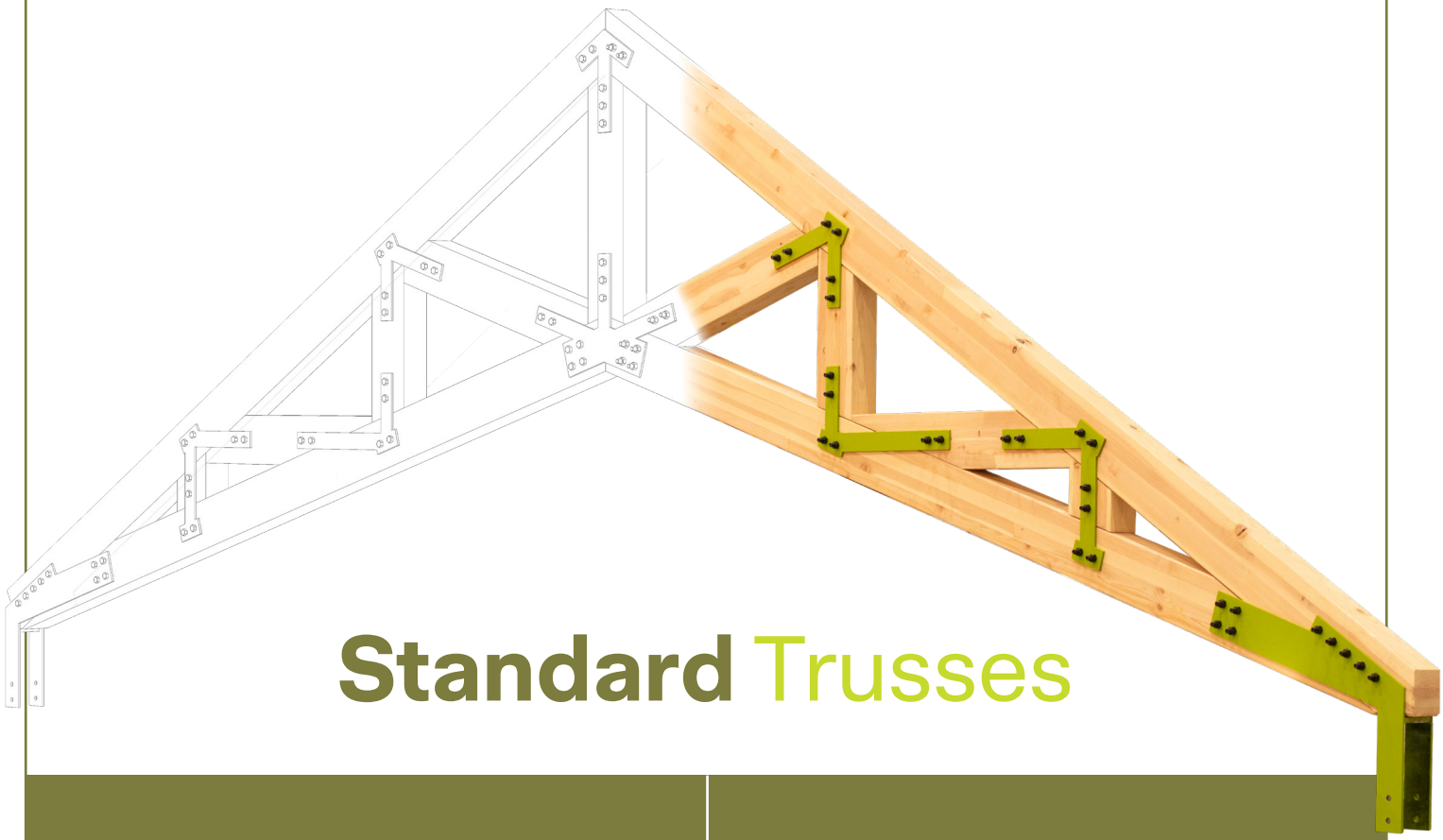
# Cascadia Structural



## Standard Trusses

Kingpost

Double Howe

Howe

Fink

Scissor

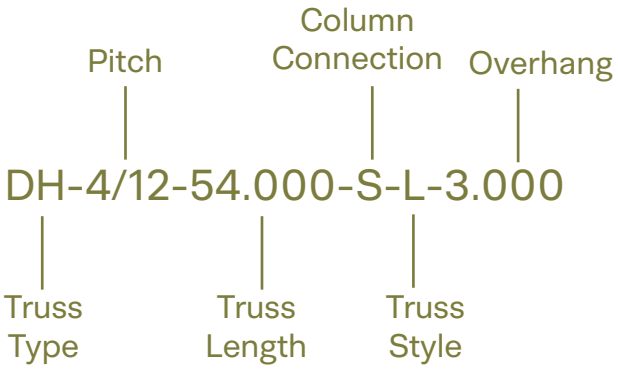
# Truss Guide

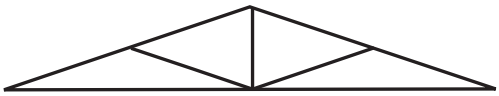
This guide provides specifiers with technical information about the Glulam Truss product lines. We have done the analysis on the trusses in the tables below, but any truss can be specified within the limits of these tables. All trusses are assumed to have distributed loading. For trusses that fall in between depths and lengths, a linear interpolation can be used to get a general idea of possible loading. **These tables are intended to be used to assist in preliminary design. All values are approximate and intended as a guide for the specifying professional.**

## Truss Selection

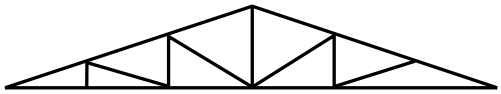
Trusses can be specified by using the following part number designation:

- **Truss Type:** Kingpost, Double Howe, Howe, Fink or Scissor
- **Pitch:** Pitch of the Top Chord of the Truss
- **Truss Length:** The length of the truss to three decimals
- **Column Connection:** S for a Steel Column or Concrete Pilaster, W for a Wood Column.
- **Truss Style:** Ultra-Light, Light, Medium or Heavy
- **Overhang:** Horizontal length of the top chord overhang to three decimals

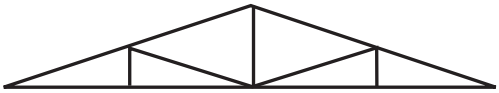


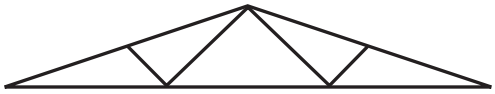
KP-Kingpost



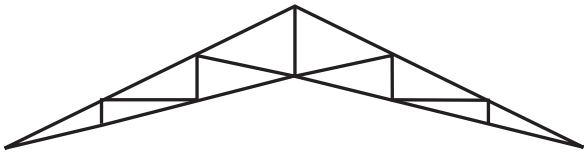
DH-Double Howe



H-Howe



F-Fink



SC-Scissor

Cascadia Structural

## Engineering Responsibility Position Statement

Cascadia is a manufacturer of glulam trusses. It contracts with Western Wood Structures to aid in the development and marketing of its product. Cascadia does not replace or accept the responsibility of the design professional of record for any structure.

Cascadia and Western Wood Structures accept delegation of engineering responsibility only for the products Cascadia manufactures, provided that the application conditions are specified by the design professional of record, or other responsible party when a design professional is not engaged. Cascadia and Western Wood Structures provide engineering in the design of its products and does not displace the need on any project for a design professional of record.

## Truss Type Glulam Specifications

**Ultra-Light**

Bottom Chords - 3 1/2″ x 6″

Top Chords - 3 1/2″ x 6″

Webs - 3 1/2″ x 6″

**Light**

Bottom Chords - 5 1/8″ x 13 1/2″

Top Chords -5 1/8″ x 13 1/2″

Webs - 5 1/8″ x 7 1/2″

**Medium**

Bottom Chords - 6 3/4″ x 18″

Top Chords - 6 3/4″ x 18″

Webs - 6 3/4″ x 7 1/2″

**Heavy**

Bottom Chords - 8 3/4″ x 22 1/2″

Top Chords - 8 3/4″ x 22 1/2″

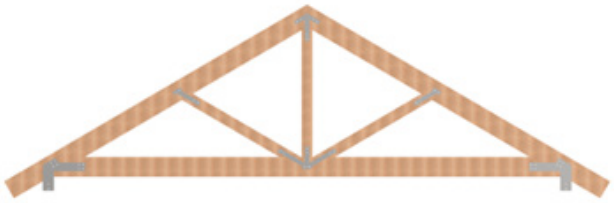
Webs - 3 1/2″ x 6″

# Standard Trusses

# Kingpost Truss Allowable Uniform Load Table (PLF)

| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100 % TL | 115% TL | 125% TL | 100 % TL | 115% TL | 125% TL | 100 % TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 1524 | 1956 | 2124 | 1884 | 2388 | 2604 | 2220 | 2832 | 3072 |
| | 20' | 756 | 900 | 948 | 804 | 960 | 1020 | 768 | 924 | 972 |
| | 30' | 300 | 336 | 348 | 288 | 324 | 336 | 276 | 324 | 336 |
| | 40' | 128 | 142 | 146 | 132 | 148 | 153 | 132 | 148 | 154 |
| Light | 30' | 1728 | 2100 | 2220 | 2004 | 2400 | 2520 | 2136 | 2520 | 2652 |
| | 40' | 1020 | 1140 | 1176 | 1128 | 1248 | 1296 | 948 | 1260 | 1356 |

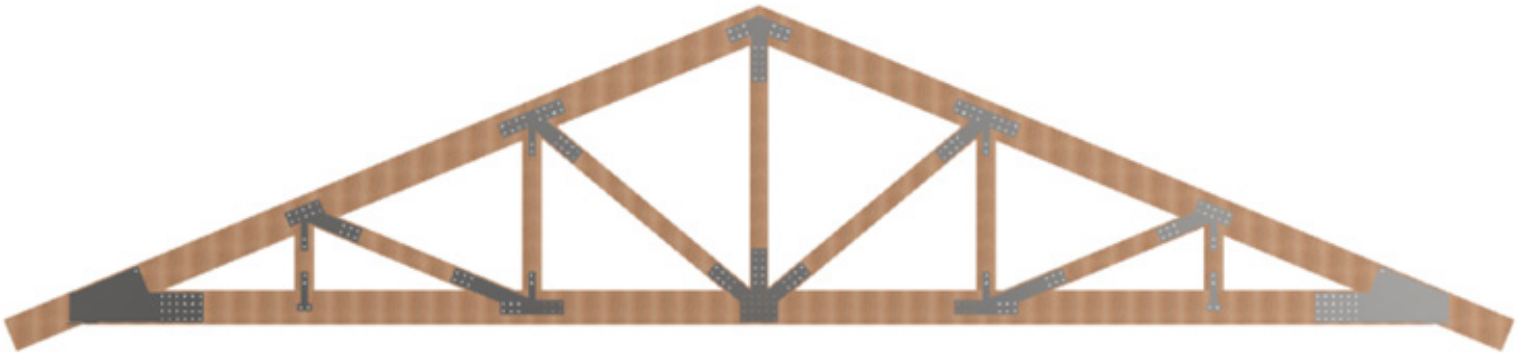
| Truss Style | Length | Pitch | | |
|---|---|---|---|---|
| | | 7:12 | | |
| | | 100 % TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 2496 | 3216 | 3492 |
| | 20' | 732 | 876 | 924 |
| | 30' | 264 | 312 | 324 |
| | 40' | 128 | 145 | 151 |
| Light | 30' | 2196 | 2580 | 2700 |
| | 40' | 1128 | 1260 | 1296 |



Cascadia Structural

## Double Howe Truss Allowable Uniform Load Table (PLF)

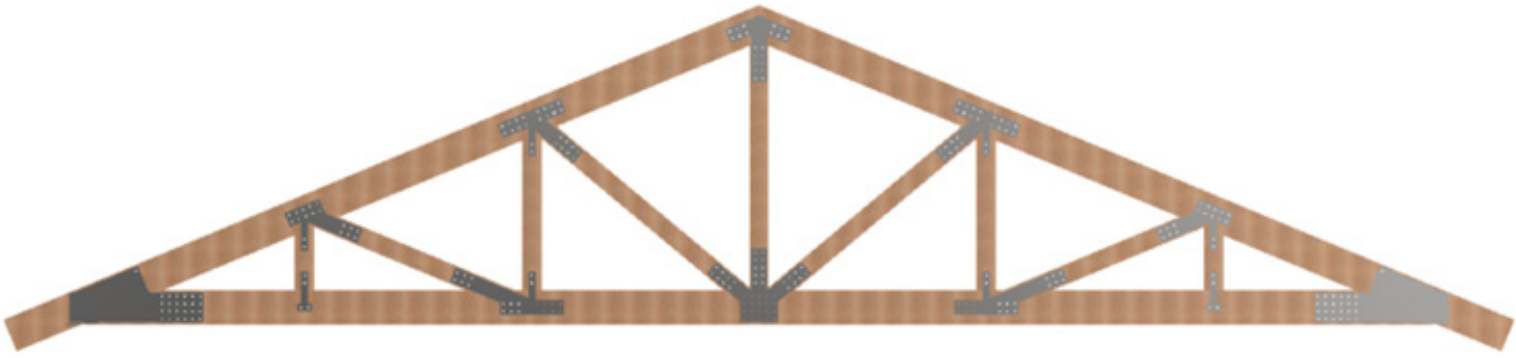
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Light | 40' | 972 | 1260 | 1368 | 1224 | 1572 | 1716 | 1452 | 1860 | 2028 |
| | 50' | 816 | 1008 | 1092 | 996 | 1284 | 1392 | 1236 | 1404 | 1452 |
| | 60' | 684 | 756 | 780 | 756 | 840 | 864 | 804 | 888 | 912 |
| | 70' | 468 | 504 | 516 | 504 | 540 | 552 | 528 | 576 | 588 |
| | 80' | 312 | 336 | 336 | 384 | 408 | 420 | 336 | 360 | 372 |
| | 90' | 216 | 228 | 240 | 240 | 252 | 252 | 252 | 264 | 264 |
| | 100' | 150 | 156 | 162 | 168 | 174 | 180 | 174 | 180 | 186 |



# Standard Trusses

# Double Howe Truss Allowable Uniform Load Table (PLF)

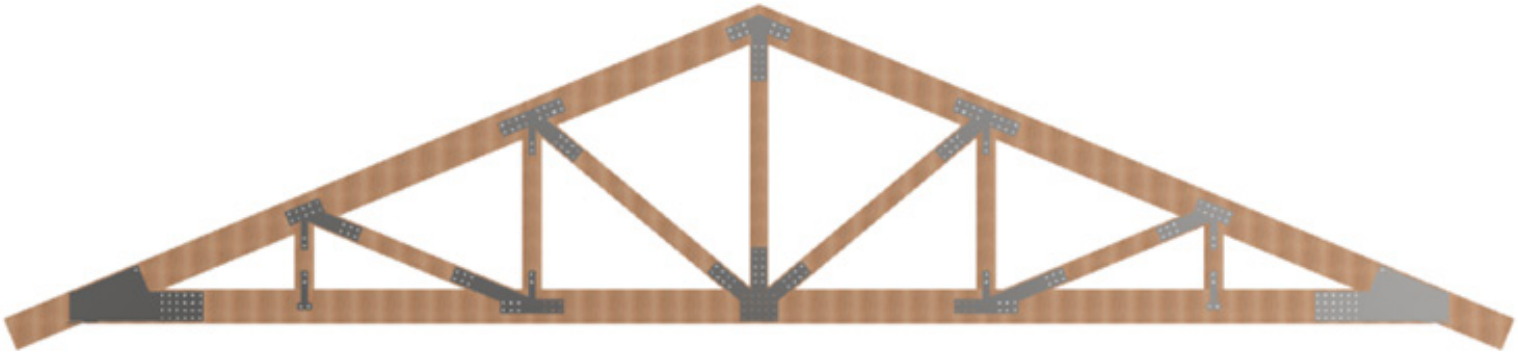
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Medium | 40' | 1668 | 2328 | 2148 | 2028 | 2592 | 2844 | 2376 | 3072 | 3336 |
| | 50' | 1344 | 1896 | 1740 | 1680 | 2136 | 2364 | 1992 | 2568 | 2784 |
| | 60' | 1116 | 1572 | 1440 | 1416 | 1824 | 1992 | 1896 | 2196 | 2376 |
| | 70' | 960 | 1368 | 1248 | 1236 | 1524 | 1572 | 1428 | 1596 | 1632 |
| | 80' | 852 | 996 | 972 | 972 | 1080 | 1104 | 1032 | 1128 | 1164 |
| | 90' | 648 | 732 | 708 | 720 | 780 | 804 | 768 | 1176 | 840 |
| | 100' | 480 | 528 | 516 | 540 | 576 | 588 | 564 | 600 | 612 |
| | 110' | 360 | 384 | 390 | 396 | 420 | 432 | 420 | 444 | 450 |
| | 120' | 264 | 288 | 276 | 300 | 312 | 318 | - | - | - |



Cascadia Structural

## Double Howe Truss Allowable Uniform Load Table (PLF)

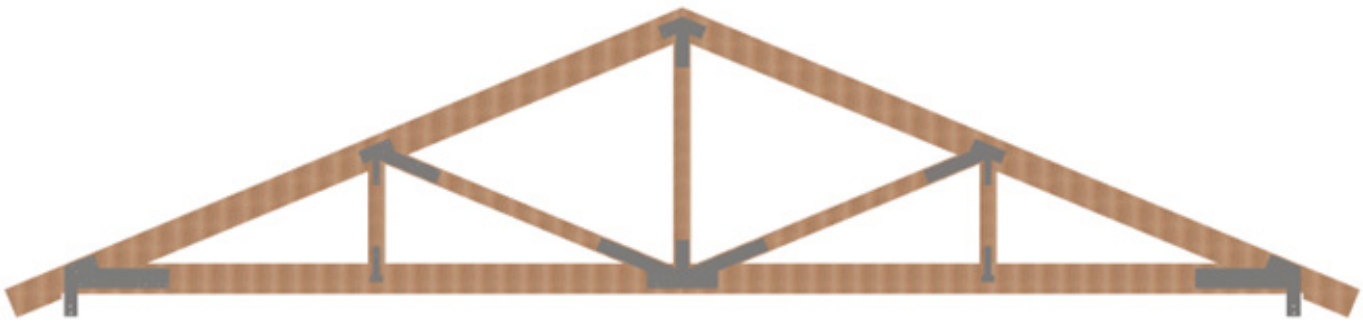
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Heavy | 50' | 2136 | 2736 | 3012 | 2604 | 3312 | 3624 | 3036 | 3888 | 4296 |
| | 60' | 1728 | 2232 | 2436 | 2148 | 2796 | 3036 | 2556 | 3312 | 3624 |
| | 70' | 1476 | 1920 | 2100 | 1848 | 2412 | 2616 | 2244 | 2880 | 3120 |
| | 80' | 1296 | 1680 | 1836 | 1656 | 2148 | 2340 | 2004 | 2592 | 2760 |
| | 90' | 1152 | 1500 | 1632 | 1476 | 1920 | 1992 | 1800 | 2028 | 2100 |
| | 100' | 1044 | 1308 | 1344 | 1332 | 1476 | 1512 | 1464 | 1596 | 1644 |
| | 110' | 924 | 1020 | 1044 | 1020 | 1116 | 1152 | 1092 | 1188 | 1212 |
| | 120' | 720 | 780 | 804 | 804 | 876 | 888 | 840 | 912 | 936 |



# Standard Trusses

# Howe Truss Allowable Uniform Load Table (PLF)

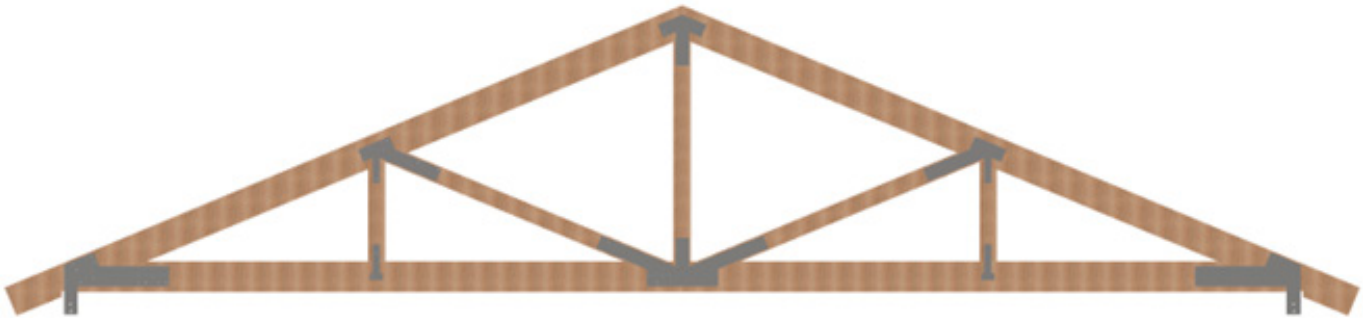
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 1284 | 1644 | 1800 | 1572 | 2016 | 2196 | 1860 | 2388 | 2592 |
| | 20' | 696 | 888 | 960 | 816 | 972 | 1020 | 768 | 924 | 972 |
| | 30' | 288 | 324 | 336 | 288 | 324 | 336 | 276 | 324 | 336 |
| | 40' | 128 | 141 | 147 | 132 | 147 | 152 | 130 | 147 | 153 |



Cascadia Structural

## Howe Truss Allowable Uniform Load Table (PLF)

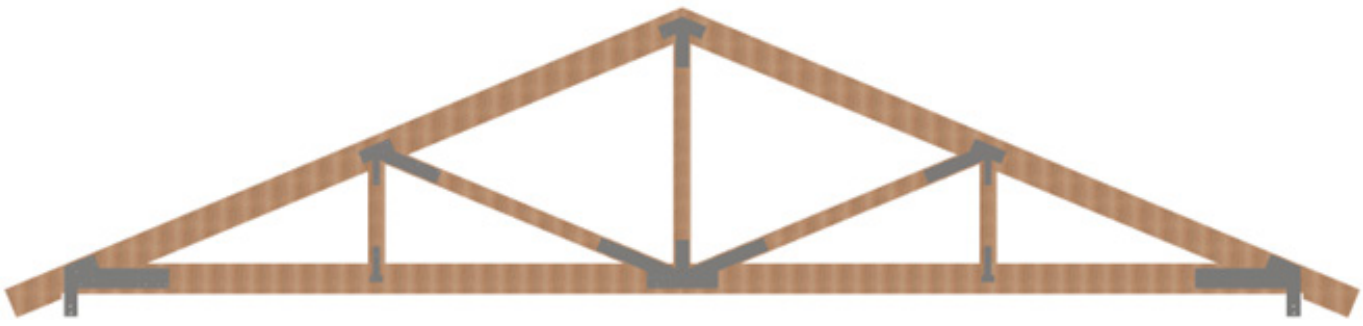
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 1284 | 1644 | 1800 | 1572 | 2016 | 2196 | 1860 | 2388 | 2592 |
| | 20' | 696 | 888 | 960 | 816 | 972 | 1020 | 768 | 924 | 972 |
| | 30' | 288 | 324 | 336 | 288 | 324 | 336 | 276 | 324 | 336 |
| | 40' | 128 | 141 | 147 | 132 | 147 | 152 | 130 | 147 | 153 |



# Standard Trusses

# Howe Truss Allowable Uniform Load Table (PLF)

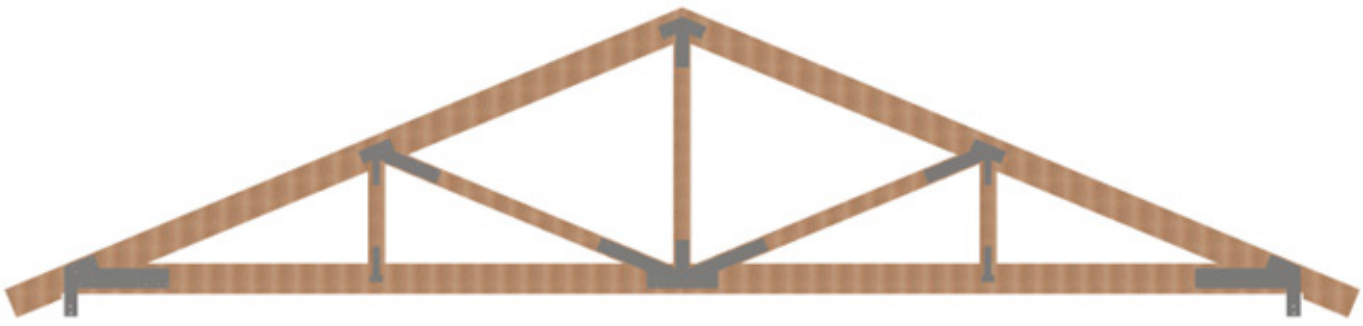
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Medium | 40' | 1656 | 2124 | 2328 | 2076 | 2664 | 2916 | 2496 | 3180 | 3468 |
| | 50' | 1452 | 1764 | 1812 | 1692 | 1956 | 1980 | 1752 | 1992 | 2052 |
| | 60' | 1008 | 1104 | 1128 | 1080 | 1188 | 1224 | 1104 | 1212 | 1248 |
| | 70' | 660 | 708 | 720 | 684 | 744 | 768 | 696 | 762 | 780 |
| | 80' | 420 | 468 | 480 | 432 | 480 | 492 | 444 | 492 | 504 |
| | 90' | 276 | 300 | 312 | 300 | 324 | 336 | 312 | 336 | 348 |
| | 100' | 192 | 204 | 216 | 216 | 228 | 234 | 222 | 240 | 246 |



Cascadia Structural

## Howe Truss Allowable Uniform Load Table (PLF)

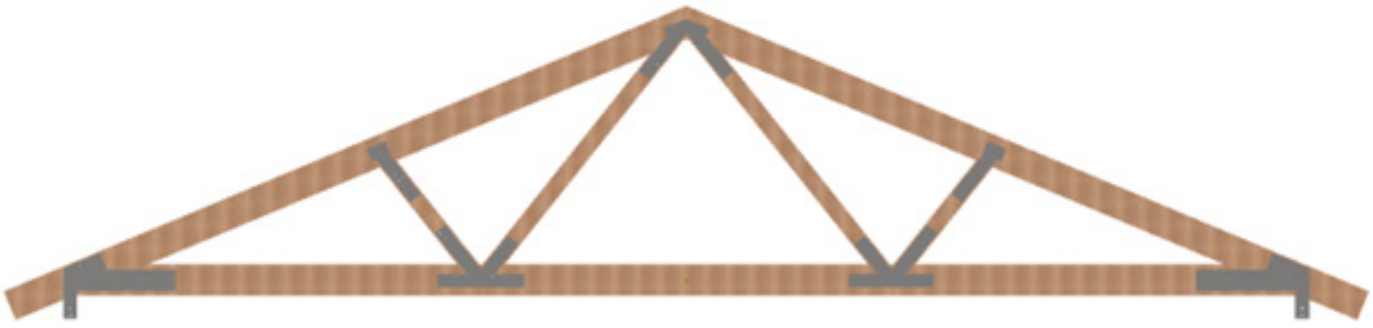
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Heavy | 50' | 2208 | 2832 | 3060 | 2760 | 3540 | 3900 | 3444 | 4368 | 4620 |
| | 60' | 1860 | 2400 | 2628 | 2364 | 2820 | 2940 | 2568 | 2940 | 3048 |
| | 70' | 1584 | 1776 | 1836 | 1728 | 1932 | 1992 | 1800 | 1992 | 2040 |
| | 80' | 1044 | 1164 | 1212 | 1080 | 1236 | 1272 | 1104 | 1248 | 1296 |
| | 90' | 732 | 804 | 828 | 780 | 864 | 900 | 828 | 912 | 948 |
| | 100' | 540 | 588 | 600 | 576 | 636 | 648 | 588 | 648 | 672 |
| | 110' | 396 | 432 | 444 | 432 | 468 | 480 | 438 | 480 | 492 |
| | 120' | 288 | 312 | 324 | 324 | 348 | 360 | 330 | 360 | 372 |



# Standard Trusses

# Fink Truss Allowable Uniform Load Table (PLF)

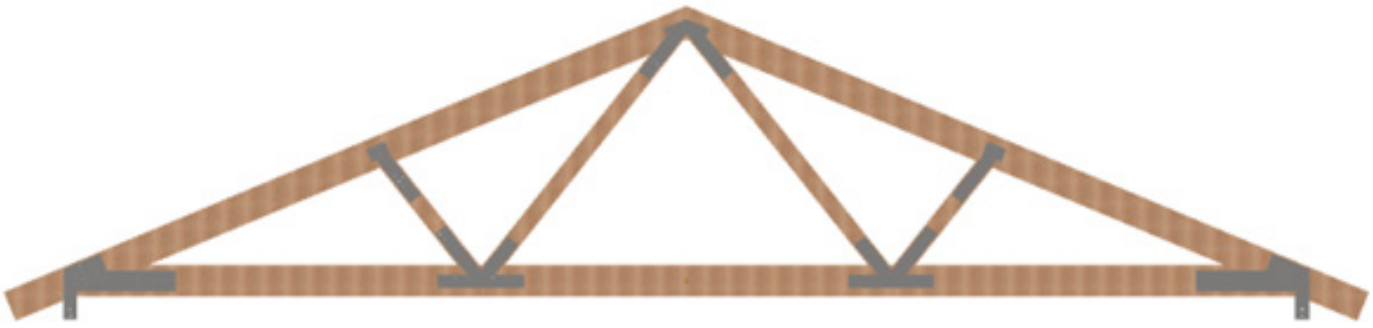
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 1608 | 2052 | 2232 | 1968 | 2520 | 2736 | 2280 | 2904 | 3204 |
| | 20' | 756 | 900 | 960 | 792 | 948 | 1008 | 756 | 912 | 972 |
| | 30' | 276 | 312 | 324 | 276 | 324 | 336 | 276 | 312 | 336 |
| | 40' | 127 | 141 | 146 | 132 | 147 | 152 | 130 | 147 | 153 |



Cascadia Structural

## Fink Truss Allowable Uniform Load Table (PLF)

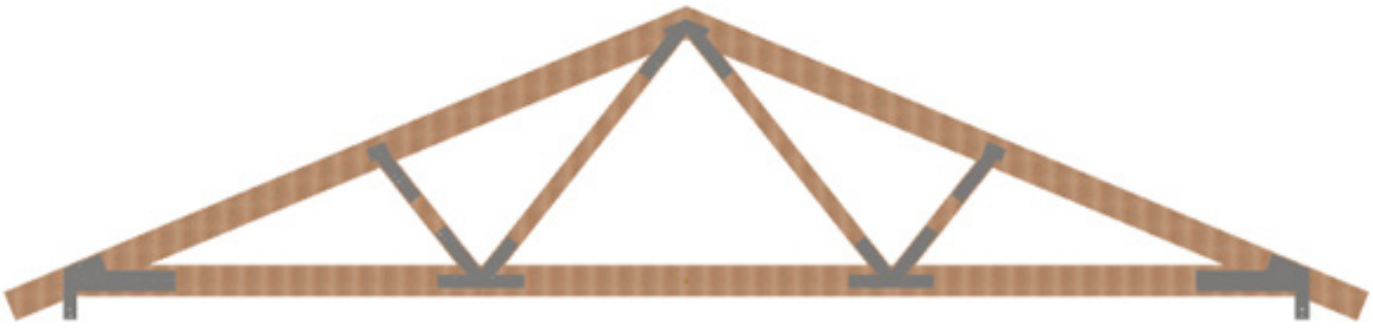
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Light | 30' | 1740 | 2160 | 2280 | 2040 | 2424 | 2520 | 2148 | 2544 | 2652 |
| | 40' | 1032 | 1152 | 1176 | 1128 | 1260 | 1308 | 1176 | 1308 | 1356 |
| | 50' | 576 | 624 | 648 | 600 | 660 | 684 | 612 | 672 | 696 |
| | 60' | 348 | 360 | 372 | 360 | 384 | 396 | 366 | 396 | 402 |
| | 70' | 216 | 228 | 234 | 222 | 240 | 246 | 228 | 240 | 246 |



# Standard Trusses

# Fink Truss Allowable Uniform Load Table (PLF)

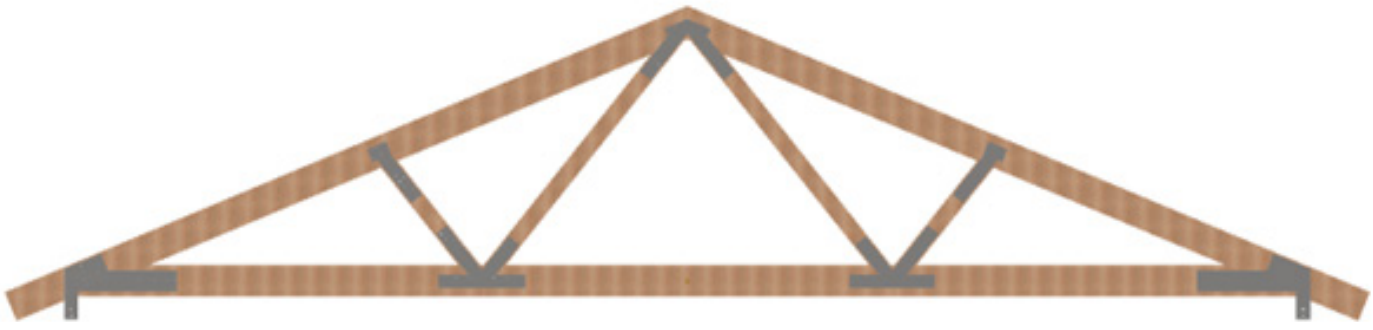
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Medium | 40' | 2220 | 2808 | 2964 | 2628 | 3120 | 3276 | 2808 | 3300 | 3468 |
| | 50' | 1512 | 1704 | 1764 | 1668 | 1872 | 1944 | 1740 | 1956 | 2028 |
| | 60' | 984 | 1080 | 1104 | 1116 | 1176 | 1200 | 1086 | 1188 | 1224 |
| | 70' | 636 | 684 | 708 | 672 | 732 | 756 | 684 | 744 | 768 |
| | 80' | 408 | 444 | 456 | 432 | 480 | 492 | 444 | 492 | 504 |
| | 90' | 276 | 300 | 312 | 300 | 324 | 336 | 312 | 336 | 348 |
| | 100' | 192 | 204 | 216 | 216 | 228 | 240 | 228 | 240 | 252 |



Cascadia Structural

## Fink Truss Allowable Uniform Load Table (PLF)

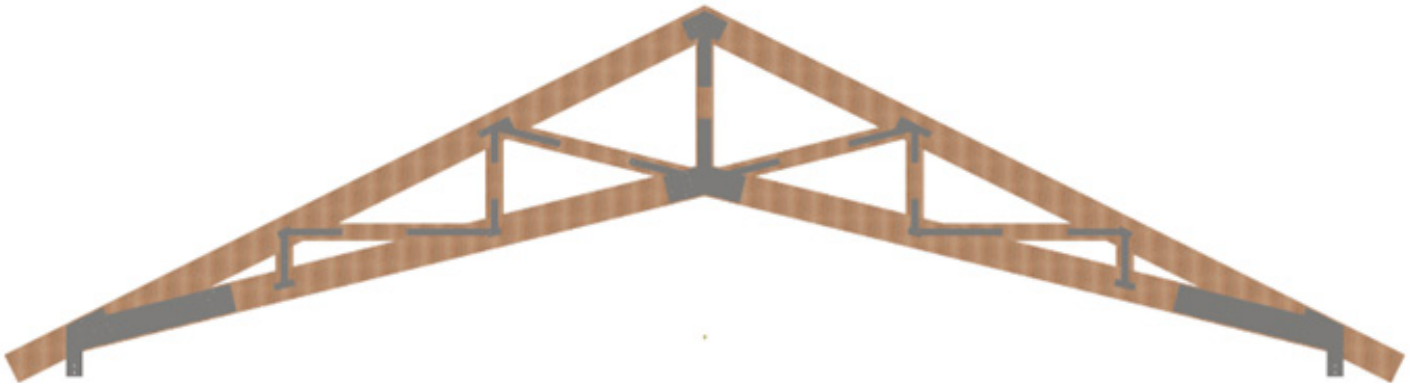
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 4:12 | | | 5:12 | | | 6:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Heavy | 50' | 3000 | 3624 | 3840 | 3384 | 4020 | 4284 | 3600 | 4284 | 4500 |
| | 60' | 2184 | 2496 | 2604 | 2412 | 2772 | 2880 | 2520 | 2880 | 3000 |
| | 70' | 1512 | 1680 | 1728 | 1704 | 1896 | 1956 | 1776 | 1968 | 2040 |
| | 80' | 1032 | 1140 | 1176 | 1080 | 1212 | 1260 | 1092 | 1236 | 1284 |
| | 90' | 744 | 816 | 840 | 780 | 876 | 900 | 792 | 888 | 924 |
| | 100' | 540 | 588 | 612 | 576 | 636 | 660 | 588 | 648 | 672 |
| | 110' | 396 | 432 | 444 | 432 | 468 | 480 | 444 | 480 | 492 |
| | 120' | 300 | 324 | 336 | 324 | 348 | 360 | 336 | 360 | 372 |



# Standard Trusses

# Scissor Truss Allowable Uniform Load Table (PLF)

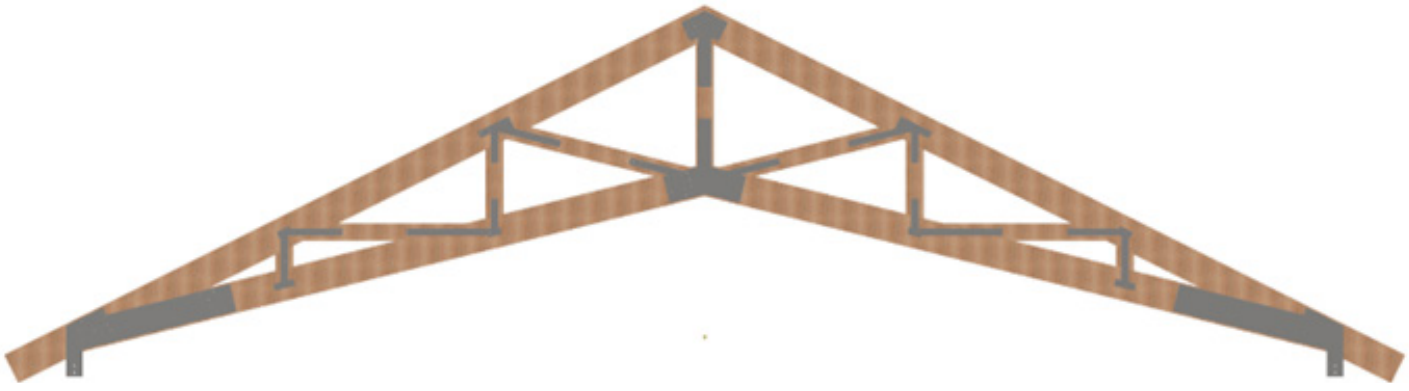
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5:12 | | | 6:12 | | | 7:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Ultra-Light | 10' | 780 | 1008 | 1092 | 852 | 1092 | 1188 | 924 | 1176 | 1284 |
| | 20' | 348 | 456 | 492 | 408 | 528 | 576 | 456 | 588 | 648 |
| | 30' | 240 | 300 | 336 | 276 | 360 | 396 | 312 | 408 | 444 |
| | 40' | 177 | 198 | 204 | 189 | 208 | 214 | 193 | 212 | 218 |



Cascadia Structural

## Scissor Truss Allowable Uniform Load Table (PLF)

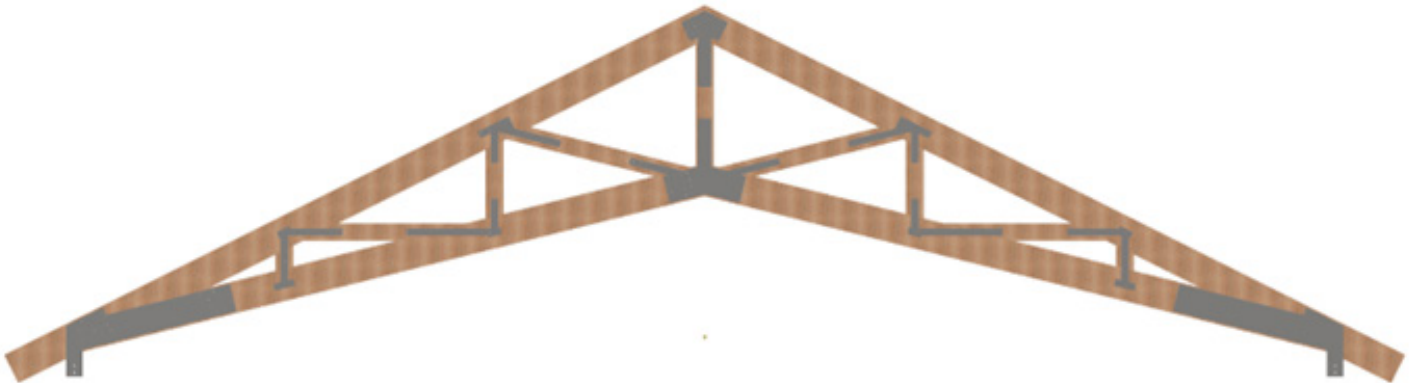
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5:12 | | | 6:12 | | | 7:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Light | 40' | 564 | 708 | 756 | 660 | 852 | 924 | 732 | 948 | 1032 |
| | 50' | 444 | 576 | 636 | 504 | 672 | 732 | 576 | 756 | 816 |
| | 60' | 360 | 456 | 480 | 420 | 480 | 492 | 456 | 492 | 504 |
| | 70' | 276 | 288 | 300 | 282 | 300 | 312 | 294 | 312 | 318 |
| | 80' | 42 | 48 | 52 | 48 | 54 | 57 | 51 | 57 | 58 |



# Standard Trusses

# Scissor Truss Allowable Uniform Load Table (PLF)

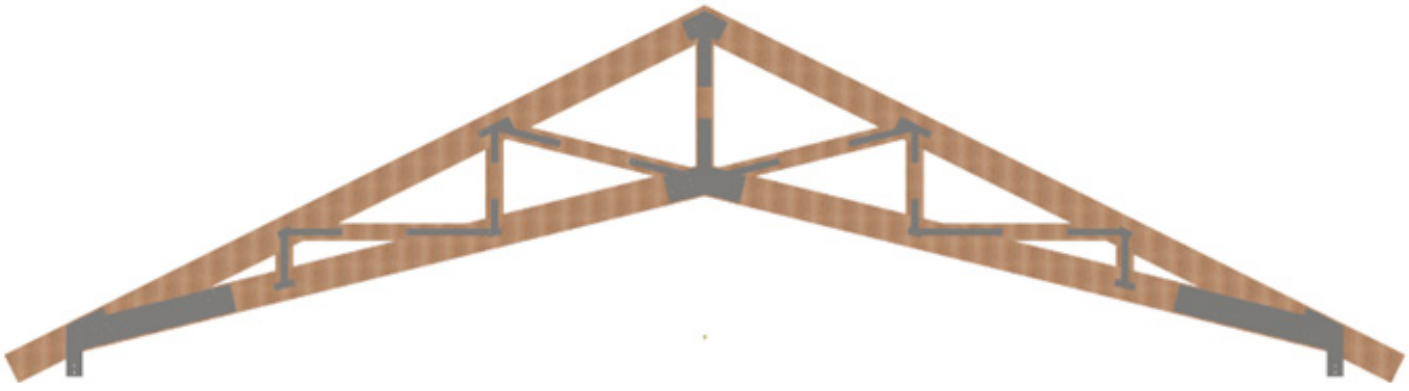
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5:12 | | | 6:12 | | | 7:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Medium | 60' | 612 | 804 | 876 | 708 | 924 | 1020 | 804 | 1044 | 1140 |
| | 70' | 516 | 672 | 744 | 588 | 768 | 852 | 684 | 888 | 936 |
| | 80' | 444 | 576 | 636 | 516 | 624 | 636 | 576 | 636 | 648 |
| | 90' | 384 | 420 | 432 | 468 | 528 | 552 | 408 | 444 | 450 |
| | 100' | 276 | 288 | 300 | 288 | 306 | 312 | 294 | 312 | 318 |
| | 110' | 192 | 204 | 210 | 204 | 216 | 222 | - | - | - |



Cascadia Structural

## Scissor Truss Allowable Uniform Load Table (PLF)

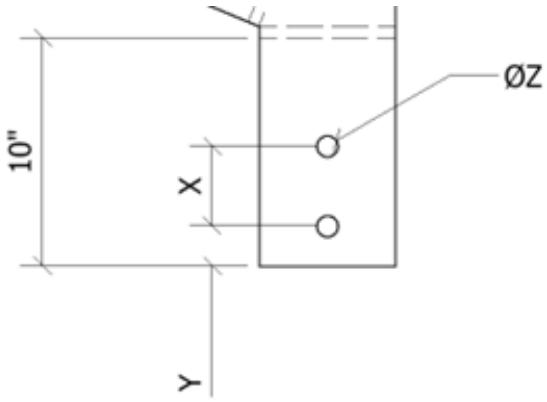
| Truss Style | Length | Pitch | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 5:12 | | | 6:12 | | | 7:12 | | |
| | | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL | 100% TL | 115% TL | 125% TL |
| Heavy | 80' | 696 | 912 | 1008 | 804 | 1056 | 1164 | 912 | 1200 | 1308 |
| | 90' | 600 | 792 | 876 | 708 | 936 | 1032 | 804 | 1056 | 1164 |
| | 100' | 528 | 708 | 780 | 636 | 828 | 852 | 732 | 852 | 870 |
| | 110' | 468 | 600 | 612 | 576 | 624 | 636 | 588 | 636 | 648 |
| | 120' | 408 | 444 | 456 | 432 | 468 | 480 | 516 | 564 | 576 |



# Standard Trusses

## Mounting Configurations

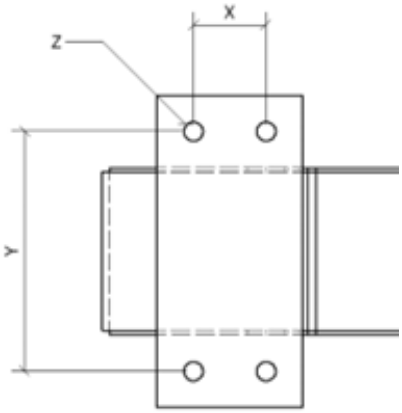
Wood Column Mounting




Side View

| | Ultra-Light | Light | Medium | Heavy |
|---|---|---|---|---|
| X | 2" | 3" | 3-1/2" | 4" |
| Y | 1" | 1 -1/2" | 1-3/4" | 2" |
| Z | 9/16" | 13/16" | 15/16" | 1-1/8" |

Steel/CMU Column Mounting




Bottom View

| | Ultra-Light | Light | Medium | Heavy |
|---|---|---|---|---|
| X | 2" | 3" | 3-1/2" | 4" |
| Y | 6" | 8-5/8" | 10-3/4" | 13-1/4" |
| Z | 9/16" | 13/16" | 15/16" | 1-1/8" |

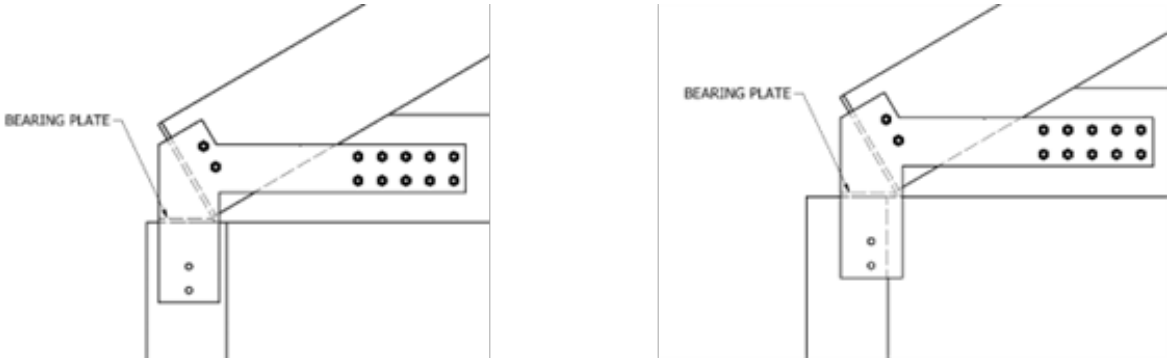
Cascadia Structural

## Non-Standard Loading

All trusses are assumed to be loaded as a distributive load, meaning purlins must be 4′ on center or less. If this is not the case, please reach out to Cascadia to check that the proposed loading for your specific application will work with the truss you are working with.

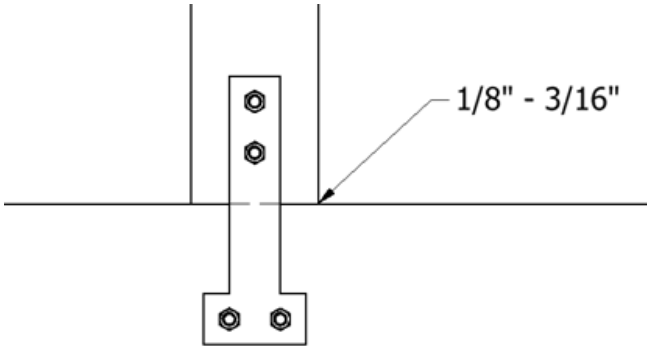
## Installation Tolerances

Truss bearing plate must be fully seated on column or beam.




## Allowable Gaps in Truss Members

Cascadia Trusses will have a gap between members of 1/8″ to 3/16″

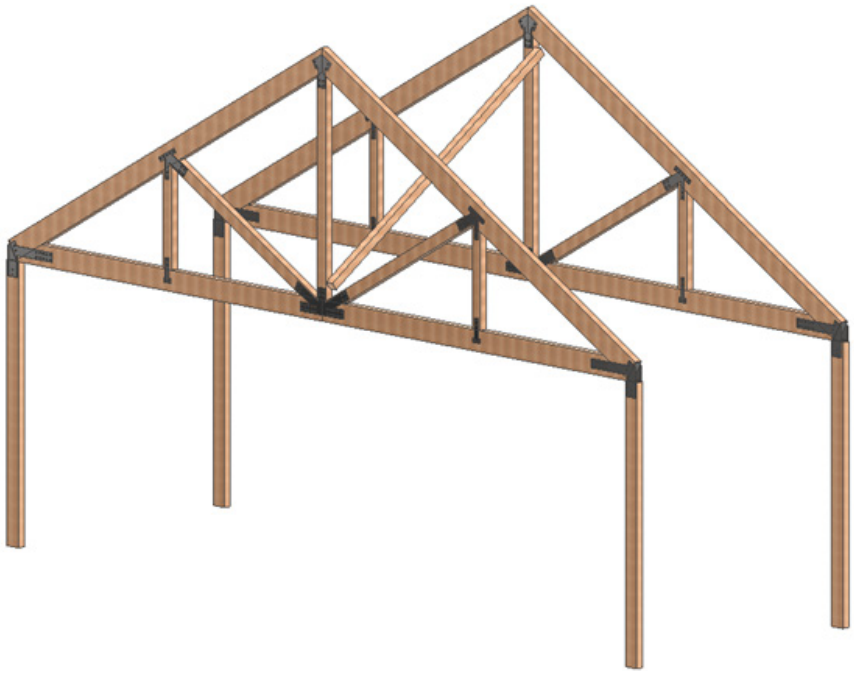



# Standard Trusses

## Bracing

Trusses must be braced during erection and the following condition must be met L/D < 75.  Where L is the length of the bracing member and D is the smallest cross-sectional dimension.

Example: 20 ft bracing is being used to install a truss, at minimum a 4x4 would need to be used for bracing.  240in/3.5in = 68.5.



Cascadia Structural

# Architectural Truss Specification

## 1.0 GENERAL REQUIREMENTS

1.1 Description: This section includes the design, fabrication and supply of the heavy timber trusses as shown and described on the contract drawings. The trusses are to be of glulam construction and the supplier shall furnish all materials including connecting steel and hardware for a complete installation.

1.2 Design Criteria:
Dead Load: _____ psf (specify ASD or LRFD)
Roof Live Load: _____ psf (specify ASD or LRFD)
Roof Snow Load: _____ psf (specify ASD or LRFD)
Wind and seismic loads by EOR.

1.3 Qualifications: The heavy timber truss manufacturer must be a company specializing in the design and fabrication of timber trusses with a minimum of five (5) years documented experience.
Approved manufacturers include:
Western Wood Structures, Inc.
P.O. Box 130
Tualatin, Oregon 97062-0130
(503) 692-6900

and

Cascadia Structural Timber Solutions
2800 N Lombard St #418
Portland, OR 97217
(503) 226-7065

1.4 Submittals:

1.4.1 Submit shop drawings and product data under the provisions of section 01300. Shop drawings shall include: general framing plan, truss profiles, loads, and fabrication details for all wood members and steel assemblies. Also indicate dimensions, wood grades, drilled holes, fasteners and cambers. Shop drawings to be stamped by a registered engineer, licensed to practice in the state where the building is being constructed.

1.4.2 Submit design calculations stamped by a registered engineer, licensed to practice in the state where the building is being constructed.

1.4.3 Furnish an APA-EWS Certificate of Conformance stating that the glulams conform to ANSI/APA A190.1.

1.4.4 Provide a written warranty against defects in material and workmanship for a period of five (5) years.

## 2.0 PRODUCTS

2.1 Materials:

2.1.1 Glulam shall be Douglas Fir. Combination 3 per ANSI/APA 117. The appearance shall be Architectural per AITC 110 or other (select one). Adhesive shall be 100% waterproof phenolic resin glue per ANS 405-2023. Surfaces of truss members shall be S4S.

2.1.2 Manufacturer to supply all necessary steel and hardware required to assemble trusses. Steel to be ASTM A-36 and hardware to be ASTM A-307. Welding by certified welders per AWS specifications D1.1. All steel and hardware shall be prime coated / epoxy powder coated / galvanized (select one).

2.2 Fabrication:

2.2.1 Heavy timber trusses shall be fabricated and assembled in a plant with facilities for performing work specified to the fullest extent possible. Factory drill all holes using CNC Machine. Holes for timber connections shall be 1/16″ larger than the bolt diameter. Where trusses cannot be shipped fully assembled due to their configuration, fabricate and trial assemble to ensure proper fit. Individually wrap trusses after assembly. Field fabrication of heavy timber trusses is not permitted.

2.2.2 Concealed connector locations shall be fabricated to within 1/8″ of true position. Fabricate length of members to be within 1/8″ of required length to achieve tight connections. Make end cuts flat and true to ensure consistent load transfer.

## 3.0 EXECUTION

3.1 Delivery, storage and handling per AITC 111-2005 Transit, Storage and Erection:

3.1.1 The purchaser or installer is responsible for handling and protection of heavy timber trusses after arrival at destination. All trusses shall be unloaded and handled with a forklift or crane using nylon slings.

3.1.2 If the trusses are to be stored at the site, they must be placed on a level surface and stickered to prevent warpage and twisting.

3.1.3 Any damage must be reported immediately to the truss manufacturer's professional engineer.

3.2 Installation:

3.2.1 Install the trusses according to manufacturer's shop details and installation drawings. Do not field cut, drill, or alter structural members without written approval from the timber truss manufacturer's professional engineer. Set trusses in locations and to elevations indicated. Make provisions for erection loads and provide temporary bracing to maintain trusses true and plumb, and in true alignment until completion of erection.

3.2.2 Maintain factory-applied wrapping until roof structure is enclosed. Touch up primed surfaces of steel assemblies with primer coat compatible with shop coat.

# General Structural Note

## Glued-Laminated Timber Trusses

1. THE MANUFACTURE OF STRUCTURAL GLUED-LAMINATED TIMBER SHALL COMPLY WITH REQUIREMENTS OF ANSI/APA A190.1. ALL BEAMS SHALL BEAR THE APA/EWS TRADEMARK INDICATING CONFORMANCE.

2. ALL GLUED-LAMINATED MEMEBERS SHALL BE DOUGLAS FIR/LARCH COMBINATION 3 WITH WATERPROOF RESORCINOL OR PHENOL RESORCINOL GLUE CONFORMING TO ANSI/APA 405-2023. ALLOWABLE STRESS REQUIREMENTS ARE AS FOLLOWS:

a. MODULUS OF ELASTICITY.....E = 1.9 X 10^6 PSI
b. FLEXURAL STRESS.....Fb = 2000 PSI
c. COMPRESSION PERPENDICULAR TO GRAIN.....Fc| = 650 PSI
d. HORIZONTAL SHEAR PARALLEL TO GRAIN.....FV = 265 PSI

3. ALL EXPOSED GLULAM MEMBERS SHALL BE ARCHITECTURAL APPEAREANCE GRADE IN COFORMANCE WITH THE STANDARD APPEARANCE GRADES OF ANSI A190.1

4. THE MANUFACTURER SHALL SUBMIT COMPLETE SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO ANY FABRICATION.

5. PROVIDE CAMBERS AS NOTED ON DRAWINGS.

6. GLUED-LAMINATED MEMBERS SHOWN ON THESE PLANS ARE FOR DRY SERVICE CONDITIONS OF USE, DEFINED BY MOISTURE CONTENT OF MEMBER REMAINING BELOW 16%.

7. GLUED-LAMINATED MEMBERS MUST BE PROTECTED FROM MOISTURE DURING CONSTRUCTION.

8. THE STEEL USED SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATION OF LATEST ADOPTION: ASTM A36/A36M

9. ALL HARDWARE TO CONFORM TO ANSI A307

10. STEEL AND HARDWARE TO BE PRIMED PAINTED

11. GLUE-LAMATED TRUSS TO BE DESIGNED AS A DEFERRED SUBMITTAL BY CASCADIA STRUCTURAL.

CASCADIA STRUCTURAL CONTACT INFO

503-226-7065

INFO@CASCADIASTRUCTURAL.COM

# FAQ

**What if the truss I want is outside the parameters of the Load Table?**

Trusses whose size is outside our load table are considered custom trusses.  Cascadia and their sister company Western Wood Structures have been providing custom trusses for decades and can still help you with designing and pricing, simply contact either Western Wood Structures (dherr@wwsi.com) or Cascadia Structural (info@cascadiastructural.com)for a custom truss quote.

**What is the fire rating on these trusses?**

All the truss material meets the requirement for HT Type IV which is allowed for roof construction of Type 1 B, Type II A and B, Type III A and B and Type V A and B if they have a 1 hour or less fire-resistance rating required.

**What species and finish of glulam is available?**

All of our trusses uses Architectural Combination 3 Glulam made with Douglas Fir.

**What is the standard lead time?**

For most projects where there are less than 10 trusses lead times are 6-9 weeks after receiving your approved engineering drawings.

**How do you purchase these trusses?**

To learn more about purchasing these trusses reach out to us at quotes@cascadiastructural.com

**Is this a deferred submittal?**

Yes, this product is a deferred submittal, drawings can be produced within 2 weeks of receiving approved engineering drawings.