section Properties: The properties in Tables 3, 4, and $\underline{5}$ have been determined in accordance with the applicable edition of the North American Specification for Design of Cold-Formed Steel Structural Members (AISI S100).
4.1.2 Non-Composite: The limiting wall heights provided in Table 6, $\underline{7}, \underline{8}, \underline{9}, \underline{10}, \underline{11}, \underline{12}$, and 13 were determined by an all steel based design using the section properties in Tables 3 and 4 for simple spans.
4.1.3 Composite: The limiting wall heights provided in Tables 14, 15, and 16 were determined based on the composite action between the gypsum board and the steel studs.

### 4.2 Installation:

Installation of the TRAKLOC nonload-bearing wall steel framing system must be in accordance with the applicable code, the approved construction documents and this report. If there is a conflict between this report
and the documents submitted for approval, this report governs. The approved plans must be available on the jobsite at all times during installation.

### 5.0 CONDITIONS OF USE:

The TRAKLOC nonload-bearing wall steel framing system described in this report complies with, or is a suitable alternative to what is specified in those codes listed in Section 1.0 of this report, subject to the following conditions:
5.1 The TRAKLOC nonload-bearing wall steel framing system is manufactured, identified and installed in accordance with this report, the approved plans, and the manufacturer's published installation instructions.
5.2 The composite wall assemblies are limited to interior nonload-bearing installations where the superimposed axial load is zero pounds (zero newtons).
5.3 Design of the attachment of the wall to the surrounding structure is outside the scope of this report.
5.4 Calculations and drawings demonstrating compliance with this report must be submitted to the code official for each project. The calculations and construction documents must be prepared and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
5.5 Installation of the gypsum wallboard must meet the requirements of ASTM C840 or GA-216.
5.6 TRAKLOC studs and tracks are manufactured at the facilities listed in Table 1.

### 6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC Acceptance Criteria for Cold-formed Steel Framing Members (AC46), Approved June 2012 (editorially revised April 2015).
6.2 Data in accordance with the ICC Acceptance Criteria for Cold-formed Steel Framing Members-Interior Nonload-Bearing Wall Assemblies (AC86), Approved May 2012 (editorially revised August 2015).

### 7.0 IDENTIFICATION

7.1 Each TRAKLOC stud and track must have a legible label or stamp, at a maximum spacing of 96 inches ( 2413 mm ) on center, indicating the member designation; manufacturer's name or initials (CD); the minimum yield strength if other than $33 \mathrm{ksi}(230 \mathrm{MPa})$; the designation " NS "; and the evaluation report number (ESR-1464). The TRAKLOC extension insert must have a legible label or stamp indicating the member designation (TSE); the manufacturer's name or initials (CD); and the evaluation report number (ESR-1464).
7.2 The report holder's contact information is:

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CLARKDIETRICH }\mp@subsup{}{}{\circledR
9050 CENTRE POINTE DRIVE, SUITE }40
WEST CHESTER, OHIO }4506
(513) 870-1100
www.clarkdietrich.com
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TABLE 1—MANUFACTURING LOCATIONS

| ClarkDietrich $^{\circledR}$ Woodland | ClarkDietrich $^{\circledR}$ Vienna |
| :---: | :---: |
| 1685 Tide Court | 1455 Ridge Road |
| Woodland, CA 95776 | Vienna Township, OH 44473 |

TABLE 2-TRAKLOC STUDS AND TRACKS

| STUDS ${ }^{1,2}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEMBER DESIGNATION ${ }^{4}$ | WEIGHT <br> (lb./ft.) | $\begin{aligned} & \text { DEPTH } \\ & \text { (in.) } \end{aligned}$ | FLANGE <br> (in.) | $\begin{aligned} & \text { LIP } \\ & \text { (in.) } \end{aligned}$ | THICKNESS (mils) | MINIMUM BASE-METAL THICKNESS ${ }^{3}$ (in.) | DESIGN THICKNESS (in.) |
| 250 125-18 | 0.346 | 2.5 | 1.25 | 0.3125 | 18 | 0.0179 | 0.0188 |
| 250 _125-24 | 0.456 |  |  |  | 24 | 0.0238 | 0.0250 |
| 250 _ 125-30 | 0.569 |  |  |  | 30 | 0.0296 | 0.0312 |
| 250_125-33 | 0.629 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 362_125-18 | 0.418 | 3.625 | 1.25 | 0.3125 | 18 | 0.0179 | 0.0188 |
| 362 _ 125-24 | 0.552 |  |  |  | 24 | 0.0238 | 0.0250 |
| 362 _ 125-30 | 0.688 |  |  |  | 30 | 0.0296 | 0.0312 |
| 362_125-33 | 0.762 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 400 _125-18 | 0.437 | 4 | 1.25 | 0.3125 | 18 | 0.0179 | 0.0188 |
| 400_125-24 | 0.583 |  |  |  | 24 | 0.0238 | 0.0250 |
| 400_125-30 | 0.728 |  |  |  | 30 | 0.0296 | 0.0312 |
| 400_125-33 | 0.804 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 600 _125-18 | 0.570 | 6 | 1.25 | 0.3125 | 18 | 0.0179 | 0.0188 |
| 600 _ 125-24 | 0.753 |  |  |  | 24 | 0.0238 | 0.0250 |
| 600 _ 125-30 | 0.940 |  |  |  | 30 | 0.0296 | 0.0312 |
| 600_125-33 | 1.040 |  |  |  | 33 | 0.0329 | 0.0346 |
| TRACKS |  |  |  |  |  |  |  |
| 250TTS137-18 | 0.350 | 2.5 | 1.375 | --- | 18 | 0.0179 | 0.0188 |
| 250TTS137-24 | 0.466 |  |  |  | 24 | 0.0238 | 0.0250 |
| 250TTS137-30 | 0.581 |  |  |  | 30 | 0.0296 | 0.0312 |
| 250TTS137-33 | 0.645 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 362TTS137-18 | 0.423 | 3.625 | 1.375 | --- | 18 | 0.0179 | 0.0188 |
| 362TTS137-24 | 0.562 |  |  |  | 24 | 0.0238 | 0.0250 |
| 362TTS137-30 | 0.701 |  |  |  | 30 | 0.0296 | 0.0312 |
| 362TTS137-33 | 0.778 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 400TTS137-18 | 0.446 | 4 | 1.375 | --- | 18 | 0.0179 | 0.0188 |
| 400TTS137-24 | 0.593 |  |  |  | 24 | 0.0238 | 0.0250 |
| 400TTS137-30 | 0.740 |  |  |  | 30 | 0.0296 | 0.0312 |
| 400TTS137-33 | 0.820 |  |  |  | 33 | 0.0329 | 0.0346 |
|  |  |  |  |  |  |  |  |
| 600TTS137-18 | 0.574 | 6 | 1.375 | --- | 18 | 0.0179 | 0.0188 |
| 600TTS137-24 | 0.763 |  |  |  | 24 | 0.0238 | 0.0250 |
| 600TTS137-30 | 0.953 |  |  |  | 30 | 0.0296 | 0.0312 |
| 600TTS137-33 | 1.056 |  |  |  | 33 | 0.0329 | 0.0346 |

For SI: 1 inch $=25.4 \mathrm{~mm}, 1 \mathrm{lb} / \mathrm{ft}=1.488 \mathrm{~kg} / \mathrm{m}$.
1 Values based on stud base (TSO).
2 Depth of studs measured from outside face to outside face of flanges of TSO. Depth of track measured from inside face to inside face of flanges.
Minimum base metal thickness permitted for framing members delivered to the project site.
4 For member designations containing " $\qquad$ " is TLF, TLA, TLD, or TLE, as applicable.

TABLE 3-TRAKLOC FIXED/ ADJUSTABLE / DEFLECTION (TLF/TLA/TLD) PROPERTIES ${ }^{3,4,5,6,7,8}$

| Member Designation | $F_{y}$ <br> (ksi) | Gross Section Properties |  |  |  |  |  | Effective Section Properties at $\mathrm{F}_{\mathrm{y}}$ |  |  |  |  |  |  | Stud/Trak End Reaction ( $\mathrm{R}_{\mathrm{x}}$ ) |  |  | Torsional Properties |  |  |  |  |  | $\begin{gathered} \mathrm{L}_{u} \\ \text { (in) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Area (in ${ }^{2}$ ) | $\begin{gathered} \mathrm{I}_{\mathrm{x}} \\ \left(\mathrm{in}^{4}\right) \end{gathered}$ | $\begin{gathered} \mathrm{S}_{\mathrm{x}} \\ \left(\mathrm{in}^{3}\right) \end{gathered}$ | $\begin{gathered} \mathbf{r}_{\mathrm{x}} \\ (\mathrm{in}) \end{gathered}$ | $\begin{gathered} \mathrm{I}_{\mathrm{y}} \\ \left(\mathrm{in}^{4}\right) \end{gathered}$ | $\begin{gathered} \mathrm{r}_{\mathrm{y}} \\ \text { (in) } \end{gathered}$ | $\begin{gathered} \mathrm{A}_{\mathrm{e}} \\ \left(\mathrm{in}^{2}\right) \end{gathered}$ | $\begin{gathered} \mathrm{I}_{\mathrm{xe}} \\ \left(\mathrm{in}^{4}\right) \end{gathered}$ | $\begin{gathered} \mathrm{S}_{\mathrm{xe}} \\ \left(\mathrm{in}^{3}\right) \end{gathered}$ | $\mathrm{M}_{\mathrm{al}}$ (in-lbs) | $\begin{gathered} \mathrm{M}_{\mathrm{ad}} \\ \text { (in-lbs) } \end{gathered}$ | $\mathrm{Va}_{\mathrm{g}}$ (lbs) | $\mathrm{Va}_{\text {net }}$ <br> (lbs) | TLF <br> (lbs) | TLA <br> (lbs) | TLD <br> (lbs) | $\begin{gathered} \mathrm{Jx} 1000 \\ \left(\mathrm{in}^{4}\right) \\ \hline \end{gathered}$ | $\begin{gathered} C_{w} \\ \left(i n^{6}\right) \end{gathered}$ | $\begin{gathered} X_{\circ} \\ \text { (in) } \end{gathered}$ | $\begin{gathered} \text { m } \\ \text { (in) } \end{gathered}$ | $\mathbf{R}_{\mathbf{o}}$ (in) | $\beta$ |  |
| 250TLF/TLA/TLD125-18 | 33 | 0.102 | 0.106 | 0.084 | 1.017 | 0.022 | 0.467 | 0.056 | 0.102 | 0.070 | 1387 | 1289 | 252 | 198 | 38 | 40 | 42 | 0.0120 | 0.031 | -1.000 | 0.598 | 1.501 | 0.556 | 31.5 |
| 362TLF/TLA/TLD125-18 | 33 | 0.123 | 0.248 | 0.137 | 1.419 | 0.025 | 0.451 | 0.056 | 0.243 | 0.091 | 1797 | 1914 | 170 | 165 | 38 | 53 | 53 | 0.0145 | 0.068 | -0.873 | 0.540 | 1.726 | 0.744 | 31.0 |
| 400TLF/TLA/TLD125-18 ${ }^{1}$ | 33 | 0.130 | 0.312 | 0.156 | 1.549 | 0.026 | 0.445 | 0.056 | 0.268 | 0.101 | 1881 | 1794 | 154 | - | 39 | 58 | 44 | 0.0153 | 0.084 | -0.839 | 0.524 | 1.817 | 0.787 | 30.8 |
| 600TLF/TLA/TLD125-18 ${ }^{2}$ | 33 | 0.168 | 0.821 | 0.274 | 2.212 | 0.029 | 0.414 | 0.057 | 0.692 | 0.156 | 2915 | 2744 | 101 | - | 31 | 75 | 74 | 0.0198 | 0.208 | -0.696 | 0.452 | 2.356 | 0.913 | 30.0 |
| 250TLF/TLA/TLD125-24 | 57 | 0.135 | 0.139 | 0.111 | 1.014 | 0.029 | 0.464 | 0.067 | 0.128 | 0.086 | 2921 | 2680 | 596 | 349 | 111 | 96 | 99 | 0.0281 | 0.040 | -0.992 | 0.594 | 1.493 | 0.558 | 24.3 |
| 362TLF/TLA/TLD125-24 | 57 | 0.163 | 0.327 | 0.180 | 1.416 | 0.033 | 0.448 | 0.067 | 0.306 | 0.109 | 3710 | 3986 | 402 | 292 | 102 | 115 | 107 | 0.0339 | 0.088 | -0.866 | 0.536 | 1.719 | 0.746 | 23.9 |
| 400TLF/TLA/TLD125-24 | 57 | 0.172 | 0.411 | 0.206 | 1.545 | 0.034 | 0.442 | 0.067 | 0.388 | 0.121 | 4114 | 4416 | 363 | 313 | 125 | 131 | 126 | 0.0359 | 0.110 | -0.832 | 0.520 | 1.810 | 0.789 | 23.8 |
| 600TLF/TLA/TLD125-24 ${ }^{1}$ | 57 | 0.222 | 1.084 | 0.361 | 2.208 | 0.037 | 0.410 | 0.068 | 0.927 | 0.208 | 7114 | 6523 | 238 | - | 87 | 116 | 118 | 0.0463 | 0.272 | -0.690 | 0.448 | 2.350 | 0.914 | 23.1 |
| 250TLF/TLA/TLD125-30 | 33 | 0.167 | 0.171 | 0.137 | 1.011 | 0.035 | 0.461 | 0.113 | 0.170 | 0.125 | 2475 | 2515 | 832 | 388 | 147 | 106 | 108 | 0.0543 | 0.049 | -0.984 | 0.590 | 1.485 | 0.560 | 31.4 |
| 362TLF/TLA/TLD125-30 | 33 | 0.202 | 0.404 | 0.223 | 1.413 | 0.040 | 0.445 | 0.114 | 0.401 | 0.179 | 3531 | 3822 | 785 | 453 | 158 | 137 | 134 | 0.0657 | 0.108 | -0.859 | 0.532 | 1.712 | 0.748 | 30.8 |
| 400TLF/TLA/TLD125-30 | 33 | 0.214 | 0.509 | 0.254 | 1.542 | 0.041 | 0.439 | 0.114 | 0.505 | 0.199 | 3930 | 4261 | 708 | 487 | 161 | 162 | 135 | 0.0695 | 0.134 | -0.825 | 0.516 | 1.802 | 0.791 | 30.6 |
| 600TLF/TLA/TLD125-30 | 33 | 0.276 | 1.343 | 0.448 | 2.204 | 0.046 | 0.407 | 0.116 | 1.291 | 0.352 | 6960 | 6491 | 464 | 464 | 114 | 121 | 114 | 0.0897 | 0.333 | -0.683 | 0.445 | 2.343 | 0.915 | 29.7 |
| 250TLF/TLA/TLD125-33 | 33 | 0.185 | 0.188 | 0.151 | 1.010 | 0.039 | 0.459 | 0.116 | 0.187 | 0.143 | 2824 | 3072 | 990 | 414 | 166 | 103 | 112 | 0.0738 | 0.053 | -0.980 | 0.587 | 1.480 | 0.561 | 29.9 |
| 362TLF/TLA/TLD125-33 | 33 | 0.224 | 0.445 | 0.246 | 1.411 | 0.044 | 0.443 | 0.118 | 0.442 | 0.208 | 4116 | 4682 | 1024 | 531 | 149 | 134 | 125 | 0.0893 | 0.118 | -0.855 | 0.530 | 1.708 | 0.749 | 29.3 |
| 400TLF/TLA/TLD125-33 | 33 | 0.237 | 0.561 | 0.281 | 1.540 | 0.045 | 0.437 | 0.118 | 0.557 | 0.232 | 4587 | 5225 | 967 | 598 | 154 | 151 | 145 | 0.0945 | 0.147 | -0.821 | 0.514 | 1.799 | 0.792 | 29.1 |
| 600TLF/TLA/TLD125-33 | 33 | 0.306 | 1.483 | 0.494 | 2.202 | 0.050 | 0.405 | 0.120 | 1.438 | 0.413 | 8164 | 7997 | 634 | 634 | 124 | 108 | 106 | 0.1221 | 0.366 | -0.680 | 0.443 | 2.340 | 0.916 | 28.2 |

For SI Units: 1 inch = $25.4 \mathrm{~mm}, 1 \mathrm{lb}=4.45 \mathrm{~N}, 1 \mathrm{ksi}=6.89 \mathrm{~N} / \mathrm{m}^{2}$.

1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300 . Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Gross and torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.
4. The allowable moment based on local buckling ( $\mathrm{Mal}_{\mathrm{al}}$ ) is based on the compression flange continuously braced.
5. The distortional buckling moment $\left(\mathrm{Mad}^{\mathrm{a}}\right.$ ) does not consider the beneficial effect of sheathing to rotational stiffness, $\mathrm{K} \phi=0$.
6. For deflection calculations, use the effective moment of inertia.
7. $R x$ is the maximum end reaction (web crippling) capacity based on a minimum bearing length of 1 inch.
8. For TLA and TLD members, the minimum overlap of the TSO and TSE must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
Gross Properties
moment of inertia of the cross section about the $x$-axis
```
section modulus about the \(x\)-axis
radius of gyration of cross section about the \(x\)-axis moment of inertia of the cross section about the \(y\)-axis radius of gyration of cross section about the \(x\)-axis
* - 
```

*     - 

```


\section*{Torsional and Other Properties}
\begin{tabular}{|c|c|c|}
\hline \(J\) & - & St. Venant torsion constant. \\
\hline \(\mathrm{C}_{\text {w }}\) & - & Warping constant. \\
\hline X & - & Distance from shear center to neutral axis. \\
\hline m & - & Distance from shear center to mid-plane of web. \\
\hline R。 & - & Polar radius of gyration of cross section about the shear center \\
\hline \(\beta\) & - & Torsional flexural constant. \(1-(\mathrm{Xo} / \mathrm{Ro})^{2}\) \\
\hline \(\mathrm{L}_{u}\) & & Critical unbraced length for lateral-torsional buckling. Members are considered fully braced when unbraced length is less than Lu. \\
\hline \(\mathrm{K}_{\phi}\) & & Rotational stiffness. \\
\hline
\end{tabular}
```

- St. Venant torsion constan
w - Warping constant
m - Distance from shear center to mid-plane of web
\beta}\mp@subsup{\textrm{L}}{u}{}\quad-\quad\mathrm{ Torsional flexural constant. 1-(Xo/Ro) }\mp@subsup{}{}{2
fully braced when unbraced length is less than Lu.
Rotational stiffness.

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TABLE 4-TRAKLOC ELEVATOR (TLE) PROPERTIES \({ }^{3,4,5,5,7}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Member Designation} & \multirow[b]{2}{*}{\[
\begin{gathered}
\mathrm{F}_{\mathrm{y}} \\
(\mathrm{ksi})
\end{gathered}
\]} & \multicolumn{6}{|c|}{Gross Section Properties} & \multicolumn{7}{|c|}{Effective Section Properties at \(\mathrm{F}_{\mathrm{y}}\)} & \multirow[t]{2}{*}{\begin{tabular}{l}
\(\mathbf{R}_{\mathrm{x}}\) \\
TLE \\
(lbs)
\end{tabular}} & \multicolumn{6}{|c|}{Torsional Properties} & \multirow[b]{2}{*}{\[
\begin{gathered}
\mathrm{L}_{\mathrm{u}} \\
\text { (in) }
\end{gathered}
\]} \\
\hline & & \begin{tabular}{l}
Area \\
(in \({ }^{2}\) )
\end{tabular} & \[
\begin{gathered}
\mathrm{I}_{\mathrm{x}} \\
\left(\mathrm{in}^{4}\right) \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
S_{x} \\
\left(\mathrm{in}^{3}\right)
\end{gathered}
\] & \[
\begin{gathered}
R_{x} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{I}_{\mathrm{y}} \\
\left(\mathrm{in}^{4}\right)
\end{gathered}
\] & \[
\begin{gathered}
R_{y} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{A}_{\mathrm{e}} \\
\left(\mathrm{in}^{2}\right)
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{I}_{\mathrm{xe}} \\
\left(\mathrm{in}^{4}\right)
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{S}_{\mathrm{xe}} \\
\left(\mathrm{in}^{3}\right)
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{M}_{\mathrm{al}} \\
\text { (in-lbs) }
\end{gathered}
\] & \[
\begin{gathered}
M_{\mathrm{ad}} \\
\text { (in-lbs) } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{Va}_{\mathrm{g}} \\
(\mathrm{lbs})
\end{gathered}
\] & \[
\begin{aligned}
& \text { Va } \mathrm{anet}^{2} \\
& (\mathrm{lbs})
\end{aligned}
\] & & \[
\begin{gathered}
\mathrm{Jx} 1000 \\
\left(\mathrm{in}^{4}\right) \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
C_{w} \\
\left(i n^{6}\right)
\end{gathered}
\] & \[
\begin{aligned}
& X_{\circ} \\
& \text { (in) }
\end{aligned}
\] & \[
\begin{gathered}
\mathrm{m} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
R_{\mathrm{o}} \\
\text { (in) }
\end{gathered}
\] & \(\beta\) & \\
\hline 250TLE125-18 & 33 & 0.099 & 0.098 & 0.080 & 0.997 & 0.019 & 0.444 & 0.056 & 0.082 & 0.059 & 1165 & 1123 & 256 & 197 & 39 & 0.0116 & 0.026 & -0.946 & 0.568 & 1.445 & 0.571 & 30.1 \\
\hline 362TLE125-18 & 33 & 0.120 & 0.234 & 0.131 & 1.398 & 0.022 & 0.428 & 0.056 & 0.204 & 0.084 & 1661 & 1687 & 172 & 164 & 47 & 0.0141 & 0.058 & -0.823 & 0.511 & 1.677 & 0.759 & 29.6 \\
\hline 400TLE \(125-18{ }^{1}\) & 33 & 0.127 & 0.296 & 0.149 & 1.526 & 0.023 & 0.422 & 0.056 & 0.242 & 0.093 & 1843 & 1825 & 155 & - & 38 & 0.0150 & 0.073 & -0.789 & 0.495 & 1.769 & 0.801 & 29.4 \\
\hline 600TLE125-18 \({ }^{2}\) & 33 & 0.165 & 0.787 & 0.264 & 2.187 & 0.025 & 0.391 & 0.057 & 0.609 & 0.148 & 2915 & 2744 & 102 & - & 31 & 0.0194 & 0.181 & -0.652 & 0.425 & 2.315 & 0.921 & 28.5 \\
\hline 250TLE125-24 & 57 & 0.130 & 0.128 & 0.104 & 0.990 & 0.025 & 0.441 & 0.067 & 0.115 & 0.071 & 2423 & 2297 & 609 & 346 & 108 & 0.0271 & 0.034 & -0.940 & 0.564 & 1.435 & 0.570 & 22.8 \\
\hline 362TLE125-24 & 57 & 0.158 & 0.306 & 0.171 & 1.390 & 0.029 & 0.425 & 0.067 & 0.281 & 0.104 & 3562 & 3520 & 408 & 288 & 107 & 0.0330 & 0.076 & -0.817 & 0.508 & 1.667 & 0.760 & 22.4 \\
\hline 400TLE125-24 & 57 & 0.168 & 0.387 & 0.196 & 1.518 & 0.029 & 0.419 & 0.067 & 0.356 & 0.120 & 4094 & 3957 & 368 & 311 & 119 & 0.0350 & 0.094 & -0.783 & 0.492 & 1.759 & 0.802 & 22.3 \\
\hline 600TLE125-24 \({ }^{1}\) & 57 & 0.218 & 1.034 & 0.347 & 2.178 & 0.033 & 0.388 & 0.068 & 0.911 & 0.188 & 6427 & 5847 & 241 & - & 85 & 0.0454 & 0.235 & -0.646 & 0.422 & 2.305 & 0.921 & 21.6 \\
\hline 250TLE125-30 & 33 & 0.161 & 0.156 & 0.128 & 0.982 & 0.031 & 0.438 & 0.113 & 0.163 & 0.125 & 2475 & 2515 & 832 & 372 & 137 & 0.0523 & 0.041 & -0.934 & 0.561 & 1.425 & 0.570 & 30.0 \\
\hline 362TLE125-30 & 33 & 0.196 & 0.375 & 0.211 & 1.382 & 0.035 & 0.422 & 0.114 & 0.372 & 0.179 & 3531 & 3822 & 799 & 446 & 138 & 0.0637 & 0.092 & -0.811 & 0.504 & 1.657 & 0.760 & 29.4 \\
\hline 400TLE125-30 & 33 & 0.208 & 0.475 & 0.241 & 1.511 & 0.036 & 0.416 & 0.114 & 0.471 & 0.199 & 3930 & 4261 & 719 & 482 & 152 & 0.0675 & 0.114 & -0.778 & 0.488 & 1.749 & 0.802 & 29.2 \\
\hline 600TLE125-30 & 33 & 0.270 & 1.274 & 0.429 & 2.170 & 0.040 & 0.384 & 0.116 & 1.195 & 0.352 & 6960 & 6491 & 470 & 470 & 110 & 0.0878 & 0.287 & -0.641 & 0.419 & 2.295 & 0.922 & 28.2 \\
\hline 250TLE125-33 & 33 & 0.178 & 0.170 & 0.140 & 0.978 & 0.034 & 0.436 & 0.116 & 0.171 & 0.143 & 2824 & 3047 & 961 & 384 & 149 & 0.0710 & 0.044 & -0.931 & 0.559 & 1.419 & 0.570 & 28.5 \\
\hline 362TLE125-33 & 33 & 0.217 & 0.412 & 0.232 & 1.378 & 0.038 & 0.420 & 0.118 & 0.394 & 0.208 & 4116 & 4404 & 1024 & 512 & 133 & 0.0866 & 0.100 & -0.808 & 0.503 & 1.651 & 0.761 & 27.9 \\
\hline 400TLE125-33 & 33 & 0.230 & 0.522 & 0.265 & 1.506 & 0.039 & 0.414 & 0.118 & 0.481 & 0.232 & 4587 & 5195 & 985 & 591 & 153 & 0.0917 & 0.125 & -0.774 & 0.487 & 1.744 & 0.803 & 27.7 \\
\hline 600TLE125-33 & 33 & 0.299 & 1.403 & 0.473 & 2.166 & 0.044 & 0.383 & 0.120 & 1.244 & 0.413 & 8164 & 7987 & 642 & 642 & 113 & 0.1194 & 0.314 & -0.638 & 0.417 & 2.290 & 0.922 & 26.7 \\
\hline
\end{tabular}

For SI Units: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{lb}=4.45 \mathrm{~N}, 1 \mathrm{ksi}=6.89 \mathrm{~N} / \mathrm{m}^{2}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300 . Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Gross and torsional properties are based the full-unreduced cross section of the studs, away from punch-outs.

The distortional buckling moment ( \(\mathrm{Mad}_{\mathrm{ad}}\) ) does not consider the beneficial effect of sheathing to rotational stiffness.
For deflection calculations use, the effective moment of inertia.
6. Rx is the maximum end reaction (web crippling) capacity based on a minimum bearing length of 1 inch.

The minimum overlap of the TSO and TSE must be minimum 11 inches and for the non-composite wall configuration must be connected with a minimum of (4) \#8 \(\times 9 / 16\) " long wafer head screws complying with ASTM C1513.

TABLE 5-TRAKLOC TRACK PROPERTIES \({ }^{3,4}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Member Designation} & \multirow[b]{2}{*}{\[
\begin{gathered}
F_{y} \\
(k s i)
\end{gathered}
\]} & \multicolumn{6}{|c|}{Gross Section Properties} & \multicolumn{5}{|l|}{Effective Section Properties at \(\mathrm{F}_{\mathrm{y}}\)} & \multicolumn{6}{|c|}{Torsional Properties} \\
\hline & & Area (in \({ }^{2}\) ) & \[
\begin{gathered}
\mathrm{I}_{\mathrm{x}} \\
\left(\mathrm{in}^{4}\right)
\end{gathered}
\] & \[
\begin{gathered}
S_{x} \\
\left(\mathrm{in}^{3}\right)
\end{gathered}
\] & \[
\begin{gathered}
R_{\mathrm{x}} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{I}_{\mathrm{y}} \\
\left(\mathrm{in}^{4}\right)
\end{gathered}
\] & \[
\begin{gathered}
R_{y} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{A}_{\mathrm{e}} \\
\left(\mathrm{in}^{2}\right)
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{I}_{\mathrm{xe}} \\
\left(\mathrm{in}^{4}\right)
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{S}_{\mathrm{xe}} \\
\left(\mathrm{in}^{3}\right)
\end{gathered}
\] & \[
\begin{gathered}
M_{\mathrm{al}} \\
\text { (in-lbs) } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{Va}_{\mathrm{g}} \\
\text { (lbs) }
\end{gathered}
\] & Jx 1000 (in \({ }^{4}\) ) & \[
\begin{gathered}
C_{w} \\
\left(i^{6}\right)
\end{gathered}
\] & \[
\begin{gathered}
X_{\circ} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
\mathrm{m} \\
\text { (in) }
\end{gathered}
\] & \[
\begin{gathered}
R_{\circ} \\
\text { (in) }
\end{gathered}
\] & \(\beta\) \\
\hline 250TTS137-18 \({ }^{2}\) & 33 & 0.099 & 0.110 & 0.085 & 1.057 & 0.019 & 0.444 & - & - & - & - & - & 0.0116 & 0.023 & -0.875 & 0.519 & 1.442 & 0.632 \\
\hline 362TTS137-18 \({ }^{2}\) & 33 & 0.120 & 0.252 & 0.135 & 1.449 & 0.022 & 0.425 & - & - & - & - & - & 0.0141 & 0.053 & -0.763 & 0.470 & 1.692 & 0.797 \\
\hline 400TTS \(137-18^{2}\) & 33 & 0.127 & 0.315 & 0.154 & 1.576 & 0.022 & 0.418 & - & - & - & - & - & 0.0150 & 0.066 & -0.732 & 0.456 & 1.787 & 0.832 \\
\hline 600TTS \(137-18^{2}\) & 33 & 0.165 & 0.816 & 0.268 & 2.227 & 0.024 & 0.385 & - & - & - & - & - & 0.0194 & 0.168 & -0.605 & 0.392 & 2.340 & 0.933 \\
\hline 250TTS137-24 & 57 & 0.131 & 0.147 & 0.113 & 1.059 & 0.026 & 0.443 & 0.047 & 0.106 & 0.057 & 1946 & 570 & 0.0273 & 0.030 & -0.872 & 0.518 & 1.441 & 0.634 \\
\hline 362TTS137-24 & 57 & 0.159 & 0.335 & 0.180 & 1.451 & 0.029 & 0.424 & 0.048 & 0.258 & 0.082 & 2813 & 390 & 0.0332 & 0.070 & -0.760 & 0.469 & 1.692 & 0.798 \\
\hline 400TTS137-24 & 57 & 0.169 & 0.420 & 0.204 & 1.577 & 0.029 & 0.417 & 0.048 & 0.328 & 0.091 & 3103 & 353 & 0.0351 & 0.088 & -0.730 & 0.454 & 1.787 & 0.833 \\
\hline 600TTS \(137-24^{1}\) & 57 & 0.219 & 1.086 & 0.355 & 2.228 & 0.032 & 0.384 & 0.048 & 0.718 & 0.134 & 4587 & 234 & 0.0456 & 0.222 & -0.603 & 0.391 & 2.340 & 0.934 \\
\hline 250TTS137-30 & 33 & 0.164 & 0.184 & 0.140 & 1.061 & 0.032 & 0.442 & 0.086 & 0.149 & 0.090 & 1775 & 832 & 0.0531 & 0.038 & -0.868 & 0.516 & 1.440 & 0.636 \\
\hline 362TTS137-30 & 33 & 0.199 & 0.419 & 0.224 & 1.452 & 0.036 & 0.423 & 0.089 & 0.347 & 0.153 & 3031 & 758 & 0.0645 & 0.087 & -0.757 & 0.467 & 1.691 & 0.800 \\
\hline 400TTS137-30 & 33 & 0.210 & 0.524 & 0.254 & 1.579 & 0.036 & 0.416 & 0.090 & 0.437 & 0.178 & 3510 & 686 & 0.0683 & 0.109 & -0.727 & 0.453 & 1.787 & 0.835 \\
\hline 600TTS137-30 & 33 & 0.273 & 1.356 & 0.443 & 2.229 & 0.040 & 0.383 & 0.092 & 1.117 & 0.247 & 4874 & 455 & 0.0885 & 0.276 & -0.601 & 0.389 & 2.340 & 0.934 \\
\hline 250TTS137-33 & 33 & 0.181 & 0.204 & 0.156 & 1.062 & 0.035 & 0.441 & 0.104 & 0.170 & 0.103 & 2043 & 1024 & 0.0724 & 0.042 & -0.867 & 0.515 & 1.440 & 0.638 \\
\hline 362TTS137-33 & 33 & 0.220 & 0.465 & 0.248 & 1.453 & 0.039 & 0.422 & 0.108 & 0.395 & 0.175 & 3465 & 1024 & 0.0879 & 0.097 & -0.756 & 0.466 & 1.691 & 0.800 \\
\hline 400TTS137-33 & 33 & 0.233 & 0.582 & 0.282 & 1.579 & 0.040 & 0.415 & 0.109 & 0.497 & 0.203 & 4006 & 935 & 0.0931 & 0.121 & -0.725 & 0.452 & 1.787 & 0.835 \\
\hline 600TTS137-33 & 33 & 0.303 & 1.504 & 0.491 & 2.230 & 0.044 & 0.383 & 0.111 & 1.287 & 0.296 & 5840 & 621 & 0.1207 & 0.306 & -0.599 & 0.388 & 2.340 & 0.934 \\
\hline
\end{tabular}

For SI Units: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{lb}=4.45 \mathrm{~N}, 1 \mathrm{ksi}=6.89 \mathrm{~N} / \mathrm{m}^{2}\).
1 Web-height to thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2 Web-height to thickness ratio exceeds 260 . Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2. Flange width to thickness ratio exceeds 60 . See AISI S100 Section B1.1.
3 Tabulated gross properties including torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.
4 For deflection calculations use the effective moment of inertia.

TABLE 6-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) FULLY BRACED TRAKLOC FIXED LENGTH STUDS (TLF) \({ }^{3,4,5}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLF125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4 " \mathrm{e} \\
9^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
10^{\prime} 0 " \\
8^{\prime} 99^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 8 " \\
8^{\prime} 9 " \\
7 \text { ' 8" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \text { e } \\
\text { 9' } 3^{\prime \prime} \text { e } \\
7^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \mathrm{e} \\
\text { 9' 3" e } \\
7^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 6 " \\
\text { 8' 7" e } \\
\text { 7' 6" e }
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \text { e } \\
& 8^{\prime} 0^{\prime \prime} \text { e } \\
& 6^{\prime} 7^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \text { e } \\
& 8^{\prime} 0^{\prime \prime} \text { e } \\
& 6^{\prime} 7^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime} 7^{\prime \prime} \mathrm{e} \\
77^{\prime} 10^{\prime \prime} \mathrm{e} \\
6^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 7' 7" e } \\
& \text { 6' 7" e } \\
& \text { 5' 4" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 7" e } \\
& \text { 6' } 7^{\prime \prime} \mathrm{e} \\
& 5^{\prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 6" e } \\
& \text { 6' 7" e } \\
& \text { 5' 4" e }
\end{aligned}
\] \\
\hline 362TLF125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 6 "^{\prime \prime} \mathrm{e} \\
13^{\prime} 5{ }^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 9 " \\
13^{\prime \prime} 4 " \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 2 \mathrm{c} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8 "^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11 " \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11 " \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
9^{\prime} 6^{\prime \prime} \mathrm{e} \\
\text { 7' }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
6^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 9" e } \\
\text { 6' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
6^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 400TLF \(125-18^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\left[\begin{array}{c}
15^{\prime} 6^{\prime \prime} \\
13^{\prime} 5 " \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{array}\right.
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 5{ }^{\prime \prime} \text { e } \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
10^{\prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8 "^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 10' 11" e } \\
\text { 9' 6" e } \\
\text { 7' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11 " \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' } 9 \text { " e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11 " \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' }{ }^{\prime \prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' 9" e } \\
6^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
6^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
6^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 600TLF125-18 \({ }^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 " \mathrm{e} \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
18^{\prime} 3^{\prime \prime} \mathrm{e} \\
16^{\prime} 77^{\prime \prime} \mathrm{e} \\
13^{\prime} 6 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 7^{\prime \prime} \mathrm{e} \\
& 13^{\prime} 6^{\prime \prime} \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
15{ }^{\prime} 7 " \mathrm{e} \\
13^{\prime} 6 " \mathrm{e} \\
11^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
13{ }^{\prime} 6 " \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} \text { 6" e } \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 7{ }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6 " \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime \prime} 1 "_{\prime \prime}^{e} \\
9^{\prime} 7^{\prime \prime} \mathrm{e} \\
\text { 6' } 9^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 1 " \mathrm{e} \\
9^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 1 " \mathrm{e} \\
9^{\prime} 7 \mathrm{l} \mathrm{\prime} \mathrm{e} \\
\text { 6' } 9 \text { " } \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLF125-24 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
13^{\prime} 7 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 11^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5 " \\
9^{\prime} 55^{\prime \prime} \\
8^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 9 " \\
13^{\prime \prime} 4^{\prime \prime} \\
10^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 8 " \\
& 10^{\prime} 8 " \\
& 9^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
11^{\prime} 7 " \\
9^{\prime} 55^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8 " \\
9^{\prime} 88^{\prime \prime} \\
8^{\prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime \prime} 5^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 5^{\prime \prime} \\
7^{\prime} 9{ }^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 5^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 1^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime} \\
& 6^{\prime} 5^{\prime \prime}
\end{aligned}
\] \\
\hline & 12 & 20'0" & 15' 11 " & \(13^{\prime} 11{ }^{\prime \prime}\) & 18' \({ }^{\prime \prime}\) & \(15^{\prime} 8\) " & \(13^{\prime \prime}{ }^{\prime \prime}\) & 15' \({ }^{\prime \prime}\) & 14'3" & 12' 5" & 12'10" & 12'5" & \(10^{\prime} 10^{\prime \prime}\) \\
\hline 362TLF125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 18^{\prime} 2 " \\
& 15^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5 " \\
& 12^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7 \\
& 11^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 9 " \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 7 " \\
11^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 11 " \\
11^{\prime} 11 \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3 " \\
& 9^{\prime} 10^{\prime \prime}
\end{aligned}
\] & 11' 1" e 9'1" e & \[
\begin{aligned}
& 11 \text { '1" e } \\
& \text { 9' 1" e }
\end{aligned}
\] & \[
\begin{gathered}
9^{\prime} 10^{\prime \prime} \\
8^{\prime} 7 \mathrm{7} \text { e e }
\end{gathered}
\] \\
\hline & 12 & 21'8" & \(17^{\prime \prime}\) & \(15^{\prime \prime}\) & \(19^{\prime \prime} 1\) & \(16^{\prime} 11 "\) & 14'9" & 16' 7 " & \(15^{\prime \prime}\) & \(13^{\prime \prime}\) & 13' 6" & \(13^{\prime \prime}{ }^{\prime \prime}\) & 11'9" \\
\hline 400TLF125-24 & \[
\begin{aligned}
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 8 " \\
& 16^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 13^{\prime} 8^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 7 " \\
& 13^{\prime} 6 "
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5 " \\
& 13^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 5 " \\
& 11^{\prime} 9 "
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 4 " \\
& 11^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 11^{\prime} 9 "
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 2^{\prime \prime} \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 9 " \\
9^{\prime \prime} 7 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 9 " \\
9^{\prime} 7 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline & 12 & 27' 9" & 23' 0 " & 20'1" & 22' \({ }^{\prime \prime}\) & 22'7" & 19' 9" & 19'8" e & 19'8" & 17'11" e & 16'1" e & 16' 1" & 15' 8" e \\
\hline 600TLF125-24 \({ }^{1}\) & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
24^{\prime} 1 " \\
19^{\prime} 8 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 11^{\prime \prime} \\
18^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 3 \prime \prime \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 19^{\prime} 8^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 19 ' 8 " \mathrm{e} \\
& 161^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
171^{\prime \prime} 11^{\prime \prime} \\
15^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{|c}
170^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
17^{\prime} 0 " \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \begin{tabular}{l}
13' 11" e \\
11' 4" e
\end{tabular} & \begin{tabular}{l}
13' 11" \\
11'4" e
\end{tabular} &  \\
\hline 250TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 5 " \\
14^{\prime} 11^{\prime \prime} \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 10 " \\
10^{\prime} 4 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5 " \\
10^{\prime} 4 " \\
9^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10 " \\
10^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \\
10^{\prime \prime} 2 "
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 1 " \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8^{\prime \prime} \\
10^{\prime} 7 " \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime} \\
7^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] \\
\hline 362TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 8 " \\
18^{\prime \prime} 10 " \\
15^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 5^{\prime \prime} \\
15^{\prime} 10^{\prime \prime} \\
13^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 9 " \\
15^{\prime} 4^{\prime \prime} \\
12^{\prime} 6
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 1^{\prime \prime} \\
& 15^{\prime} 4^{\prime \prime} \\
& 12^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 7 " \\
11^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime} 3 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime} 3 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 7 " \\
& 12^{\prime} 4^{\prime \prime} \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 6^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 6 " \\
10^{\prime \prime} 10^{\prime \prime} \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 10^{\prime \prime} \\
10^{\prime} 9 " \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
16^{\prime} 2 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9^{\prime \prime} \\
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 8 \text { " } \\
& 16^{\prime} 2 " \\
& 13^{\prime} 3
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 6^{\prime \prime} \\
& 16^{\prime} 2^{\prime \prime} \\
& 13^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 2^{\prime \prime} \\
14^{\prime} 8^{\prime \prime} \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 0 " \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 0 \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 8^{\prime \prime} \\
13^{\prime} 4 " \\
11^{\prime} 5
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime \prime} 5 " \\
9^{\prime \prime} 4 " \mathrm{e}
\end{gathered}
\] \\
\hline 600TLF125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 5 " \\
25^{\prime} 6 " \\
20^{\prime} 10 " \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 8 " \\
& 23^{\prime \prime} 4 " \\
& 20^{\prime \prime} 5 " \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime \prime} 5^{\prime \prime} \\
20^{\prime} 5^{\prime \prime} \\
17^{\prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0 " \\
20^{\prime} 10 " \\
17^{\prime} 0^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
24 ' 0 " \\
20^{\prime} 10 " \\
17^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1^{\prime \prime} \\
20^{\prime} 1^{\prime \prime} \\
17^{\prime} 0^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 20' 10" } \\
18^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 10^{\prime \prime} \\
18^{\prime} 0^{\prime \prime} \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 20' 1" } \\
18^{\prime} 0^{\prime \prime} \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 0^{\prime \prime} \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
12^{\prime} 0^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17{ }^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e} \\
12^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
177^{\prime \prime} \mathrm{e} \\
14^{\prime} 9 " \mathrm{e} \\
12^{\prime \prime} 0^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime} \\
& 15^{\prime} 5 " \\
& 13^{\prime} 6
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
111^{\prime} 9 " \\
10^{\prime} 8 " \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 10 " \\
13^{\prime} 9 " \\
11^{\prime} 2 "
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 1 " \\
& 10^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 77^{\prime \prime} \\
10^{\prime} 6 " \\
9^{\prime} 2 "
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime} 11^{\prime \prime} \\
9^{\prime} 88^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 7^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 66^{\prime \prime} \\
9^{\prime} 7^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 2 " \\
9^{\prime} 88^{\prime \prime} \\
7^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6 " \\
9^{\prime} 77^{\prime \prime} \\
7^{\prime} 111^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 2^{\prime \prime} \\
& 8^{\prime} 4^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLF125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime} 8^{\prime \prime} \\
20^{\prime} 3^{\prime \prime} \\
16^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 0 \\
16^{\prime} 4^{\prime \prime} \\
14^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
19^{\prime} 2^{\prime \prime} \\
16^{\prime} 7 \\
13^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 8 " \\
16^{\prime} 1 " \\
13^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 5^{\prime \prime} \\
14^{\prime} 0 \\
12^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 7^{\prime \prime} \\
14^{\prime} 4^{\prime \prime} \\
11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 1^{\prime \prime} \\
14^{\prime} 4^{\prime \prime} \\
11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 0 " \\
12^{\prime} 9 \\
11^{\prime \prime} 2
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6 " \\
11^{\prime} 9 " \\
9^{\prime \prime} 7
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6^{\prime \prime} \\
11^{\prime} 9 \\
9^{\prime} 7 \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
11^{\prime} 2^{\prime \prime} \\
9^{\prime} 7 \text { "' }
\end{gathered}
\] \\
\hline 400TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 24^{\prime} 5 " \\
& 21^{\prime} 5 " \\
& 17^{\prime} 6 "
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 5 " \\
& 17^{\prime} 8 " \\
& 15^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 11^{\prime \prime} \\
15^{\prime} 5^{\prime \prime} \\
13^{\prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 20^{\prime} 2^{\prime \prime} \\
& 17^{\prime} 6^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 1^{\prime \prime} \\
& 17^{\prime \prime} 4^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 8 " \\
& 15^{\prime} 2 " \\
& 13^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 6 " \\
& 15^{\prime} 2 " \\
& 12^{\prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 4^{\prime \prime} \\
& 15^{\prime} 2 " \\
& 12^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime} \\
13^{\prime} 9 \\
12^{\prime \prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 3 " \\
& 12^{\prime} 4^{\prime \prime} \\
& 10^{\prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 4^{\prime \prime} \\
& 10^{\prime} 1 "
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 0 \\
& 10^{\prime} 1
\end{aligned}
\] \\
\hline 600TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 32^{\prime} 8^{\prime \prime} \\
& 28^{\prime} 3^{\prime \prime} \\
& 23^{\prime \prime}{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 26^{\prime} 7 " \\
& 24^{\prime} 2 " \\
& 21^{\prime} 2^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime \prime} 2^{\prime \prime} \\
& 18^{\prime \prime}{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
26^{\prime} 8 " \\
23^{\prime \prime} 1 " \\
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
26^{\prime} 2 " \\
23^{\prime} 1 " \\
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
20^{\prime \prime} 9 \\
18^{\prime \prime} 2^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
23^{\prime} 1 "^{\prime \prime} \\
20^{\prime \prime} 0^{\prime \prime} \mathrm{e} \\
16^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
23^{\prime} 1 " \\
20^{\prime} 0 " \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 9 " \\
18^{\prime} 11^{\prime \prime} \mathrm{e} \\
16^{\prime} 4{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
16^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
16^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 2^{\prime \prime} \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Compression flanges must be continuously braced.
5. End bearing must be 1 -inch.

TABLE 7-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) 48" o.c. BRACING TRAKLOC FIXED LENGTH STUDS (TLF) \({ }^{3,4,5}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLF125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
12^{\prime} 7 " \\
10^{\prime \prime} 11^{\prime \prime} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
111^{\prime} 0 " \\
10^{\prime} 0 " \\
8^{\prime} 99^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 9' 8" } \\
\text { 8' 9" } \\
\text { 7' 8" e }
\end{gathered}
\] & \[
\begin{aligned}
& 10^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 8^{\prime} 11^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 3^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
7^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} \text { 6" } \\
\text { 8' 7" e } \\
\text { 7' 3" e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \text { e } \\
\text { 7' 8" e } \\
6^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \text { e } \\
\text { 7' 8" e } \\
6^{\prime} 3^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& \hline 8^{\prime} 77^{\prime \prime} \mathrm{e} \\
& \text { 7' 8" e } \\
& \text { 6' 3" e }
\end{aligned}
\] & \[
\begin{aligned}
& \hline \text { 7' 3" e } \\
& \text { 6' 3" e } \\
& \text { 5' 2" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' } 3^{\prime \prime} \text { e } \\
& \text { 5' 2" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' } 3^{\prime \prime} \text { e } \\
& \text { 6' } 3^{\prime \prime} \text { e } \\
& 5^{\prime} 2^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 362TLF125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \mathrm{e} \\
10^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 7 " \mathrm{e} \\
& 10^{\prime} 1^{\prime \prime} \mathrm{e} \\
& 8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7 " \mathrm{e} \\
\text { 10' } 1 \text { " e } \\
8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 7" e } \\
\text { 10' 1" e } \\
\text { 8' 3" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 99^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1 " \mathrm{e} \\
\text { 8' } 9^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1 "_{" 1}^{e} \\
\text { 8' 9" e } \\
\text { 7' 1" e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' }^{\prime \prime \prime} \mathrm{e} \\
\text { 7' 1" e } \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 400TLF \(125-18^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1 " \mathrm{e} \\
10^{\prime} 66^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 " \mathrm{e} \\
8^{\prime} 88^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 " \mathrm{e} \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 " \mathrm{e} \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 77^{\prime \prime} \mathrm{e} \\
9^{\prime} 2^{\prime \prime} \mathrm{e} \\
7^{\prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 77^{\prime \prime} \mathrm{e} \\
\text { 9' } 2^{\prime \prime} \mathrm{e} \\
7^{\prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 77^{\prime \prime} \mathrm{e} \\
\text { 9' 2" e } \\
7^{\prime \prime} 6 \text { " } \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 8' 8" e } \\
& \text { 7' 6" e } \\
& \text { 6' 1" e }
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 8^{\prime \prime} \mathrm{e} \\
& \text { 7' 6" e } \\
& 6^{\prime \prime} \mathbf{1 "}^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 8^{\prime \prime} \text { e } \\
& 77^{\prime \prime} \text { e } \\
& 6^{\prime} 1^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 600TLF \(125-18^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2 " '_{\prime \prime} \text { e } \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime \prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2 " \mathrm{e} \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 18{ }^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 16{ }^{\prime} 7 \mathrm{l} \\
& \text { 13' } 6 \text { " } \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15{ }^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15{ }^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
15{ }^{\prime} 7 " \mathrm{e} \\
13^{\prime} 6 " \mathrm{e} \\
11^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
133^{\prime \prime} \text { " e } \\
\text { 11' 9" e } \\
\text { 9' 7" e }
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6^{\prime \prime} \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 7^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
13{ }^{\prime} \text { 6" e } \\
11^{\prime \prime} 9 " \mathrm{e} \\
9^{\prime} 7{ }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 1 " \mathrm{e} \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] \\
\hline 250TLF125-24 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 0 \\
& 13^{\prime} 7 " \\
& 11^{\prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
9^{\prime} 55^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5 " \\
9^{\prime} 5^{\prime \prime} \\
8^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 2^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 " \\
10^{\prime} 88^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \\
9^{\prime} 8{ }^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 5^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 4^{\prime \prime} \\
& 8^{\prime} 1 " \\
& 6^{\prime} 7^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime} \\
& 6^{\prime} 7^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 1^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime} \\
& 6^{\prime \prime} 5
\end{aligned}
\] \\
\hline & 12 & 17'11" & 15' 11" & \(13^{\prime} 11{ }^{\prime \prime}\) & 14' \({ }^{\prime \prime}\) & 14' 8" & \(13^{\prime \prime}{ }^{\prime \prime}\) & 12' 8" & 12' 8" & \(12^{\prime \prime}{ }^{\prime \prime}\) & 10'4" & 10' \(\mathbf{4}^{\prime \prime}\) & 10' \(\mathbf{4}^{\prime \prime}\) \\
\hline 362TLF125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \\
& 12^{\prime} 8 "
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5 " \\
& 12^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7 " \\
& 11^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8^{\prime \prime} \\
& 10^{\prime} 4 \text { " }
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime} 4 "
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 5^{\prime \prime} \\
& 10^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime} 4 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime \prime} 0 " \\
77^{\prime \prime} \text { " }
\end{gathered}
\] \\
\hline & 12 & 18'10" & 17' \({ }^{\prime \prime}\) & \(15^{\prime \prime}\) & \(15^{\prime \prime}{ }^{\prime \prime}\) & \(15^{\prime \prime}{ }^{\prime \prime}\) & 14'9" & \(13^{\prime \prime}{ }^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & 10'10" & 10'10" & 10' 10" \\
\hline 400TLF125-24 & \[
\begin{array}{r}
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 4 " \\
& 13^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 6 " \\
& 9^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 8^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 88^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 8
\end{aligned}
\] \\
\hline & 12 & 24' \({ }^{\prime \prime}\) & 23' \(0^{\prime \prime}\) & \(20^{\prime \prime} 1\) & 19'9" & 19'9" & 19'9" & 17'1" & 17'1" & 17'1" & 13'11" & 13'11" & 3'11" e \\
\hline 600TLF \(125-24{ }^{1}\) & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 3 " \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 11^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] &  & \[
\begin{aligned}
& 122^{\prime \prime} \mathrm{e} \\
& 9^{\prime} 10^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 1^{\prime \prime} \mathrm{e} \\
& 9^{\prime} 10^{\prime \prime} \mathrm{e}
\end{aligned}
\] \\
\hline 250TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 7 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 10^{\prime \prime} \\
10^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5^{\prime \prime} \\
10^{\prime \prime} 4^{\prime \prime} \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime} 11^{\prime \prime} \\
9^{\prime} 9
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \\
9^{\prime} 9 "
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 2^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11^{\prime \prime} \\
10^{\prime \prime} 4^{\prime \prime} \\
8^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 " \\
10^{\prime \prime} 4^{\prime \prime} \\
8^{\prime} 5 \text { "' }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1 \text { " }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
8^{\prime} 5 \\
6^{\prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
8^{\prime} 5 " \\
6^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 1 " \\
6^{\prime} 10^{\prime \prime}
\end{gathered}
\] \\
\hline 362TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 11 " \\
17^{\prime} 3^{\prime \prime} \\
14^{\prime} 1 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 5^{\prime \prime} \\
15^{\prime} 10 " \\
13^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 10 " \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 3^{\prime \prime} \\
14^{\prime} 1^{\prime \prime} \\
11^{\prime} 6
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 14^{\prime} 1 " \\
& 11^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 7 " \\
11^{\prime} 6^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 1 " \\
12^{\prime} 3^{\prime \prime} \\
10^{\prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 7^{\prime \prime} \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime} 0 " \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6^{\prime \prime} \\
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 \\
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLF125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 0^{\prime \prime} \\
18^{\prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2 " \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 11
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2 " \\
& 14^{\prime} 8 \\
& 12^{\prime} 1
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 10 " \\
10^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 8 " \\
12^{\prime} 10 " \\
10^{\prime} 6 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 77^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 7 \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 7 \\
\hline
\end{gathered}
\] \\
\hline 600TLF125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
27^{\prime} 77^{\prime \prime} \\
23^{\prime} 11^{\prime \prime} \\
19^{\prime} 6^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 8^{\prime \prime} \\
& 23^{\prime \prime} 4^{\prime \prime} \\
& 19^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime} 5^{\prime \prime} \\
20^{\prime} 5^{\prime \prime} \\
17^{\prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 7^{\prime \prime} \\
19^{\prime} 6^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 7^{\prime \prime} \\
19^{\prime} 6^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1^{\prime \prime} \\
19^{\prime} 6^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
19 ' 6 " \\
16^{\prime \prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \in \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 6^{\prime \prime} \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 6 " \\
16^{\prime \prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{|c}
\hline 15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10 " \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \\
11^{\prime} 3 \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
17^{\prime} 0 \\
15^{\prime} 5 " \\
12^{\prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
111^{\prime} 9 \\
10^{\prime} 8 \\
9^{\prime} \mathbf{n}^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 8 " \\
& 12^{\prime} 9 \\
& 10^{\prime \prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 1 " \\
& 10^{\prime} 5 "
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7 " \\
10^{\prime} 6^{\prime \prime} \\
9^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 9 \\
11^{\prime} 0 \\
9^{\prime} 0 \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 66^{\prime \prime} \\
9^{\prime} 77^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 00^{\prime \prime} \\
7^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 0^{\prime \prime} \\
7^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 2^{\prime \prime} \\
& 8^{\prime \prime} 4^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 21^{\prime} 6 " \\
& 18^{\prime} 8 " \\
& 15^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 0^{\prime \prime} \\
& 16^{\prime} 4^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7 " \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7 " \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5^{\prime \prime} \\
& 14^{\prime} 0 \\
& 12^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 12^{\prime} 9 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{gathered}
122^{\prime} 5 \\
10^{\prime \prime} 9 " \\
8^{\prime} 99^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12 \text { ' } 5 " \\
10^{\prime} 9 " \\
8^{\prime} 9 "
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
10^{\prime} 9 " \\
8^{\prime} 99^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLF125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 8^{\prime} \\
19^{\prime} 8^{\prime} \\
16^{\prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 19^{\prime} 5^{\prime \prime} \\
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 11 " \\
15^{\prime} 5 " \\
13^{\prime} 5 "
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 6 \\
& 16^{\prime} 0^{\prime \prime} \\
& 13^{\prime} 1
\end{aligned}
\] & \[
\begin{gathered}
18^{\prime} 6 \\
16^{\prime} 0 \\
13^{\prime} \\
10
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 8 \\
& 15^{\prime \prime} 2^{\prime \prime} \\
& 13^{\prime} 1
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 0 " \\
13^{\prime \prime} 11^{\prime \prime} \\
11^{\prime} 44^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime} 9 " \\
& 11^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLF125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 11^{\prime \prime} \\
25^{\prime} 11^{\prime \prime} \\
21^{\prime \prime} 2 \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 26^{\prime} 7 " \\
& 24^{\prime} 2 " \\
& 21^{\prime \prime} 2 "
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime \prime} 2 "_{18 ' 5 "}^{18 '}
\end{aligned}
\] & \[
\begin{gathered}
24 ' 5 " \\
21^{\prime \prime} 2 "^{\prime \prime} \\
17^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 5^{\prime \prime} \\
21^{\prime} 2 " \\
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 11 " \\
20^{\prime \prime} 9 " \\
17^{\prime \prime} 3 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 2 " \\
18^{\prime \prime} 4 " \\
14^{\prime \prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 2^{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 9^{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \text { e } \\
14^{\prime} 11^{\prime \prime} \text { e } \\
12^{\prime} 2^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300 . Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Based on an unbraced length (Lu) of 48 " o.c.
5. End bearing must be 1 -inch.

TABLE 8-NON-COMPOSITE LIMITING HEIGHTS (feet-inches)
FULLY BRACED TRAKLOC ADJUSTABLE STUDS (TLA) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLA125-18 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime} 4^{\prime \prime} \mathrm{e} \\
9^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
10^{\prime} 0 " \\
8^{\prime} 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 8 " \\
8^{\prime \prime} 9 " \\
7^{\prime} 8 " \text { e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \mathrm{e} \\
9^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 10^{\prime} 8 " \mathrm{e} \\
& \text { 9' } 3^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 7^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
\text { 9' 6" } \\
\text { 8' 7" e } \\
\text { 7' 6" e }
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \text { e } \\
& \text { 8' }^{\prime \prime} \text { e } \\
& 6^{\prime} 7^{\prime \prime} \text { e }
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \text { e } \\
& \text { 8' 0" e } \\
& 6^{\prime} 7^{\prime \prime} \text { e }
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime} 7^{\prime \prime} \mathrm{e} \\
7{ }^{\prime} 10^{\prime \prime} \mathrm{e} \\
6^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 7' 7" e } \\
& \text { 6' } 7^{\prime \prime} \mathrm{e} \\
& 5^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 7" e } \\
& \text { 6' } 7^{\prime \prime} \text { e } \\
& 5^{\prime \prime} 4^{\prime \prime} \text { e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 6" e } \\
& \text { 6' } 7^{\prime \prime} \text { e } \\
& 5^{\prime \prime} 4^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 362TLA125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\left[\begin{array}{c}
15^{\prime} 6^{\prime \prime} \mathrm{e} \\
13^{\prime} 5^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{array}\right.
\] & \[
\begin{gathered}
14^{\prime} 9 " \\
13^{\prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 2^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} \text { " " e } \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10 \text { '11" e } \\
\text { 9' 6" e } \\
\text { 7' } 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
9^{\prime} 6^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 9^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
9^{\prime} 6^{\prime \prime} \mathrm{e} \\
7^{\prime} 9{ }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' 9" e } \\
\text { 6' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 9" e } \\
\text { 6' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
\text { 6' 4" } \mathrm{e}
\end{gathered}
\] \\
\hline 400TLA125-18 \({ }^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 6 " \\
13^{\prime \prime} 5^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2 " \\
13^{\prime} 5 " \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1 " \mathrm{e} \\
10^{\prime} 6 \text { " } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} \text { 8" e } \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11 " \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
10 \text { 11" e } \\
\text { 9' 6" e } \\
\text { 7' } 9 \text { " e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 9' 6" e } \\
\text { 7' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 9" e } \\
\text { 6' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' } 9^{\prime \prime} \mathrm{e} \\
6^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 9" e } \\
\text { 6'4" e }
\end{gathered}
\] \\
\hline 600TLA125-18 \({ }^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 " \mathrm{e} \\
& 16{ }^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
19 ' 2 " \mathrm{e} \\
16^{\prime} 77^{\prime \prime} \mathrm{e} \\
13^{\prime} \text { 6" e }
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 3 " \mathrm{e} \\
16^{\prime} 7 " \mathrm{e} \\
13^{\prime} 6 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 7^{\prime \prime} \mathrm{e} \\
& 13^{\prime \prime} 6^{\prime \prime} \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
133^{\prime \prime} \text { " e } \\
\text { 11' 9" e } \\
9^{\prime \prime} 7{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6 " \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13{ }^{\prime} 6 " \mathrm{e} \\
\text { 11' } 9 " \mathrm{e} \\
\text { 9' } 7 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] \\
\hline 250TLA125-24 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 0^{\prime \prime} \\
13^{\prime} 7^{\prime \prime} \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 11 " \\
10^{\prime} 10 " \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5 " \\
9^{\prime} 55^{\prime \prime} \\
8^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 9 " \\
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 8 " \\
& 10^{\prime} 8 " \\
& 9^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
11^{\prime} 7 " \\
9^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8 " \\
9^{\prime} 8^{\prime \prime} \\
8^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 5^{\prime \prime} \\
7^{\prime} 99^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 5^{\prime \prime} \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' }^{\prime \prime} \\
\text { 7' 4" } \\
6^{\prime} 5^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline & 12 & 20' 0 & \(15^{\prime} 11{ }^{\prime \prime}\) & 13'11" & 18' 2 " & 15' 8" & \(13^{\prime \prime}\) & 15' 9 " & 14' \({ }^{\prime \prime}\) & 12' 5" & 12' 10" & 12' 5" & 10' 10" \\
\hline 362TLA125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 18^{\prime} 2 " \\
& 15^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14 ' 5 " \\
& 12^{\prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7 \\
& 11^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 9 " \\
12^{\prime} 10 "
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5 "
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime} 10 "
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 7 " \\
11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 11^{\prime \prime} \\
11^{\prime} 1^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& 111^{\prime} 3 " \\
& 9 ' 10 "
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime \prime} 1 "^{\prime} \mathrm{e} \\
9^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \begin{tabular}{l}
11'1" e \\
9' 1" e
\end{tabular} & \[
\begin{gathered}
9^{\prime} 10 " \\
8^{\prime} 7 " \mathrm{e}
\end{gathered}
\] \\
\hline & 12 & 21'8" & 17' 2 " & 15' 0 " & 19'1" & 16' 11" & 14'9" & 16' 7" & 15' 5' & \(13^{\prime \prime}\) & 13' 6" & \(13^{\prime \prime}\) & 11'9" \\
\hline 400TLA125-24 & \[
\begin{aligned}
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 8 " \\
& 16^{\prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 8
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 7 " \\
& 13^{\prime} 6 "
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5 " \\
& 13^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 5 " \\
& 11^{\prime} 9 "
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 4^{\prime \prime} \\
& 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 144^{\prime} 0 " \\
& 11^{\prime} 9 "
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 2 " \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
111^{\prime \prime} 9 \\
9^{\prime} 7 \text { " e }
\end{gathered}
\] & \[
\begin{aligned}
& 111^{\prime \prime} \\
& 9^{\prime} 7 \text { " e }
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 8 " \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 600TLA125-24 \({ }^{1}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
27^{\prime} 9 " \\
24^{\prime \prime} 1^{\prime \prime} \\
19^{\prime} 88^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
23^{\prime} 0^{\prime \prime} \\
20^{\prime} 11 " \\
18^{\prime} 3^{\prime \prime} \text { e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 1 \text { "' } \\
18^{\prime} 3 \prime{ }^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} \text { 8" } \\
\text { 19' 8" e } \\
166^{\prime \prime} 1^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 7^{\prime \prime} \\
19^{\prime} 8^{\prime \prime} \mathrm{e} \\
16^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 9 " \\
17^{\prime} 11^{\prime \prime} \mathrm{e} \\
15^{\prime} 88^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 8^{\prime \prime} \mathrm{e} \\
17^{\prime} 0^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 8^{\prime \prime} \mathrm{e} \\
17^{\prime \prime} 0^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 11^{\prime \prime} \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
\hline 16^{\prime} 1^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
11^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 1^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
11^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 8^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
11^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 10 " \\
10^{\prime} 4
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5 " \\
10^{\prime} 4 \\
9^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10 " \\
10^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 8 " \\
10^{\prime} 2
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3 " \\
& 10^{\prime} 2 \\
& 8^{\prime} 111^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 1 " \\
9^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 \text { " } \\
10^{\prime} 7 \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} \text { 6" } \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 5 " \mathrm{E}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2 " \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 5^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime} \\
7^{\prime} 1^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline 362TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 8 " \\
18^{\prime} 10 " \\
15^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 5^{\prime \prime} \\
15^{\prime} 10^{\prime \prime} \\
13^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 10 " \\
12^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 9 " \\
15^{\prime} 4^{\prime \prime} \\
12^{\prime} 6
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 1^{\prime \prime} \\
& 15^{\prime \prime} \\
& 12^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 7 " \\
11^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime} 3 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime} 3^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 7 " \\
& 12^{\prime} 4 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 6^{\prime \prime} \\
10^{\prime} 10 " \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 6 " \\
10^{\prime \prime} 10 " \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 10 " \\
10^{\prime} 9 " \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
16^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
14^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 8 " \\
16^{\prime} 2^{\prime \prime} \\
13^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 6 " \\
16^{\prime} 2^{\prime \prime} \\
13^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 2^{\prime \prime} \\
14^{\prime} 8 " \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 0 " \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 2 " \\
& 14^{\prime} 0 \\
& 11^{\prime} 5 \\
& 15^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 8^{\prime \prime} \\
& 13^{\prime} 4^{\prime \prime} \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline 600TLA125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 5^{\prime \prime} \\
25^{\prime} 6 " \\
20^{\prime} 10 " \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 8^{\prime \prime \prime} \\
& 23^{\prime \prime} 4^{\prime \prime} \\
& 20^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime} 5 " \\
20^{\prime} 5 " \\
17{ }^{\prime} 10 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0 " \\
20^{\prime \prime} 10^{\prime \prime} \\
17^{\prime} 0^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0^{\prime \prime} \\
20^{\prime} 10^{\prime \prime} \\
17^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1 " \\
20^{\prime} 1 " \\
17^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 10 " \\
18^{\prime} 0 " \mathrm{e} \\
14{ }^{\prime} 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 10 " \\
18^{\prime \prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 1^{\prime \prime} \\
18^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
\hline 17{ }^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e} \\
12^{\prime} 0^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
17{ }^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e} \\
12^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime \prime} \mathrm{e} \\
& 14^{\prime} 9 " \mathrm{e} \\
& 12^{\prime} 0^{\prime \prime} \mathrm{e}
\end{aligned}
\] \\
\hline 250TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
17^{\prime} 0^{\prime} \\
15^{\prime} 5 " \\
13^{\prime} 6
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& 12^{\prime} 3 " \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 9 " \\
10^{\prime} 8 " \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 10^{\prime \prime} \\
13^{\prime} 99^{\prime \prime} \\
11^{\prime} 2 "
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 1^{\prime \prime} \\
& 10^{\prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7 \text { " } \\
10^{\prime} 6 " \\
9^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime \prime} 11^{\prime \prime} \\
9^{\prime} 88^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 77^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6 " \\
9^{\prime} 7^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 2" } \\
\text { 9' 8" } \\
7^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6 " \\
9^{\prime \prime} 7 " \\
7^{\prime \prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 2 " \\
8^{\prime} 4 " \\
7^{\prime \prime} 4 " \mathrm{e}
\end{gathered}
\] \\
\hline 362TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 22^{\prime} 8^{\prime \prime} \\
& 20^{\prime} 3^{\prime \prime} \\
& 16^{\prime} 7
\end{aligned}
\] & \[
\begin{gathered}
18^{\prime} 0^{\prime \prime} \\
16^{\prime} 4^{\prime \prime} \\
14^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2 " \\
& 16^{\prime} 7 \\
& 13^{\prime} 6
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 8^{\prime \prime} \\
& 16^{\prime \prime} 1 " \\
& 13^{\prime \prime} 6
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5^{\prime \prime} \\
& 14^{\prime} 0 \\
& 12^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 7 " \\
14^{\prime} 4^{\prime \prime} \\
11^{\prime} 9
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 1 " \\
14^{\prime} 4 " \\
11^{\prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 12^{\prime} 9 " \\
& 11^{\prime} 2
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 6 "^{\prime \prime} \\
11^{\prime} 9 " \\
9^{\prime} 7 \text { "' e }
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} \text { 6" } \\
11^{\prime} 9 " \\
9^{\prime} 7{ }^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
11^{\prime} 2 " \\
9^{\prime} 7{ }^{\prime \prime} \text { e. }
\end{gathered}
\] \\
\hline 400TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 24^{\prime} 5^{\prime} \\
& 21^{\prime} 5^{\prime} \\
& 17^{\prime} 6
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 5 " \\
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 11^{\prime \prime} \\
15^{\prime} 5^{\prime \prime} \\
13^{\prime} 5
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 2^{\prime \prime} \\
17^{\prime} 6^{\prime \prime} \\
14^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 19^{\prime} 1^{\prime \prime} \\
& 17^{\prime} 4^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
17^{\prime} 6^{\prime \prime} \\
15^{\prime} 2 " \\
12^{\prime} 4
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 4^{\prime \prime} \\
& 15^{\prime \prime} 2 \\
& 12^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 2 " \\
& 13^{\prime} 9 \\
& 12^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime} 4^{\prime \prime} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime} 4^{\prime \prime} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 0 " \\
10^{\prime} 1^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline 600TLA125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
32^{\prime} 8^{\prime \prime} \\
28^{\prime} 3^{\prime \prime} \\
23^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 26^{\prime} 7 " \\
& 24^{\prime} 2 " \\
& 21^{\prime \prime} 2 "
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime} 2 "^{\prime \prime} \\
& 18^{\prime} \mathbf{I}^{\prime \prime}
\end{aligned}
\] & \[
\begin{array}{|c}
26^{\prime} 8 " \\
23^{\prime \prime} 1 " \mathrm{e} \\
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
26^{\prime} 2 "^{\prime \prime} \\
23^{\prime} 1^{\prime \prime} \mathrm{e} \\
18^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
20^{\prime} 9 " \\
18^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 23^{\prime} 1^{\prime \prime} \mathrm{e} \\
& 20^{\prime} 0^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 1^{\prime \prime} \mathrm{e} \\
& 20^{\prime} 0^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
20^{\prime} 9 " \\
18^{\prime} 11^{\prime \prime} \mathrm{e} \\
16^{\prime} 4{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
16^{\prime} 4 " \mathrm{e} \\
13^{\prime} 4{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 2^{\prime \prime} \text { e } \\
& 16{ }^{\prime} 4^{\prime \prime} \mathrm{e} \\
& 13^{\prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Compression flanges must be continuously braced.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 9-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) 48" o.c. BRACING TRAKLOC ADJUSTABLE STUDS (TLA) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLA125-18 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
12^{\prime} 7^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
8^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
10^{\prime} 0 " \\
8^{\prime} 9 " \text { "e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 8^{\prime \prime} \\
8^{\prime} 9 " \\
7 ' 8 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
7^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 10^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 8^{\prime} 11^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 3^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
\text { 9' 6" } \\
\text { 8' 7" e } \\
\text { 7' 3" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 8" e } \\
\text { 6' } 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' 8" e } \\
6^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 77^{\prime \prime} \text { e } \\
& \text { 7' 8" e } \\
& \text { 6' } \mathbf{3 ' S}^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' } 3^{\prime \prime} \mathrm{e} \\
& 5^{\prime} 2^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' } 3^{\prime \prime} \text { e } \\
& 5^{\prime} 2^{\prime \prime} \text { e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' } 3^{\prime \prime} \mathrm{e} \\
& \text { 5' 2" e }
\end{aligned}
\] \\
\hline 362TLA125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 7 " \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 11' 7" e } \\
& \text { 10' } 1^{\prime \prime} \mathrm{e} \\
& 8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10 ' 1 " \mathrm{e} \\
\text { 8' 9" e } \\
7^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] &  & \[
\begin{gathered}
10 ' 1 " \mathrm{e} \\
\text { 8' 9" e } \\
\text { 7' 1" } \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
\text { 7' 1" e } \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 400TLA125-18 \({ }^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime \prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1^{\prime \prime} \text { e } \\
10^{\prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime \prime} 7^{\prime \prime} \mathrm{e} \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 12{ }^{\prime \prime} 3 " \mathrm{e} \\
& 10^{\prime} 7 " \mathrm{e} \\
& 8 \text { 8' } 8 \text { " } \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 \mathrm{c} \text { e } \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] &  & \[
\begin{gathered}
10^{\prime} 7 " \mathrm{e} \\
\text { 9' } 2^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 10' 7" e } \\
\text { 9' 2" e } \\
\text { 7' 6" e }
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 8^{\prime \prime} \mathrm{e} \\
& \text { 7' 6" e } \\
& \text { 6' 1" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 8' 8" e } \\
& \text { 7' 6" e } \\
& \text { 6' 1" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 8' 8" e } \\
& \text { 7' 6" e } \\
& 6^{\prime \prime} 1^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 600TLA125-18 \({ }^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 " \mathrm{e} \\
& 16{ }^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 " \mathrm{e} \\
& 16 \text { ' } 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 7 \mathrm{c} \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
15{ }^{\prime} 7 " \mathrm{e} \\
13^{\prime} 6 " \mathrm{e} \\
11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 7^{\prime \prime} \mathrm{e} \\
& 13^{\prime \prime} 6^{\prime \prime} \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 6 " \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime} 7{ }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 6^{\prime \prime} \mathrm{e} \\
11^{\prime \prime} 9^{\prime \prime} \mathrm{e} \\
9^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13{ }^{\prime} 6 " \mathrm{e} \\
\text { 11' } 9 " \mathrm{e} \\
\text { 9' } 7 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 1 " \mathrm{e} \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] \\
\hline 250TLA125-24 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 0^{\prime \prime} \\
& 13^{\prime} 7 \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 5^{\prime \prime} \\
8^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 2^{\prime \prime} \\
11^{\prime} 5 " \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 " \\
10^{\prime} 8 " \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
1^{\prime} 5^{\prime \prime} \\
9^{\prime} 11^{\prime \prime} \\
8^{\prime} 1 \text { " }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \\
9^{\prime} 88^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
9^{\prime} 4^{\prime \prime} \\
8^{\prime} 1^{\prime \prime} \\
6^{\prime} 77^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 9' }^{\prime \prime} \\
\text { 8' 1" } \\
\text { 6' 7" e }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime \prime} 1^{\prime \prime} \\
\text { 7' 4" } \\
6^{\prime \prime} 5^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline & 12 & 17' 11" & 15' \(11^{\prime \prime}\) & 13' 11" & 14'8" & 14' 8" & 13' 8" & 12' 8" & 12' 8" & 12' 5" & 10'4" & 10'4" & 10'4" \\
\hline 362TLA125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \\
& 12^{\prime} 8
\end{aligned}
\] & \[
\begin{aligned}
& 14 ' 5 " \\
& 12^{\prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7 \\
& 11^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime} \mathbf{4}^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 5^{\prime} \\
& 10^{\prime} 4^{\prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0 "
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 0 " \\
& 9^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 9' } 0 " \\
\text { 7' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime} 4 " \text { e }
\end{gathered}
\] \\
\hline & 12 & 18' 10 " & 17' 2 " & 15'0" & 15'4" & \(15^{\prime} 4^{\prime \prime}\) & 14' 9" & 13' \({ }^{\prime \prime}\) & \(13^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & 10'10" & 10' 10" & 10'10" \\
\hline 400TLA125-24 & \[
\begin{aligned}
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 4 " \\
& 13^{\prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11 ' 6 " \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 6 " \\
& 9^{\prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 88^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 88^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 8^{\prime \prime}
\end{aligned}
\] \\
\hline 600TLA125-24 \({ }^{1}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
24^{\prime} 2 "^{\prime \prime} \\
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
23^{\prime} 0^{\prime \prime} \\
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c|}
\hline 20^{\prime} 1^{\prime \prime} \\
18^{\prime} 33^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 9 " \\
17^{\prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 9 " \\
17^{\prime \prime} 1 " \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 250TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 7^{\prime \prime} \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 10 " \\
10^{\prime} 4
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5 " \\
10^{\prime} 4^{\prime \prime} \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime \prime} 11 " \\
9^{\prime} 9 "
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \\
9^{\prime} 9{ }^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3 " \\
& 10^{\prime} 2 \\
& 8^{\prime} 111^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11 " \\
10^{\prime \prime} 4^{\prime \prime} \\
8^{\prime \prime} 5
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 " \\
10^{\prime} 4 " \\
8^{\prime \prime} 5{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
8^{\prime} 5 \\
6^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
8^{\prime} 5 " \\
6^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 11^{\prime \prime} \\
6^{\prime} 10^{\prime \prime}
\end{gathered}
\] \\
\hline 362TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 11^{\prime \prime} \\
17^{\prime} 3^{\prime \prime} \\
14^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 5^{\prime \prime} \\
15^{\prime} 10 " \\
13^{\prime} 10 "
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2 " \\
13^{\prime} 10 " \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 3^{\prime \prime} \\
14^{\prime} 1 " \\
11^{\prime} 6
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 14^{\prime \prime} 1 " \\
& 11^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 7 " \\
11^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 1 " \\
12^{\prime} 3^{\prime \prime} \\
10^{\prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 7 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime \prime} 0 \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime} 0 \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 0 " \\
18^{\prime \prime} 2 " \\
14^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9 " \\
17^{\prime \prime} 1 " \\
14^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2^{\prime \prime} \\
14^{\prime} 10 " \\
12^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 8^{\prime \prime} \\
& 12^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10 \\
12^{\prime} 10 \\
10^{\prime} 6 \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10 " \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 8 " \\
12^{\prime \prime} 10^{\prime \prime} \\
10^{\prime} 6
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 7^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 77^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 77^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLA125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
27^{\prime} 7 " \\
23^{\prime} 11^{\prime \prime} \\
19^{\prime} 6^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 8^{\prime \prime} \\
& 23^{\prime \prime} 4^{\prime \prime} \\
& 19^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime} 5 " \\
20^{\prime \prime} 5 " \\
17^{\prime} 10 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 22' 7" } \\
19^{\prime} \text { 6" } \\
15 ' 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 7 " \\
19^{\prime} 6 " \\
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1 " \\
19^{\prime} 6 " \\
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
19^{\prime} 6 " \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} \text { 6" } \\
16^{\prime} 11 " \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 6 " \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15 ' 11 " \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
17^{\prime} 0 \\
15^{\prime} 5 " \\
12^{\prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& 12^{\prime} 3 " \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 9 " \\
10^{\prime} 88^{\prime \prime} \\
9^{\prime} 4 \text { " }
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 8 " \\
& 12^{\prime} 9 " \\
& 10^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 1 " \\
& 10^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7 " \\
10^{\prime} 6^{\prime \prime} \\
9^{\prime} 2 "
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 9 " \\
11^{\prime} 0 " \\
9^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{array}{r}
10^{\prime} 6 " \\
9^{\prime} 77^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{array}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 0 " \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 0 " \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 2^{\prime \prime} \\
8^{\prime} 4^{\prime \prime} \\
7^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 362TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 21^{\prime} 6 " \\
& 18^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
18^{\prime} 0^{\prime \prime} \\
16^{\prime} 4^{\prime \prime} \\
14^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7{ }^{\prime \prime} \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
17^{\prime} 7^{\prime \prime} \\
15^{\prime} 3^{\prime \prime} \\
12^{\prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 5^{\prime \prime} \\
& 14^{\prime} 0 \\
& 12^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2^{\prime \prime} \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15 ' ~ 3 " \\
& 13^{\prime} 2 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 12^{\prime} 9 " \\
& 10^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 5^{\prime \prime} \\
10^{\prime} 9 \\
8^{\prime} 9 \\
\hline 9^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 5^{\prime \prime} \\
10^{\prime \prime} 9 \\
8^{\prime \prime} 9
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
10^{\prime} 9 \\
8^{\prime} 9
\end{gathered}
\] \\
\hline 400TLA125-33 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 22^{\prime} 8 " \\
& 19^{\prime} 8^{\prime \prime} \\
& 16^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 5 " \\
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 11^{\prime \prime} \\
15^{\prime} 5^{\prime \prime} \\
13^{\prime} 55^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 6 " \\
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 6 " \\
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 1
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 8 \\
& 15^{\prime} 2 " \\
& 13^{\prime} 1 \\
& 10
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 4
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime \prime} 4
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 2 " \\
& 13^{\prime} 9 \\
& 11^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime \prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4 " \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLA125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 11^{\prime \prime} \\
25^{\prime} 11^{\prime \prime} \\
21^{\prime} 2 " \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 26^{\prime} 7 " \\
& 24^{\prime} 2 " \\
& 21^{\prime \prime} 2 "
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime} 2 " \\
& 18^{\prime \prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
24^{\prime} 5^{\prime \prime} \\
21^{\prime} 2^{\prime \prime} \\
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 5 " \\
21^{\prime \prime} 2 " \\
17^{\prime} 3 " \text { " e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
20^{\prime} 9 " \\
17^{\prime \prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 2 " '_{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} \text { " " }^{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 9 " \\
18^{\prime \prime} 4 " \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Based on an unbraced length (Lu) of 48" o.c.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 10-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) FULLY BRACED TRAKLOC DEFLECTION STUDS (TLD) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} & \multicolumn{3}{|c|}{5 PSF} \\
\hline & & L/120 & L/240 & L/360 & 120 & L/240 & L/360 & /120 & L/240 & /360 & /120 & L/240 & L/360 \\
\hline 250TLD125-18 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
9^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0^{\prime \prime} \\
10^{\prime} 0^{\prime \prime} \\
8^{\prime \prime} 9 . \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{r}
9^{\prime} 88^{\prime \prime} \\
8^{\prime} 9 " \\
7^{\prime \prime} 8^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 10^{\prime \prime} 8 \text { " }^{\prime \prime} \\
& 9^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 7^{\prime \prime} \mathrm{e}
\end{aligned}
\] &  & \[
\begin{gathered}
9^{\prime} \text { 6" } \\
8^{\prime} 77^{\prime \prime} \text { e } \\
7^{\prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 8^{\prime} 0 \mathrm{e} \\
& 6^{\prime} 7^{7 \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 0 \\
& 6^{\prime} 7^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime} 77^{\prime \prime} \mathrm{e} \\
7^{\prime} 10 \mathrm{n} \text { en } \\
6^{\prime} 7 \mathrm{7n} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 7^{\prime} 7^{\prime \prime} \\
& 6^{\prime} 7^{\prime \prime} \\
& 5^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 7^{\prime \prime} 7 \mathrm{e} \\
& 6^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
& 5^{\prime} 4^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 7^{\prime \prime} 6^{\prime \prime} \mathrm{e} \\
& 6^{\prime \prime} 7^{\prime \prime} \mathrm{e} \\
& 5^{\prime \prime} 4 \mathrm{e}
\end{aligned}
\] \\
\hline 362TLD125-18 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] &  &  & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 8 \mathrm{e} \\
10^{\prime} 2 " \mathrm{e} \\
\hline
\end{gathered}
\] &  &  & \(12^{\prime} 8 "\) e 10' 11" e 8'11" e & \begin{tabular}{l}
10'11" \\
9' 6" e \\
7'9"
\end{tabular} & \[
\begin{gathered}
10^{\prime} 11 " \\
9^{\prime \prime} 6^{\prime \prime} \\
7^{\prime \prime} 9
\end{gathered}
\] &  & \[
\begin{gathered}
8^{\prime} 111^{\prime \prime} \\
7^{\prime} 9 \\
6^{\prime \prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 11^{\prime \prime} \\
& 7^{\prime} 9 \\
& 6^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \begin{tabular}{l}
8'11" e \\
7' 9" e \\
6'4"- e
\end{tabular} \\
\hline 400TLD125-18 \({ }^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24 \\
-24
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 6^{\prime \prime} \\
13^{\prime} 5^{\prime \prime} \mathrm{e} \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2 " \\
13^{\prime} 5 " \text { e } \\
10^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1 " \mathrm{e} \\
10^{\prime} 6 " \mathrm{e} \\
\hline
\end{gathered}
\] & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} \\
\hline 600TLD125-18² & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{\begin{tabular}{lll}
\(15^{\prime} 7 " \mathrm{e}\) & \(15^{\prime} 7{ }^{\prime \prime} \mathrm{e}\) & \(15^{\prime} 7^{\prime \prime} \mathrm{e}\) \\
\(13^{\prime} 6^{\prime \prime} \mathrm{e}\) & \(13^{\prime} 6^{\prime \prime} \mathrm{e}\) & \(13^{\prime} 6^{\prime \prime} \mathrm{e}\) \\
\(11^{\prime} 1 " \mathrm{e}\) & \(11^{\prime} 1^{\prime \prime} \mathrm{e}\) & \(11^{\prime} 1^{\prime \prime} \mathrm{e}\)
\end{tabular}} & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} \\
\hline 250TLD125-24 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \multicolumn{3}{|l|}{} & \multicolumn{3}{|l|}{} & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
11^{\prime \prime} 7^{\prime \prime} \\
9^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime \prime} 8^{\prime \prime} \\
9^{\prime} 8^{\prime \prime} \\
8^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3 " 3 " \\
& 8^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 11 " \\
9^{\prime} 5 " \\
7^{\prime} 9^{\prime \prime} \text { "e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 3^{\prime \prime} \\
8^{\prime \prime} 5^{\prime \prime} \\
7^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 1^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime} \\
& 6^{\prime} 5^{\prime \prime}
\end{aligned}
\] \\
\hline & 12 & 20'0" & 15' 11" & 13'11" & 18' \({ }^{\prime \prime}\) & \(15^{\prime \prime} 8\) & \(13^{\prime \prime} 8^{\prime \prime}\) & 15' & \(14^{\prime} 3^{\prime \prime}\) & 12' 5" & \multirow[t]{2}{*}{\[
\begin{aligned}
& 12^{\prime} 10 " \\
& 11^{\prime \prime} 1 " \mathrm{e} \\
& 9{ }^{\prime \prime} 1 \mathrm{e}
\end{aligned}
\]} & \multirow[t]{2}{*}{\[
\begin{gathered}
12^{\prime} 5^{\prime \prime} \\
11^{\prime \prime} 1^{\prime} \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\]} & \multirow[t]{2}{*}{\[
\begin{aligned}
& 10^{\prime} 10 " \\
& 9^{\prime} 10 " \\
& 8^{\prime \prime} 7 \text { "-- }
\end{aligned}
\]} \\
\hline 362TLD125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 18^{\prime} 2 " \\
& 15^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5^{\prime \prime} \\
& 12^{\prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7^{\prime \prime} \\
& 11^{\prime \prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 9 " \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 7 " \\
11^{\prime} 11 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 11 " \\
11^{\prime \prime} 1 " \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3 " \\
& 9^{\prime \prime} 10^{\prime \prime}
\end{aligned}
\] & & & \\
\hline & 12 & 1' 8" & 2' & O" & 19'1" & 16' 11" & 14'9" & \(16^{\prime \prime} 7\) & \(15^{\prime} 5^{\prime \prime}\) & \(13^{\prime \prime} 5^{\prime \prime}\) & \[
\text { 9' } 1 \text { " e }
\] & \multirow[t]{2}{*}{\[
\begin{aligned}
& 133^{\prime \prime} \\
& \text { 11' } 9 \text { " } \\
& \text { 9'7"e }
\end{aligned}
\]} & \multirow[t]{2}{*}{} \\
\hline 400TLD & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 19^{\prime} 8^{\prime \prime} \\
& 16^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 155^{\prime} 8 \\
& 13{ }^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime \prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 7 " \\
& 13^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 55^{\prime \prime} \\
& 13^{\prime \prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime \prime} 5^{\prime \prime} \\
& 11^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 4^{\prime \prime} \\
& 11^{\prime \prime} 9 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 11^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 2^{\prime \prime} \\
& 10^{\prime \prime} 8
\end{aligned}
\] & \[
\begin{gathered}
\text { 11' 9" } \\
\text { 9'7".e }
\end{gathered}
\] & & \\
\hline & 12 & \(9{ }^{\prime \prime}\) & 23' 0 " & 20'1" & 22' 8" & \(22^{\prime \prime}\) & 19' 9" & 9'8" & 19' 8" & 11' & \multicolumn{3}{|l|}{16'1" e 16'1" e 15'8" e} \\
\hline 600TLD125-24 \({ }^{1}\) & \[
\begin{aligned}
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
24^{\prime} 1 " \\
19^{\prime \prime} 8^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 11^{\prime \prime} \\
18^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime \prime} 3^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{array}{r}
19{ }^{\prime \prime \prime} 8 "_{e} \\
16^{\prime} 1 " \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 19^{\prime} 8^{\prime \prime} \mathrm{e} \\
& 16^{\prime \prime} \mathbf{1 " ~}^{2}
\end{aligned}
\] & \[
\begin{gathered}
17^{\prime} 11^{\prime \prime} \mathrm{e} \\
15^{\prime} 8 \mathrm{e} \text { e } \\
\hline
\end{gathered}
\] & \multicolumn{3}{|l|}{\[
\left\lvert\, \begin{array}{ccc}
17^{\prime} 0 \text { " e } & 17^{\prime} 0 " \mathrm{e} & 16^{\prime} 4 \text { " e } \\
13^{\prime} 11^{\prime \prime} \text { e } & 13^{\prime} 11^{\prime \prime} \text { e } & 13^{\prime} 11^{\prime \prime} \mathrm{e}
\end{array}\right.
\]} & \multicolumn{3}{|l|}{} \\
\hline 250TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 5^{\prime \prime} \\
& 14^{\prime} 11^{\prime \prime} \\
& 12^{2} 10^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
\mathbf{1 3 '}^{\prime \prime} \\
11^{\prime \prime} 10^{\prime \prime} \\
10^{\prime \prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 5^{\prime \prime} \\
& 10^{\prime \prime} 4^{\prime \prime} \\
& 9^{\prime} 1^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 1^{12} 10 \\
& 11^{\prime} \\
& 18^{\prime \prime} \\
& 10^{\prime} 2 \\
& -2
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 2^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \multicolumn{3}{|l|}{} & \[
\begin{gathered}
9^{\prime \prime} 1 "^{\prime \prime} \\
7^{\prime} 5 " . \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2 " \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime \prime} 5 " . \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 111^{\prime \prime} \\
& 8^{\prime} 1 " \\
& 7^{\prime \prime} 11^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline-24
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 8^{\prime \prime} \\
18^{\prime} 10^{\prime \prime} \\
15^{\prime} 4
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 5 " \\
& 15^{\prime} 10^{\prime \prime} \\
& 13^{\prime} 10
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \\
12^{\prime \prime} \mathbf{1 '}^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 9 " \\
& 15^{\prime \prime} 4^{\prime \prime} \\
& 12^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 1 " \\
& 15^{\prime} 4^{\prime \prime} \\
& 12^{\prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 111^{\prime \prime} \\
13^{\prime} 7 \\
11^{\prime \prime} 10
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime \prime} 3^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime \prime} \\
\mathbf{n}^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 77^{\prime \prime} \\
& 12^{\prime \prime} 4^{\prime \prime} \\
& 10^{\prime \prime} 9 \\
& -2
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 6^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 6^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
8^{\prime} 10
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 10 " \\
10^{\prime \prime} 9 \\
8^{\prime} 10 "
\end{gathered}
\] \\
\hline 400TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
16^{\prime} 2
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
14^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0^{\prime} \\
--2-
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 8^{\prime \prime} \\
& 16^{\prime \prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 6^{\prime \prime} \\
& 16^{\prime \prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 2^{\prime \prime} \\
14^{\prime} 8^{\prime \prime} \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 0^{\prime \prime} \\
& 11^{\prime \prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 0^{\prime \prime} \\
& 11^{\prime \prime}{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 4^{\prime \prime} \\
& 11^{\prime \prime} \mathbf{n}^{\prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
11^{\prime} 5^{\prime \prime} \\
9^{\prime 4} 4^{-2}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3 " \\
11^{\prime \prime} 5^{\prime \prime} \\
9^{\prime} 4^{\prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 5 " \\
9^{\prime \prime} 4 " . \mathrm{e}
\end{gathered}
\] \\
\hline 600TLD125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{array}{r}
29^{\prime} 55^{\prime \prime} \\
25^{\prime} 6 \\
20^{\prime \prime} 10^{\prime \prime}
\end{array}
\] & \[
\begin{aligned}
& 25^{\prime} 88^{\prime \prime} \\
& 23^{\prime \prime} \\
& 20^{\prime \prime} 5{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime \prime} 5^{\prime \prime} \\
20^{\prime \prime} \\
15^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0^{\prime \prime} \\
20^{\prime} 10^{\prime \prime} \\
17^{\prime} 0^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0 " \\
20^{\prime \prime} 10^{\prime \prime} \\
17^{\prime} 0 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1 " \\
20^{\prime \prime} 1 " \\
17^{\prime} 0 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 10^{\prime \prime} \\
18^{\prime} 0^{\prime \prime} \\
14^{\prime} \mathrm{g}^{\prime}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 10^{\prime \prime \prime} \\
18^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime \prime} 1 " \\
18^{\prime \prime} 0 \text { e } \\
14^{\prime} 9 " \text { e }
\end{gathered}
\] & \multicolumn{3}{|l|}{} \\
\hline 250TLD125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 17^{\prime} 0 \\
& 15^{\prime \prime} 5^{\prime \prime} \\
& 13^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6^{\prime \prime} \\
& 12^{\prime \prime} 3^{\prime \prime} \\
& 10^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 9 " \\
& 10^{\prime \prime} 8^{\prime \prime} \\
& 9^{\prime} 4^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 10^{\prime \prime \prime} \\
& 13^{\prime \prime} 9 \\
& 1^{\prime \prime} 1^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 1^{\prime \prime} \\
& 10^{\prime \prime} \mathbf{b}^{\prime \prime}
\end{aligned}
\] &  & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime \prime} 11^{\prime \prime} \\
9^{\prime} 88^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 7^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6^{\prime \prime \prime} \\
9^{\prime} 7^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{array}{r}
11^{\prime} 2^{\prime \prime} \\
9^{\prime} 8{ }^{\prime \prime} \\
7^{\prime} 11^{\prime \prime} \mathrm{e}
\end{array}
\] & \[
\begin{gathered}
10^{\prime} 6^{\prime \prime} \\
9^{\prime} 77^{\prime \prime} \\
7^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 2^{\prime \prime} \\
& 8^{\prime} 4^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime}
\end{aligned}
\] \\
\hline 362TLD125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 22^{\prime} 8^{\prime \prime} \\
& 20^{\prime \prime} 3^{\prime \prime} \\
& 16^{\prime \prime} 7-1
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 0 " \\
& 16^{\prime} 4^{\prime \prime} \\
& 14^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime \prime} \\
& 14^{\prime \prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2^{\prime \prime} \\
& 16^{\prime} 7 \\
& 13^{\prime} 6^{6 \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime \prime} 8^{\prime \prime} \\
& 16^{\prime \prime} 1 " \\
& 13^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 155^{\prime \prime} 5^{\prime \prime} \\
& 14^{\prime} 0^{\prime \prime} \\
& 121^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 7 " \\
& 14^{\prime \prime} 4^{\prime \prime} \\
& 11^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 1 " \\
& 14^{\prime \prime} 4^{\prime \prime} \\
& 11^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 12^{\prime} 9 \\
& 11^{\prime \prime} 2 \\
& 12-2
\end{aligned}
\] & \[
\begin{gathered}
\text { 11' } 9 \text { " } \\
g^{\prime} 7{ }^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11 ' 9 " \\
9^{\prime} 7{ }^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& \text { 11' 2" } \\
& \text { 9' 7".e. }
\end{aligned}
\] \\
\hline 400TLD125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 24^{\prime} 5^{\prime \prime} \\
& 21^{\prime} 5^{\prime \prime} \\
& 17^{\prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 5^{\prime \prime} \\
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
1^{\prime} \text { ' } 111^{\prime \prime} \\
15^{\prime \prime} 5^{\prime \prime} \\
13^{\prime \prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 20^{\prime} 2^{\prime \prime} \\
& 17^{\prime} 6^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 1^{\prime \prime} \\
& 17^{\prime \prime} 4^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 2 \\
& 13^{\prime} 3 " \\
& \mathbf{n}^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 6^{\prime \prime} \\
& 15^{\prime \prime} 2^{\prime \prime} \\
& 12^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 4^{\prime \prime} \\
& 15^{\prime \prime} \\
& 12^{\prime \prime} \mathbf{n}^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 9^{\prime \prime} \\
& 12^{\prime \prime}
\end{aligned}
\] &  & \[
\begin{gathered}
12^{\prime} 4 " \\
10^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 0^{\prime \prime} \\
10^{\prime \prime} \mathbf{n}^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLD125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{array}{r}
32^{\prime} 8^{\prime \prime} \\
28^{\prime \prime} 3 " \\
23^{\prime \prime} 1 " \text { e } \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 26^{\prime} 77^{\prime \prime} \\
& 24^{\prime \prime} \\
& 21^{\prime \prime} 2 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime \prime} \\
& 21^{\prime \prime} \\
& 18^{\prime \prime} 5{ }^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
26^{\prime \prime} \text { "" }^{\prime \prime} \\
23^{\prime} 1 " \mathrm{e} \\
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] &  & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
20^{\prime \prime} 9 \\
18^{\prime \prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 23^{\prime} 1 "^{\prime \prime} \mathrm{e} \\
& 20^{\prime} 0 \mathrm{e} \\
& 16^{\prime} 4^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 1 "^{\prime \prime} \mathrm{e} \\
& 20^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 4^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] &  & \multicolumn{3}{|l|}{\[
\begin{array}{ccc}
18^{\prime} 10 " \mathrm{e} & 18^{\prime} 10 " \mathrm{e} & 18^{\prime 2} 2 "_{e} \\
16^{\prime} 4 \mathrm{e} & 16^{\prime \prime} \mathrm{e} & 16^{\prime \prime} \mathrm{e} \\
13^{\prime} 4 \mathrm{e} & 13^{\prime \prime} 4^{\prime \prime} \mathrm{e} & 13^{\prime} 4{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\]} \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Compression flanges must be continuously braced.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 11-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) 48" o.c. BRACING TRAKLOC DEFLECTION STUDS (TLD) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{MEMBER DESIGNATION} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLD125-18 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 7^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
8^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
10^{\prime} 0 " \\
8^{\prime} 9^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 8^{\prime \prime} \\
8^{\prime} 9 " \\
7 \text { 7' 8" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \mathrm{e} \\
\text { 8' }^{\prime \prime} 11^{\prime} \mathrm{e} \\
7 \text { '3" e }
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \mathrm{e} \\
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
7^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 9' 6" } \\
\text { 8' 7" e } \\
\text { 7' 3" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 8' 11" e } \\
\text { 7' 8" e } \\
\text { 6' } 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \mathrm{e} \\
\text { 7' 8" e } \\
\text { 6' } 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 8' 7" e } \\
& \text { 7' 8" e } \\
& 6^{\prime \prime} 3^{\prime \prime} \text { e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' 3" e } \\
& 5^{\prime} 2^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' 3" e } \\
& \text { 6' } 3^{\prime \prime} \text { e } \\
& \text { 5' 2" e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 7' } 3^{\prime \prime} \text { e } \\
& \text { 6' } 3^{\prime \prime} \text { e } \\
& 5^{\prime} 2^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 362TLD125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 3^{\prime \prime} \\
12^{\prime \prime} 4^{\prime \prime} \text { e } \\
10^{\prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 8^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 77^{\prime \prime} \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 77 "^{\prime \prime} \text { e } \\
& 10^{\prime} 1^{\prime \prime} \mathrm{e} \\
& 8^{\prime \prime} 3^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
\text { 11' } 7 \text { " e } \\
\text { 10' 1" e } \\
8^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 1^{\prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} 99^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
\text { 8' 9" e } \\
7^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 1^{\prime \prime} \mathrm{e} \\
5^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 400TLD125-18 \({ }^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 0 " \\
12^{\prime} 11^{\prime \prime} \mathrm{e} \\
10^{\prime} 7^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
10^{\prime} 66^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
123^{\prime \prime} \text { e } \\
\text { 10' } 7 \text { " e } \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 \mathrm{l} \text { e } \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
8^{\prime} 8 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 10' 7" e } \\
\text { 9' } 2 \text { " e } \\
7^{\prime \prime} 6 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 7 "^{\prime \prime} \mathrm{e} \\
\text { 9' } 2^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 77 "^{\prime \prime} \text { e } \\
\text { 9' } 2^{\prime \prime} \text { e } \\
7^{\prime \prime} 6^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& \text { 8' 8" e } \\
& \text { 7' 6" e } \\
& \text { 6' 1" e }
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime} 8^{\prime \prime} \text { e } \\
\text { 7' 6" e } \\
6^{\prime \prime} 1^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& \text { 8' }^{\prime \prime \prime} \text { e } \\
& \text { 7' 6" e } \\
& 6^{\prime \prime} 1^{\prime \prime} \text { e }
\end{aligned}
\] \\
\hline 600TLD125-18 \({ }^{2}\) & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 " \mathrm{e} \\
& 16 \text { ' } 7 \mathrm{l} \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 19{ }^{\prime} 2 "^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6{ }^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 16^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13 \text { ' }^{\prime \prime} \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 155^{\prime \prime} \mathrm{e} \\
& 13^{\prime} 6 " \mathrm{e} \\
& 11^{\prime} 1 " \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} \text { 6" e } \\
11^{\prime} 9 " \mathrm{e} \\
9^{\prime \prime} 7 \mathrm{l"} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13{ }^{\prime} 6 " \mathrm{e} \\
11^{\prime} 9 " \mathrm{e} \\
9{ }^{\prime} 7 \mathrm{l"} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13 \text { ' 6" e } \\
\text { 11' 9" e } \\
\text { 9' 7" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 11' 1" e } \\
\text { 9' 7" e } \\
\text { 6' 9" e }
\end{gathered}
\] \\
\hline 250TLD125-24 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 0^{\prime \prime} \\
& 13^{\prime} 7 \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
9^{\prime} 5{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5^{\prime \prime} \\
9^{\prime} 5^{\prime \prime} \\
8^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 2 " \\
11^{\prime} 5 " \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 8 " \\
& 10^{\prime} 8 " \\
& 9^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5^{\prime \prime} \\
9^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 8^{\prime \prime} \\
9^{\prime} 8^{\prime \prime} \\
8^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 3^{\prime \prime} \\
& \text { 8' }^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
9^{\prime} 4^{\prime \prime} \\
8^{\prime} 11^{\prime \prime} \\
6^{\prime} 7 " \text { " e }
\end{gathered}
\] & \[
\begin{gathered}
\text { 9' }^{\prime \prime \prime} \\
\text { 8' }^{\prime \prime} 1^{\prime \prime} \\
6^{\prime} 7^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 1^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime} \\
& 6^{\prime \prime} 5
\end{aligned}
\] \\
\hline & 12 & 17' 11" & 15' 11 " & 13' 11" & 14'8" & 14'8" & 13' 8" & 12' 8" & 12' 8" & 12' 5" & 10' \({ }^{\prime \prime}\) & 10' \({ }^{\prime \prime}\) & 10'4' \\
\hline 362TLD125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 7 " \\
& 12^{\prime} 8
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5 " \\
& 12^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7^{\prime \prime} \\
& 11^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12 ' 8 " \\
& 10^{\prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 5 \\
& 10^{\prime} 4
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 0 \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 0 " \\
& 9^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime \prime} 4^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
\text { 7' 4" e }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0 " \\
7^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline & 12 & \(18^{\prime \prime} 10\) & 17' 2 " & 15' 0 " & 15'4" & 15'4" & 14' \({ }^{\prime \prime}\) & 13' \({ }^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & 10'10" & 10' 10" & 10'10" \\
\hline 400TLD125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 4^{\prime \prime} \\
& 13^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8 " \\
& 13^{\prime} 4
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 8 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4 " \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime} 8^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5 " \\
& \text { 7' } 8 "
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5 " \\
& 7^{\prime} 8 "
\end{aligned}
\] \\
\hline 600TLD125-24 \({ }^{1}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
24^{\prime} 2 "^{\prime \prime} \\
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
23^{\prime} 0 " \\
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1 " \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 1^{\prime \prime} \\
18^{\prime} 3^{\prime \prime} \\
15^{\prime} 11^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
19^{\prime} 9 " \\
17^{\prime} 1 " \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 9^{\prime \prime} \\
17^{\prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e} \\
9^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline 250TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 7 " \\
11^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 10 " \\
10^{\prime} 4 "
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 5 " \\
10^{\prime \prime} 4^{\prime \prime} \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime} 11^{\prime \prime} \\
9^{\prime} 99^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \\
9^{\prime} 9 "
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 2^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 11 " \\
10^{\prime \prime} 4^{\prime \prime} \\
8^{\prime \prime} 5
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 8 " \\
10^{\prime} 4 " \\
8^{\prime} 5{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 2^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
8^{\prime} 5 " \\
6^{\prime} 10
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 9 " \\
\text { 8' }^{\prime \prime} \\
6^{\prime} \text { '10" }
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11 " \\
8^{\prime} 1 " \\
6^{\prime} 10^{\prime \prime}
\end{gathered}
\] \\
\hline 362TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 11^{\prime \prime} \\
17^{\prime} 3^{\prime \prime} \\
14^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 5^{\prime \prime} \\
15^{\prime} 10 " \\
13^{\prime} 10 "
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2^{\prime \prime} \\
13^{\prime} 10 " \\
12^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 14^{\prime} 1 " \\
& 11^{\prime} 6
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 3 " \\
& 14^{\prime} 1 " \\
& 11^{\prime \prime} 6 \text { " }
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 7 " \\
11^{\prime} 6 "
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 7 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 0
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime} 0 \\
8^{\prime} 2^{\prime \prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime \prime} 0 \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime} 0 \\
8^{\prime} 2^{\prime \prime}
\end{gathered}
\] \\
\hline 400TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 0 " \\
18^{\prime \prime} 2 " \\
14^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 9 " \\
17^{\prime \prime} 1^{\prime \prime} \\
14^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 5^{\prime \prime} \\
14^{\prime} 11^{\prime \prime} \\
13^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 1 "
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{\prime \prime} \\
& 14^{\prime} 8 \\
& 12^{\prime \prime} 1
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10 " \\
10^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6 "
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 8 " \\
12^{\prime \prime} 10^{\prime \prime} \\
10^{\prime} 6
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 77^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6^{\prime \prime} \\
8^{\prime} 7 \text { "' }
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime} 6 " \\
8^{\prime} 77^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLD125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
27^{\prime} 7 " \\
23^{\prime} 11^{\prime \prime} \\
19^{\prime} 6 " \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 8^{\prime \prime} \\
& 23^{\prime \prime} 4^{\prime \prime} \\
& 19^{\prime} 6
\end{aligned}
\] & \[
\begin{gathered}
22^{\prime} 5 " \\
20^{\prime} 5^{\prime \prime} \\
17^{\prime} 10 " \\
\hline
\end{gathered}
\] & \[
\begin{array}{|c}
\text { 22' } 7 " \\
19^{\prime} 6 " \\
15 ' 11^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 7 " \\
19^{\prime} 6 " \\
15 ' 11 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 1 " \\
19^{\prime} 6 " \\
15^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{|c}
19^{\prime} 6 " \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 6 " \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} \text { 6" } \\
16^{\prime} 11^{\prime \prime} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
15 ' 11^{\prime \prime} \mathrm{e} \\
13^{\prime} 10^{\prime \prime} \mathrm{e} \\
11^{\prime \prime} \mathrm{c}^{\prime \prime} \mathrm{e}
\end{gathered}
\] \\
\hline 250TLD125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime \prime} \\
& 15^{\prime} 5 " \\
& 12^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6 \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} 8
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 9 " \\
10^{\prime} 8 " \\
9^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 8 " \\
& 12^{\prime} 9 " \\
& 10^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 1 " \\
& 10^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 7 " \\
10^{\prime} 6 \\
9^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12 \text { ' } 9 " \\
11^{\prime} 0 " \\
9^{\prime} 0
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 1^{\prime \prime} \\
10^{\prime} 11^{\prime \prime} \\
9^{\prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6 " \\
9^{\prime} 77^{\prime \prime} \\
8^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 5 " \\
9^{\prime} 00^{\prime \prime} \\
7^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{array}{r}
10^{\prime} 5{ }^{\prime \prime} \\
9^{\prime} 0^{\prime \prime} \\
7^{\prime} 4^{\prime \prime}
\end{array}
\] & \[
\begin{aligned}
& 9^{\prime} 2^{\prime \prime} \\
& 8^{\prime} 4^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLD125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 21^{\prime} 6 " \\
& 18^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 0 \\
& 16^{\prime} 4^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 8^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7 \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7^{\prime \prime} \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5^{\prime \prime} \\
& 14^{\prime} 0 \\
& 12^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2^{\prime \prime} \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2 " \\
& 10^{\prime} 9
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 0 " \\
12^{\prime} 9 " \\
10^{\prime} 9
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime} 9 " \\
8^{\prime \prime} 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12 \text { ' 5" } \\
10^{\prime} 9 " \\
8^{\prime} 99^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
\text { 12' 3" } \\
\text { 10' 9" } \\
8^{\prime} 9{ }^{\prime \prime} \text { e }
\end{gathered}
\] \\
\hline 400TLD125-33 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 8^{\prime \prime} \\
19^{\prime \prime} \\
16^{\prime} 0
\end{gathered}
\] & \[
\begin{aligned}
& 19^{\prime} 5 " \\
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 5
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 11^{\prime \prime} \\
15^{\prime} 5^{\prime \prime} \\
13^{\prime} 55^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 6^{\prime \prime} \\
& 16^{\prime} 0 \\
& 13^{\prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 6 " \\
& 16^{\prime} 0 \\
& 13^{\prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 8^{\prime \prime} \\
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime} 1
\end{aligned}
\] & \[
\begin{gathered}
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 0^{\prime \prime} \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 2 " \\
& 13^{\prime} 9 " \\
& 11^{\prime} 4
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1 " \\
11^{\prime} 4 " \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLD125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 11^{\prime \prime} \\
25^{\prime} 11^{\prime \prime} \\
21^{\prime \prime} 2^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 26^{\prime} 7 " \\
& 24^{\prime} 2 " \\
& 21^{\prime} 2 "
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime} 2^{\prime \prime} \\
& 18^{\prime} \mathbf{I}^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
24 ' 5 " \\
21^{\prime \prime} 2 " \\
17^{\prime \prime} 3^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 5 " \\
21^{\prime \prime} 2 " \\
17^{\prime} 3 " \text { " e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
20^{\prime} 9 \\
17^{\prime \prime} 3 " \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{|c}
21^{\prime} 2 " '_{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 2 " '_{\prime \prime} \\
18^{\prime} 4^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 9 " \\
18^{\prime \prime} 4^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 3^{\prime \prime} \mathrm{e} \\
14^{\prime} 11^{\prime \prime} \mathrm{e} \\
12^{\prime} 2^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Based on an unbraced length (Lu) of 48" o.c.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 12-NON-COMPOSITE LIMITING HEIGHTS (feet-inches)
FULLY BRACED TRAKLOC ELEVATOR STUDS (TLE) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Member} & \multirow{3}{*}{\begin{tabular}{l}
Spacing \\
o/c (in)
\end{tabular}} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PSF} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{15 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLE125-18 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
10^{\prime \prime} \\
8^{\prime \prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime \prime} 4^{\prime \prime} \\
8^{\prime 2} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime \prime} 0 \prime \\
& 8^{\prime \prime} 2^{\prime \prime} \\
& 7^{\prime \prime} 12
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 8^{\prime \prime} \text { e } \\
7^{\prime \prime} 1 \mathrm{e}
\end{gathered}
\] &  & \[
\begin{array}{|c|}
\hline 8^{\prime} 10^{\prime \prime} \\
8^{\prime} 0 " \mathrm{e} \\
7^{\prime} 0^{\prime \prime} \mathrm{e}
\end{array}
\] &  & \[
\begin{aligned}
& 8^{\prime \prime} 8^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 6^{6 "} \mathrm{e} \\
& 6^{\prime} 1 \mathrm{lne}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 0^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 6^{\prime \prime} 1^{\prime \prime}
\end{aligned}
\] &  & \[
\begin{aligned}
& 7^{\prime \prime} 11^{\prime \prime} \\
& 6^{\prime \prime} 1^{\prime \prime} \\
& 5^{\prime} 0 \mathrm{en}
\end{aligned}
\] & \[
\begin{aligned}
& 7^{\prime \prime} 0 \mathrm{e} \\
& 6^{\prime} 1 " \mathrm{e} \\
& 5^{\prime} 0 \mathrm{e}
\end{aligned}
\] \\
\hline 362TLE125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] &  & \[
\begin{gathered}
13^{\prime} 10 " \\
12^{\prime} 7 " \mathrm{c} \\
10^{\prime} \mathrm{b}^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
122^{\prime \prime} \\
11^{\prime \prime} 0 \\
9^{\prime \prime} 7 ", ~
\end{gathered}
\] & 12' 2" e 10' 6" e 8'7" e & \(12^{\prime} 2^{\prime \prime}\) e 10' 6 " e 8'7" e & 11'11" e 10' 6" e 8' 7" e & \[
\begin{gathered}
10^{\prime} 6^{\prime \prime} \mathrm{e} \\
9{ }^{\prime \prime} 1 \mathrm{e} \\
7^{\prime \prime} 5 \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6 " \mathrm{e} \\
9^{\prime} 11^{\prime \prime} \mathrm{e} \\
7^{\prime} 5 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
100^{\prime \prime} \mathrm{e} \\
9^{\prime} 1 " \mathrm{e} \\
7^{\prime} 5 " \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime \prime} 7 \text { " e } \\
& 7^{\prime} 5^{\prime \prime} \text { e } \\
& 6^{\prime \prime}-1 \text { e }
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime \prime} 7^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 5^{\prime \prime} \mathrm{e} \\
& 6^{\prime \prime} 1 \mathrm{e}
\end{aligned}
\] &  \\
\hline 400TLE125-181 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] &  & \[
\begin{gathered}
14^{\prime} 8 " \\
13^{\prime} 4 " \text { e } \\
11^{\prime} 0 \text { ".e. }
\end{gathered}
\] &  & \begin{tabular}{l}
12' 9" e \\
11' \(0^{\prime \prime}\) e \\
9'0" e
\end{tabular} &  & \[
\begin{gathered}
12^{\prime} \mathrm{g}^{\mathrm{e}} \mathrm{e} \\
11^{\prime} \mathrm{on}^{\mathrm{e}} \\
9^{\prime 0} \mathrm{e} \text { e }
\end{gathered}
\] &  & 11'0" e 9' \(7^{\prime \prime}\) e 710" & \[
\begin{gathered}
\text { 11' } 0 \text { e e } \\
9^{\prime} 7 \text { " e } \\
7 c^{\prime} 10 \text { en }
\end{gathered}
\] &  &  & \[
\begin{gathered}
9^{\prime} 0 " \text { e } \\
7 c^{\prime} 10 \text { e } \\
6^{\prime} 4 \text { ".e. }
\end{gathered}
\] \\
\hline 600TLE125-18 \({ }^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] &  & \begin{tabular}{l}
19' \({ }^{\prime \prime}\) e \\
\(16^{\prime \prime} 7^{\prime \prime}\) e \\
\(13^{\prime} 7^{\prime \prime}\) e
\end{tabular} & \(17^{\prime} 6 "\) e 15' 10" e \(13^{\prime} 7{ }^{7 \prime}\) e & \begin{tabular}{l}
15' 8" e \\
13' 7 " e \\
11'1" e
\end{tabular} & \begin{tabular}{l}
\(15^{\prime \prime}\) 8" e \(^{\prime \prime}\) \\
13' 7" e \\
11' 1" e
\end{tabular} & \begin{tabular}{l}
\(15^{\prime \prime} 8\) e \\
13' 7 " e \\
11' 1" e
\end{tabular} & \begin{tabular}{l}
\(13^{\prime \prime} 7^{\prime \prime}\) e \\
11' 9" e \\
9' 7" e
\end{tabular} & \(13^{\prime} 7^{\prime \prime}\) e 11' 9" e 9' 7 " e & \begin{tabular}{l}
13' 7 " \\
11' 9" e \\
9' 7" e
\end{tabular} & \begin{tabular}{l}
\(11^{1 "}\) " \\
9' 7 " e \\
6' 9" e
\end{tabular} & \[
\begin{aligned}
& 11^{\prime} 1 " \mathrm{e} \\
& 9^{\prime \prime} \mathrm{l"} \mathrm{e} \\
& 6^{\prime} 9 " \mathrm{e}
\end{aligned}
\] &  \\
\hline 250TLE125-24 & \[
\begin{array}{r}
12 \\
16 \\
24
\end{array}
\] & \[
\begin{aligned}
& 14^{\prime} 5^{\prime \prime} \\
& 13^{\prime \prime} \\
& 11^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 6^{\prime \prime} \\
& 10^{\prime} 5^{\prime \prime} \\
& 9^{\prime} 12
\end{aligned}
\] & \[
\begin{gathered}
\hline 10^{\prime} 0^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 2^{\prime \prime} \\
& 12^{\prime \prime} 4^{\prime \prime} \\
& 10^{\prime \prime} \mathbf{n}^{\prime}
\end{aligned}
\] & \[
\begin{aligned}
& \hline 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 10^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime} \\
& 7^{\prime} 10^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 4 " \\
& 10^{\prime} 9 \\
& 8^{\prime} 9 \\
& \hline-9 "
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime \prime} 4^{\prime \prime} \\
8^{\prime \prime} 2
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 2^{\prime \prime} \\
7^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1 " \\
8^{\prime} 9 \\
7^{\prime \prime} \mathbf{7}^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 2^{\prime \prime} \\
7^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
\hline 7^{\prime} 10 " \\
7^{\prime \prime} 1^{\prime \prime} \\
6^{\prime \prime} 2^{\prime \prime}
\end{gathered}
\] \\
\hline & 12 & 19'5" & 15' 5" & 13' \({ }^{\prime \prime}\) & \(17^{17} 8^{\prime \prime}\) & 15' \({ }^{\prime \prime}\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & 15'4" & \(13^{\prime} 10 "\) & \(121^{\prime \prime}\) & 12'6" & \(12^{\prime \prime} 1^{\prime \prime}\) & \(10^{\prime} 6{ }^{\prime \prime}\) \\
\hline 362TLE125-24 & \[
\begin{aligned}
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 8^{\prime \prime} \\
& 15^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0^{\prime \prime} \\
& 12^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 8^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 4^{\prime \prime} \\
& 12^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
1^{\prime} 10^{\prime \prime} \\
12^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 12^{\prime} 11^{\prime \prime} \\
& 10^{\prime \prime}{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 3^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 6 " \\
10^{\prime} 10^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{array}{r}
10^{\prime} 11 " \\
9^{\prime} 7 \\
\hline 10
\end{array}
\] & \[
\left[\begin{array}{c}
10^{\prime} 10^{\prime \prime} \\
8^{\prime} 10^{\prime \prime} \text { e }
\end{array}\right.
\] & \[
\begin{aligned}
& 10^{\prime} 10 " \text { e } \\
& 8^{8} 10^{\prime \prime} \text { e- }
\end{aligned}
\] & \[
\begin{gathered}
\text { 9' } 7 \text { " } \\
\text { 8'4"e }
\end{gathered}
\] \\
\hline & 12 & 21'1" & \(16^{\prime \prime} 9\) & \(14{ }^{\prime} 7{ }^{\prime \prime}\) & 18'9" & \(16^{\prime \prime}{ }^{\prime \prime}\) & 14'4" & \(16^{\prime \prime} 3^{\prime \prime}\) & \(14^{1} 1{ }^{\prime \prime}\) & 13'1" & \(13^{\prime} 3^{\prime \prime}\) & \(13^{\prime} 1{ }^{\prime \prime}\) & 11'5" \\
\hline 400TLE125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 19^{\prime} 2^{\prime \prime} \\
& 16^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 11^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 11^{\prime \prime} \\
& 13^{\prime \prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 13 ' 1 " \\
& 11^{\prime \prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 11^{\prime \prime} \\
& 11^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 7 \\
11^{\prime} 6
\end{gathered}
\] & \[
\begin{array}{r}
11^{\prime} 10^{\prime \prime} \\
10^{\prime} 4^{\prime \prime}
\end{array}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime \prime} 5 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6^{\prime \prime} \\
9^{\prime} 5 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 4^{\prime \prime} \\
9^{\prime} 1 " \mathrm{e}
\end{gathered}
\] \\
\hline & 12 & 27' 11" & 22'10" & 20'0" & 22' 10" e & \(22^{\prime} 6{ }^{\prime \prime}\) & \(19^{\prime} 8{ }^{\prime \prime}\) & 19'9"e & 19'9" & \(17^{\prime} 10^{\prime \prime}\) e & 16'1" & \(16^{\prime \prime} 1\) & \(15^{\prime} 7\) e \\
\hline 600TLE125-24 \({ }^{1}\) & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
24^{\prime} 2 " \\
19^{\prime \prime} 9 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20^{\prime} 9 " \\
18^{\prime} 2^{\prime \prime} \text { e } \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 2 " \\
15^{\prime \prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{array}{r}
19{ }^{19 "} \text { e e } \\
16^{\prime} 1 " \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 19^{\prime} 9 " \mathrm{e} \\
& 16^{\prime} 1^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
17^{\prime} 10 " \mathrm{e} \\
15^{\prime} 7 " \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 1 " \mathrm{e} \\
& 14^{\prime} 0^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 177^{1 "} \text { e } \\
& 14^{\prime} 0 \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 14^{\prime} \mathrm{on}^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \mathrm{e} \\
& 11^{\prime} 5 \mathrm{E} \text { e } \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \mathrm{e} \\
& 11^{\prime} 5 \mathrm{c} \mathrm{e}
\end{aligned}
\] & \[
\begin{array}{r}
14^{\prime} \mathrm{O} \mathrm{e} \\
11^{\prime} 5 \mathrm{e} \\
\hline
\end{array}
\] \\
\hline 250TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} 3^{\prime \prime} \\
14^{\prime \prime} 9^{\prime \prime} \\
12^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime \prime} 8^{\prime \prime} \\
10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 10^{\prime \prime} \\
& 12^{\prime} 10^{\prime \prime} \\
& 10^{\prime} 6^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8^{\prime \prime} \\
& 11^{\prime} 6^{\prime \prime} \\
& 10^{\prime} 1 "
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 1 " \\
& 10^{\prime} 1 " \\
& 8^{\prime} 9^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
1^{\prime} 1^{\prime} 10^{\prime \prime} \\
11^{\prime \prime} \\
9^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{array}{r}
11^{\prime} 6 \\
10^{\prime} 5 \\
9^{\prime \prime} 1
\end{array}
\] & \[
\begin{gathered}
10^{\prime} 11 \\
9^{\prime} 2^{\prime \prime} \\
8^{\prime \prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 6^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime \prime} 5
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 99^{\prime \prime} \\
& 8^{\prime} 0^{\prime \prime} \\
& 7^{\prime} 0^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime \prime} 4^{\prime \prime} \\
18^{\prime} 10^{\prime \prime} \\
15^{\prime \prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime \prime} \\
& 15^{\prime \prime} 5^{\prime \prime} \\
& 13^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \\
13^{\prime \prime} \\
11^{\prime \prime} 9
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime \prime} 9 \\
15^{\prime \prime} 4^{\prime \prime} \\
12^{\prime} 6 \\
\hdashline-2
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 8^{\prime \prime} \\
& 15^{\prime \prime} \\
& 12^{\prime \prime} 6 \\
& -2^{6 \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 7{ }^{\prime \prime} \\
& 13^{\prime} 3^{\prime \prime} \\
& 11^{\prime \prime} \mathbf{n}^{\prime}
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 4^{\prime \prime} \\
13^{\prime \prime} \\
1^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
15^{\prime} 2 " \\
13^{\prime \prime} 3^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 0^{\prime \prime} \\
& 10^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 6^{\prime \prime} \\
10^{\prime} 10^{\prime \prime} \\
8^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 6 " \\
10^{\prime \prime} 10^{\prime \prime} \\
8^{\prime} 10
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 7{ }^{\prime \prime \prime} \\
& 10^{\prime} 6^{\prime \prime} \\
& 8^{\prime} 10^{\prime \prime}
\end{aligned}
\] \\
\hline 400TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 11^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
16^{\prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 18^{\prime} 4 " \\
& 16^{\prime} 8^{\prime \prime} \\
& 14^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 0^{\prime \prime} \\
& 14^{\prime} 7^{\prime \prime} \\
& 12^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 8^{\prime \prime} \\
& 16^{\prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 1^{\prime \prime} \\
& 16^{\prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime \prime} 9 \\
14^{\prime \prime} 4^{\prime \prime} \\
12^{\prime \prime}-{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 2^{2 "} \\
& 14^{\prime} 0^{0 \prime} \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 2 " \\
& 14^{\prime} 0^{\prime \prime} \\
& 11^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 4^{\prime \prime} \\
& 13^{\prime} 0 \\
& 11^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3 " \\
& \text { 11' } 5^{\prime \prime} \\
& 9^{\prime \prime} \mathbf{4 "}^{-\mathrm{e}}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime \prime} \\
& 11^{\prime \prime} \\
& 9^{\prime \prime} 4 \text { ".e }
\end{aligned}
\] & \[
\begin{aligned}
& 12 ' 6 " \\
& 11^{\prime \prime} \mathbf{4}^{\prime \prime} \\
& 9^{\prime \prime} 4 \text { "e }
\end{aligned}
\] \\
\hline 600TLE125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
29^{\prime} 5{ }^{\prime \prime \prime} \\
25^{\prime \prime} 6^{\prime \prime} \\
20^{\prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
25^{\prime \prime} \\
22^{\prime \prime} 9 \\
19^{\prime \prime} 10^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 10^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
17^{\prime \prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0^{\prime \prime} \\
20^{\prime} 10^{\prime \prime} \\
17^{\prime} 0^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 0^{\prime \prime} \\
20^{\prime} 10^{\prime \prime} \\
17^{\prime} 0^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{r}
21^{\prime \prime} 6^{\prime \prime} \\
19^{\prime \prime} 7 " \\
17^{\prime} 0 " \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 20^{\prime} 10^{\prime \prime} \\
& 18^{\prime} 0 " \mathrm{e} \\
& 14^{\prime} 9{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
20^{\prime} 10^{\prime \prime} \\
18^{\prime} 0 " \mathrm{e} \\
14^{\prime} 9 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
19^{\prime} 7 " \\
17^{\prime} 9 " \mathrm{e} \\
14^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 0 " \mathrm{e} \\
& 14^{\prime} 9 " \mathrm{e} \\
& 12^{\prime} 0^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime \prime} \mathrm{e} \\
& 14^{\prime} \mathrm{c}^{\mathrm{e}} \\
& 12^{\prime} \mathrm{on}^{2} \\
& \hline
\end{aligned}
\] & \begin{tabular}{l}
17' 0" e \\
14' 9" e \\
\(12^{\prime} 0\) " e
\end{tabular} \\
\hline 250TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 6^{\prime \prime} \\
& 15^{\prime} 0 \\
& 13^{\prime} 1{ }^{10}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime} 11^{\prime \prime} \\
10^{\prime \prime} 5
\end{gathered}
\] &  & \[
\begin{gathered}
15^{\prime} 10^{\prime \prime} \\
13^{\prime} 9 \\
11^{\prime \prime} \mathbf{n}^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 12^{\prime} 10 " \\
& 11^{\prime} 8 \\
& 10^{\prime \prime} \mathbf{n}^{\prime \prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 9 " \\
11^{\prime} 11^{\prime \prime} \\
9^{\prime} 8^{\prime \prime} \\
\hline-9
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 88^{2} \\
& 10^{\prime} 7 \\
& 9^{9} 3 \text { 3" } \\
& \hline-2
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
8^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
1^{1 '} 2^{\prime \prime} \\
9^{\prime} 8^{\prime \prime} \\
7^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
1^{\prime \prime} 3^{\prime \prime} \\
9^{\prime} 3^{\prime \prime} \\
7^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime} \\
7^{\prime} 1^{\prime \prime} \\
\hline
\end{gathered}
\] \\
\hline 362TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 21^{\prime} 99^{\prime \prime} \\
& 19^{\prime \prime} 9 \\
& 16^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 3^{\prime \prime \prime} \\
& 15^{\prime \prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 1 " \\
& 13^{\prime} 9 \\
& 12^{\prime} 0^{0}
\end{aligned}
\] & \[
\begin{aligned}
& 19^{\prime} 2^{\prime \prime} \\
& 16^{\prime} 7^{\prime \prime} \\
& 13^{\prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 0 \\
& 15^{\prime \prime} \\
& 5^{\prime \prime} \\
& 13^{\prime} 6 \\
& .
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \\
13^{\prime} 6^{\prime \prime} \\
11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 7 " \\
& 14^{\prime} 4^{\prime \prime} \\
& 11^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 5 \\
& 14^{\prime} 0^{\prime \prime} \\
& 11^{\prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6^{\prime \prime} \\
& 12^{\prime \prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 9^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& 11^{\prime \prime} 9 \\
& 9^{\prime \prime} 7 \text { ".e }
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6 " \\
& \text { 11' } 9 \text { " } \\
& 9^{\prime} 7 \text { "-e }
\end{aligned}
\] & \[
\begin{aligned}
& \text { 11' } 9 " \\
& \text { 10' } 9 \text { " } \\
& \text { 9'4".e. }
\end{aligned}
\] \\
\hline 400TLE125-33 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 23^{\prime} 3^{\prime \prime} \\
& 21^{\prime \prime} 2^{\prime \prime} \\
& 17^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 6^{\prime \prime} \\
& 16^{\prime} 9 \\
& 14^{\prime \prime} 8^{\prime \prime}
\end{aligned}
\] & \begin{tabular}{l}
\(16^{\prime} 2^{\prime \prime}\) \\
\(14^{\prime} 8^{\prime \prime}\) \\
12' 10
\end{tabular} & \[
\begin{aligned}
& 20^{\prime} 2^{\prime \prime} \\
& 17^{\prime} 6^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 2^{\prime \prime} \\
& 16^{\prime} 6^{\prime \prime} \\
& 14^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \\
14^{\prime \prime} \\
12^{\prime \prime} 7
\end{gathered}
\] & \[
\begin{aligned}
& 17^{\prime} 6^{\prime \prime} \\
& 15^{\prime} 2^{\prime \prime} \\
& 12^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 6 \\
& 15^{\prime} 0 \\
& 12^{\prime} \mathbf{n}^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5^{\prime \prime} \\
& 13^{\prime \prime} \\
& 11^{\prime \prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime} \\
& 10^{\prime \prime} \mathbf{1 '}^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 4^{\prime \prime} \\
& 10^{\prime \prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 7 " \\
& 11^{\prime \prime} 5^{\prime \prime} \\
& 10^{\prime \prime} 0
\end{aligned}
\] \\
\hline 600TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
31^{\prime} 11^{\prime \prime} \\
28^{\prime} 3^{\prime \prime} \\
23^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 4 " \\
& 23^{\prime \prime} \\
& 20^{\prime \prime} \\
& 22^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 22^{\prime} 2^{\prime \prime} \\
& 20^{\prime \prime} \\
& 17^{\prime \prime} 7^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
26^{\prime} 8 " \\
23^{\prime \prime} 1 " \text { e } \\
18^{\prime} 10 " \text { e }
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 11^{\prime \prime} \\
22^{\prime \prime} 8 \\
18^{\prime} 10^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 10 " \\
19^{\prime \prime} 10^{\prime \prime} \\
17^{\prime \prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{array}{|l}
23^{\prime} 1 "^{\prime \prime} \mathrm{e} \\
20^{\prime \prime} \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
\hline
\end{array}
\] & \[
\begin{gathered}
22^{\prime} 8 " \\
20^{\prime \prime} 0^{\prime \prime} \mathrm{e} \\
16^{\prime} 4 " \mathrm{e}
\end{gathered}
\] &  & \[
\begin{gathered}
18^{\prime} 10^{\prime \prime} \mathrm{e} \\
16^{\prime} 4^{\prime \prime} \mathrm{e} \\
13^{\prime} 4^{\prime \prime} \mathrm{e}
\end{gathered}
\] & 18' 10" 16' 4" \(13^{\prime \prime} 4\) & \begin{tabular}{l}
17' 4" e \\
15' 9" e \\
\(13^{\prime \prime} 4\) "
\end{tabular} \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Compression flanges must be continuously braced.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must be 11 inches and must be connected with a minimum of (4) \#8 \(\times 9 / 16\) " long wafer head screws complying with ASTM C1513.

TABLE 13-NON-COMPOSITE LIMITING HEIGHTS (feet-inches) 48" o.c. BRACING TRAKLOC ELEVATOR STUDS (TLE) \({ }^{3,4,5,6}\)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Member} & \multirow{3}{*}{Spacing o/c (in)} & \multicolumn{12}{|c|}{Lateral Load (psf)} \\
\hline & & \multicolumn{3}{|c|}{5 PS} & \multicolumn{3}{|c|}{7.5 PSF} & \multicolumn{3}{|c|}{10 PSF} & \multicolumn{3}{|c|}{5 PSF} \\
\hline & & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 & L/120 & L/240 & L/360 \\
\hline 250TLE125-18 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \\
10^{\prime \prime} 7^{\prime \prime} \\
8^{\prime \prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 33^{\prime \prime} \\
9^{\prime} 4^{\prime \prime \prime} \\
8^{\prime \prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 0^{\prime \prime} \\
& 8^{\prime} 2^{\prime \prime} \\
& 7^{\prime \prime} 1^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 8^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} 1 \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 0^{\prime \prime} \\
8^{\prime} 8^{\prime \prime} \mathrm{e} \\
7^{\prime \prime} \mathbf{1 "}^{2}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime \prime} 10^{\prime \prime} \\
8^{\prime} 0 " \mathrm{e} \\
7^{\prime} 0^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime \prime} 8^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 6^{\prime \prime} \mathrm{e} \\
& 6^{\prime \prime} 1 \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime \prime} 8^{\prime \prime} \mathrm{e} \\
& 7^{\prime} 6^{6 "} \\
& 6^{\prime 1} 1 \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime \prime} 0 \mathrm{en} \\
& 7^{\prime} 3^{\prime \prime} \mathrm{e} \\
& 6^{\prime \prime} 1 \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 7^{\prime \prime} 1 " \mathrm{e} \\
& 6^{\prime} 11^{\prime \mathrm{e}} \\
& 5^{\prime \prime} \mathrm{e}
\end{aligned}
\] &  & \[
\begin{aligned}
& 7^{\prime} 0 " \mathrm{e} \\
& 6^{\prime} 1{ }^{\prime \prime} \mathrm{e} \\
& 5^{\prime} 0
\end{aligned}
\] \\
\hline 362TLE125-18 & \begin{tabular}{l}
\[
12
\] \\
16 24
\end{tabular} & \begin{tabular}{l}
\(14^{\prime \prime} 3^{\prime \prime}\) \\
12' 4" e \\
10'1" e
\end{tabular} &  & \[
\begin{gathered}
12^{\prime} 1 " \\
11^{\prime} 0 \\
9^{\prime} 7{ }^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\left[\begin{array}{c}
11^{\prime} 7 " \mathrm{e} \\
10^{\prime} 1^{\prime \prime} \mathrm{e} \\
8^{\prime} \mathrm{l}^{\prime \prime} \mathrm{e}
\end{array}\right.
\] & \[
\begin{gathered}
11^{\prime} 7 " \mathrm{e} \\
10^{\prime \prime} 1 " \mathrm{e} \\
8^{8} 3 \mathrm{3} \mathrm{e}
\end{gathered}
\] & \begin{tabular}{l}
11'7" e \\
10'1" e \\
8'3" e
\end{tabular} &  & 10' 1" 8' 9" e 7'1" e & \begin{tabular}{l}
10'1" e \\
8' 9" e \\
7'1" e
\end{tabular} & \[
\begin{gathered}
8^{8} 3^{\prime \prime} \mathrm{e} \\
7^{\prime} 11^{\prime \prime} \text { e } \\
5^{\prime} 10 " \mathrm{e}
\end{gathered}
\] &  & \[
\begin{gathered}
8^{\prime} \text { 3" e } \\
7^{\prime} 1 " \text { e } \\
5^{\prime} 10 \text { ene }
\end{gathered}
\] \\
\hline 400TLE125-18 \({ }^{1}\) & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] &  & \[
\begin{gathered}
144^{\prime \prime} 8 \\
121^{\prime \prime} 11^{\prime \prime} \\
10^{\prime} 7 \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10 " \\
11^{\prime} 8 " \mathrm{e} \\
10^{\prime} 2 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime \prime} 7 \mathrm{e} \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 7 \mathrm{c} \\
8^{8} 8 \mathrm{8} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 3^{\prime \prime} \mathrm{e} \\
10^{\prime} 77^{\mathrm{e}} \\
8^{\prime} 8^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime \prime} 7 " \mathrm{e} \\
9^{\prime} 2 " \mathrm{e} \\
7^{\prime \prime} \mathbf{b}^{6 \prime \mathrm{e}}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime \prime} 7 \mathrm{e} \\
9^{\prime} 2 \mathrm{e} \\
7^{\prime} 6^{6 \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 77^{\prime \prime} \mathrm{e} \\
\text { 9' 2" e } \\
7^{\prime \prime} 6 \text { ". } \mathrm{e}
\end{gathered}
\] & \[
\begin{aligned}
& 8^{\prime} 8 \text { " e } \\
& 77^{\prime \prime} \text { " e } \\
& 6^{\prime} 11^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime \prime} 8^{8} \mathrm{e} \\
7^{\prime} 6^{\prime \prime} \mathrm{e} \\
6^{\prime} 1^{1 "} \mathrm{e}
\end{gathered}
\] &  \\
\hline 600TLE125-18 \({ }^{2}\) & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] &  & 19' 2 e 16' 7 " e \(13^{\prime} 7{ }^{\prime \prime}\) e & \(17^{\prime} 6\) " e 15' 10" e \(13^{\prime \prime} 7\) " e & \begin{tabular}{l}
15' 8" e \\
13' 7" e \\
11' 1" e
\end{tabular} & \begin{tabular}{l}
\(15^{\prime \prime} 8{ }^{\prime \prime}\) e \\
13' 7 " e \\
11' 1 " e
\end{tabular} & \begin{tabular}{l}
15' 8" e \\
13' 7" e \\
11'1" e
\end{tabular} & \begin{tabular}{l}
\(13^{\prime} 7^{\prime \prime}\) e \\
11' 9" e \\
9' 7" e
\end{tabular} & 13' 7" 11' 9" e 9' 7" e & \begin{tabular}{l}
\(13^{\prime} 7^{\prime \prime}\) e \\
11' 9" e \\
9' 7 " e
\end{tabular} & \[
\begin{aligned}
& 11^{\prime \prime} 1 " \mathrm{e} \\
& 9^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
& 6^{\prime} 9{ }^{\prime \prime} \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime \prime} 1 " \mathrm{e} \\
& 9^{\prime} 7{ }^{\prime \prime} \mathrm{e} \\
& 6^{\prime} 9{ }^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \begin{tabular}{l}
11'1"e \\
9'7" e \\
6' 9" e
\end{tabular} \\
\hline 250TLE125-24 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 5 " \\
& 13^{\prime \prime} 1 \\
& 11^{\prime \prime} 5
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
10^{\prime \prime} 5^{\prime \prime} \\
9^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 0^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
7^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 13^{\prime} 2 " \\
& 11^{\prime \prime} 5^{\prime \prime} \\
& 9^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 10^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime} \\
& 7^{\prime} 10^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 5 " \\
9^{\prime} 11^{\prime \prime} \\
8^{\prime} 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
1^{\prime \prime} 3^{\prime \prime} \\
9^{\prime} 4^{\prime \prime} \\
8^{\prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 2^{\prime \prime} \\
7^{\prime} 1^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 4^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime} \\
& 6^{\prime} 7^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
8^{\prime} 11^{\prime \prime} \\
8^{\prime} 1^{\prime \prime} \\
6^{\prime} 7
\end{gathered}
\] & \[
\begin{aligned}
& 7^{\prime} 10^{\prime \prime} \\
& 7^{\prime} 1^{\prime \prime} \\
& 6^{\prime} 2^{\prime \prime}
\end{aligned}
\] \\
\hline & 12 & 17' 11" & 15' 5" & \(13^{\prime \prime} 6^{\prime \prime}\) & 14'8" & \(14^{\prime \prime} 8\) & \(13^{\prime \prime}{ }^{\prime \prime}\) & 12' 8" & \(12^{\prime \prime} 8\) & 12'1" & 10'4" & 10'4" & 10'4" \\
\hline 362TLE125-24 & \[
\begin{array}{r}
16 \\
\quad 24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 15^{\prime} 77^{\prime} \\
& 122^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 0 " \\
& 12^{\prime \prime} 3
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 8
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 8 " \\
& 10^{\prime \prime} 4 "
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 1 " \\
& 10^{\prime \prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 11 ' 0 " \\
& 9^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} 0 " \\
& 9^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{array}{r}
10 ' 11 " \\
9^{\prime} 0 \\
\hline
\end{array}
\] & \[
\begin{gathered}
9^{\prime} 0^{\prime \prime} \\
7^{\prime \prime} \mathbf{4 "}^{\mathrm{e}}
\end{gathered}
\] & \[
\begin{gathered}
90^{\prime \prime} 0^{\prime} \\
7^{\prime} 4^{\prime \prime} \text { }
\end{gathered}
\] & \[
\begin{gathered}
9^{\prime} 0^{\prime \prime} \\
7^{\prime} \mathbf{4 "}^{-}
\end{gathered}
\] \\
\hline & 12 & 18' \(10^{\prime \prime}\) & \(16^{\prime \prime}\) & \(14^{\prime} 7{ }^{\prime \prime}\) & 15'4" & 15'4" & 14'4" & 13'4" & \(13^{\prime} 4^{\prime \prime}\) & \(13^{\prime \prime} 1\) & 10' 10" & 10' 10" & 10' 10" \\
\hline 400TLE125-24 & \[
\begin{array}{r}
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 4^{\prime \prime} \\
& 13^{\prime} 4
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 2^{\prime \prime} \\
& 13^{\prime \prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 11^{\prime \prime} 7
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 4^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
10^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11 ' 6 " \\
9^{\prime} \mathbf{5}^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11 ' 6 " \\
9^{\prime} \mathbf{5}^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6 " \\
9^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 9^{\prime} 5 " \\
& 7^{\prime \prime} 8 "
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime \prime} 8
\end{aligned}
\] & \[
\begin{aligned}
& 9^{\prime} 5^{\prime \prime} \\
& 7^{\prime \prime} 8^{\prime \prime}
\end{aligned}
\] \\
\hline & 12 & 24' 2" & 22' 10 " & 20'0" & 19'9" & 19' 9" & \(19^{\prime} 8{ }^{\prime \prime}\) & \(17^{\prime \prime} 1^{\prime \prime}\) & \(17^{1 \prime} 1\) & \(17^{\prime} 1^{\prime \prime} \mathrm{e}\) & 13' 11" & \(3{ }^{\prime} 11^{\prime \prime}\) & \(3^{\prime} 11{ }^{\prime \prime}\) e \\
\hline 600TLE125-24 \({ }^{1}\) & \[
\begin{aligned}
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
20^{\prime} 11^{\prime \prime} \\
17^{\prime} 1^{\prime} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
20 ' 9 " \\
17^{\prime \prime} 1 " \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 2 " \\
15^{\prime \prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1 "^{\prime \prime} \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1 " \mathrm{e} \\
13^{\prime} 11^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 1 "_{\prime \prime}^{\mathrm{e}} \\
13^{\prime} 11^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime} \\
12^{\prime \prime} 1^{\prime \prime} \mathrm{e}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \mathrm{e} \\
12^{\prime} 1^{\prime \prime} \mathrm{e} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 12^{\prime} 1 " \mathrm{e} \\
& \mathrm{~g}^{\prime} 10 \mathrm{e}
\end{aligned}
\] & \[
\begin{aligned}
& 122^{\prime \prime} 1 \mathrm{e} \\
& 9^{\prime} 10^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 122^{\prime \prime} \mathrm{e} \\
& 9^{\prime} 10^{\prime \prime} \mathrm{e} \\
& \hline
\end{aligned}
\] \\
\hline 250TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
16^{\prime} \text { ' } 3^{\prime \prime} \\
14^{\prime} 7 \\
\text { 11' } 11^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime} 8^{\prime \prime} \\
10^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
\text { 13' 9" } \\
\text { 11' 11" } \\
\mathbf{y}^{\prime} 9
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 8^{\prime \prime \prime} \\
11^{\prime \prime} 6^{\prime \prime} \\
9^{\prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 1 " \\
& 10^{\prime} 1 " \\
& 8^{\prime} 9 \\
& -9 "
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} 111^{\prime \prime} \\
10^{\prime} 4 " \\
8^{\prime} 55^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
11^{\prime} 6^{\prime \prime} \\
10^{\prime \prime} 4^{\prime \prime} \\
8^{\prime} 5^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
10^{\prime} 1 " \\
9^{\prime} 2^{\prime \prime \prime} \\
8^{\prime \prime} 0^{\prime \prime}
\end{gathered}
\] & \[
\begin{array}{r}
9^{\prime} 99^{\prime \prime} \\
8^{\prime} 5^{\prime \prime} \\
6^{\prime} 10^{\prime \prime}
\end{array}
\] & \[
\begin{array}{r}
9^{\prime} 99^{\prime \prime} \\
8^{\prime} 55^{\prime \prime} \\
6^{\prime} 10^{\prime \prime}
\end{array}
\] & \[
\begin{array}{r}
8^{\prime} 9 " \\
8^{\prime} 0^{\prime \prime} \\
6^{\prime} 10^{\prime \prime}
\end{array}
\] \\
\hline 362TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline-24
\end{array}
\] & \[
\begin{gathered}
19^{\prime} 11^{\prime \prime} \\
17^{\prime \prime} 3^{\prime \prime} \\
14^{\prime \prime}-1
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 0 " \\
15^{\prime \prime} 5^{\prime \prime} \\
13^{\prime \prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
13^{\prime} 6 " \\
11^{\prime \prime} 9 " \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 14^{\prime \prime} 1 \\
& 11^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 16^{\prime} 3^{\prime \prime} \\
& 14^{\prime \prime} 1 \\
& 11^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 7 " \\
& 13^{\prime} 3^{\prime \prime} \\
& 11^{\prime \prime} 6^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime} 3^{\prime \prime} \\
& 10^{\prime} \mathbf{n}^{-1}
\end{aligned}
\] & \[
\begin{aligned}
& 14^{\prime} 1 " \\
& 12^{\prime \prime} 3^{\prime \prime} \\
& 10^{\prime} 0 \\
& -10
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 0^{\prime \prime} \\
& 10^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
11^{\prime} \text { 6" } \\
10^{\prime \prime} 0 \\
8^{\prime \prime} 2^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 6^{\prime \prime} \\
& 10^{\prime} 0^{\prime \prime} \\
& 8^{\prime} 2^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime} \text { 6" } \\
& 10^{\prime \prime} 0 \\
& 8^{\prime} 2^{\prime \prime}
\end{aligned}
\] \\
\hline 400TLE125-30 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
21^{\prime} 0 \\
18^{\prime \prime} 2^{\prime \prime} \\
14^{\prime} 10^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
18^{\prime} 4^{\prime \prime} \\
16^{\prime} 8^{\prime \prime} \\
14^{\prime \prime} 7
\end{gathered}
\] & \[
\begin{aligned}
& 16^{\prime} 0^{\prime \prime} \\
& 14^{\prime \prime} 7^{\prime \prime} \\
& 12^{\prime \prime} 9^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
17^{\prime} 2 " \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime} 1{ }^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
17^{\prime} 2 " \\
14^{\prime} 10^{\prime \prime} \\
12^{\prime \prime} 1^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 9 " \\
& 14^{\prime \prime} 4^{\prime \prime} \\
& 12^{\prime} 1{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime} 10 " \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
14^{\prime \prime} 4^{\prime \prime} \\
12^{\prime} 10^{\prime \prime} \\
10^{\prime} 6^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 12 ' 1 " \\
& 10^{\prime \prime} 6^{\prime \prime} \\
& 8^{\prime} 7 \\
& \hline-7
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 1 " \\
10^{\prime \prime} 6^{\prime \prime} \\
8^{\prime} 7^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 12^{\prime} 1 " \\
& 10^{\prime \prime} 6^{\prime \prime} \\
& 8^{\prime} 7 \text { 7" }
\end{aligned}
\] \\
\hline 600TLE125-30 & \[
\begin{aligned}
& 12 \\
& 16 \\
& 24 \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
27^{\prime \prime} 7 \\
23^{\prime \prime} 11^{\prime \prime} \\
19^{\prime \prime} 6^{\prime \prime} \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 0 " \\
& 22^{\prime \prime} 9 \\
& 19^{\prime \prime} 6^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
21^{\prime} 10^{\prime \prime} \\
19^{\prime} 10^{\prime \prime} \\
17^{\prime} 4^{\prime \prime} \\
\hline
\end{gathered}
\] &  & 22' 7" 19' 6 " 15' 11" e &  & \begin{tabular}{l}
19' 6 \\
16' 11" e \\
13' 10"
\end{tabular} &  & 19' 6 " \(16^{\prime} 11^{\prime \prime}\) e \(13^{\prime} 10^{\prime \prime}\) e & 15' 11" 13' 10" e 11' 3" e & \(15^{\prime \prime} 11^{\prime \prime}\) 13' 10" e 11' 3 " e & 15' 11" e 13' 10" e 11' 3" e \\
\hline 250TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 16^{\prime} 6^{\prime \prime \prime} \\
& 15^{\prime \prime} 0^{\prime \prime} \\
& 12^{\prime \prime} 9^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 11^{\prime \prime} \\
10^{\prime} 5 \text { ". }
\end{gathered}
\] & \[
\begin{gathered}
1_{1}^{\prime \prime} 5^{\prime \prime} \\
10^{\prime \prime} 5^{\prime \prime} \\
9^{\prime} 1^{\prime \prime} \\
\hline-2
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 8 " \\
& 12^{\prime \prime} 9 \\
& 10^{\prime \prime} 5 \\
& -1 "
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 10^{\prime \prime} \\
11^{\prime \prime} 8^{\prime \prime} \\
10^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 3^{\prime \prime} \\
& 8^{\prime} 11^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 12^{\prime} 9 " \\
& 11^{\prime \prime} 0^{\prime \prime} \\
& 9^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 11^{\prime \prime} 8^{\prime \prime} \\
& 10^{\prime \prime} 7^{\prime \prime} \\
& 9^{\prime} 0^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 10^{\prime} 3^{\prime \prime} \\
& 9^{\prime} 3^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 10^{\prime \prime} 5^{\prime \prime} \\
& 9^{\prime} 0^{\prime \prime} \\
& 7^{\prime \prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 10^{\prime \prime} 3^{\prime \prime} \\
& 9^{\prime} 0^{\prime \prime} \\
& 7^{\prime} 4^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 8^{\prime} 11^{\prime \prime} \\
& 8^{\prime} 1^{\prime \prime} \\
& 7^{\prime} 1^{\prime \prime}
\end{aligned}
\] \\
\hline 362TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 21^{\prime} 6^{\prime \prime} \\
& 18^{\prime \prime} 8^{\prime \prime} \\
& 15^{\prime \prime}{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 3^{\prime \prime \prime} \\
& 15^{\prime \prime} 8^{\prime \prime} \\
& 13^{\prime \prime} 9
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 1^{\prime \prime} \\
& 13^{\prime \prime} 9^{\prime \prime} \\
& 12^{\prime \prime} \mathbf{n}^{\prime}
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 7 " \\
& 15^{\prime} 3^{\prime \prime} \\
& 12^{\prime} 5
\end{aligned}
\] & \[
\begin{aligned}
& 17^{\prime} 0^{\prime \prime} \\
& 15^{\prime \prime} 3^{\prime \prime} \\
& 12^{\prime \prime} 5^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
14^{\prime} 10^{\prime \prime \prime} \\
13^{\prime} 6^{\prime \prime} \\
11^{\prime \prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime} \\
& 13^{\prime} 2 \\
& 10^{\prime} 9 \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 15^{\prime} 3^{\prime \prime \prime} \\
& 13^{\prime \prime} 2^{\prime \prime} \\
& 10^{\prime \prime} 9^{\prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime} 6^{\prime \prime} \\
& 12^{\prime \prime} 3^{\prime \prime} \\
& 10^{\prime \prime} 9^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime \prime} 9 \\
8^{\prime \prime} 9 \\
8^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 5 " \\
10^{\prime \prime} 9 \\
8^{\prime \prime} 9
\end{gathered}
\] & \[
\begin{aligned}
& 11^{\prime} 9 " \\
& 10^{\prime \prime} 9 " \\
& 8^{\prime \prime} 99^{\prime \prime}
\end{aligned}
\] \\
\hline 400TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{aligned}
& 22^{\prime \prime} 8^{\prime \prime} \\
& 19^{\prime \prime} 8^{\prime \prime} \\
& 16^{\prime \prime}
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 6 \\
& 16^{\prime \prime} 9 \\
& 14^{\prime} 8 \\
& \hline 18
\end{aligned}
\] & \begin{tabular}{l}
\(16^{\prime} 2^{\prime \prime}\) \\
\(14^{\prime} 8{ }^{\prime \prime}\) \\
\(12^{\prime} 10^{\prime \prime}\)
\end{tabular} & \[
\begin{aligned}
& 18^{\prime} 6^{\prime \prime} \\
& 16^{\prime} 0 \\
& 13^{\prime \prime} 1
\end{aligned}
\] & \[
\begin{aligned}
& 18^{\prime} 2^{\prime \prime} \\
& 16^{\prime} 0 \\
& 13^{\prime \prime} 1{ }^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
15^{\prime} 11^{\prime \prime} \\
14^{\prime} 5 \\
12^{\prime \prime} 7
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime \prime} 0 \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime \prime} 4^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
16^{\prime} 0 \\
13^{\prime} 11^{\prime \prime} \\
11^{\prime} 4
\end{gathered}
\] & \[
\begin{aligned}
& 14^{\prime} 5^{\prime \prime} \\
& 13^{\prime \prime} 1^{\prime \prime} \\
& 11^{\prime \prime} \mathbf{n}^{\prime}
\end{aligned}
\] & \[
\begin{aligned}
& 13^{\prime \prime} 1^{\prime \prime} \\
& 11^{\prime \prime} 4^{\prime \prime} \\
& 9^{\prime} 3^{\prime \prime}
\end{aligned}
\] & \[
\begin{gathered}
13^{\prime} 1^{\prime \prime} \\
11^{\prime \prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
12^{\prime} 7 \\
11^{\prime \prime} 4^{\prime \prime} \\
9^{\prime} 3^{\prime \prime}
\end{gathered}
\] \\
\hline 600TLE125-33 & \[
\begin{array}{r}
12 \\
16 \\
24 \\
\hline
\end{array}
\] & \[
\begin{gathered}
29^{\prime} 11^{\prime \prime} \\
25^{\prime} 11^{\prime \prime} \\
21^{\prime} 2 \\
\hline
\end{gathered}
\] & \[
\begin{aligned}
& 25^{\prime} 4^{\prime \prime} \\
& 23^{\prime \prime} \\
& 20^{\prime \prime} 2^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{aligned}
& 22^{\prime} 2^{\prime \prime} \\
& 20^{\prime \prime} 2^{\prime \prime} \\
& 17^{\prime \prime} 7^{\prime \prime} \\
& \hline
\end{aligned}
\] & \[
\begin{gathered}
24^{\prime \prime} 5{ }^{\prime \prime} \\
21^{\prime} 2^{\prime \prime} \\
17^{\prime \prime} 3^{\prime \prime}
\end{gathered}
\] & \[
\begin{gathered}
24^{\prime} 5^{\prime \prime} \\
21^{\prime \prime} 2^{\prime \prime} \\
17^{\prime \prime} 3^{\prime \prime} \text { e }
\end{gathered}
\] & \[
\begin{gathered}
21^{\prime} 10 " \\
10^{\prime} 10^{\prime \prime} \\
17^{\prime} 3^{\prime \prime} \mathrm{e}
\end{gathered}
\] &  &  & \begin{tabular}{l}
19' 10" 18' 0 " e \\
14'11" e
\end{tabular} & 17' \(3^{\prime \prime}\) e 14' 11" e 12' 2" e & \(17^{\prime} 3^{\prime \prime}\) e \(14^{\prime} 11^{\prime \prime}\) e \(12^{\prime \prime} 2^{\prime \prime}\) e & \(17^{\prime} 3^{\prime \prime}\) e 14' 11" e 12' 2" e \\
\hline
\end{tabular}

For SI: \(1 \mathrm{inch}=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
1. Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
2. Web height-to-thickness ratio exceeds 260 but less than 300 . Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
3. Web stiffeners are required at the stud/track connection when denoted with an "e".
4. Based on an unbraced length (Lu) of 48" o.c.
5. End bearing must be 1 -inch.
6. The minimum overlap of the TSO and TSE must be 11 inches and must be connected with a minimum of (4) \#8 \(\times 9 / 16\) " long wafer head screws complying with ASTM C1513.

TABLE 14-COMPOSITE LIMITING HEIGHTS \({ }^{1,2}\) (feet-inches)
TRAKLOC ADJUSTABLE STUDS (TLA) AND TRAKLOC FIXED LENGTH STUDS (TLF)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{4}{*}{\begin{tabular}{c} 
MEMBER \\
DESIGNATION \\
TLA \\
(TLF) \\
\hline
\end{tabular}} & \multirow[b]{4}{*}{\[
\begin{aligned}
& \text { STUD } \\
& \text { SPACING } \\
& \text { (in) }
\end{aligned}
\]} & \multicolumn{12}{|c|}{TRANSVERSE LOAD} \\
\hline & & \multicolumn{3}{|c|}{5 psf} & \multicolumn{3}{|c|}{7.5 psf} & \multicolumn{3}{|c|}{10 psf} & \multicolumn{3}{|c|}{15 psf} \\
\hline & & \multicolumn{12}{|c|}{Deflection Limit} \\
\hline & & L 120 & \(\mathrm{L}_{240}\) & \(L_{360}\) & \(L_{120}\) & \(L^{240}\) & \(L^{160}\) & \(L_{120}\) & L/240 & L/360 & L/120 & \(L_{240}\) & \(L_{360}\) \\
\hline \multirow[b]{3}{*}{\[
\begin{aligned}
& \text { 250TLA125-18 } \\
& \text { (250TLF125-18) }
\end{aligned}
\]} & 12 & 17-2 & 14-5 & 12-7 & 14-6 & 12-8 & 11-0 & 12-7 & 11-6 & 10-0 & 8-3 & 8-3 & 8-3 \\
\hline & 16 & 15-10 & 13-7 & 11-10 & 13-0 & 11-10 & 10-4 & 11-3 & 10-9 & 9-3 & --- & --- & --- \\
\hline & 24 & 13-4 & 12-3 & 10-8 & 10-11 & 10-8 & 9-1 & 9-5 & 9-5 & 7-11 & --- & --- & --- \\
\hline \multirow[b]{3}{*}{\[
\begin{aligned}
& \text { 362TLA125-18 } \\
& \text { (362TLF125-18) }
\end{aligned}
\]} & 12 & 21-7 & 17-11 & 15-8 & 18-10 & 15-8 & 13-8 & 16-4 & 14-3 & 12-5 & 10-9 & 10-9 & 10-8 \\
\hline & 16 & 20-0 & 16-8 & 14-7 & 16-4 & 14-7 & 12-8 & 14-1 & 13-3 & 11-6 & 9-3 & 9-3 & 9-3 \\
\hline & 24 & 16-4 & 14-10 & 13-0 & 13-4 & 13-0 & 11-2 & 11-6 & 11-6 & 9-10 & --- & --- & --- \\
\hline \multirow[t]{3}{*}{\begin{tabular}{l}
400TLA125-18 \\
(400TLF125-18)
\end{tabular}} & 12 & 23-4 & 18-6 & 16-4 & 19-5 & 16-2 & 14-3 & 16-10 & 14-8 & 12-11 & 11-1 & 11-1 & 11-1 \\
\hline & 16 & 20-7 & 17-5 & 15-4 & 16-10 & 15-3 & 13-5 & 14-7 & 13-10 & 12-2 & 9-7 & 9-7 & 9-7 \\
\hline & 24 & 16-10 & 15-9 & 13-10 & 13-9 & 13-9 & 12-1 & 11-11 & 11-11 & 10-9 & 7-10 & 7-10 & 7-10 \\
\hline \multirow[b]{3}{*}{600TLA125-18 (600TLF125-18)} & 12 & 30-5 & 25-3 & 22-5 & 24-10 & 22-0 & 19-7 & 21-6 & 20-0 & 17-9 & 14-1 & 14-1 & 14-1 \\
\hline & 16 & 26-4 & 23-4 & 20-9 & 21-6 & 20-5 & 18-2 & 18-7 & 18-7 & 16-6 & 12-3 & 12-3 & 12-3 \\
\hline & 24 & 21-6 & 20-9 & 18-5 & 17-7 & 17-7 & 16-1 & 15-2 & 15-2 & 14-5 & --- & --- & --- \\
\hline \multirow[b]{3}{*}{250TLA125-24
(250TLF125-24)} & 12 & 16-10 & 14-10 & 13-1 & 15-0 & 13-0 & 11-5 & 13-9 & 11-10 & 10-4 & 10-8 & 10-4 & 9-0 \\
\hline & 16 & 16-8 & 13-9 & 12-1 & 14-7 & 12-0 & 10-7 & 13-3 & 10-11 & 9-7 & 9-7 & 9-6 & 8-1 \\
\hline & 24 & 14-10 & 12-3 & 10-9 & 13-0 & 10-8 & 9-3 & 11-9 & 9-8 & 8-2 & 8-1 & 8-1 & --- \\
\hline \multirow[t]{3}{*}{\[
\begin{array}{|c|c|}
\hline \text { 362TLA125-24 } \\
\text { (362TLF125-24) }
\end{array}
\]} & 12 & 24-1 & 19-1 & 16-8 & 21-0 & 16-8 & 14-7 & 19-1 & 15-2 & 13-3 & 12-7 & 12-7 & 11-6 \\
\hline & 16 & 21-10 & 17-4 & 15-2 & 19-1 & 15-2 & 13-3 & 17-4 & 13-9 & 12-0 & 11-6 & 11-6 & 10-4 \\
\hline & 24 & 19-1 & 15-2 & 13-3 & 16-8 & 13-3 & 11-6 & 15-0 & 12-0 & 10-4 & 9-10 & 9-10 & 8-11 \\
\hline \multirow[b]{3}{*}{\begin{tabular}{l}
400TLA125-24 \\
(400TLF125-24)
\end{tabular}} & 12 & 24-4 & 19-4 & 16-11 & 21-3 & 16-11 & 14-9 & 19-4 & 15-4 & 13-5 & 14-0 & 13-5 & 11-8 \\
\hline & 16 & 23-1 & 18-4 & 16-0 & 20-2 & 16-0 & 14-0 & 18-4 & 14-7 & 12-9 & 12-6 & 12-6 & 11-0 \\
\hline & 24 & 21-0 & 16-8 & 14-7 & 18-4 & 14-7 & 12-9 & 16-0 & 13-3 & 11-6 & 10-6 & 10-6 & 9-10 \\
\hline \multirow[t]{3}{*}{600TLA125-24
(600TLF125-24)} & 12 & 33-5 & 27-4 & 24-2 & 29-2 & 23-11 & 21-1 & 26-6 & 21-8 & 19-2 & 18-8 & 18-8 & 16-9 \\
\hline & 16 & 30-4 & 24-10 & 21-11 & 26-6 & 21-8 & 19-2 & 24-1 & 19-9 & 17-5 & 16-2 & 16-2 & 15-2 \\
\hline & 24 & 26-6 & 21-8 & 19-2 & 23-2 & 18-11 & 16-9 & 20-1 & 17-3 & 15-2 & 13-3 & 13-3 & 13-1 \\
\hline \multirow[t]{3}{*}{\[
\begin{array}{|c}
\text { 250TLA125-30 } \\
\text { (250TLF125-30) }
\end{array}
\]} & 12 & 18-5 & 16-0 & 14-0 & 16-2 & 14-0 & 12-3 & 14-9 & 12-8 & 11-2 & 12-1 & 11-1 & 9-9 \\
\hline & 16 & 17-6 & 15-0 & 13-2 & 15-4 & 13-1 & 11-6 & 13-11 & 11-11 & 10-6 & 10-10 & 10-5 & 9-1 \\
\hline & 24 & 15-9 & 13-5 & 11-10 & 13-9 & 11-9 & 10-4 & 12-6 & 10-8 & 9-3 & 9-2 & 9-2 & --- \\
\hline \multirow[b]{3}{*}{\[
\begin{aligned}
& \text { 362TLA125-30 } \\
& \text { (362TLF125-30) }
\end{aligned}
\]} & 12 & 24-7 & 20-2 & 17-10 & 21-6 & 17-8 & 15-7 & 19-6 & 16-0 & 14-2 & 14-2 & 14-0 & 12-4 \\
\hline & 16 & 22-8 & 18-8 & 16-6 & 19-10 & 16-4 & 14-5 & 18-0 & 14-10 & 13-1 & 12-11 & 12-11 & 11-4 \\
\hline & 24 & 20-1 & 16-7 & 14-7 & 17-7 & 14-6 & 12-9 & 16-0 & 13-2 & 11-7 & 11-1 & 11-1 & 10-2 \\
\hline \multirow[t]{3}{*}{400TLA125-30
(400TLF125-30)} & 12 & 26-3 & 20-11 & 18-4 & 23-0 & 18-5 & 16-3 & 20-10 & 16-10 & 14-11 & 16-6 & 14-10 & 13-2 \\
\hline & 16 & 24-3 & 19-11 & 17-5 & 21-2 & 17-5 & 15-3 & 19-3 & 15-10 & 13-11 & 14-3 & 13-10 & 12-2 \\
\hline & 24 & 21-6 & 17-8 & 15-7 & 18-9 & 15-5 & 13-7 & 17-1 & 14-0 & 12-4 & 11-8 & 11-8 & 10-9 \\
\hline \multirow[t]{3}{*}{600TLA125-30
(600TLF125-30)} & 12 & 35-5 & 28-1 & 24-6 & 30-11 & 24-6 & 21-5 & 28-1 & 22-4 & 19-6 & 20-9 & 19-6 & 17-0 \\
\hline & 16 & 33-3 & 26-4 & 23-0 & 29-0 & 23-0 & 20-1 & 26-4 & 20-11 & 18-3 & 18-0 & 18-0 & 15-11 \\
\hline & 24 & 29-11 & 23-9 & 20-9 & 25-10 & 20-9 & 18-1 & 22-4 & 18-10 & 16-5 & -- & --- & --- \\
\hline \multirow[b]{3}{*}{250TLA125-33
(250TLF125-33)} & 12 & 20-11 & 16-7 & 14-6 & 18-3 & 14-6 & 12-8 & 16-7 & 13-2 & 11-6 & 12-7 & 11-6 & 10-1 \\
\hline & 16 & 19-0 & 15-1 & 13-2 & 16-7 & 13-2 & 11-6 & 15-1 & 12-0 & 10-6 & 11-2 & 10-6 & 9-0 \\
\hline & 24 & 16-7 & 13-2 & 11-6 & 14-6 & 11-6 & 10-1 & 13-2 & 10-6 & 9-0 & 9-4 & 9-0 & --- \\
\hline \multirow[t]{3}{*}{\[
\begin{array}{|c}
\text { 362TLA125-33 } \\
\text { (362TLF125-33) }
\end{array}
\]} & 12 & 25-5 & 20-2 & 17-7 & 22-2 & 17-7 & 15-4 & 20-2 & 16-0 & 14-0 & 15-10 & 14-0 & 12-2 \\
\hline & 16 & 23-9 & 18-10 & 16-6 & 20-9 & 16-6 & 14-5 & 18-10 & 15-0 & 13-1 & 13-8 & 13-1 & 11-4 \\
\hline & 24 & 21-4 & 16-11 & 14-10 & 18-8 & 14-10 & 12-11 & 16-11 & 13-5 & 11-8 & 11-2 & 11-2 & 10-1 \\
\hline \multirow[t]{3}{*}{400TLA125-33 (400TLF125-33)} & 12 & 27-7 & 22-9 & 19-11 & 24-1 & 19-10 & 17-6 & 21-10 & 18-1 & 15-11 & 16-7 & 15-9 & 13-11 \\
\hline & 16 & 25-0 & 20-8 & 18-2 & 21-10 & 18-1 & 15-11 & 19-10 & 16-5 & 14-5 & 14-4 & 14-4 & 12-8 \\
\hline & 24 & 21-10 & 18-1 & 15-11 & 19-1 & 15-9 & 13-11 & 17-4 & 14-4 & 12-8 & 11-9 & 11-9 & 11-1 \\
\hline \multirow[b]{3}{*}{600TLA125-33 (600TLF125-33)} & 12 & 36-0 & 28-7 & 25-0 & 31-5 & 25-0 & 21-10 & 28-7 & 22-8 & 19-10 & 20-10 & 19-10 & 17-3 \\
\hline & 16 & 33-9 & 26-9 & 23-5 & 29-5 & 23-5 & 20-5 & 26-9 & 21-3 & 18-7 & 18-1 & 18-1 & 16-1 \\
\hline & 24 & 30-3 & 24-0 & 21-0 & 25-11 & 21-0 & 18-4 & 22-5 & 19-1 & 16-7 & --- & --- & - \\
\hline
\end{tabular}

For SI: \(1 \mathrm{inch}=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
\({ }^{1}\) The gypsum board must be applied full height in the vertical orientation to each stud flange using minimum No. 6 Type S Drywall screws spaced as listed below:
- Screws spaced maximum 16 inches on-center to studs spaced at 12 inches on-center.
- Screws spaced maximum 12 inches on-center to studs spaced at 16 inches or 24 inches on-center.
- Screws spaced 16 inches on-center to the top and bottom track.
\({ }^{2}\) The minimum overlap of the TSO and TSE must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 15-COMPOSITE LIMITING HEIGHTS \({ }^{1,2}\) (feet-inches) TRAKLOC DEFLECTION STUDS (TLD)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{4}{*}{MEMBER DESIGNATION} & \multirow[b]{4}{*}{STUD SPACING (in)} & \multicolumn{12}{|c|}{TRANSVERSE LOAD} \\
\hline & & \multicolumn{3}{|c|}{5 psf} & \multicolumn{3}{|c|}{7.5 psf} & \multicolumn{3}{|c|}{10 psf} & \multicolumn{3}{|c|}{15 psf} \\
\hline & & \multicolumn{12}{|c|}{Deflection Limit} \\
\hline & & \(L_{120}\) & \(L_{240}\) & \(L_{360}\) & \(L_{120}\) & \(L_{240}\) & \(\mathrm{L}_{360}\) & \(\mathrm{L}_{120}\) & \(\mathrm{L}_{240}\) & L/360 & \(L_{120}\) & \(L_{240}\) & \(L_{360}\) \\
\hline \multirow{3}{*}{250TLD125-18} & 12 & 17-2 & 14-5 & 12-7 & 14-6 & 12-8 & 11-0 & 12-7 & 11-6 & 10-0 & --- & --- & --- \\
\hline & 16 & 15-10 & 13-7 & 11-10 & 13-0 & 11-10 & 10-4 & 11-2 & 10-9 & 9-3 & --- & --- & --- \\
\hline & 24 & 13-4 & 12-3 & 10-8 & 9-11 & 9-11 & 9-1 & --- & --- & --- & --- & --- & --- \\
\hline \multirow{3}{*}{362TLD125-18} & 12 & 21-7 & 17-11 & 15-8 & 15-10 & 15-8 & 13-8 & 11-10 & 11-10 & 11-10 & --- & --- & --- \\
\hline & 16 & 17-9 & 16-8 & 14-7 & 11-10 & 11-10 & 11-10 & 8-11 & 8-11 & 8-11 & --- & --- & --- \\
\hline & 24 & 11-10 & 11-10 & 11-10 & 7-11 & 7-11 & 7-11 & --- & --- & --- & --- & --- & --- \\
\hline \multirow{3}{*}{400TLD125-18} & 12 & 23-4 & 18-6 & 16-4 & 19-5 & 16-2 & 14-3 & 16-10 & 14-8 & 12-11 & --- & --- & --- \\
\hline & 16 & 20-7 & 17-5 & 15-4 & 16-10 & 15-3 & 13-5 & 12-9 & 12-9 & 12-2 & --- & --- & --- \\
\hline & 24 & 16-10 & 15-9 & 13-10 & 11-4 & 11-4 & 11-4 & 8-6 & 8-6 & 8-6 & --- & --- & --- \\
\hline \multirow{3}{*}{600TLD125-18} & 12 & 20-8 & 20-8 & 20-8 & 13-10 & 13-10 & 13-10 & --- & --- & --- & --- & --- & --- \\
\hline & 16 & 15-6 & 15-6 & 15-6 & --- & --- & --- & --- & --- & --- & --- & --- & --- \\
\hline & 24 & --- & --- & --- & --- & --- & --- & --- & --- & --- & --- & --- & --- \\
\hline \multirow{3}{*}{250TLD125-24} & 12 & 16-10 & 14-10 & 13-1 & 15-0 & 13-0 & 11-5 & 13-9 & 11-10 & 10-4 & 10-8 & 10-4 & 9-0 \\
\hline & 16 & 16-8 & 13-9 & 12-1 & 14-7 & 12-0 & 10-7 & 13-3 & 10-11 & 9-7 & 9-7 & 9-6 & 8-1 \\
\hline & 24 & 14-10 & 12-3 & 10-9 & 13-0 & 10-8 & 9-3 & 11-9 & 9-8 & 8-2 & --- & --- & --- \\
\hline \multirow{3}{*}{362TLD125-24} & 12 & 24-1 & 19-1 & 16-8 & 21-0 & 16-8 & 14-7 & 19-1 & 15-2 & 13-3 & 12-7 & 12-7 & 11-6 \\
\hline & 16 & 21-10 & 17-4 & 15-2 & 19-1 & 15-2 & 13-3 & 17-4 & 13-9 & 12-0 & 9-8 & 9-8 & 9-8 \\
\hline & 24 & 19-1 & 15-2 & 13-3 & 16-8 & 13-3 & 11-6 & 14-11 & 12-0 & 10-4 & --- & --- & --- \\
\hline \multirow{3}{*}{400TLD125-24} & 12 & 24-4 & 19-4 & 16-11 & 21-3 & 16-11 & 14-9 & 19-4 & 15-4 & 13-5 & 14-0 & 13-5 & 11-8 \\
\hline & 16 & 23-1 & 18-4 & 16-0 & 20-2 & 16-0 & 14-0 & 18-4 & 14-7 & 12-9 & 12-6 & 12-6 & 11-0 \\
\hline & 24 & 21-0 & 16-8 & 14-7 & 18-4 & 14-7 & 12-9 & 16-0 & 13-3 & 11-6 & 9-3 & 9-3 & 9-3 \\
\hline \multirow{3}{*}{600TLD125-24} & 12 & 33-5 & 27-4 & 24-2 & 29-2 & 23-11 & 21-1 & 24-2 & 21-8 & 19-2 & --- & --- & --- \\
\hline & 16 & 30-4 & 24-10 & 21-11 & 24-2 & 21-8 & 19-2 & 18-1 & 18-1 & 17-5 & --- & --- & --- \\
\hline & 24 & 24-2 & 21-8 & 19-2 & 16-1 & 16-1 & 16-1 & 12-1 & 12-1 & 12-1 & --- & --- & --- \\
\hline \multirow{3}{*}{250TLD125-30} & 12 & 18-5 & 16-0 & 14-0 & 16-2 & 14-0 & 12-3 & 14-9 & 12-8 & 11-2 & 12-1 & 11-1 & 9-9 \\
\hline & 16 & 17-6 & 15-0 & 13-2 & 15-4 & 13-1 & 11-6 & 13-11 & 11-11 & 10-6 & 10-10 & 10-5 & 9-1 \\
\hline & 24 & 15-9 & 13-5 & 11-10 & 13-9 & 11-9 & 10-4 & 12-6 & 10-8 & 9-3 & 9-2 & 9-2 & ---- \\
\hline \multirow{3}{*}{362TLD125-30} & 12 & 24-7 & 20-2 & 17-10 & 21-6 & 17-8 & 15-7 & 19-6 & 16-0 & 14-2 & 14-2 & 14-0 & 12-4 \\
\hline & 16 & 22-8 & 18-8 & 16-6 & 19-10 & 16-4 & 14-5 & 18-0 & 14-10 & 13-1 & 12-11 & 12-11 & 11-4 \\
\hline & 24 & 20-1 & 16-7 & 14-7 & 17-7 & 14-6 & 12-9 & 16-0 & 13-2 & 11-7 & --- & --- & --- \\
\hline \multirow{3}{*}{400TLD125-30} & 12 & 26-3 & 20-11 & 18-4 & 23-0 & 18-5 & 16-3 & 20-10 & 16-10 & 14-11 & 16-6 & 14-10 & 13-2 \\
\hline & 16 & 24-3 & 19-11 & 17-5 & 21-2 & 17-5 & 15-3 & 19-3 & 15-10 & 13-11 & 14-3 & 13-10 & 12-2 \\
\hline & 24 & 21-6 & 17-8 & 15-7 & 18-9 & 15-5 & 13-7 & 17-1 & 14-0 & 12-4 & 10-6 & 10-6 & 10-6 \\
\hline \multirow{3}{*}{600TLD125-30} & 12 & 35-5 & 28-1 & 24-6 & 30-11 & 24-6 & 21-5 & 28-1 & 22-4 & 19-6 & --- & --- & --- \\
\hline & 16 & 33-3 & 26-4 & 23-0 & 29-0 & 23-0 & 20-1 & 26-4 & 20-11 & 18-3 & --- & --- & --- \\
\hline & 24 & 29-11 & 23-9 & 20-9 & 23-7 & 20-9 & 18-1 & 17-8 & 17-8 & 16-5 & --- & --- & --- \\
\hline \multirow{3}{*}{250TLD125-33} & 12 & 20-11 & 16-7 & 14-6 & 18-3 & 14-6 & 12-8 & 16-7 & 13-2 & 11-6 & 12-7 & 11-6 & 10-1 \\
\hline & 16 & 19-0 & 15-1 & 13-2 & 16-7 & 13-2 & 11-6 & 15-1 & 12-0 & 10-6 & 11-2 & 10-6 & 9-0 \\
\hline & 24 & 16-7 & 13-2 & 11-6 & 14-6 & 11-6 & 10-1 & 13-2 & 10-6 & 9-0 & 9-4 & 9-0 & \\
\hline \multirow{3}{*}{362TLD125-33} & 12 & 25-5 & 20-2 & 17-7 & 22-2 & 17-7 & 15-4 & 20-2 & 16-0 & 14-0 & 15-10 & 14-0 & 12-2 \\
\hline & 16 & 23-9 & 18-10 & 16-6 & 20-9 & 16-6 & 14-5 & 18-10 & 15-0 & 13-1 & 13-8 & 13-1 & 11-4 \\
\hline & 24 & 21-4 & 16-11 & 14-10 & 18-8 & 14-10 & 12-11 & 16-11 & 13-5 & 11-8 & --- & --- & --- \\
\hline \multirow{3}{*}{400TLD125-33} & 12 & 27-7 & 22-9 & 19-11 & 24-1 & 19-10 & 17-6 & 21-10 & 18-1 & 15-11 & 16-7 & 15-9 & 13-11 \\
\hline & 16 & 25-0 & 20-8 & 18-2 & 21-10 & 18-1 & 15-11 & 19-10 & 16-5 & 14-5 & 14-4 & 14-4 & 12-8 \\
\hline & 24 & 21-10 & 18-1 & 15-11 & 19-1 & 15-9 & 13-11 & 17-4 & 14-4 & 12-8 & 11-0 & 11-0 & 11-0 \\
\hline \multirow{3}{*}{600TLD125-33} & 12 & 36-0 & 28-7 & 25-0 & 31-5 & 25-0 & 21-10 & 28-7 & 22-8 & 19-10 & 15-9 & 15-9 & 15-9 \\
\hline & 16 & 33-9 & 26-9 & 23-5 & 29-5 & 23-5 & 20-5 & 26-9 & 21-3 & 18-7 & -- & --- & --- \\
\hline & 24 & 30-3 & 24-0 & 21-0 & 24-8 & 21-0 & 18-4 & 18-6 & 18-6 & 16-7 & --- & --- & --- \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
\({ }^{1}\) The gypsum board must be applied full height in the vertical orientation to each stud flange using minimum No. 6 Type S Drywall screws spaced as listed below:
- Screws spaced maximum 16 inches on-center to studs spaced at 12 inches on-center.
- Screws spaced maximum 12 inches on-center to studs spaced at 16 inches or 24 inches on-center.
- Screws spaced 16 inches on-center to the bottom track only.
\({ }^{2}\) The minimum overlap of the TSO and TSE must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.

TABLE 16-COMPOSITE LIMITING HEIGHTS \({ }^{1,2}\) (feet-inches) TRAKLOC ELEVATOR STUDS (TLE)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{4}{*}{MEMBER DESIGNATION} & \multirow[b]{4}{*}{STUD SPACING (in)} & \multicolumn{12}{|c|}{TRANSVERSE LOAD} \\
\hline & & \multicolumn{3}{|c|}{5 psf} & \multicolumn{3}{|c|}{7.5 psf} & \multicolumn{3}{|c|}{10 psf} & \multicolumn{3}{|c|}{15 psf} \\
\hline & & \multicolumn{12}{|c|}{Deflection Limit} \\
\hline & & \(L_{120}\) & \(L^{240}\) & L/360 & \(L_{120}\) & \(L_{240}\) & L/360 & L/120 & \(L^{240}\) & \(\mathrm{L}_{360}\) & L/120 & \(\mathrm{L}_{240}\) & L/360 \\
\hline \multirow{3}{*}{250TLE125-18} & 12 & 17-0 & 15-1 & 12-11 & 14-11 & 13-2 & 11-4 & 13-6 & 12-0 & 10-3 & 9-1 & 9-1 & 8-6 \\
\hline & 16 & 15-6 & 13-9 & 11-9 & 13-6 & 12-0 & 10-3 & 12-0 & 10-11 & 9-0 & 7-11 & 7-11 & --- \\
\hline & 24 & 13-6 & 12-0 & 10-3 & 11-4 & 10-6 & 8-6 & 9-10 & 9-5 & --- & --- & --- & --- \\
\hline \multirow{3}{*}{362TLE125-18} & 12 & 20-7 & 17-2 & 14-6 & 18-0 & 15-0 & 12-8 & 16-1 & 13-7 & 11-5 & 10-7 & 10-7 & 9-8 \\
\hline & 16 & 18-9 & 15-7 & 13-2 & 16-1 & 13-7 & 11-5 & 13-11 & 12-4 & 10-2 & 9-2 & 9-2 & 8-7 \\
\hline & 24 & 16-1 & 13-7 & 11-5 & 13-2 & 11-11 & 9-8 & 11-5 & 10-8 & 8-7 & --- & --- & --- \\
\hline \multirow{3}{*}{400TLE125-18} & 12 & 21-1 & 18-3 & 15-4 & 18-5 & 15-11 & 13-5 & 16-8 & 14-6 & 12-2 & 11-2 & 11-2 & 10-3 \\
\hline & 16 & 19-1 & 16-7 & 13-11 & 16-8 & 14-6 & 12-2 & 14-8 & 13-2 & 10-10 & 9-8 & 9-8 & 9-1 \\
\hline & 24 & 16-8 & 14-6 & 12-2 & 13-10 & 12-8 & 10-3 & 12-0 & 11-5 & 9-1 & 7-11 & 7-11 & --- \\
\hline \multirow{3}{*}{600TLE125-18} & 12 & --- & 22-7 & 20-7 & --- & 19-8 & 17-11 & --- & 17-1 & 16-4 & --- & --- & --- \\
\hline & 16 & --- & 20-8 & 18-8 & --- & 17-1 & 16-4 & --- & 14-9 & 14-9 & --- & --- & --- \\
\hline & 24 & --- & 17-1 & 16-3 & --- & 13-11 & 13-11 & --- & 12-1 & 12-1 & --- & --- & --- \\
\hline \multirow{3}{*}{250TLE125-24} & 12 & 18-9 & 15-9 & 13-8 & 16-5 & 13-9 & 12-0 & 14-11 & 12-6 & 10-11 & 11-5 & 10-11 & 9-4 \\
\hline & 16 & 17-1 & 14-4 & 12-5 & 14-11 & 12-6 & 10-11 & 13-6 & 11-4 & 9-11 & 9-10 & 9-10 & 7-10 \\
\hline & 24 & 14-11 & 12-6 & 10-11 & 13-0 & 10-11 & 9-4 & 11-10 & 9-11 & 7-10 & 8-1 & 7-10 & ---- \\
\hline \multirow{3}{*}{362TLE125-24} & 12 & 22-6 & 17-10 & 15-7 & 19-8 & 15-7 & 13-7 & 17-10 & 14-2 & 12-5 & 13-8 & 12-5 & 10-7 \\
\hline & 16 & 20-5 & 16-3 & 14-2 & 17-10 & 14-2 & 12-5 & 16-3 & 12-10 & 11-1 & 11-10 & 11-1 & 9-5 \\
\hline & 24 & 17-10 & 14-2 & 12-5 & 15-7 & 12-5 & 10-7 & 14-2 & 11-1 & 9-5 & 9-8 & 9-5 & 8-0 \\
\hline \multirow{3}{*}{400TLE125-24} & 12 & 24-9 & 19-8 & 17-2 & 21-8 & 17-2 & 15-0 & 19-8 & 15-7 & 13-8 & 13-4 & 13-4 & 11-11 \\
\hline & 16 & 22-6 & 17-10 & 15-7 & 19-8 & 15-7 & 13-8 & 17-8-f & 14-2 & 12-5 & 11-6 & 11-6 & 10-6 \\
\hline & 24 & 19-8 & 15-7 & 13-8 & 16-8-f & 13-8 & 11-11 & 14-5-f & 12-5 & 10-6 & 9-5 & 9-5 & 8-10 \\
\hline \multirow{3}{*}{600TLE125-24} & 12 & 28-9 & 25-11 & 21-8 & 23-6 & 22-8 & 19-1 & 20-4 & 20-4 & 17-5 & 13-4 & 13-4 & 13-4 \\
\hline & 16 & 24-11 & 23-6 & 19-10 & 20-4 & 20-4 & 17-5 & 17-7 & 17-7 & 15-11 & ---- & ---- & ---- \\
\hline & 24 & 20-4 & 20-4 & 17-5 & 16-7 & 16-7 & 15-4 & 14-4 & 14-4 & 13-11 & ---- & ---- & ---- \\
\hline \multirow{3}{*}{250TLE125-30} & 12 & 20-0 & 16-9 & 14-7 & 17-6 & 14-7 & 12-8 & 15-11 & 13-3 & 11-7 & 12-8 & 11-7 & 10-1 \\
\hline & 16 & 18-2 & 15-2 & 13-3 & 15-11 & 13-3 & 11-7 & 14-5 & 12-1 & 10-6 & 10-11 & 10-6 & 8-9 \\
\hline & 24 & 15-11 & 13-3 & 11-7 & 13-11 & 11-7 & 10-1 & 12-7 & 10-6 & 8-9 & 8-11 & 8-9 & ---- \\
\hline \multirow{3}{*}{362TLE125-30} & 12 & 24-5 & 19-5 & 16-11 & 21-4 & 16-11 & 14-10 & 19-5 & 15-5 & 13-5 & 15-9 & 13-5 & 11-7 \\
\hline & 16 & 22-3 & 17-8 & 15-5 & 19-5 & 15-5 & 13-5 & 17-8 & 14-0 & 12-1 & 13-8 & 12-1 & 10-4 \\
\hline & 24 & 19-5 & 15-5 & 13-5 & 16-11 & 13-5 & 11-7 & 15-5 & 12-1 & 10-4 & 11-2 & 10-4 & ---- \\
\hline \multirow{3}{*}{400TLE125-30} & 12 & 27-3 & 21-7 & 18-10 & 23-9 & 18-10 & 16-6 & 21-7 & 17-2 & 15-0 & 16-6 & 15-0 & 13-1 \\
\hline & 16 & 24-9 & 19-8 & 17-2 & 21-7 & 17-2 & 15-0 & 19-8 & 15-7 & 13-7 & 14-3 & 13-7 & 11-9 \\
\hline & 24 & 21-7 & 17-2 & 15-0 & 18-10 & 15-0 & 13-1 & 17-2 & 13-7 & 11-9 & 11-8 & 11-8 & 10-2- \\
\hline \multirow{3}{*}{600TLE125-30} & 12 & 33-3 & 27-0 & 23-11 & 27-6 & 23-11 & 21-1 & 23-10 & 21-10 & 19-3 & --- & --- & --- \\
\hline & 16 & 29-2 & 24-9 & 21-10 & 23-10 & 21-10 & 19-3 & 20-8 & 20-0 & 17-7 & --- & --- & --- \\
\hline & 24 & 23-10 & 21-10 & 19-3 & 19-6 & 19-3 & 16-11 & 16-10 & 16-10 & --- & --- & --- & --- \\
\hline \multirow{3}{*}{250TLE125-33} & 12 & 20-0 & 16-9 & 14-7 & 17-6 & 14-7 & 12-8 & 15-11 & 13-3 & 11-7 & 12-8 & 11-7 & 10-1 \\
\hline & 16 & 18-2 & 15-2 & 13-3 & 15-11 & 13-3 & 11-7 & 14-5 & 12-1 & 10-6 & 10-11 & 10-6 & 8-9 \\
\hline & 24 & 15-11 & 13-3 & 11-7 & 13-11 & 11-7 & 10-1 & 12-7 & 10-6 & 8-9 & 8-11 & 8-9 & --- \\
\hline \multirow{3}{*}{362TLE125-33} & 12 & 25-4 & 20-1 & 17-7 & 22-2 & 17-7 & 15-4 & 20-1 & 15-11 & 13-11 & 15-9 & 13-11 & 12-1 \\
\hline & 16 & 23-0 & 18-3 & 15-11 & 20-1 & 15-11 & 13-11 & 18-3 & 14-6 & 12-8 & 13-8 & 12-8 & 10-11 \\
\hline & 24 & 20-1 & 15-11 & 13-11 & 17-7 & 13-11 & 12-1 & 15-11 & 12-8 & 10-11 & 11-2 & 10-11 & - \\
\hline \multirow{3}{*}{400TLE125-33} & 12 & 27-1 & 21-6 & 18-10 & 23-8 & 18-10 & 16-5 & 21-6 & 17-1 & 14-11 & 16-3 & 14-11 & 13-0 \\
\hline & 16 & 24-8 & 19-7 & 17-1 & 21-6 & 17-1 & 14-11 & 19-7 & 15-6 & 13-7 & 14-1 & 13-7 & 11-9 \\
\hline & 24 & 21-6 & 17-1 & 14-11 & 18-10 & 14-11 & 13-0 & 17-1 & 13-7 & 11-9 & 11-6 & 11-6 & 10-2 \\
\hline \multirow{3}{*}{600TLE125-33} & 12 & 33-3 & 27-0 & 23-11 & 27-6 & 23-11 & 21-1 & 23-10 & 21-10 & 19-3 & --- & --- & --- \\
\hline & 16 & 29-2 & 24-9 & 21-10 & 23-10 & 21-10 & 19-3 & 20-8 & 20-0 & 17-7 & --- & --- & --- \\
\hline & 24 & 23-10 & 21-10 & 19-3 & 19-6 & 19-3 & 16-11 & 16-10 & 16-10 & --- & --- & --- & --- \\
\hline
\end{tabular}

For SI: 1 inch \(=25.4 \mathrm{~mm}, 1 \mathrm{ft}=0.3048 \mathrm{~m}, 1 \mathrm{psf}=47.88 \mathrm{~Pa}\).
\({ }^{1}\) The gypsum board must be applied full height in the vertical orientation to each stud flange using minimum No. 6 Type S Drywall screws spaced as listed below:
- Screws spaced maximum 12 inches on-center to studs.
- Screws spaced 16 inches on-center to the top and bottom track.
7. \({ }^{2}\) The minimum overlap of the TSO and TSE must be 11 inches.



TSE


TSO

FIGURE 1-TRAKLOC MEMBERS


4inch x 1-1/2inch(102mmx38mm) nebholes@24inch (610mm) minimumfor stud depths greater than 3 inch (76 mm)

4inchx \({ }^{3}\) /inch(102mmx 19mm) webholes@24inch(610 mm) minimumfor stud depths less than 3 inch (76mm)

FIGURE 2—HOLE CONFIGURATION


FIGURE 3-SHORT TSE CONFIGURATIONS

DIVISION: 0500 00—METALS
Section: 0540 00-Cold-Formed Metal Framing
DIVISION: 0900 00—FINISHES
Section: 0922 16.13-Non-Structural Metal Stud Framing
REPORT HOLDER:

\section*{CLARKDIETRICH \({ }^{\circledR}\)}

EVALUATION SUBJECT:

\section*{TRAKLOC \({ }^{\circledR}\) NONLOAD-BEARING WALL STUD FRAMING SYSTEM}

\subsection*{1.0 REPORT PURPOSE AND SCOPE}

\section*{Purpose:}

The purpose of this evaluation report supplement is to indicate that the TRAKLOC \({ }^{\circledR}\) Nonload Bearing Wall Stud Framing System, described in ICC-ES evaluation report ESR-1464, has also been evaluated for compliance with the code noted below.

Applicable code edition:

\section*{- 2016 California Building Code (CBC)}

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1 and 2.2 below.

\subsection*{2.0 CONCLUSIONS}

The TRAKLOC \({ }^{\circledR}\) nonload-bearing wall stud framing system, described in Sections 2.0 through 7.0 of the evaluation report ESR-1464, complies with CBC Chapter 22, provided the design and installation are in accordance with the 2015 International Building Code provisions noted in the evaluation report and the additional requirements of CBC Chapters 16, 17 and 22, as applicable.
2.1 OSHPD: The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.
2.2 DSA: The applicable DSA Sections of the CBC are beyond the scope of this supplement.

This supplement expires concurrently with the evaluation report, reissued January 2024.

\footnotetext{
ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.
}

\section*{DIVISION: 0500 00—METALS}

Section: 0540 00-Cold-Formed Metal Framing
DIVISION: 090000 -FINISHES
Section: 0922 16.13-Non-Structural Metal Stud Framing

\section*{REPORT HOLDER:}

\section*{CLARKDIETRICH \({ }^{\circledR}\)}

\section*{EVALUATION SUBJECT:}

TRAKLOC \({ }^{\circledR}\) NONLOAD-BEARING WALL STUD FRAMING SYSTEM

\subsection*{1.0 REPORT PURPOSE AND SCOPE}

\section*{Purpose:}

The purpose of this evaluation report supplement is to indicate that the TRAKLOC nonload-bearing wall stud framing system, described in ICC-ES evaluation report ESR-1464, has also been evaluated for compliance with the code noted below.

Applicable code edition:
2017 Florida Building Code—Building

\subsection*{2.0 CONCLUSIONS}

The TRAKLOC nonload-bearing wall stud framing system, described in Sections 2.0 through 7.0 of the evaluation report ESR-1464, complies with the Florida Building Code-Building, provided the design and installation are in accordance with the 2015 International Building Code \({ }^{\circledR}\) (IBC) provisions noted in the evaluation report.

Use of the TRAKLOC nonload-bearing wall stud framing system for compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code-Building has not been evaluated and is outside the scope of this supplemental report.

For products falling under Florida Rule 9N-3, verification that the report holder's quality-assurance program is audited by a quality-assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).
This supplement expires concurrently with the evaluation report, reissued January 2024.

\footnotetext{
ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.
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