



13980 SW 252 Street, Miami, Florida 33032
Telephone: (305) 257-1910 Fax: (305) 257-1911
www.decotruss.com

WARNING:

Extreme Care is required in Handling, Erecting and Bracing Trusses. Refer to "BCSI-B1 Summary Sheet", which is attached.

BUILDING DESIGNER (ARCHITECT or ENGINEER of Recorded)

It is your responsibility to determine that the dimensions conform to the architectural plans and all loads utilized herein meet or exceed the actual Dead Loads Specified and /or imposed on your structure, and Live Loads imposed by The Building Code. PERMANENT BRACING shall be designed and specified by the building designer for the structural safety of the building. It shall be the responsibility of the building designer to indicate size, location and attachments for all permanent bracing as required by design analysis. The design and location of all bracing shall be such that they work together with other structural parts of the building (such as shear walls, portal frames, bearing walls, columns, beams etc.) to achieve total structural integrity Permanent Bracing includes and is not limited to The Top Chord Plane, The Bottom Chord Plane and The Web Member Planes. The Anchoring / Strapping of trusses to walls, beams, ledgers etc., shall be the responsibility of The Building Designer. Truss to Truss Connections shall be The Responsibility of The Truss Manufacturer.

TRUSS ERECTOR / INSTALLER (Builder)

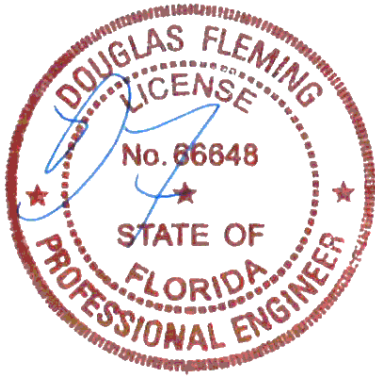
The proper and safe erection of all the trusses is exclusively your responsibility. You are cautioned to seek professional advice regarding the Erection / Installation and Bracing, which is ALWAYS required to prevent toppling and dominoing. Top Chord, Bottom Chord and Webs shall be adequately braced, as per the attached HIB-91 Summary Sheet. You are also responsible to refer to the Truss Placement Plan and The Engineering when erecting Trusses, to insure proper placement. Not all trusses are symmetrical in loading and/or design. Proper Placement and/or direction are always required. Check all Flat Truss to insure they are not installed UPSIDE DOWN. Never cut or alter trusses in anyway. Never concentrate Building Materials, such as Plywood or Blocks on installed Trusses.

Alterations to Trusses:

"The act of cutting or attaching any item that the truss was not originally designed for"

Trusses cannot be altered from the attached engineering designs, with out proper re-designing by a Florida Registered Engineer. We highly recommend to our customers to use our engineer, however to our knowledge there is no code that states you must use the engineer, who sealed the truss engineering and layout. However, it is of the utmost importance that, any Florida Registered Engineer who takes the task of designing repairs to trusses, should be extremely knowledgeable, not only in structural designs but also have experience designing trusses. Should any alterations be made to our design or manufactured item, the engineer, contractor and homeowner waive all warranties and liabilities by Deco Truss, its officers and engineer. All future, questions regarding said structure and warranties will be held by the persons whom redesigned said trusses and altered them.





Alpine, an ITW Company
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025
Phone: (800)755-6001
www.alpineitw.com

COA #0 278
Florida Certificate of Product Approval #FL1999
02/03/2025

This item has been digitally signed by Douglas Fleming on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Site Information:	Page 1:
Customer: Deco Truss Company, Inc.	Job Number: D14780
Job Description: VACCARO ADDITION	
Address: 12940 SW 63 AVE, CORAL GABLES, FL 33156	

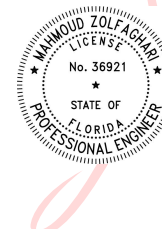
Job Engineering Criteria:	
Design Code: FBC 8th Ed. 2023 Res.	IntelliVIEW Version: 23.02.01 JRef #: 1Y7797530004
Wind Standard: ASCE 7-22 Wind Speed (mph): 175	Design Loading (psf): 55.00
Building Type: Closed	

This package contains general notes pages, 32 truss drawing(s) and 2 detail(s).

Item	Drawing Number	Truss	Item	Drawing Number	Truss
1	034.25.1109.00497	A1G 13'10" Steppedown Hip Girder	2	034.25.1109.03770	A3
3	034.25.1109.07797	A4	4	034.25.1109.10187	A5
5	034.25.1109.15100	A6	6	034.25.1109.43490	A7
7	034.25.1109.48390	A8	8	034.25.1109.50950	A9
9	034.25.1109.55070	A9A	10	034.25.1109.58000	A10
11	034.25.1110.10643	A11	12	034.25.1110.12923	AG2 21'7-3/16" Special Girder
13	034.25.1110.31400	AG12 21'11" Steppedown Hip Girder	14	034.25.1110.36483	B2
15	034.25.1110.40130	B4	16	034.25.1110.43720	B5 18'9" Steppedown Hip
17	034.25.1112.42540	BG1 13'9" Common Girder	18	034.25.1111.57310	BG3 18'9" Special Girder
19	034.25.1111.58933	BG6 18'9" Steppedown Hip Girder	20	034.25.1111.04450	CJ1
21	034.25.1111.06720	CJ2	22	034.25.1111.09750	J1
23	034.25.1111.11513	J2	24	034.25.1111.13037	J3
25	034.25.1111.14550	J4	26	034.25.1111.18160	J5G
27	034.25.1111.23613	J6	28	034.25.1111.31497	V1 18'6" Valley
29	034.25.1111.41540	V2 14'6" Valley	30	034.25.1111.44150	V3 10'6" Valley
31	034.25.1111.46363	V4 6'6" Valley	32	034.25.1111.49067	V5 2'6" Valley
33	BRCLBSUB0119		34	VAL180220723	

SHOP DRAWING / SUBMITTAL REVIEW	
☒ APPROVED	☐ APPROVED WITH CHANGE NOTE
☐ REVISE AND RESUBMIT	☐ REJECTED
SUBMITTAL WAS REVIEWED FOR DESIGN CONFORMITY AND GENERAL CONFORMANCE TO CONTRACTOR DOCUMENTS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOB SITES FOR TOLERANCES, CLEARANCES, QUANTITIES, FABRICATION OF HIS WORK WITH OTHER TRADE AND FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS.	
BY: <u>Arianna Prieto</u> DATE: <u>02/13/2025</u>	
ARIANNA PRIETO, P.E. No90741 (786-991-3288)	

Digitally signed by
Mahmoud Zolfaghari
Date: 2025.02.11 07:32:41 -05'00'



General Notes

Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:

The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high-quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

Temporary Lateral Restraint and Bracing:

Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

Permanent Lateral Restraint and Bracing:

The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed, and detailed by the Building Designer.

Connector Plate Information:

Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

Bearing Information:

The bearing area factor, C_b , is considered for the allowable capacity of solid sawn wood bearings supporting trusses that are located a minimum of 3" from the end of the lumber piece.

General Notes (continued)

Coated Lumber:

Coated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Coated lumber has no adjustments to lumber properties. Coated lumber may be more brittle than uncoated lumber. Special handling care must be taken to prevent breakage during all handling activities. Refer to manufacturer literature, specifications, and code evaluation reports for restrictions, details, and requirements.

Fire Retardant Treated Lumber:

Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

Key to Terms:

Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

BCDL = Bottom Chord standard design Dead Load in pounds per square foot.

BCLL = Bottom Chord standard design Live Load in pounds per square foot.

C = Coated lumber.

C-AT = AtTEK coated lumber.

C-FX = FX Lumber Guard coated lumber.

C -TE = TechWood 4400 coated lumber.

CL = Certified lumber.

Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.

FRT = Fire Retardant Treated lumber.

FRT-BF = Boraflame Fire Retardant Treated lumber

FRT-DB = D-Blaze Fire Retardant Treated lumber.

FRT-DC = Dricon Fire Retardant Treated lumber.

FRT-FP = FirePRO Fire Retardant Treated lumber.

FRT-FL = FlamePRO Fire Retardant Treated lumber.

FRT-FT = FlameTech Fire Retardant Treated lumber.

FRT-ON = OnWood Fire Retardant Treated lumber.

FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.

FRT-PR = ProWood Fire Retardant Treated lumber.

g = green lumber.

HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.

HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.

HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.

Ic = Incised lumber.

FJ = Finger Jointed lumber.

L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.

L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.

Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.

Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for all load cases.

Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for all load cases.

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for all load cases.

NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.

PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.

PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds

PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.

PP = Panel Point.

R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).

Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).

RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

General Notes (continued)

Key to Terms (continued):

Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).

TCDL = Top Chord standard design Dead Load in pounds per square foot.

TCLL = Top Chord standard design Live Load in pounds per square foot.

U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).

VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.

VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.

VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.

VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.

W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.

Uppercase Acronyms not explained above are as defined in TPI 1.

References:

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcacomponents.com

SHOP DRAWING / SUBMITTAL REVIEW	
☒ APPROVED	☐ APPROVED WITH CHANGES NOTED
☐ REVISE AND RESUBMIT	☐ REJECTED: _____
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BY <u>Julio Pulido</u>	DATE <u>02-13-25</u>
NOVUS ARCHETYPE, LLC 12721 SW 30 ST MIAMI, FL 33175	

The diagram illustrates a roof truss system with the following components and dimensions:

- Members:**
 - Top chord: $\cong 6 \times 8$ (C), T2, $\cong 5 \times 5$ (D)
 - Bottom chord: $\cong 2 \times 4$ (A), $\cong 4 \times 6$ (B2), $\cong 4 \times 6$ (G), $\cong 3 \times 4$ (F)
 - Verticals: $\cong 2 \times 4$ (H), $\cong 4 \times 6$ (G)
 - Diagonals: $\cong 2 \times 4$ (A), $\cong 4 \times 6$ (B2), $\cong 3 \times 4$ (F)
- Joints:** A, B, C, D, E, F, G, H, K.
- Dimensions:**
 - Overall width: 13'10"
 - Overall height: 2'10"8"
 - Horizontal segments: 4', 9'10" (5'10"), 13'10" (4')
 - Vertical segments: 3'10"1"
 - Roof slope: 12/7
 - Member lengths: 2'1"12", 4'1"12", 5'4"12", 4'3"8", 2'1"12"

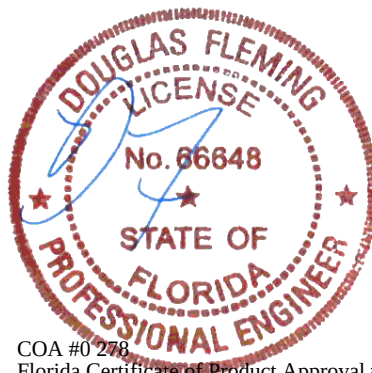
Lumber	C - D	1129	-1682		
Top chord: 2x4 SP #1; T2 2x4 SP SS;					
Bot chord: 2x4 SP #1;					
Webs: 2x4 SP #3;					
Lt Level Return: 2x4 SP #3;					
Rt Level Return: 2x4 SP #3;					
	Maximum Bot Chord Forces Per Ply (lbs)				
	Chords	Tens.Comp.	Chords	Tens. Comp.	
	B - H	1648 - 1117	G - E	1645	- 1116
	H - G	1666	1123		

----- (Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)

TC: From	95 plf at	-2.15 to	95 plf at	4.00
TC: From	47 plf at	4.00 to	47 plf at	9.83
TC: From	95 plf at	9.83 to	95 plf at	15.98
BC: From	5 plf at	-2.15 to	5 plf at	-2.00
BC: From	20 plf at	0.00 to	20 plf at	4.03
BC: From	10 plf at	4.03 to	10 plf at	9.80
BC: From	20 plf at	9.80 to	20 plf at	13.83
BC: From	5 plf at	15.83 to	5 plf at	15.98
PLB: From	4 plf at	-1.93 to	4 plf at	-0.17
PLB: From	4 plf at	14.00 to	4 plf at	15.76
TC:	220 lb Conc. Load at	4.03, 9.80		
TC:	145 lb Conc. Load at	6.06, 7.77		
BC:	255 lb Conc. Load at	4.03, 9.80		
BC:	74 lb Conc. Load at	6.06, 7.77		

Plates sized for a minimum of 4.00 sq.in./piece.

Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

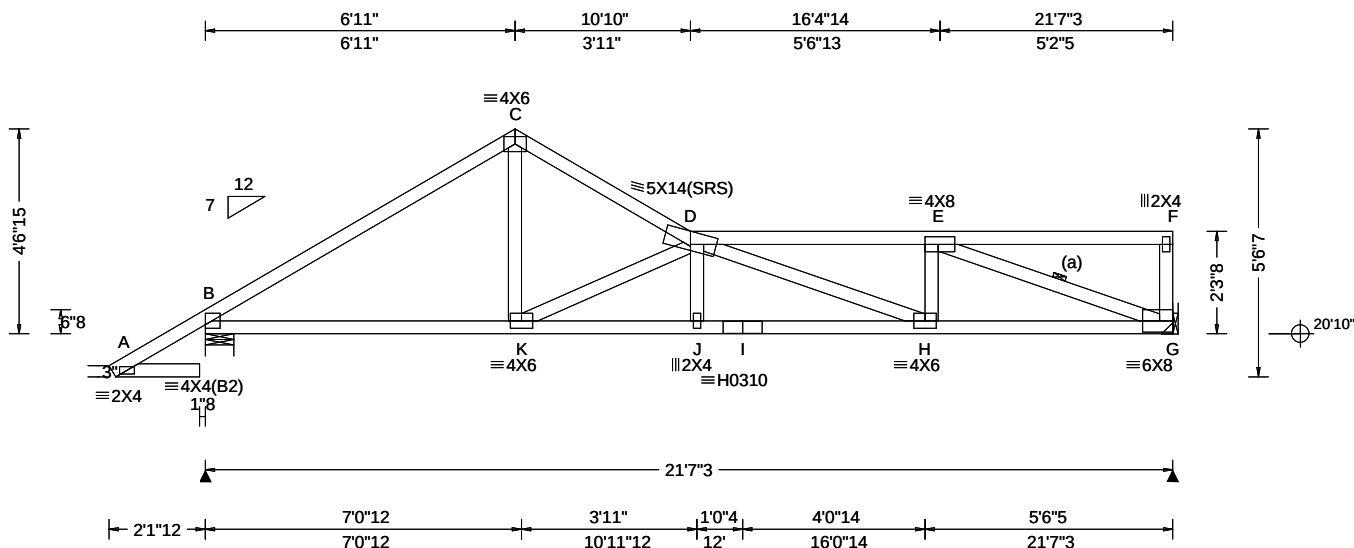


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02/03/2025

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS
 Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety) Information, by TPI and SBCA for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI unless otherwise noted. Chords shall have lateral shear bracing, sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have continuous lateral restraint (CLR) installed with diagonal bracing installed on the CLR per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.
 Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.
 For more information see these web sites: Alpine: alpineitw.com; TPI: tpiinst.org; SBCA: sbaccomponents.com; ICC: iccsafe.org; AWC: awc.org



SEQN: 820254 FROM: DLC	SPEC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A3	Cust: R 9753 JRef: 1Y7797530004 T13 DrwNo: 034.25.1109.03770 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.60 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/def L/# VERT(LL): 0.164 J 999 360 VERT(CL): 0.309 J 834 240 HORZ(LL): 0.056 C - - HORZ(TL): 0.105 C - - Creep Factor: 2.0 Max TC CSI: 0.608 Max BC CSI: 0.573 Max Web CSI: 0.860 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1424 - / - / - /886 /751 /244 G 1227 - / - / - /569 /670 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) G Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1360 -1780 D - E 2657 -2625 C - D 1451 -1720

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

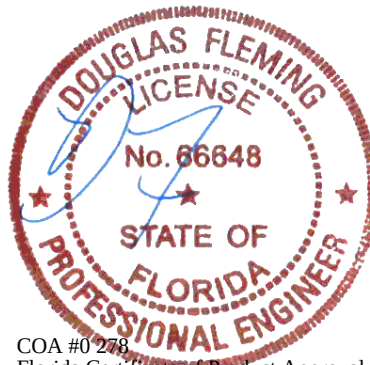
(J) Hanger Support Required, by others

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

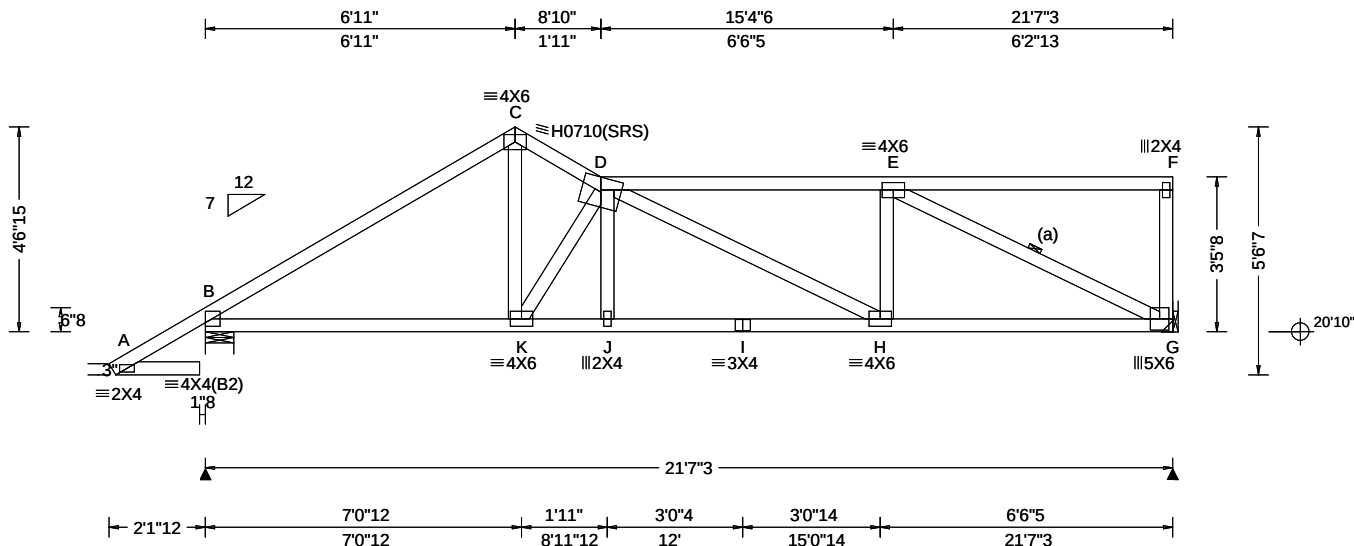


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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820251 FROM: DLC	SPEC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A4	Cust: R 9753 JRef: 1Y7797530004 T14 DrwNo: 034.25.1109.07797 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.60 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/def L/# VERT(LL): 0.086 J 999 360 VERT(CL): 0.162 J 999 240 HORZ(LL): 0.030 G - - HORZ(TL): 0.056 G - - Creep Factor: 2.0 Max TC CSI: 0.702 Max BC CSI: 0.429 Max Web CSI: 0.673 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1424 - / - / - /913 /742 /315 G 1227 - / - / - /580 /683 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) G Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1459 -1776 D - E 2032 -1879 C - D 1620 -1667

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

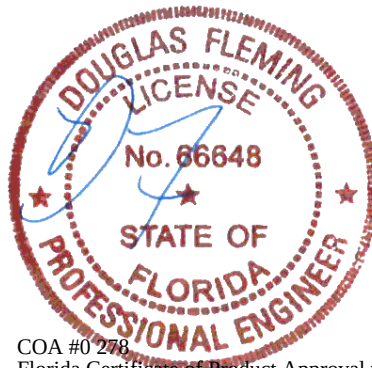
(J) Hanger Support Required, by others

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

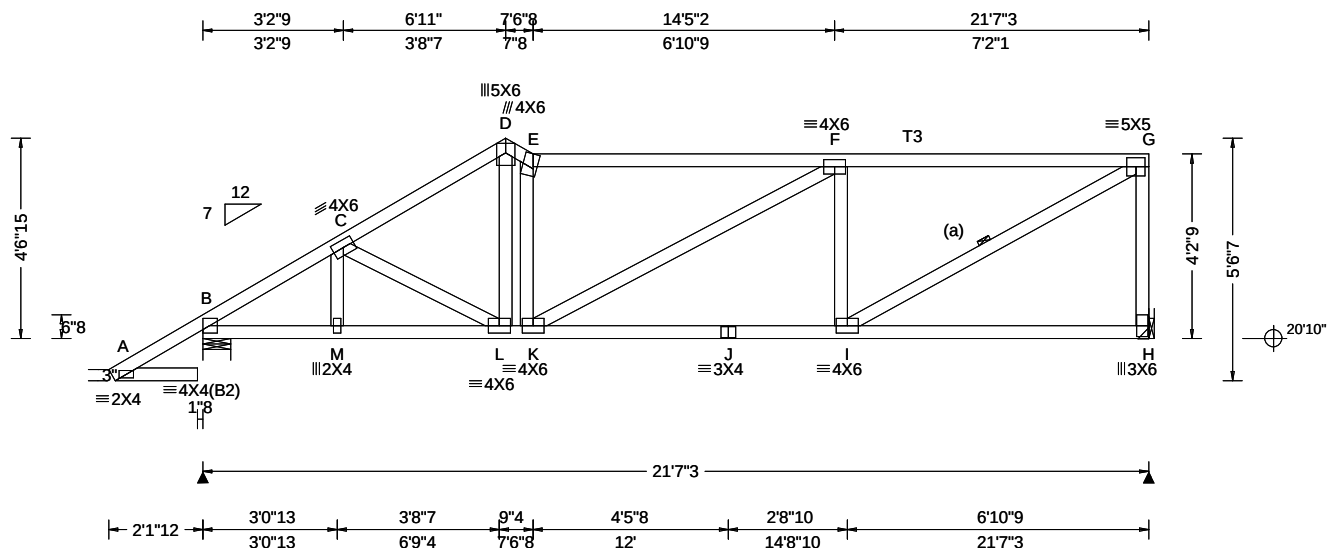


COA #0278
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02/03/2025

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820248 FROM: DLC	SPEC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A5	Cust: R 9753 JRef: 1Y7797530004 T8 DrwNo: 034.25.1109.10187 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.60 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.121 E 999 360 VERT(CL): 0.227 E 999 240 HORZ(LL): 0.027 D - - HORZ(TL): 0.051 D - - Creep Factor: 2.0 Max TC CSI: 0.713 Max BC CSI: 0.694 Max Web CSI: 0.712 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1424 - / - / - /934 /733 /377 H 1227 - / - / - /587 /694 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) H Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1434 -1760 E - F 1542 -1467 C - D 1688 -1762 F - G 1809 -1608 D - E 1490 -1385

Lumber

Top chord: 2x4 SP #1; T3 2x4 SP SS;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

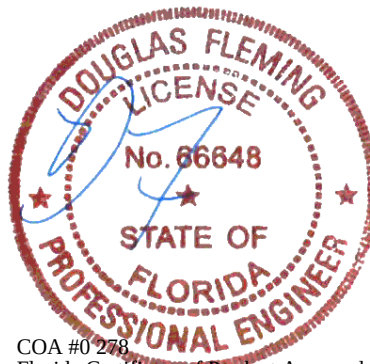
(J) Hanger Support Required, by others

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

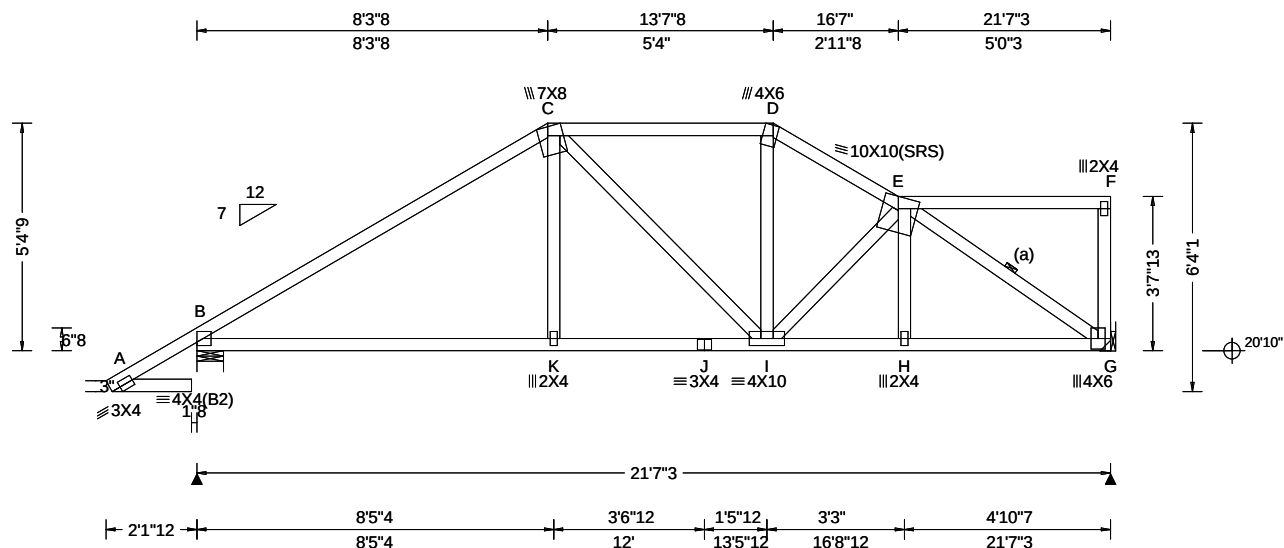


COA #0 278
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02/03/2025

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820245 FROM: DLC	SPEC	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A6	Cust: R 9753 JRef: 1Y7797530004 T7 DrwNo: 034.25.1109.15100 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.042 I 999 360 VERT(CL): 0.080 I 999 240 HORZ(LL): 0.021 G - - HORZ(TL): 0.040 G - - Creep Factor: 2.0 Max TC CSI: 0.841 Max BC CSI: 0.470 Max Web CSI: 0.502 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1424 - / - / - / 939 / 751 / 335 G 1227 - / - / - / 574 / 692 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) G Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1371 - 1719 D - E 1462 - 1491 C - D 1336 - 1231

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

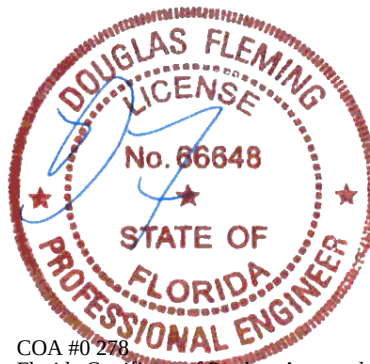
(J) Hanger Support Required, by others

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

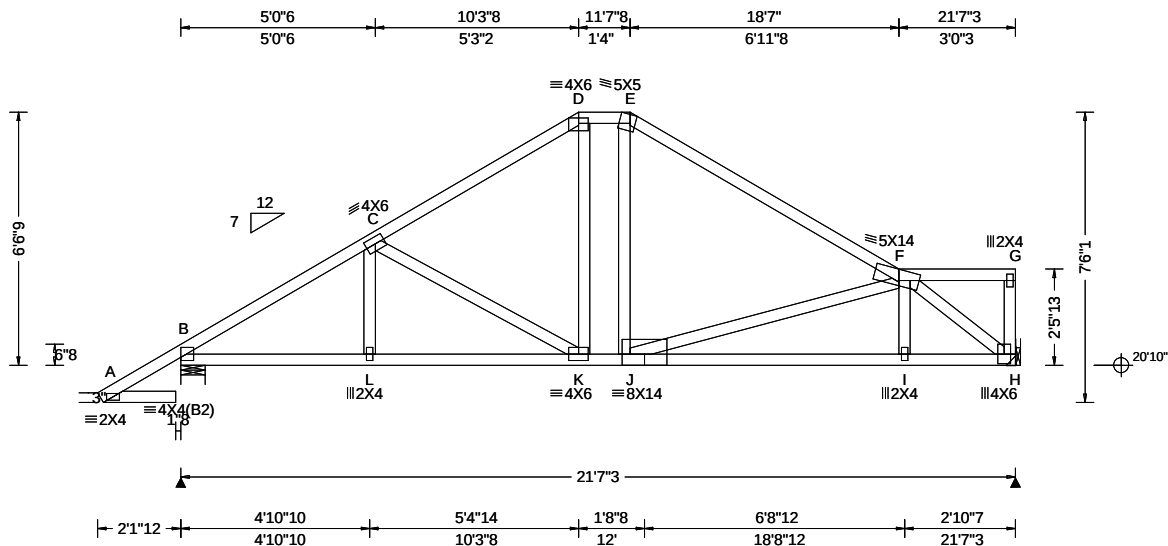


COA #0 278
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02/03/2025

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820290 FROM: DLC	SPEC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A7	Cust: R 9753 JRef: 1Y7797530004 T20 DrwNo: 034.25.1109.43490 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.58 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.061 J 999 360 VERT(CL): 0.115 J 999 240 HORZ(LL): 0.028 H - - HORZ(TL): 0.052 H - - Creep Factor: 2.0 Max TC CSI: 0.699 Max BC CSI: 0.523 Max Web CSI: 0.658 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1424 /- /- /928 /777 /347 H 1227 /- /- /605 /690 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) H Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1212 -1858 D - E 1070 -1095 C - D 1088 -1393 E - F 1038 -1434

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Plating Notes
Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties
(J) Hanger Support Required, by others

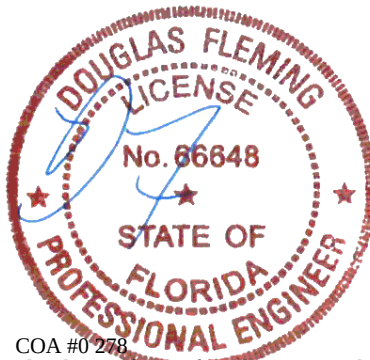
Wind
Wind loads based on MWFRS with additional C&C member design.
Right end vertical not exposed to wind pressure.
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - L	1486 -1067	J - I	1595 -1254
L - K	1486 -1070	I - H	1603 -1250
K - J	1095 -683		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
C - K	449 -530	J - F	599 -604
D - K	378 -314	F - H	1539 -1976

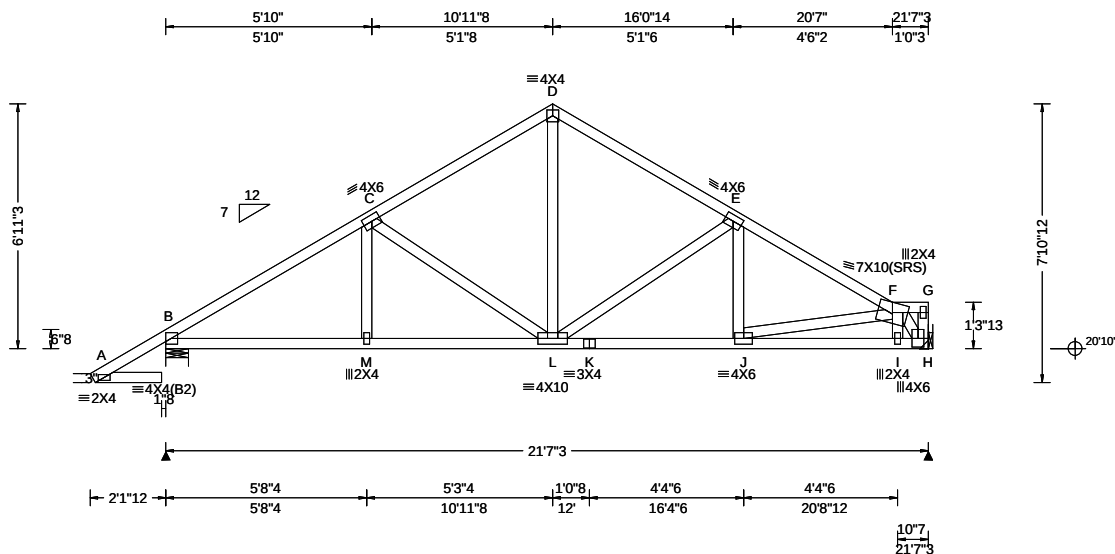


COA #0278
Florida Certificate of Product Approval #FL1999
02/03/2025

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820242 FROM: DLC	SPEC	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A8	Cust: R 9753 JRef: 1Y7797530004 T10 DrwNo: 034.25.1109.48390 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.78 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.056 M 999 360 VERT(CL): 0.105 M 999 240 HORZ(LL): 0.025 H - - HORZ(TL): 0.048 H - - Creep Factor: 2.0 Max TC CSI: 0.547 Max BC CSI: 0.549 Max Web CSI: 0.459 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1424 - / - / - / 920 / 789 / 374 H 1227 - / - / - / 653 / 684 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) H Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1118 -1835 D - E 972 -1316 C - D 974 -1315 E - F 1132 -1768

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

(J) Hanger Support Required, by others

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

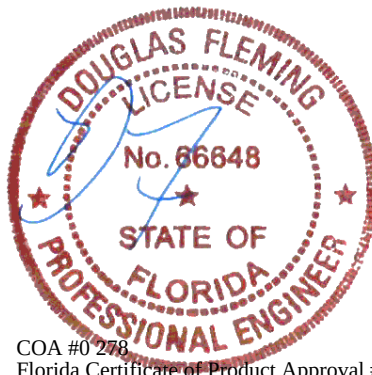
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - M	1453 -854	K - J	1449 -862
M - L	1452 -856	J - I	1208 -829
L - K	1449 -862	I - H	1211 -819

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
C - L	517 -514	L - E	524 -510
D - L	709 -550	F - H	1153 -1705

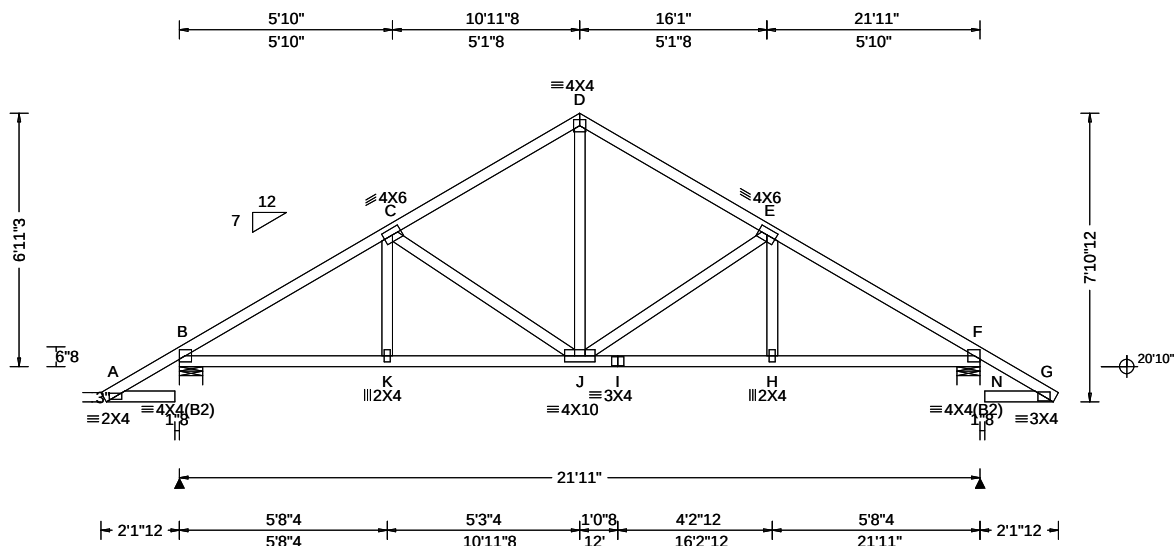


COA #0 278
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02/03/2025

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ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820239 FROM: DLC	COMN Ply: 1 Qty: 6	Job Number: D14780 VACCARO ADDITION Truss Label: A9	Cust: R 9753 JRef: 1Y7797530004 T32 DrwNo: 034.25.1109.50950 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.78 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.067 J 999 360 VERT(CL): 0.125 J 999 240 HORZ(LL): 0.035 F - - HORZ(TL): 0.065 F - - Creep Factor: 2.0 Max TC CSI: 0.548 Max BC CSI: 0.552 Max Web CSI: 0.454 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1430 - / - / - / 925 / 794 / 434 N 1430 - / - / - / 990 / 769 - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) N Brg Wid = 7.6 Min Req = 1.7 (Truss) Bearings B & F are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1106 - 1845 D - E 962 - 1328 C - D 960 - 1328 E - F 1110 - 1844

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

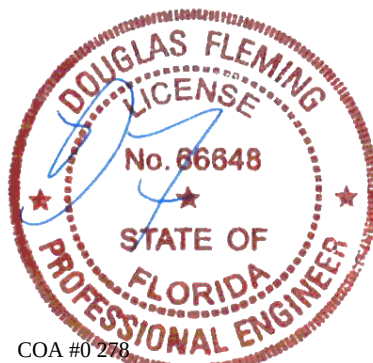
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - K	1462 - 656	I - H	1460 - 684
K - J	1460 - 658	H - F	1462 - 683
J - I	1460 - 684		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
C - J	517 - 509	J - E	522 - 509
D - J	718 - 544		

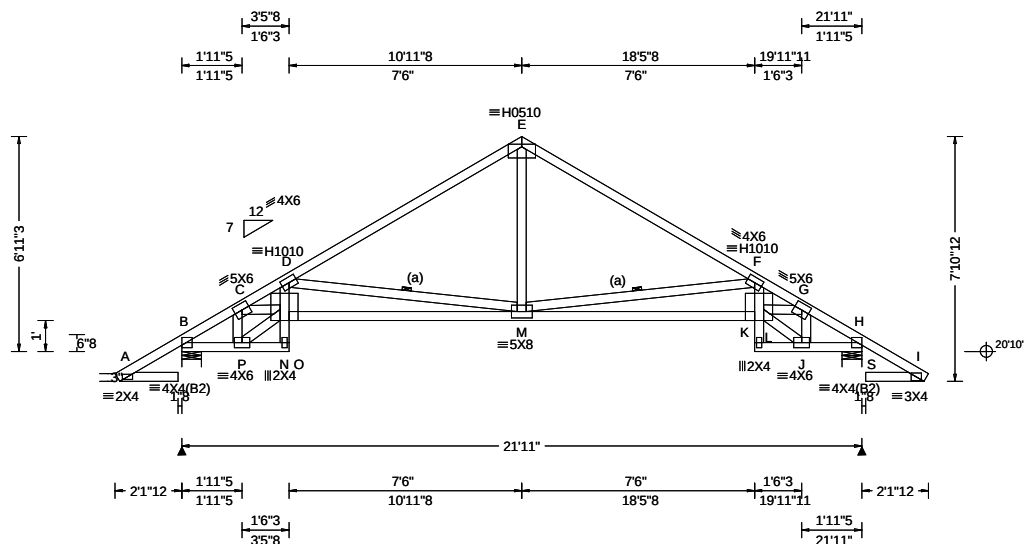


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SEQN: 820236 FROM: DLC	COMN Ply: 1 Qty: 2	Job Number: D14780 VACCARO ADDITION Truss Label: A9A	Cust: R 9753 JRef: 1Y7797530004 T18 DrwNo: 034.25.1109.55070 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.78 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/def L/# VERT(LL): 0.178 D 999 360 VERT(CL): 0.333 D 785 240 HORZ(LL): 0.168 H - - HORZ(TL): 0.314 H - - Creep Factor: 2.0 Max TC CSI: 0.751 Max BC CSI: 0.795 Max Web CSI: 0.896 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1430 - / - / - / 925 / 794 / 434 S 1430 - / - / - / 990 / 769 - / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) S Brg Wid = 7.6 Min Req = 1.7 (Truss) Bearings B & H are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 963 -1619 E - F 989 -1664 C - D 2326 -3994 F - G 2413 -3994 D - E 989 -1664 G - H 974 -1619

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3;

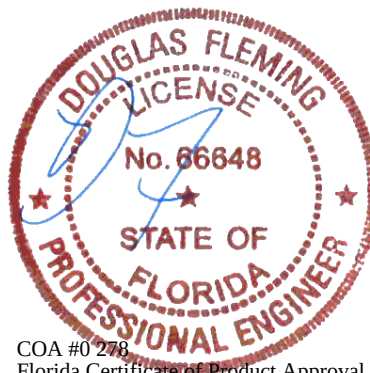
Bracing
(a) Continuous lateral restraint equally spaced on member.

Plating Notes
Plates sized for a minimum of 4.00 sq.in./piece.

Wind
Wind loads based on MWFRS with additional C&C member design.
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)			
Chords	Tens.Comp.	Chords	Tens. Comp.
B - P	1247 -557	M - K	3597 -2007
N - M	3597 -1921	J - H	1247 -602

Maximum Web Forces Per Ply (lbs)			
Webs	Tens.Comp.	Webs	Tens. Comp.
C - P	538 -1133	M - F	1671 -2327
C - N	2353 -1419	F - K	1011 -395
P - N	1427 -616	K - J	1427 -665
N - D	1011 -363	K - G	2353 -1409
D - M	1608 -2327	J - G	583 -1133
E - M	725 -318		



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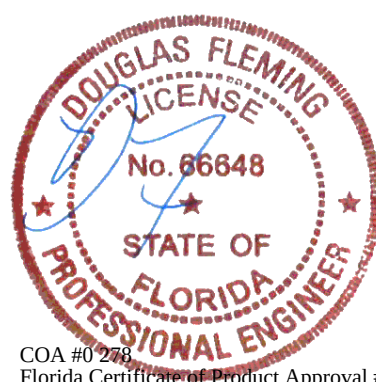
The drawing illustrates a roof truss system with the following details:

- Members:**
 - Top Chords: 5X8 (E-F), 5X5 (F-G), 4X6 (G-H), 4X6 (H-I), 4X6 (I-J).
 - Bottom Chords: 4X6 (A-B), 4X6 (B-C), 4X6 (C-D), 4X6 (D-E), 4X6 (E-F), 4X6 (F-G), 4X6 (G-H), 4X6 (H-I), 4X6 (I-J).
 - Verticals: 4X6 (A-B), 4X6 (B-C), 4X6 (C-D), 4X6 (D-E), 4X6 (E-F), 4X6 (F-G), 4X6 (G-H), 4X6 (H-I), 4X6 (I-J).
 - Diagonals: 4X6 (A-B), 4X6 (B-C), 4X6 (C-D), 4X6 (D-E), 4X6 (E-F), 4X6 (F-G), 4X6 (G-H), 4X6 (H-I), 4X6 (I-J).
 - Other: 4X6 (A-B), 4X6 (B-C), 4X6 (C-D), 4X6 (D-E), 4X6 (E-F), 4X6 (F-G), 4X6 (G-H), 4X6 (H-I), 4X6 (I-J).
- Connections:**
 - Welded connections (indicated by 'W' and dimensions like 1/4", 1/2", 3/4").
 - Bolted connections (indicated by 'B' and dimensions like 1/4", 1/2", 3/4").
 - Other connection types (indicated by 'O' and dimensions like 1/4", 1/2", 3/4").
- Dimensions:**
 - Overall width: 21'11".
 - Overall height: 5'9"8.
 - Horizontal dimensions: 1'11"5, 1'6"3, 9', 12'11", 18'5"8, 19'11"11, 2'1"12, 1'11"5, 1'6"3, 3'5"8, 9', 12'9"4, 5'8"4, 18'5"8, 1'6"3, 19'11"11, 2'1"12, 1'11"5, 21'11".
 - Vertical dimensions: 1'11"5, 1'6"3, 3'5"8, 9', 12'9"4, 5'8"4, 18'5"8, 1'6"3, 19'11"11, 2'1"12, 1'11"5, 21'11".
- Notes:**
 - 12 7 (Note 12)
 - (a) (Note a)
 - 20'10" (Note 20'10")

Lumber	C - D	2652 - 3898	G - H	2737 - 3895
Top chord: 2x4 SP #1;	D - E	1394 - 1843	H - I	1168 - 1627
Bot chord: 2x4 SP #1;	E - F	1348 - 1484		
Webs: 2x4 SP #3;				
Lt Level Return: 2x4 SP #3;				
Rt Level Return: 2x4 SP #3;				
	Maximum Bot Chord Forces Per Ply (lbs)			
	Chords	Tens.Comp.	Chords	Tens. Comp.

Wind
Wind loads based on MWFRS with additional C&C member design.
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)				
Chords	Tens.Comp.		Chords	Tens. Comp.
B - R	1258	- 703	N - L	3469 - 2240
P - O	3473	- 2158	K - I	1259 - 769
O - N	1481	- 755		
Maximum Web Forces Per Ply (lbs)				
Webs	Tens.Comp.		Webs	Tens. Comp.
C - R	693	- 1149	N - F	394 - 173
C - P	2218	- 1489	N - G	1515 - 2037
R - P	1444	- 787	G - L	1053 - 565
P - D	1055	- 515	L - K	1444 - 866
D - O	1451	- 2033	L - H	2215 - 1476
E - O	399	- 177	K - H	747 - 1150

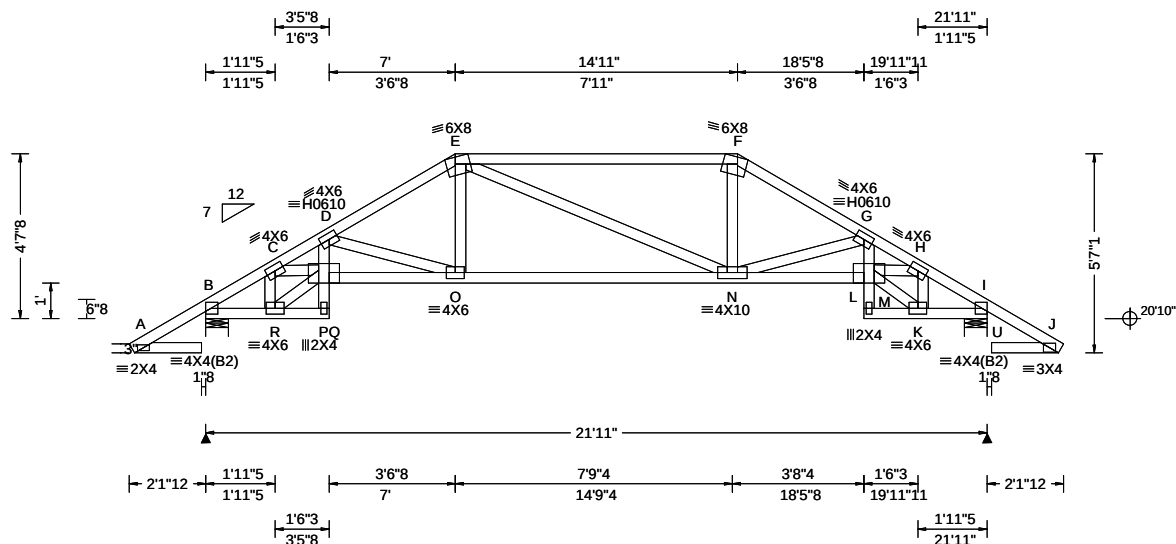


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SEQN: 820230 FROM: DLC	HIPS Qty: 1	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: A11	Cust: R 9753 JRef: 1Y7797530004 T17 DrwNo: 034.25.1110.10643 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.62 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/def L/# VERT(LL): 0.131 N 999 360 VERT(CL): 0.245 N 999 240 HORZ(LL): 0.109 I - - HORZ(TL): 0.204 I - - Creep Factor: 2.0 Max TC CSI: 0.948 Max BC CSI: 0.615 Max Web CSI: 0.780 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1430 - / - / - / 919 / 764 / 313 U 1430 - / - / - / 984 / 740 / - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.7 (Truss) U Brg Wid = 7.6 Min Req = 1.7 (Truss) Bearings B & I are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1361 -1641 F - G 1932 -2158 C - D 2897 -3736 G - H 2982 -3733 D - E 1926 -2174 H - I 1372 -1641 E - F 1839 -1861

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

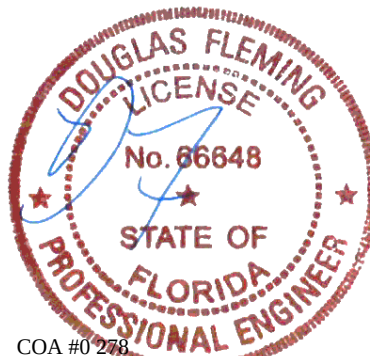
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - R	1277 -881	N - L	3256 -2369
P - O	3259 -2286	K - I	1277 -947
O - N	1856 -1351		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
C - R	873 -1175	N - F	457 -116
C - P	1991 -1439	N - G	1057 -1477
R - P	1470 -1006	G - L	1112 -794
P - D	1117 -745	L - K	1471 -1085
D - O	995 -1472	L - H	1988 -1427
E - O	461 -117	K - H	927 -1175



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Structural drawing of a bridge deck showing various steel members, dimensions, and connections. The drawing includes a side elevation and a plan view.

Side Elevation:

- Overall height: 40'8"
- Overall width: 20'10"
- Members: $\equiv 5 \times 5$ C, $\equiv 4 \times 6$ D, $\equiv 5 \times 8$ E, $\equiv 4 \times 6$ G, $\equiv 5 \times 8$ H, $\equiv 4 \times 8$ I, $\equiv 3 \times 4$ A, $\equiv 4 \times 6$ (B2), $\equiv 2 \times 4$ O, $\equiv 4 \times 6$ P, $\equiv 4 \times 8$ (**), $\equiv 5 \times 8$ N, $\equiv 4 \times 8$ (**), $\equiv 5 \times 8$ L, $\equiv 4 \times 10$ K, $\equiv 3 \times 6$ J.
- Connections: W5, W11, T4.
- Dimensions: 6', 7'10", 10'9"4, 12'10", 15'7"14, 18'5"13, 21'7"3, 6'1"12, 1'8"4, 1'6"1, 4'11"2, 2'10"6, 2'8"6, 1'9"3, 9'7"3.

Plan View:

- Overall length: 21'7"3
- Members: $\equiv 3 \times 4$ A, $\equiv 4 \times 6$ (B2), $\equiv 2 \times 4$ O, $\equiv 4 \times 6$ P, $\equiv 4 \times 8$ (**), $\equiv 5 \times 8$ N, $\equiv 4 \times 8$ (**), $\equiv 5 \times 8$ L, $\equiv 4 \times 10$ K, $\equiv 3 \times 6$ J.
- Connections: W5, W11, T4.
- Dimensions: 6', 7'10", 10'9"4, 12'10", 15'7"14, 18'5"13, 21'7"3, 6'1"12, 1'8"4, 1'6"1, 4'11"2, 2'10"6, 2'8"6, 1'9"3, 9'7"3.

Lumber	C - D	957 - 1407	G - H	4865 - 4951
Top chord: 2x4 SP #1; T4 2x4 SP SS;	D - E	1192 - 1735	H - I	3163 - 2728
Bot chord: 2x4 SP SS;	E - F	2870 - 3786		
Webbs: 2x4 SP #3; W5,W11 2x4 SP #1;				
Lt Level Return: 2x4 SP #3;Lt Wedge: 2x4 SP #3;				
	Maximum Bot Chord Forces Per Ply (lbs)			

TC: From	95 plf at	19.19 to	95 plf at	21.60
BC: From	5 plf at	-2.15 to	5 plf at	-2.00
BC: From	20 plf at	0.00 to	20 plf at	15.90
BC: From	10 plf at	15.90 to	10 plf at	19.19
BC: From	20 plf at	19.19 to	20 plf at	21.60
PLB: From	4 plf at	-1.93 to	4 plf at	-0.17

Maximum Web Forces Per Ply (lbs)					
Webs	Tens.Comp.	Webs	Tens. Comp.		
C - Q	389 -154	M - G	1291 -257		

TC: -41 lb Conc. Load at 15.90,17.90,19.19		D - P	835 - 610	G - L	433 - 585
BC: 8 lb Conc. Load at 15.90,17.90,19.19		P - E	1639 - 2006	L - H	2059 - 1450
		E - N	1779 - 1472	H - K	984 - 809
		N - F	3126 - 3606	K - I	2815 - 3265
		F - M	223 - 542	I - J	1061 - 941

Plating Notes

(**) 3 plate(s) require special positioning. Refer to



Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

(J) Hanger Support Required, by others

Wind
Wind loads and reactions based on MWERS

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

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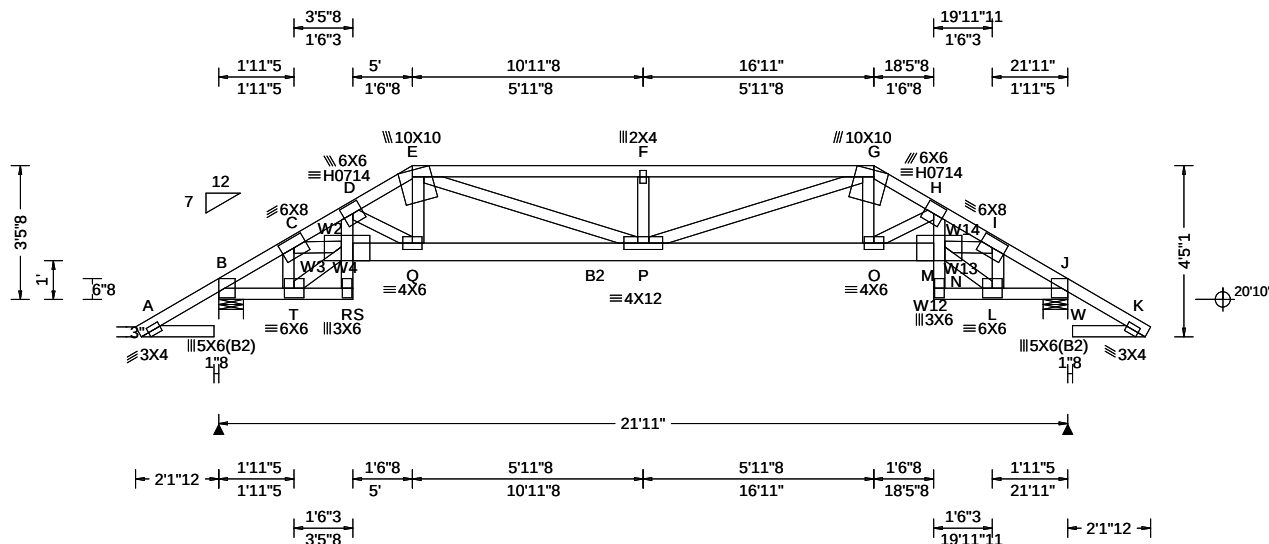
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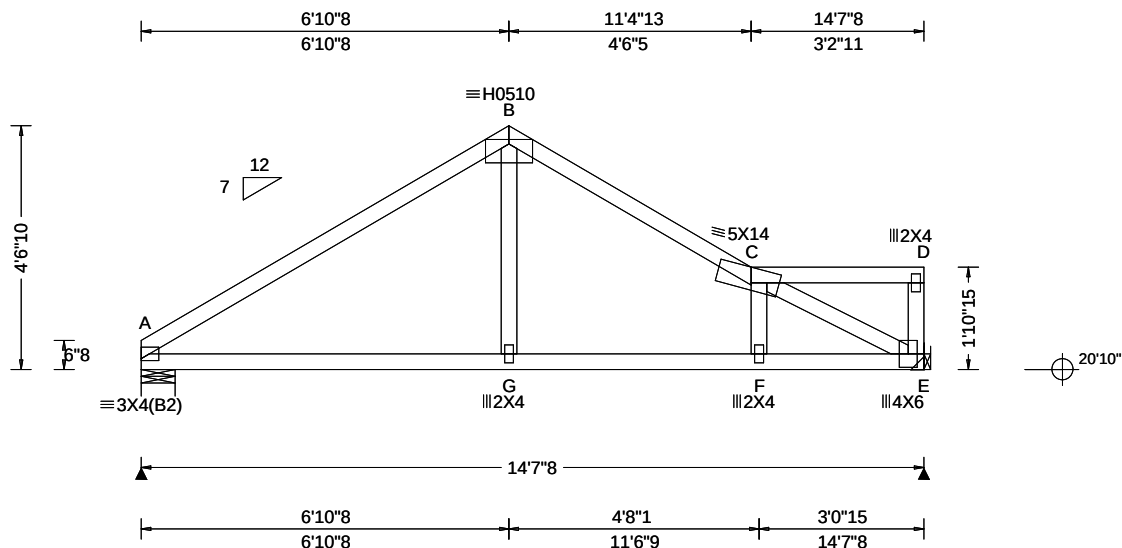
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SEQN: 820348 FROM: DLC	HIPS Qty: 1	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: AG12 21'11" Stepped Hip Girder	Cust: R 9753 JRef: 1Y7797530004 T12 DrwNo: 034.25.1110.31400 AK / DF 02/03/2025
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SEQN: 820296 FROM: DLC	SPEC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: B2	Cust: R 9753 JRef: 1Y7797530004 T22 DrwNo: 034.25.1110.36483 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.21 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE, HS	PP Deflection in loc L/def L/# VERT(LL): 0.315 C 553 360 VERT(CL): 0.634 C 275 240 HORZ(LL): -0.145 D - - HORZ(TL): 0.297 D - - Creep Factor: 2.0 Max TC CSI: 0.824 Max BC CSI: 0.695 Max Web CSI: 0.240 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL A 843 - / - /470 /452 /204 E 835 - / - /399 /464 - Non-Gravity Wind reactions based on MWFRS A Brg Wid = 7.6 Min Req = 1.5 (Truss) E Brg Wid = - Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - B 988 -1185 B - C 1013 -1096

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Hangers / Ties

Simpson Construction Hardware is specified based on the most current information provided by Simpson Strong-Tie. Please refer to the most recent Simpson Strong-Tie catalog for additional information.

Recommended hanger connections are based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating coverage.

Bearing at location x=14'4"8 uses the following support conditions: 14'4"8

Bearing E (14'4"8, 20'10") LUS24

Supporting Member: (1)2x4 SP SS
(4) 0.148"x3" nails into supporting member,
(2) 0.148"x3" nails into supported member.

Wind

Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

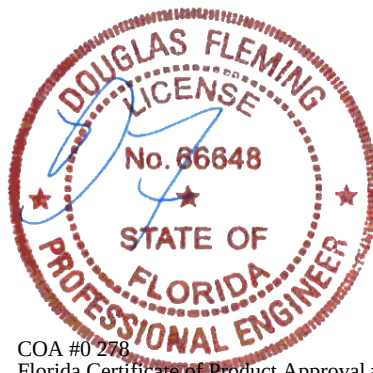
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
A - G	893 -758	F - E	859 -707
G - F	893 -758		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
B - G	433 -275	C - E	755 -933
C - F	599 -391		



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IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

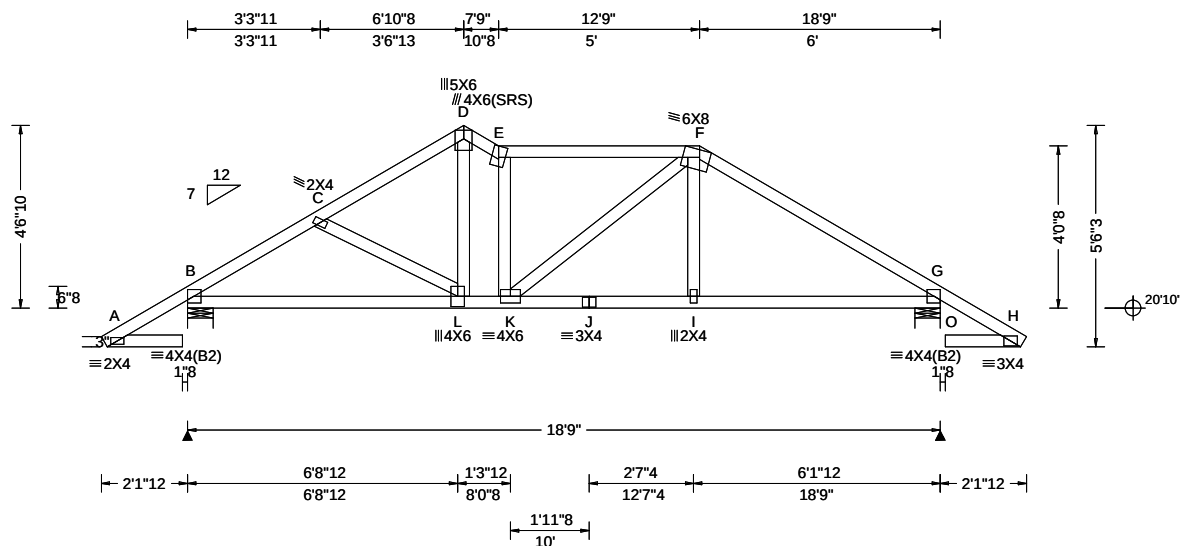
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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

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AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820308 FROM: DLC	SPEC	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: B4	Cust: R 9753 JRef: 1Y7797530004 T16 DrwNo: 034.25.1110.40130 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.59 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.130 E 999 360 VERT(CL): 0.243 E 919 240 HORZ(LL): 0.025 G - - HORZ(TL): 0.046 G - - Creep Factor: 2.0 Max TC CSI: 0.710 Max BC CSI: 0.496 Max Web CSI: 0.157 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1248 - / - / - /821 /663 /309 O 1248 - / - / - /883 /639 - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) O Brg Wid = 7.6 Min Req = 1.5 (Truss) Bearings B & G are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1347 -1568 E - F 1192 -1138 C - D 1302 -1385 F - G 1342 -1525 D - E 1093 -1057

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

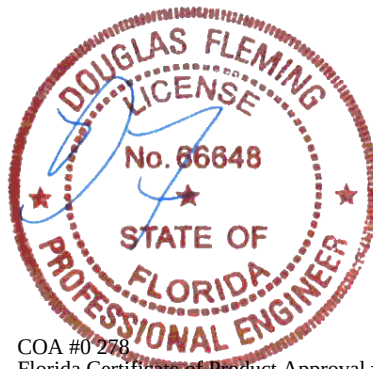
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - L	1230 -851	J - I	1192 -859
L - K	1158 -758	I - G	1186 -859
K - J	1192 -859		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.
L - D	413 -368

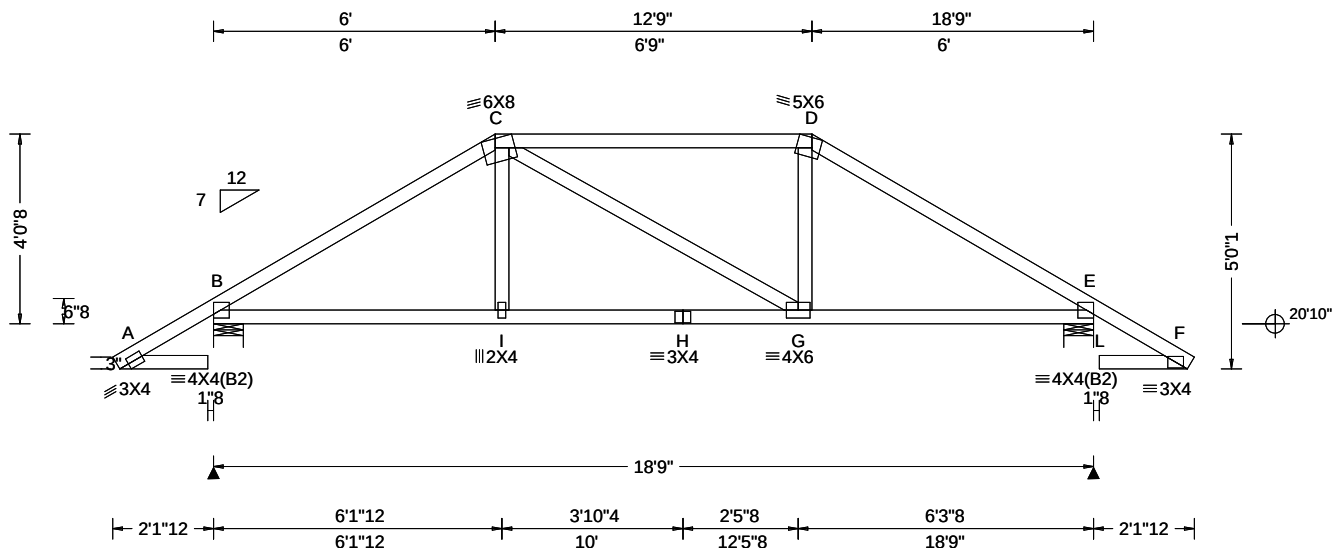


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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820314 FROM: DLC	HIPS Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: B5 18'9" Stepped Hip	Cust: R 9753 JRef: 1Y7797530004 T30 DrwNo: 034.25.1110.43720 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.33 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.046 G 999 360 VERT(CL): 0.086 G 999 240 HORZ(LL): 0.025 E - - HORZ(TL): 0.047 E - - Creep Factor: 2.0 Max TC CSI: 0.683 Max BC CSI: 0.377 Max Web CSI: 0.142 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1248 - / - / - /820 /659 /283 L 1248 - / - / - /885 /634 - Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) L Brg Wid = 7.6 Min Req = 1.5 (Truss) Bearings B & E are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1409 -1522 D - E 1413 -1521 C - D 1376 -1194

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3;

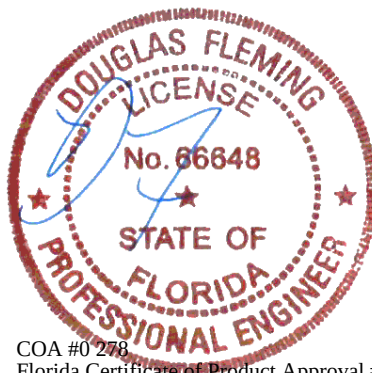
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

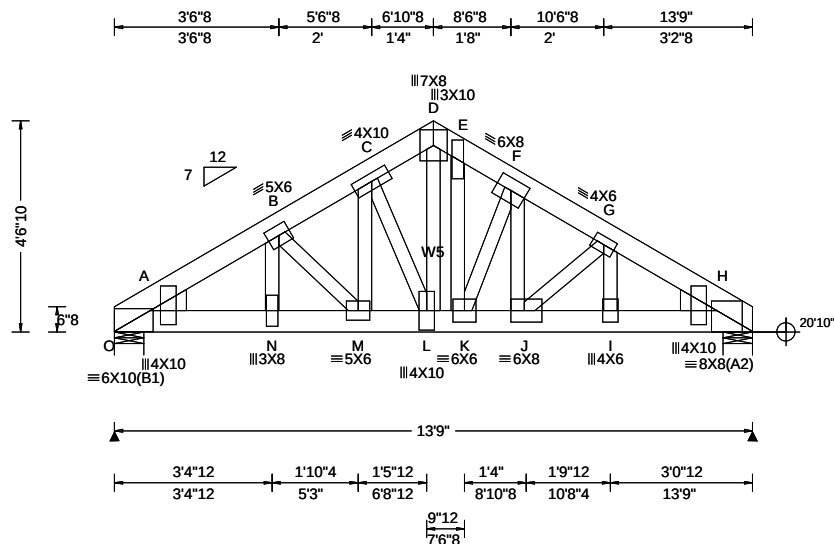


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02/03/2025

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AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 826978 FROM: DLC	COMN Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: BG1 13'9" Common Girder	Cust: R 9753 JRef: 1Y7797530004 T1 DrwNo: 034.25.1112.42540 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 23.38 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): -0.107 J 999 360 VERT(CL): 0.189 J 853 240 HORZ(LL): -0.031 H - - HORZ(TL): 0.054 H - - Creep Factor: 2.0 Max TC CSI: 0.790 Max BC CSI: 0.772 Max Web CSI: 0.935 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL O 4534 -/- /- /- /2570 -/ H 4608 -/- /- /- /3061 -/ Wind reactions based on MWFRS O Brg Wid = 7.6 Min Req = 5.3 (Truss) H Brg Wid = 7.6 Min Req = 5.4 (Truss) Bearings O & H are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp.

Lumber

Top chord: 2x6 SP #2;
Bot chord: 2x6 SP SS;
Webs: 2x4 SP #3; W5 2x4 SP #1;
Lt Wedge: 2x6 SP #2; Rt Wedge: 2x6 SP #2;

Special Loads

----- (Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)
TC: From 47 plf at 0.00 to 47 plf at 13.75
BC: From 10 plf at 0.00 to 10 plf at 13.75
BC: 1227 lb Conc. Load at 1.40, 3.40, 5.40, 7.40
8.69, 10.69
BC: 992 lb Conc. Load at 12.69

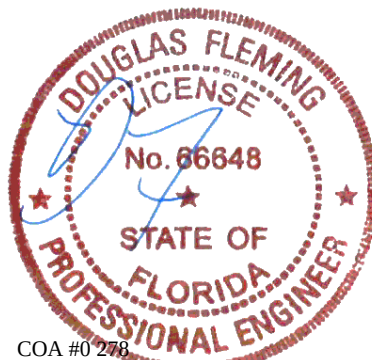
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

Note: Truss not designed to be installed in reverse orientation. Truss must be installed as shown.



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Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
A - N	5712 - 3251	K - J	4941 - 2854
N - M	5694 - 3241	J - I	5792 - 3472
M - L	4748 - 2716	I - H	5810 - 3484
L - K	4254 - 2443		

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
N - B	1265 - 682	E - K	1737 - 1005
B - M	715 - 1294	K - F	1162 - 1950
M - C	1656 - 896	F - J	1972 - 1187
C - L	564 - 1051	J - G	781 - 1058
L - D	2987 - 1693	G - I	1102 - 718

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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

The drawing illustrates a roof truss system with the following components and dimensions:

- Members:**
 - Top Chords: $\equiv 4 \times 6$ (from A to C), $\equiv 4 \times 6$ (from C to D), $\equiv 6 \times 8$ (from D to E), $\equiv 6 \times 8$ (from E to G).
 - Bottom Chords: $\equiv 2 \times 4$ (from A to B), $\equiv 4 \times 6$ (from B to J), $\equiv 4 \times 6$ (from J to I), $\equiv 6 \times 6$ (from I to H), $\equiv 2 \times 4$ (from H to B2), $\equiv 6 \times 6$ (from B2 to F), $\equiv 3 \times 4$ (from F to G).
 - Vertical Members: $\equiv 4 \times 6$ (from C to J), $\equiv 6 \times 6$ (from D to I), $\equiv 6 \times 8$ (from E to H), $\equiv 3 \times 4$ (from F to M).
 - Diagonal Members: $\equiv 4 \times 6$ (SRS) (from D to J), $\equiv 4 \times 6$ (SRS) (from I to H).
- Connections:**
 - Welded connections (indicated by double lines) are shown at joints A, B, C, D, E, F, G, H, I, J, and M.
 - Other connections are indicated by single lines and gusset plates.
- Dimensions:**
 - Horizontal Dimensions (Top):** $6'10''8$, $9'9''$, $14'9''$, $18'9''$.
 - Horizontal Dimensions (Bottom):** $2'1''12$, $7'0''4$, $2'11''12$, $4'7''4$, $3'10''12$, $2'1''12$.
 - Vertical Dimensions:** $4'6''10$ (left), $5'6''3$ (right).
 - Angles:** 7° and 12° are indicated at joint B.
 - Other Dimensions:** $3'18''9$ (bottom right), $2'10''8$ (right vertical), $2'10''0$ (right circular).

Lumber	C - D	946 - 1705	E - F	1602 - 2736
Top chord: 2x4 SP #1; T4 2x4 SP SS;	Maximum Bot Chord Forces Per Ply (lbs)			
Bot chord: 2x4 SP #1; B2 2x4 SP SS;	Chords	Tens.Comp.	Chords	Tens. Comp.
Webs: 2x4 SP #3;	B - J	1393 - 768	I - H	2263 - 1314
Lt Level Return: 2x4 SP #3;	J - I	2592 - 1459	H - F	2238 - 1299
Rt Level Return: 2x4 SP #3; Lt Wedge: 2x4 SP #3;				
Rt Wedge: 2x4 SP #3;				

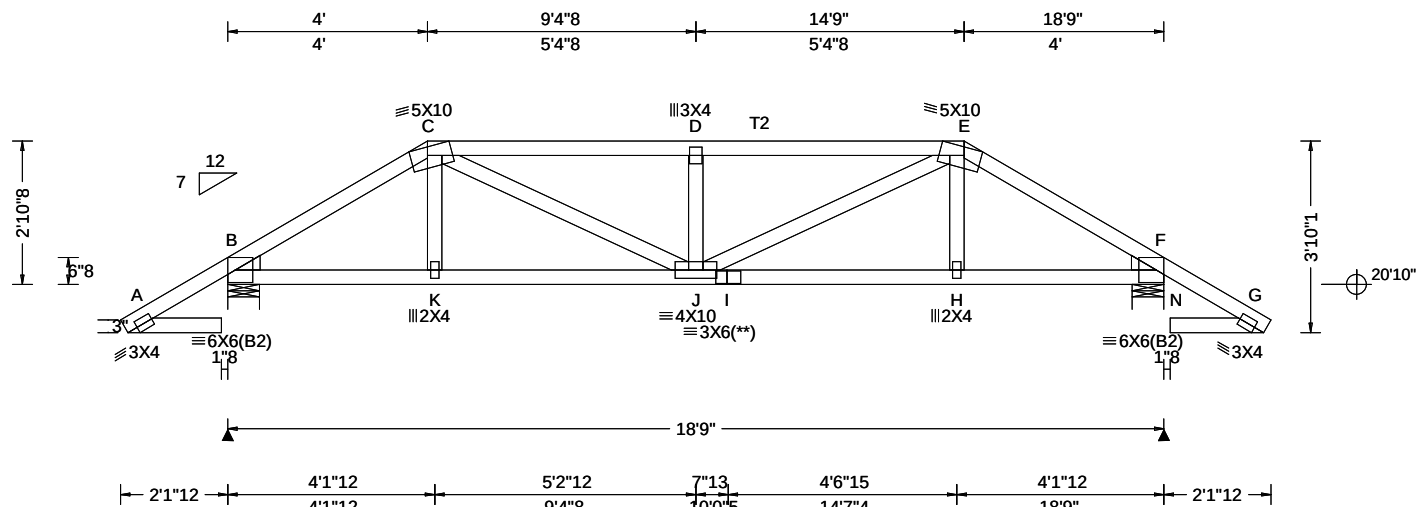
Plating Notes
Plates sized for a minimum of 4.00 sq.in./piece.

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.



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SEQN: 826994 FROM: DLC	HIPS Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: BG6 18'9" Stepped Hip Girder	Cust: R 9753 JRef: 1Y7797530004 T19 DrwNo: 034.25.1111.58933 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.92 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): -0.154 D 999 360 VERT(CL): 0.258 D 866 240 HORZ(LL): -0.051 F - - HORZ(TL): 0.084 F - - Creep Factor: 2.0 Max TC CSI: 0.866 Max BC CSI: 0.816 Max Web CSI: 0.642 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1969 -/- /- /- /1281 -/ N 1969 -/- /- /- /1281 -/ Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 2.3 (Truss) N Brg Wid = 7.6 Min Req = 2.3 (Truss) Bearings B & F are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 1880 -2825 D - E 2341 -3545 C - D 2341 -3545 E - F 1880 -2825

Lumber
Top chord: 2x4 SP SS; T2 2x4 SP #1;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;
Rt Level Return: 2x4 SP #3; Lt Wedge: 2x4 SP #3;
Rt Wedge: 2x4 SP #3;

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

Maximum Bot Chord Forces Per Ply (lbs)

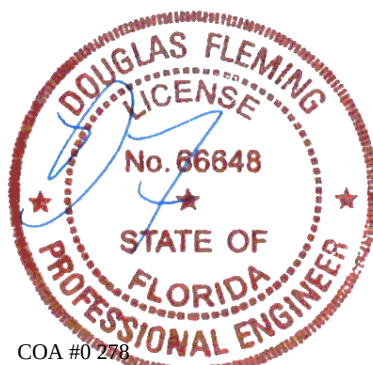
Chords	Tens.Comp.	Chords	Tens. Comp.
B - K	2313 -1538	I - H	2327 -1544
K - J	2328 -1544	H - F	2313 -1538
J - I	2327 -1544		

Special Loads
----- (Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)
TC: From 95 plf at -2.15 to 95 plf at 4.00
TC: From 47 plf at 4.00 to 47 plf at 14.75
TC: From 95 plf at 14.75 to 95 plf at 20.90
BC: From 5 plf at -2.15 to 5 plf at -2.00
BC: From 20 plf at 0.00 to 20 plf at 4.03
BC: From 10 plf at 4.03 to 10 plf at 14.72
BC: From 20 plf at 14.72 to 20 plf at 18.75
BC: From 5 plf at 20.75 to 5 plf at 20.90
PLB: From 4 plf at -1.93 to 4 plf at -0.17
PLB: From 4 plf at 18.91 to 4 plf at 20.68
TC: 220 lb Conc. Load at 4.03,14.72
TC: 145 lb Conc. Load at 6.06, 8.06, 9.37,10.69
12.69
BC: 255 lb Conc. Load at 4.03,14.72
BC: 74 lb Conc. Load at 6.06, 8.06, 9.37,10.69
12.69

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
C - J	1349 -883	J - E	1349 -883
D - J	782 -815		

Plating Notes
(**) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.
Plates sized for a minimum of 4.00 sq.in./piece.



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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.94 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFERS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.013 B - - HORZ(TL): 0.013 B - - Creep Factor: 2.0 Max TC CSI: 0.296 Max BC CSI: 0.584 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ /R- /Rh /Rw /U /RL B 319 /- /- /- /491 /- D 181 /- /- /- /224 /- C 75 /-9 /- /- /13 /- Wind reactions based on MWFRS B Brg Wid = 10.0 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Lt Level Return: 2x4 SP #3:

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	1 plf at	-2.94 to	92 plf at	-0.11
TC: From	2 plf at	-0.11 to	2 plf at	5.59
BC: From	0 plf at	-2.94 to	2 plf at	-2.77
BC: From	0 plf at	-2.77 to	4 plf at	-0.11
BC: From	2 plf at	-0.11 to	0 plf at	0.00
BC: From	2 plf at	0.00 to	2 plf at	5.59
PLB: From	4 plf at	-2.71 to	4 plf at	-0.17
TC:	-86 lb Conc. Load at	1.38		
TC:	174 lb Conc. Load at	4.21		
BC:	14 lb Conc. Load at	1.38		
BC:	105 lb Conc. Load at	4.21		

Plates sized for a minimum of 4.00 sq.in./piece.

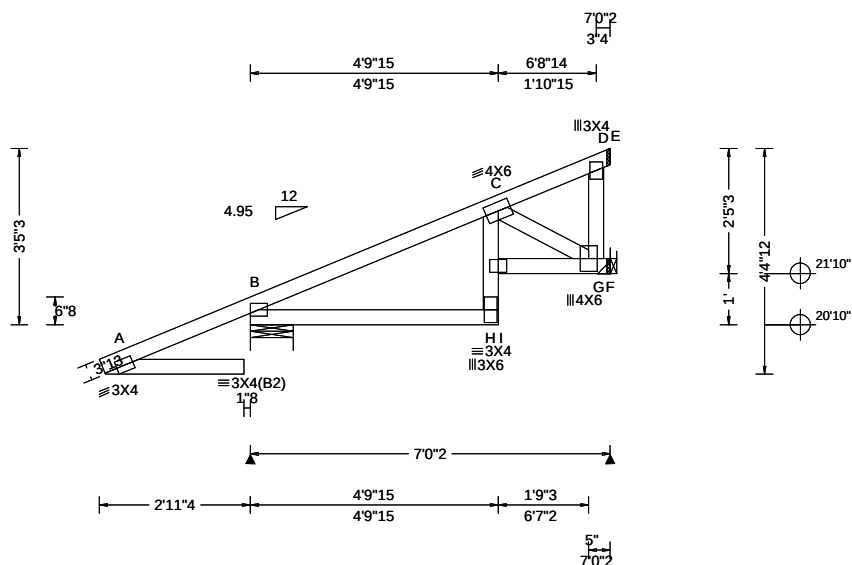
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.



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SEQN: 820341 FROM: DLC	HIP_	Ply: 1 Qty: 2	Job Number: D14780 VACCARO ADDITION Truss Label: CJ2	Cust: R 9753 JRef: 1Y7797530004 T3 DrwNo: 034.25.1111.06720 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 22.21 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): -0.025 H 999 360 VERT(CL): 0.030 H 999 240 HORZ(LL): -0.021 G - - HORZ(TL): 0.024 G - - Creep Factor: 2.0 Max TC CSI: 0.306 Max BC CSI: 0.493 Max Web CSI: 0.592 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 368 /- /- /- /543 /- F 233 /- /- /- /186 /- Wind reactions based on MWFRS B Brg Wid = 10.0 Min Req = 1.5 (Truss) F Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Special Loads

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

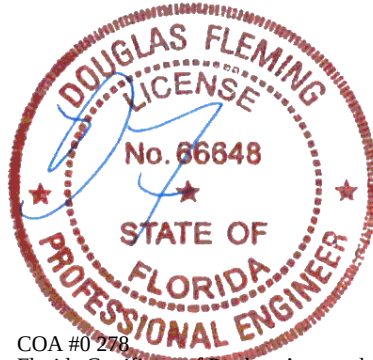
TC: From 1 plf at -3.00 to 92 plf at -0.11
TC: From 2 plf at -0.11 to 2 plf at 7.01
BC: From 0 plf at -3.00 to 2 plf at -2.83
BC: From 0 plf at -2.83 to 4 plf at -0.11
BC: From 2 plf at -0.11 to 0 plf at 0.00
BC: From 2 plf at 0.00 to 2 plf at 7.01
PLB: From 4 plf at -2.78 to 4 plf at -0.17
TC: -86 lb Conc. Load at 1.38
TC: 174 lb Conc. Load at 4.21
BC: 14 lb Conc. Load at 1.38
BC: 105 lb Conc. Load at 4.21

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads and reactions based on MWFRS.
Right end vertical not exposed to wind pressure.
Wind loading based on both gable and hip roof types.

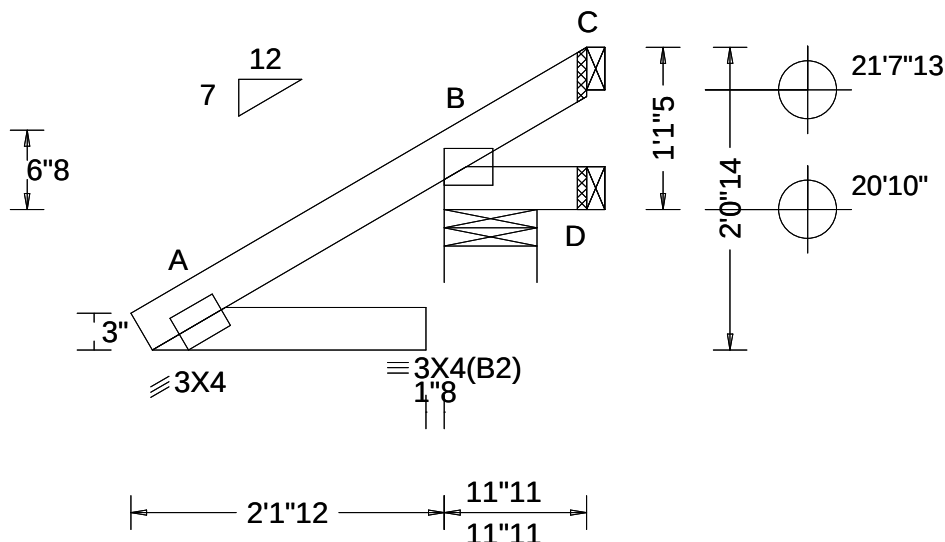


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SEQN: 820215 FROM: DLC	JACK Ply: 1 Qty: 14	Job Number: D14780 VACCARO ADDITION Truss Label: J1	Cust: R 9753 JRef: 1Y7797530004 T36 DrwNo: 034.25.1111.09750 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 20.87 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.002 C - - HORZ(TL): 0.003 C - - Creep Factor: 2.0 Max TC CSI: 0.629 Max BC CSI: 0.074 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 423 /- /- /510 /211 /113 D 7 /-20 /- /22 /30 /- C - /-119 /- /104 /192 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Lt Level Return: 2x4 SP #3;

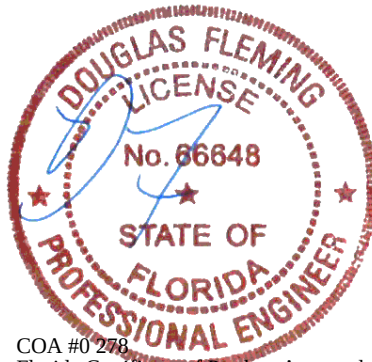
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

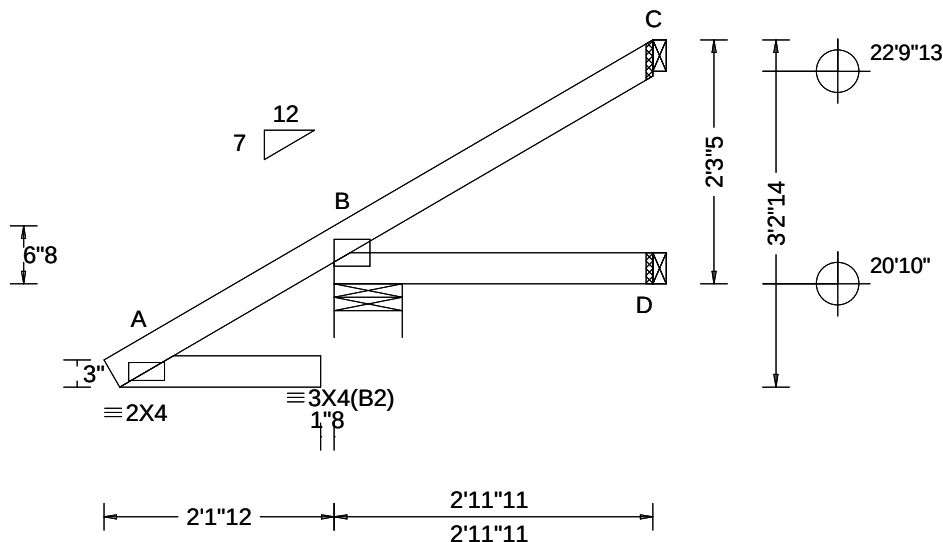


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SEQN: 820212 FROM: DLC	JACK Ply: 1 Qty: 14	Job Number: D14780 VACCARO ADDITION Truss Label: J2	Cust: R 9753 JRef: 1Y7797530004 T35 DrwNo: 034.25.1111.11513 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.45 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.003 C - - HORZ(TL): 0.004 C - - Creep Factor: 2.0 Max TC CSI: 0.633 Max BC CSI: 0.081 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 407 /- /- /401 /164 /209 D 52 /- /- /24 /1 /- C 87 /- /- /41 /104 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Lt Level Return: 2x4 SP #3;

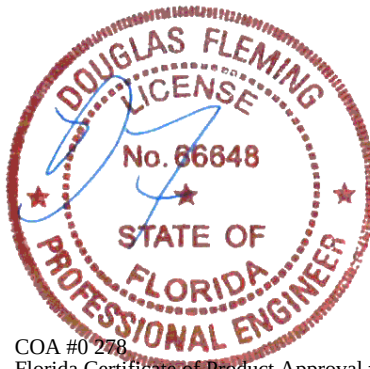
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

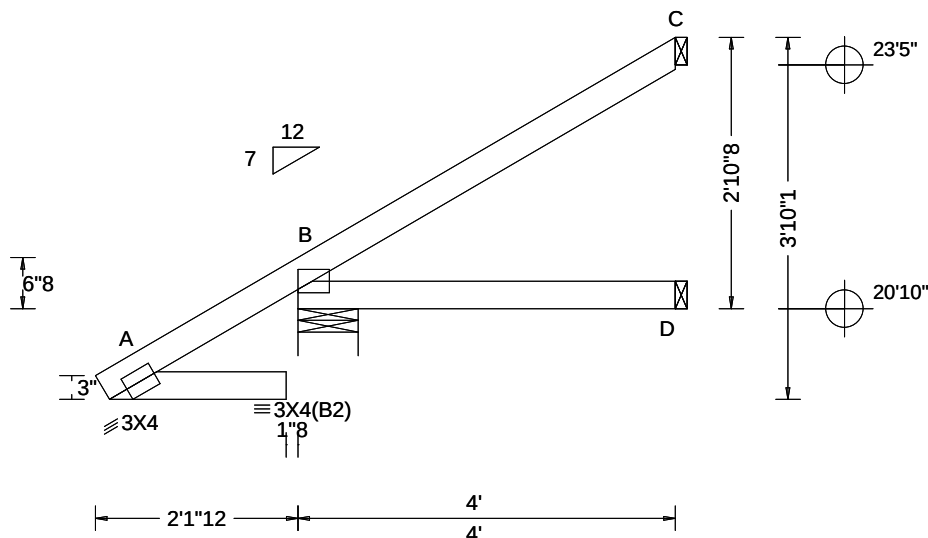


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Glenview, IL 60025

SEQN: 820269 FROM: DLC	EJAC Ply: 1 Qty: 11	Job Number: D14780 VACCARO ADDITION Truss Label: J3	Cust: R 9753 JRef: 1Y7797530004 T37 DrwNo: 034.25.1111.13037 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.75 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.003 C - - HORZ(TL): 0.004 C - - Creep Factor: 2.0 Max TC CSI: 0.635 Max BC CSI: 0.114 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 450 /- /- /417 /172 /259 D 74 /- /- /37 /- /- C 145 /- /- /87 /158 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Lt Level Return: 2x4 SP #3;

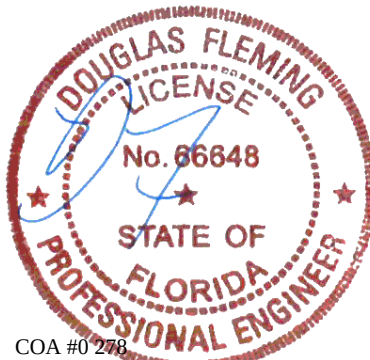
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.



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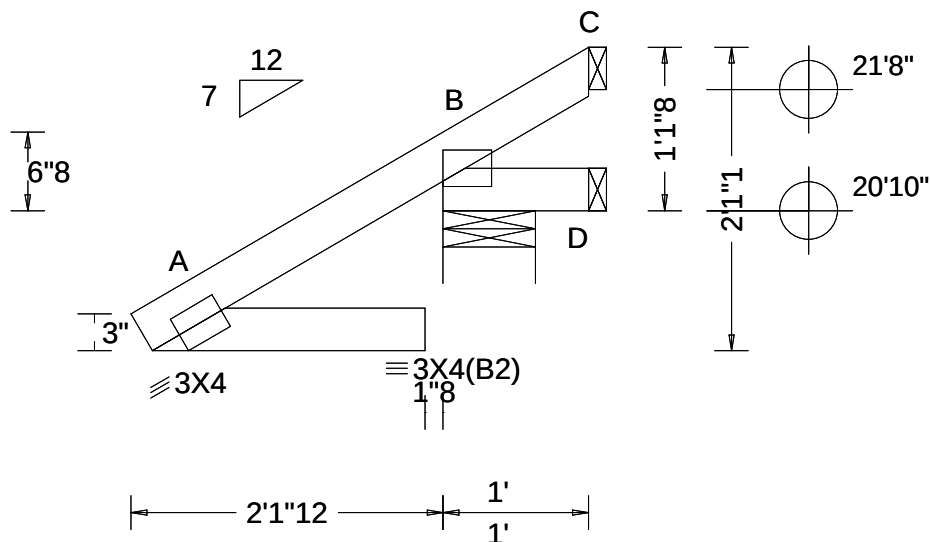
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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 820263 FROM: DLC	JACK Ply: 1 Qty: 3	Job Number: D14780 VACCARO ADDITION Truss Label: J4	Cust: R 9753 JRef: 1Y7797530004 T11 DrwNo: 034.25.1111.14550 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 20.87 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.002 C - - HORZ(TL): 0.003 C - - Creep Factor: 2.0 Max TC CSI: 0.629 Max BC CSI: 0.074 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 419 /- /- /504 /208 /114 D 8 /-19 /- /21 /29 /- C - /-113 /- /101 /184 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Lt Level Return: 2x4 SP #3;

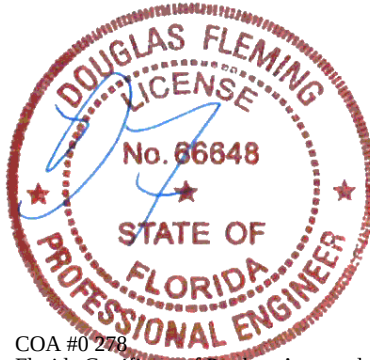
Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

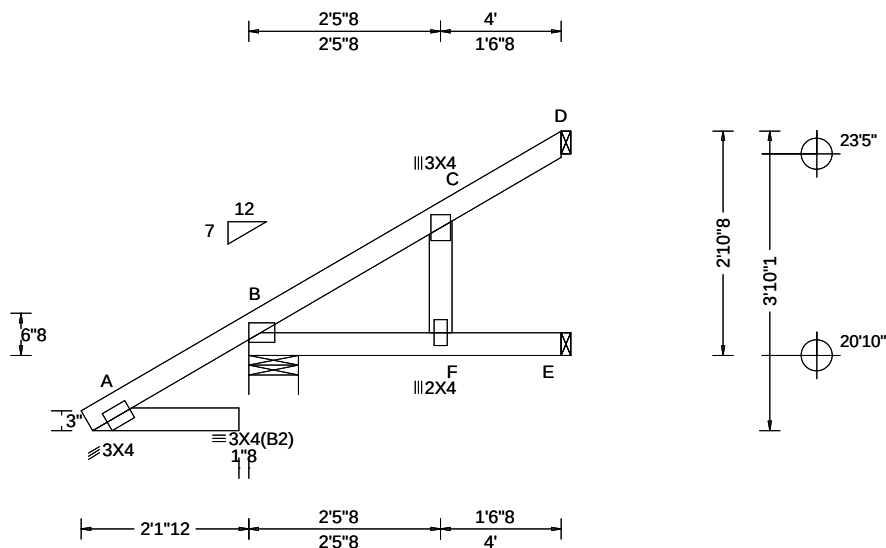


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SEQN: 820417 FROM: DLC	EJAC Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: J5G	Cust: R 9753 JRef: 1Y7797530004 T23 DrwNo: 034.25.1111.18160 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 21.92 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.060 F 779 360 VERT(CL): 0.110 F 427 240 HORZ(LL): 0.040 C - - HORZ(TL): 0.072 C - - Creep Factor: 2.0 Max TC CSI: 0.780 Max BC CSI: 0.804 Max Web CSI: 0.341 VIEW Ver: 23.02.01.1109.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 778 /- /- /- /449 /- E 482 /- /- /- /383 /- D 378 /- /- /- /179 /- Wind reactions based on MWFRS B Brg Wid = 7.6 Min Req = 1.5 (Truss) E Brg Wid = 1.5 Min Req = - D Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP SS;
Webs: 2x4 SP #3;
Lt Level Return: 2x4 SP #3;

Special Loads

----- (Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)

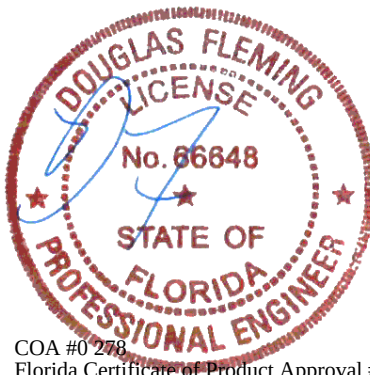
TC: From 95 plf at -2.15 to 95 plf at 2.41
TC: From 47 plf at 2.41 to 47 plf at 4.00
BC: From 5 plf at -2.15 to 5 plf at -2.00
BC: From 20 plf at 0.00 to 20 plf at 2.41
BC: From 10 plf at 2.41 to 10 plf at 4.00
PLB: From 4 plf at -1.93 to 4 plf at -0.17
TC: 75 lb Conc. Load at 4.00
BC: 835 lb Conc. Load at 2.41
BC: 181 lb Conc. Load at 4.00

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

Wind

Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.



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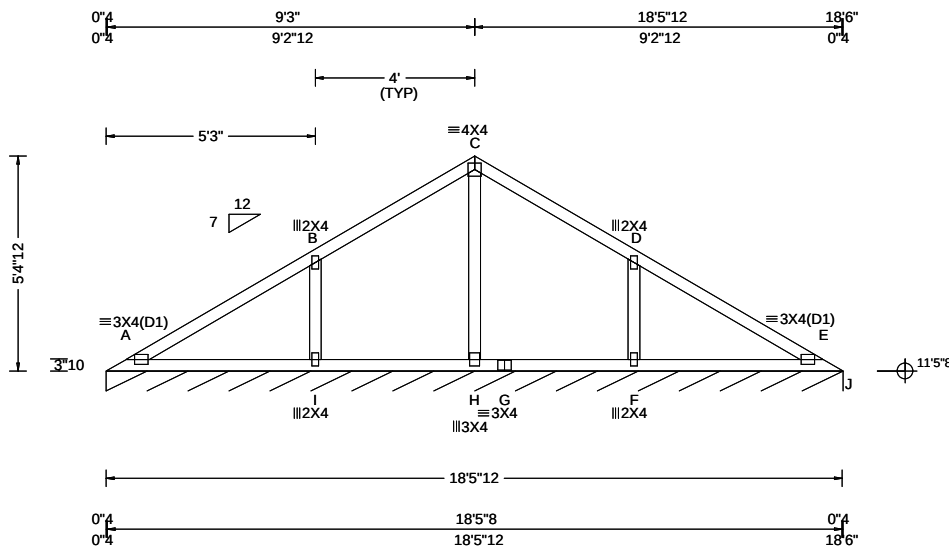
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Leading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 30.00	Wind Std: ASCE 7-22	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#	Gravity Non-Gravity
TCDL: 15.00	Speed: 175 mph	Pf: NA Ce: NA	VERT(LL): -0.012 G 999 360	Loc R+ / R- / Rh / Rw / U / RL
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.018 G 999 240	B 499 /- /- /441 /185 /309
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.015 F - -	E 173 /- /- /108 /140 /-
Des Ld: 55.00	EXP: C Kzt: NA		HORZ(TL): 0.018 F - -	D 74 /- /- /65 /58 /-
NCBCLL: 10.00	Mean Height: 22.04 ft	Building Code:	Creep Factor: 2.0	Wind reactions based on MWFRS
Soffit: 2.00	TCDL: 5.0 psf	FBC 8th Ed. 2023 Res.	Max TC CSI: 0.637	B Brg Wid = 7.6 Min Req = 1.5 (Truss)
Load Duration: 1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.091	E Brg Wid = 1.5 Min Req = -
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Yes	Max Web CSI: 0.812	D Brg Wid = 1.5 Min Req = -
	C&C Dist a: 3.00 ft	FT/RT:20(0)/10(0)		Bearing B is a rigid surface.
	Loc. from endwall: Any	Plate Type(s):		Members not listed have forces less than 375#
	GCpi: 0.18	WAVE	VIEW Ver: 23.02.01.1109.17	Maximum Bot Chord Forces Per Ply (lbs)
	Wind Duration: 1.60			Chords Tens.Comp.

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SEQN: 827017 FROM: DLC	VAL Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: V1 18'6" Valley	Cust: R 9753 JRef: 1Y7797530004 T28 DrwNo: 034.25.1111.31497 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.017 E 999 360 VERT(CL): 0.032 E 999 240 HORZ(LL): 0.006 A - - HORZ(TL): 0.012 A - - Creep Factor: 2.0 Max TC CSI: 0.411 Max BC CSI: 0.177 Max Web CSI: 0.241 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL J* 114 /- /- /54 /39 /13 Wind reactions based on MWFRS J Brg Wid = 222 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# Maximum Web Forces Per Ply (lbs) Webs Tens.Comp. Webs Tens. Comp. B - I 575 -490 F - D 574 -490 C - H 145 -473

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

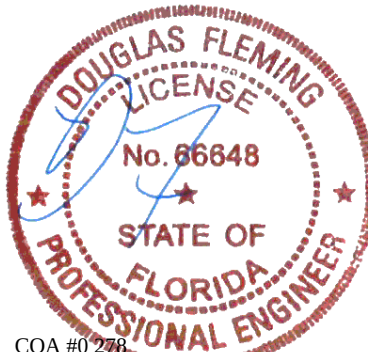
Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VAL180220723 for valley details.

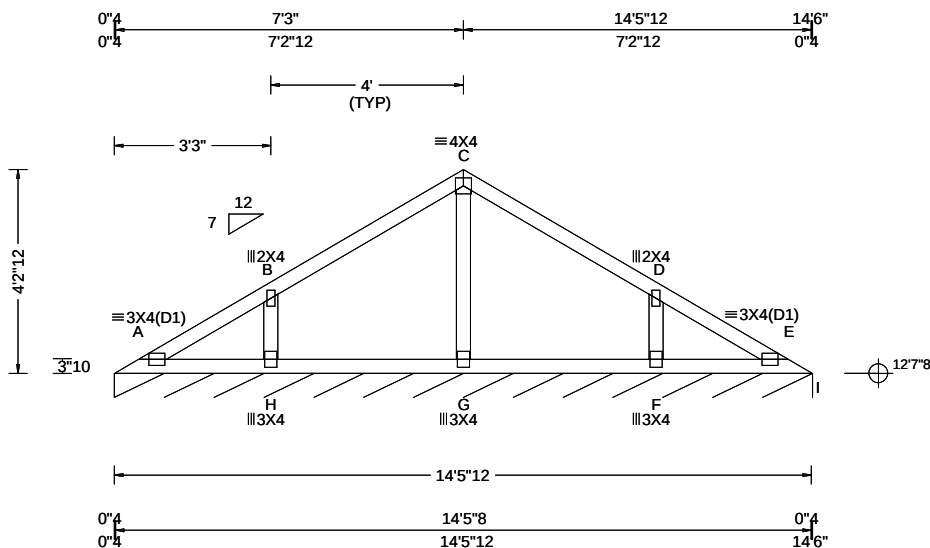


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SEQN: 827014 FROM: DLC	VAL	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: V2 14'6" Valley	Cust: R 9753 JRef: 1Y7797530004 T31 DrwNo: 034.25.1111.41540 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.002 E 999 360 VERT(CL): 0.005 E 999 240 HORZ(LL): -0.001 B - - HORZ(TL): 0.002 E - - Creep Factor: 2.0 Max TC CSI: 0.271 Max BC CSI: 0.083 Max Web CSI: 0.166 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL I* 114 /- /- /54 /38 /13 Wind reactions based on MWFRS I Brg Wid = 174 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# Maximum Web Forces Per Ply (lbs) Webs Tens.Comp. Webs Tens. Comp. B - H 557 -404 F - D 557 -404

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

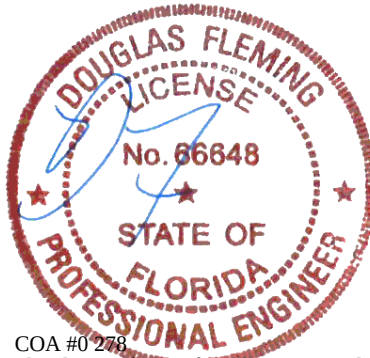
Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VAL180220723 for valley details.

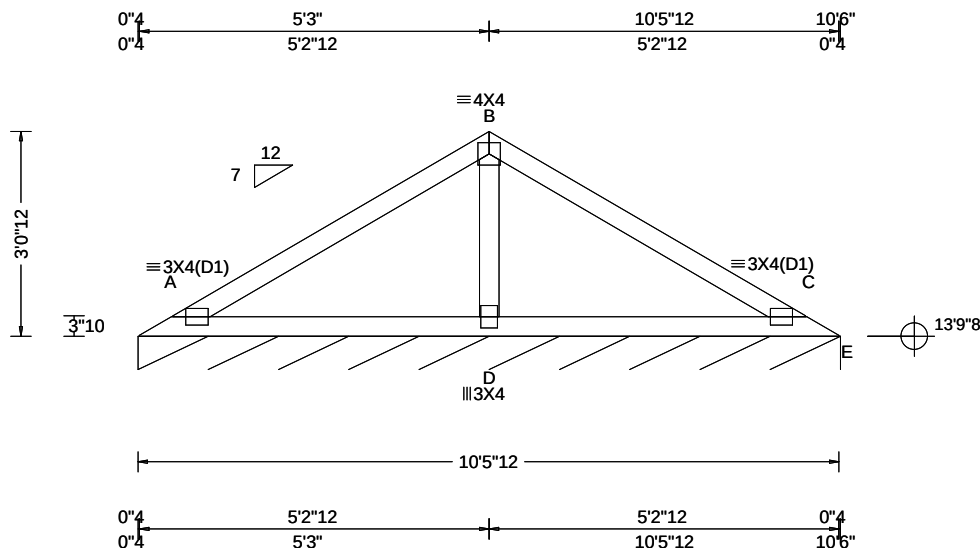


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Glenview, IL 60025

SEQN: 827020 FROM: DLC	VAL Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: V3 10'6" Valley	Cust: R 9753 JRef: 1Y7797530004 T27 DrwNo: 034.25.1111.44150 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.47 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.020 C 999 360 VERT(CL): 0.038 C 999 240 HORZ(LL): -0.009 C - - HORZ(TL): 0.018 C - - Creep Factor: 2.0 Max TC CSI: 0.428 Max BC CSI: 0.275 Max Web CSI: 0.274 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL E* 114 /- /- /53 /37 /12 Wind reactions based on MWFRS E Brg Wid = 126 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - B 536 -492 B - C 536 -502 Maximum Bot Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. A - D 622 -380 D - C 622 -380 Maximum Web Forces Per Ply (lbs) Webs Tens.Comp. B - D 921 -825

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

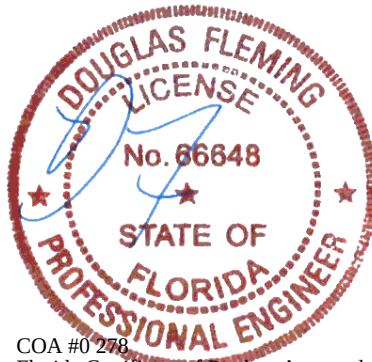
Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VAL180220723 for valley details.

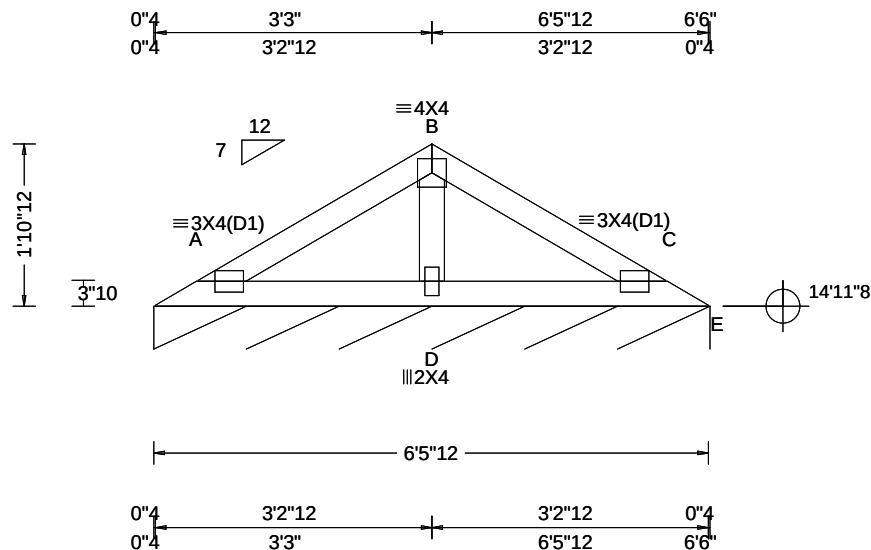


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Glenview, IL 60025

SEQN: 827023 FROM: DLC	VAL Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: V4 6'6" Valley	Cust: R 9753 JRef: 1Y7797530004 T33 DrwNo: 034.25.1111.46363 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 16.06 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 C 999 360 VERT(CL): 0.009 C 999 240 HORZ(LL): -0.002 C - - HORZ(TL): 0.004 C - - Creep Factor: 2.0 Max TC CSI: 0.166 Max BC CSI: 0.123 Max Web CSI: 0.151 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL E* 113 /- /- /51 /34 /11 Wind reactions based on MWFRS E Brg Wid = 78.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375# Maximum Web Forces Per Ply (lbs) Webs Tens.Comp. B - D 507 -379

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

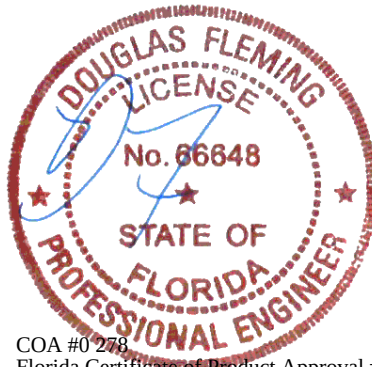
Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VAL180220723 for valley details.

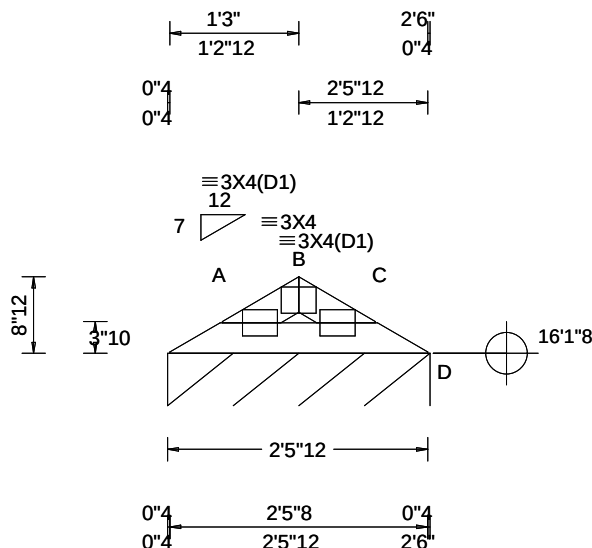


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North Building, 4th Floor
Glenview, IL 60025

SEQN: 827026 FROM: DLC	VAL	Ply: 1 Qty: 1	Job Number: D14780 VACCARO ADDITION Truss Label: V5 2'6" Valley	Cust: R 9753 JRef: 1Y7797530004 T29 DrwNo: 034.25.1111.49067 AK / DF 02/03/2025
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs), or *=PLF
TCLL: 30.00 TCDL: 15.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 175 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 16.64 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCp: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 A 999 360 VERT(CL): 0.002 A 999 240 HORZ(LL): -0.000 A - - HORZ(TL): 0.001 A - - Creep Factor: 2.0 Max TC CSI: 0.024 Max BC CSI: 0.040 Max Web CSI: 0.000 VIEW Ver: 23.02.01.1109.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 111 /- /- /41 /17 /7 Wind reactions based on MWFRS D Brg Wid = 30.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 4.00 sq.in./piece.

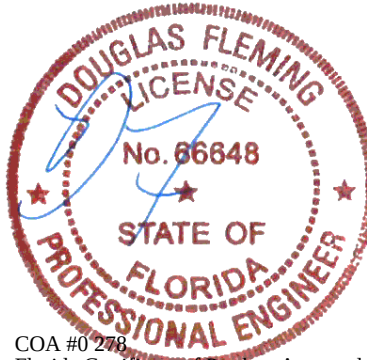
Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

Additional Notes

See DWG VAL180220723 for valley details.



COA #0 278
Florida Certificate of Product Approval #FL1999
02/03/2025

****WARNING**** READ AND FOLLOW ALL NOTES ON THIS DRAWING!
****IMPORTANT**** FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have continuous lateral restraint (CLR), installed with diagonal bracing installed on the CLR per BCSI sections B3, B7, or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. Refer to job's General Notes page for additional information.
Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbccomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
AN ITW COMPANY
155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

CLR Reinforcing Member Substitution

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforcement or scab reinforcement.

Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

Use scabs instead of L- or T- reinforcement on webs with intersecting truss joints, such as K-web joints, that may interfere with proper application along the narrow face of the web.

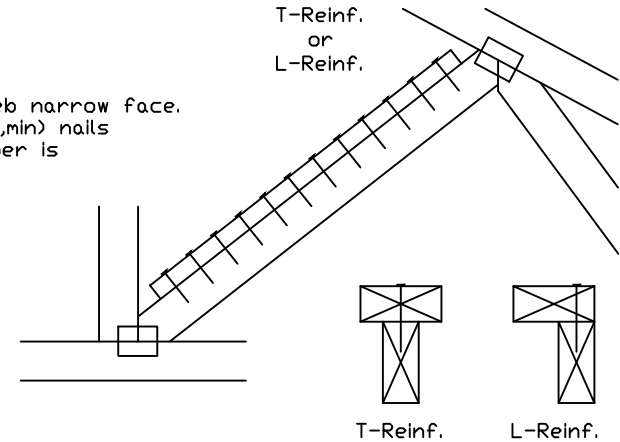
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(*) Center scab on wide face of web. Apply (1) scab to each face of web.

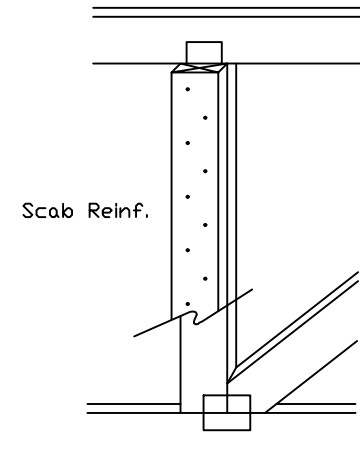
T-Reinforcement or L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



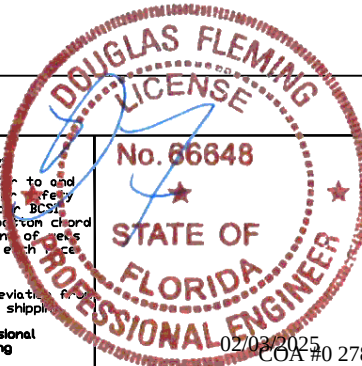
Scab Reinforcement:

Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



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For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcacomponents.com; ICC: www.iccsafe.org



TC LL	PSF	REF CLR Subst.
TC DL	PSF	DATE 01/02/19
BC DL	PSF	DRWG BRCLBSUB0119
BC LL	PSF	
TOT. LD.	PSF	
DUR. FAC.		
SPACING		

Valley Detail - ASCE 7-22: 180 mph, 30' Mean Height, Partially Enclosed, Exp. C, Kzt=1.00

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better.
 Bot Chord 2x4 SP #2N or SPF #1/#2 or better.
 Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

**** Attach each valley to every supporting truss with:**
 535# connection or with (1) Simpson H2.5A or
 equivalent connector for
 ASCE 7-22 180 mph. 30' Mean Height, Part. Enc.
 Building, Exp. C, Wind TC DL=5 psf, Kzt = 1.00
 Or
 ASCE 7-22 160 mph. 30' Mean Height, Part. Enc.
 Building, Exp. D, Wind TC DL=5 psf, Kzt = 1.00

Bottom chord may be square or pitched cut
 as shown.

Valleys short enough to be cut as solid triangular
 members from a single 2x6, or larger as required,
 shall be permitted in lieu of fabricating from
 separate 2x4 members.

All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical
 valley webs taller than 7'-9" apply 2x4 "T" reinforcement, 80% length of
 web, same species and grade or better, attached with 10d box
 (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous
 Lateral Restraint applied at mid-length of web is permitted with diagonal
 bracing as shown in DRWG BRCLBANC1014.

Top chord of truss beneath valley set must be braced with:
 properly attached, rated sheathing applied prior to valley truss
 installation.

Or

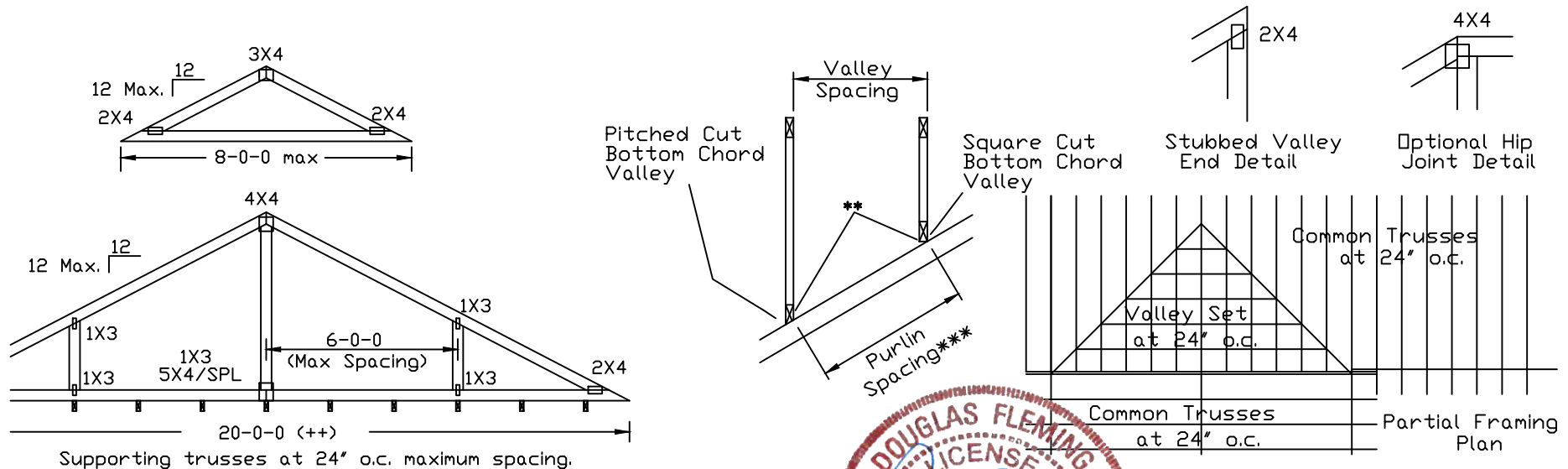
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design

Or

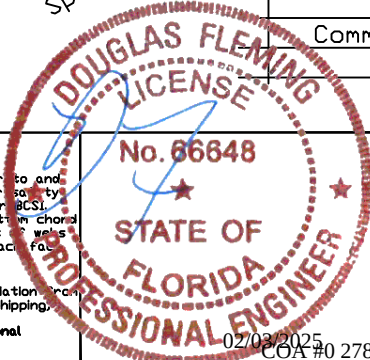
By valley trusses used in lieu of purlin spacing as specified on
 Engineer's sealed design.

***** Note that the purlin spacing for bracing the top chord of the truss
 beneath the valley is measured along the slope of the top chord.**

**++ Larger spans may be built as long as the vertical height does
 not exceed 14'-0".**



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 of truss and position as shown above and on the Joint Details, unless noted otherwise.
 Refer to drawings 160A-Z for standard plate positions.
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TC LL	30	30	40PSF	REF	VALLEY DETAIL
TC DL	20	15	7PSF	DATE	07/03/2023
BC DL	10	10	10 PSF	DRWG	VAL180220723
BC LL	0	0	0PSF		
TOT. LD.	60	55	57PSF		
DUR.FAC.1.25/1.33	1.15	1.15			
SPACING	24.0"				



A Division of 

Hanger Approval
Submittals

Hanger Approvals for Truss-to-Truss Connections

Attached to this package are the approvals for the following Hangers/Straps.

Hanger / Strap I.D. Number	State of Florida Approval Number
LUS-MUS-HUS-HHUS-HGUS	FL10531-R6
THGB-THGBH-THGW- THGBV-THGBHV-THGWV	FL11468-R5
THA-THAC	FL10447-R7
SUR-SUL-HSUR-HSUL	FL10531-R6
LTS-MTS-HTS	FL13872-R4
THJA26	FL10447-R7
GTWS	FL6223

LUS/MUS/HUS/HHUS/HGUS

Face-Mount Joist Hangers



This product is preferable to similar connectors because of a) easier installation, b) higher loads, c) lower installed cost, or a combination of these features.

The double-shear hanger series, ranging from the light-capacity LUS hangers to the highest-capacity HGUS hangers, feature innovative double-shear nailing that distributes the load through two points on each joist nail for greater strength. This allows for fewer nails, faster installation and the use of all common nails for the same connection.

For medium-load truss applications, the MUS offers a lower-cost alternative and easier installation than the HUS or THA hangers, while providing greater load capacity and bearing than the LUS.

Material: See tables on pp. 200–201

Finish: Galvanized. Some products available in stainless steel or ZMAX® coating. See Corrosion Information, pp. 12–15.

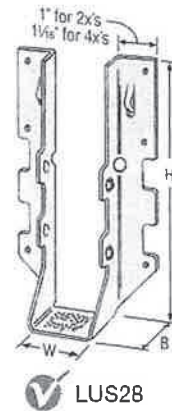
Installation:

- Use all specified fasteners; see General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

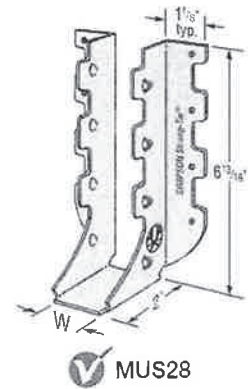
Options:

- LUS and MUS hangers cannot be modified
- Concealed flanges are not available for HGUS and HHUS
- Other sizes available; consult your Simpson Strong-Tie representative

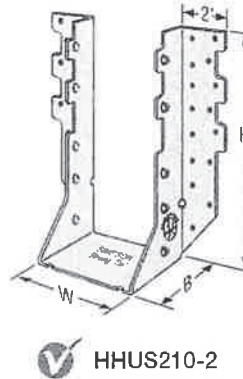
Codes: See p. 11 for Code Reference Key Chart



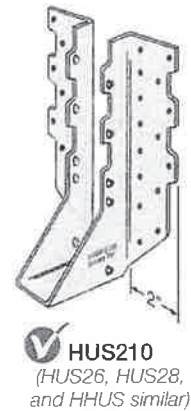
✓ LUS28



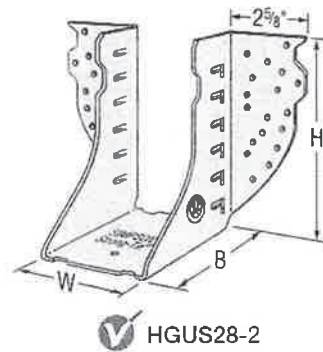
✓ MUS28



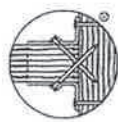
✓ HHUS210-2



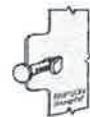
✓ HUS210
(HUS26, HUS28, and HHUS similar)



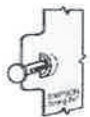
✓ HGUS28-2



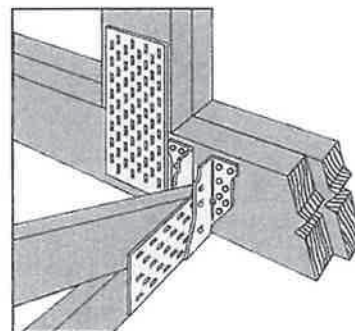
Double-Shear
Nailing
Top View



Double-Shear Nailing
Side View
Do not bend tab



Dome Double-Shear
Nailing Side View
(Available on
some models)



Typical HUS26
Installation
with Reduced
Heel Height
(multiple member
fastening
by designer)

LUS/MUS/HUS/HHUS/HGUS

Face-Mount Joist Hangers (cont.)

Model No.	Min. Heel Height	Ga.	Dimensions (in.)			Fasteners	
			W	H	B	Carrying Member	Carried Member
Single 2x Sizes							
LUS24	2 $\frac{1}{8}$	18	1 $\frac{1}{8}$	3 $\frac{1}{8}$	1 $\frac{1}{4}$	(4) 0.148 x 3	(2) 0.148 x 3
LUS26	4 $\frac{1}{4}$	18	1 $\frac{1}{8}$	4 $\frac{1}{4}$	1 $\frac{1}{4}$	(4) 0.148 x 3	(4) 0.148 x 3
MUS26	4 $\frac{1}{16}$	18	1 $\frac{1}{8}$	5 $\frac{1}{8}$	2	(6) 0.148 x 3	(6) 0.148 x 3
HUS26	4 $\frac{5}{16}$	16	1 $\frac{1}{8}$	5 $\frac{1}{8}$	3	(14) 0.162 x 3 $\frac{1}{2}$	(6) 0.162 x 3 $\frac{1}{2}$
HGUS26	4 $\frac{9}{16}$	12	1 $\frac{1}{8}$	5 $\frac{3}{8}$	5	(20) 0.162 x 3 $\frac{1}{2}$	(8) 0.162 x 3 $\frac{1}{2}$
LUS28	4 $\frac{3}{16}$	18	1 $\frac{1}{8}$	6 $\frac{1}{8}$	1 $\frac{1}{4}$	(6) 0.148 x 3	(4) 0.148 x 3
MUS28	6 $\frac{1}{16}$	18	1 $\frac{1}{8}$	6 $\frac{1}{8}$	2	(8) 0.148 x 3	(8) 0.148 x 3
HUS28	6 $\frac{1}{2}$	16	1 $\frac{1}{8}$	7	3	(22) 0.162 x 3 $\frac{1}{2}$	(8) 0.162 x 3 $\frac{1}{2}$
HGUS28	6 $\frac{5}{8}$	12	1 $\frac{1}{8}$	7 $\frac{1}{8}$	5	(36) 0.162 x 3 $\frac{1}{2}$	(12) 0.162 x 3 $\frac{1}{2}$
LUS210	4 $\frac{1}{4}$	18	1 $\frac{1}{8}$	7 $\frac{1}{8}$	1 $\frac{1}{4}$	(8) 0.148 x 3	(4) 0.148 x 3
HUS210	8 $\frac{1}{8}$	16	1 $\frac{1}{8}$	9	3	(30) 0.162 x 3 $\frac{1}{2}$	(10) 0.162 x 3 $\frac{1}{2}$
HGUS210	8 $\frac{3}{8}$	12	1 $\frac{1}{8}$	9 $\frac{1}{8}$	5	(46) 0.162 x 3 $\frac{1}{2}$	(16) 0.162 x 3 $\frac{1}{2}$

1. See table below for allowable loads.

These products are available with additional corrosion protection. For more information, see p. 14.

SS For stainless-steel fasteners, see p. 21.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 348–352 for more information.

Model No.	DF Allowable Loads					SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
Single 2x Sizes																
LUS24	435	670	765	820	1,045	435	725	825	890	1,120	360	495	565	605	770	IBC, FL, LA
LUS26	1,165	865	990	1,070	1,355	1,165	935	1,070	1,150	1,475	865	635	725	785	1,000	
MUS26	930	1,295	1,480	1,560	1,560	930	1,405	1,560	1,560	1,560	810	955	1,090	1,180	1,350	
HUS26	1,320	2,735	3,095	3,235	3,235	1,320	2,960	3,280	3,280	3,280	1,150	2,350	2,660	2,780	2,780	
HGUS26	1,040	4,355	4,875	5,230	5,390	1,045	4,725	5,295	5,390	5,390	1,005	3,755	4,205	4,495	5,390	
LUS28	1,165	1,100	1,260	1,350	1,725	1,165	1,195	1,360	1,465	1,730	865	810	925	1,000	1,270	
MUS28	1,320	1,730	1,975	2,125	2,255	1,320	1,875	2,135	2,255	2,255	1,150	1,270	1,455	1,575	1,955	
HUS28	1,760	4,095	4,095	4,095	4,095	1,760	4,095	4,095	4,095	4,095	1,480	3,520	3,520	3,520	3,520	
HGUS28	1,650	7,275	7,275	7,275	7,275	1,650	7,275	7,275	7,275	7,275	1,485	6,010	6,255	6,255	6,255	
LUS210	1,165	1,335	1,530	1,640	2,090	1,165	1,450	1,655	1,775	2,270	865	985	1,120	1,215	1,500	
HUS210	2,635	5,450	5,795	5,830	5,830	2,635	5,395	5,780	5,830	5,830	2,220	4,685	4,985	5,015	5,015	
HGUS210	2,090	9,100	9,100	9,100	9,100	2,090	9,100	9,100	9,100	9,100	1,545	6,340	6,730	6,730	6,730	

1. For dimensions and fastener information, see table above. See table footnotes on p. 201.

HHUS/HGUS

See Hanger Options information on pp. 97–99.

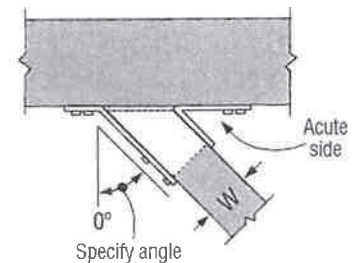
HHUS — Sloped and/or Skewed Seat

- HHUS hangers can be skewed to a maximum of 45° and/or sloped to a maximum of 45°
- For skew only, maximum allowable download is 0.85 of the table load
- For sloped only or sloped and skewed hangers, the maximum allowable download is 0.65 of the table load
- Uplift loads for sloped/skewed conditions are 0.72 of the table load, not to exceed 2,475 lb.
- The joist must be bevel-cut to allow for double shear nailing

HGUS — Skewed Seat

- HGUS hangers can be skewed only to a maximum of 45°. Allowable loads are:

HGUS Seat Width	Carried Member End Condition			
	Square Cut		Bevel Cut	
	Uplift	Download	Uplift	Download
W < 2"	0.46	0.62	0.46	0.72
2" < W < 6"	0.41	0.46	0.41	0.85
6" < W < 6.75"		0.40		
6.75" < W < 7.25"	Not allowed	Not allowed		



Top View HHUS Hanger Skewed Right

(joist must be bevel cut)
All joist nails installed on the outside angle (non-acute side).

LUS/MUS/HUS/HHUS/HGUS

These products are available with additional corrosion protection. For more information, see p. 14.

SS For stainless-steel fasteners, see p. 21.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 348–352 for more information.

	Model No.	Min. Heel Height	Ga.	Dimensions (in.)			Fasteners (in.)		DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.	
				W	H	B	Carrying Member	Carried Member	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)		
Double 2x Sizes																				
	LUS24-2	2¼	18	3½	3½	2	(4) 0.162 x 3½	(2) 0.162 x 3½	410	800	905	980	1,245	355	690	780	845	1,070	IBC, FL, LA	
SS	LUS26-2	4⅞	18	3½	4⅞	2	(4) 0.162 x 3½	(4) 0.162 x 3½	1,060	1,030	1,170	1,265	1,595	910	885	1,005	1,090	1,370		
	HHUS26-2	4⅞	14	3⅞	5⅞	3	(14) 0.162 x 3½	(6) 0.162 x 3½	1,320	2,830	3,190	3,415	4,250	1,135	2,435	2,745	2,935	3,655		
	HGUS26-2	4⅞	12	3⅞	5⅞	4	(20) 0.162 x 3½	(8) 0.162 x 3½	2,155	4,355	4,875	5,230	5,575	2,155	3,755	4,875	5,230	5,255		
SS	LUS28-2	4⅞	18	3½	7	2	(6) 0.162 x 3½	(4) 0.162 x 3½	1,060	1,315	1,490	1,610	2,030	910	1,130	1,280	1,385	1,745		
	HHUS28-2	6⅞	14	3⅞	7¼	3	(22) 0.162 x 3½	(8) 0.162 x 3½	1,760	4,265	4,810	5,155	5,980	1,515	3,670	4,135	4,435	5,145		
	HGUS28-2	6⅞	12	3⅞	7⅞	4	(36) 0.162 x 3½	(12) 0.162 x 3½	3,235	7,460	7,460	7,460	7,460	2,780	6,415	6,415	6,415	6,415		
SS	LUS210-2	6⅞	18	3½	9	2	(8) 0.162 x 3½	(6) 0.162 x 3½	1,445	1,830	2,075	2,245	2,830	1,245	1,575	1,785	1,930	2,435		
	HHUS210-2	8⅞	14	3⅞	9⅞	3	(30) 0.162 x 3½	(10) 0.162 x 3½	3,550	5,705	6,435	6,485	6,485	3,335	4,905	5,340	5,060	5,190		
	HGUS210-2	8⅞	12	3⅞	9⅞	4	(46) 0.162 x 3½	(16) 0.162 x 3½	4,095	9,100	9,100	9,100	9,100	3,520	7,460	7,825	7,825	7,825		
Triple 2x Sizes																				
	HGUS26-3	4⅞	12	4⅞	5½	4	(20) 0.162 x 3½	(8) 0.162 x 3½	2,155	4,355	4,875	5,230	5,575	2,155	3,755	4,875	5,230	5,255	IBC, FL, LA	
	HGUS28-3	6⅞	12	4⅞	7¼	4	(36) 0.162 x 3½	(12) 0.162 x 3½	3,235	7,460	7,460	7,460	7,460	2,780	6,415	6,415	6,415	6,415		
	HHUS210-3	8⅞	14	4⅞	8⅞	3	(30) 0.162 x 3½	(10) 0.162 x 3½	3,405	5,640	6,380	6,485	6,485	2,930	4,850	5,485	5,575	5,575	FL	
	HGUS210-3	8⅞	12	4⅞	9¼	4	(46) 0.162 x 3½	(16) 0.162 x 3½	4,095	9,100	9,100	9,100	9,100	3,520	7,825	7,825	7,825	7,825	IBC, FL, LA	
	HGUS212-3	10⅞	12	4⅞	10¾	4	(56) 0.162 x 3½	(20) 0.162 x 3½	5,205	11,915	13,330	14,290	14,350	4,730	10,280	12,420	12,420	12,420		
	HGUS214-3	12⅞	12	4⅞	12¾	4	(66) 0.162 x 3½	(22) 0.162 x 3½	5,360	13,860	14,350	14,350	14,350	4,915	11,960	12,420	12,420	12,420		
Quadruple 2x Sizes																				
	HGUS26-4	5½	12	6⅞	5⅞	4	(20) 0.162 x 3½	(8) 0.162 x 3½	2,155	4,355	4,875	5,230	5,575	2,155	3,755	4,875	5,230	5,255	IBC, FL, LA	
	HGUS28-4	7¼	12	6⅞	7⅞	4	(36) 0.162 x 3½	(12) 0.162 x 3½	3,235	7,460	7,460	7,460	7,460	2,780	6,415	6,415	6,415	6,415		
	HHUS210-4	8⅞	14	6⅞	8⅞	3	(30) 0.162 x 3½	(10) 0.162 x 3½	3,405	5,640	6,380	6,485	6,485	2,930	4,850	5,485	5,575	5,575	FL	
	HGUS210-4	9¼	12	6⅞	9⅞	4	(46) 0.162 x 3½	(16) 0.162 x 3½	4,095	9,100	9,100	9,100	9,100	3,520	7,825	7,825	7,825	7,825	IBC, FL, LA	
	HGUS212-4	10⅞	12	6⅞	10⅞	4	(56) 0.162 x 3½	(20) 0.162 x 3½	5,205	11,915	13,330	14,290	14,350	4,730	10,280	12,420	12,420	12,420		
	HGUS214-4	12⅞	12	6⅞	12⅞	4	(66) 0.162 x 3½	(22) 0.162 x 3½	5,360	13,860	14,350	14,350	14,350	4,915	11,960	12,420	12,420	12,420		
4x Sizes																				
	LUS46	4⅞	18	3⅞	4¾	2	(4) 0.162 x 3½	(4) 0.162 x 3½	1,060	1,030	1,170	1,265	1,595	910	885	1,005	1,090	1,370	IBC, FL, LA	
	HGUS46	4⅞	12	3⅞	4⅞	4	(20) 0.162 x 3½	(8) 0.162 x 3½	2,155	4,355	4,875	5,230	5,575	2,155	3,755	4,875	5,230	5,255		
	HHUS46	4⅞	14	3⅞	5⅞	3	(14) 0.162 x 3½	(6) 0.162 x 3½	1,320	2,830	3,190	3,415	4,250	1,135	2,435	2,745	2,935	3,655		
	LUS48	4⅞	18	3⅞	6¾	2	(6) 0.162 x 3½	(4) 0.162 x 3½	1,060	1,315	1,490	1,610	2,030	910	1,130	1,280	1,385	1,745		
	HUS48	6⅞	14	3⅞	7	2	(6) 0.162 x 3½	(6) 0.162 x 3½	1,320	1,580	1,790	1,930	2,415	1,135	1,360	1,540	1,660	2,075		
	HHUS48	6½	14	3⅞	7½	3	(22) 0.162 x 3½	(8) 0.162 x 3½	1,760	4,265	4,810	5,155	5,980	1,515	3,670	4,135	4,435	5,145		
	HGUS48	6⅞	12	3⅞	7⅞	4	(36) 0.162 x 3½	(12) 0.162 x 3½	3,235	7,460	7,460	7,460	7,460	2,780	6,415	6,415	6,415	6,415		
	LUS410	6¼	18	3⅞	8¾	2	(8) 0.162 x 3½	(6) 0.162 x 3½	1,445	1,830	2,075	2,245	2,830	1,245	1,575	1,785	1,930	2,435		
	HHUS410	8⅞	14	3⅞	9	3	(30) 0.162 x 3½	(10) 0.162 x 3½	3,550	5,705	6,435	6,485	6,485	3,265	4,905	5,535	5,575	5,575		
	HGUS410	8⅞	12	3⅞	9⅞	4	(46) 0.162 x 3½	(16) 0.162 x 3½	4,095	9,100	9,100	9,100	9,100	3,520	7,825	7,825	7,825	7,825		
	HGUS412	10⅞	12	3⅞	10⅞	4	(56) 0.162 x 3½	(20) 0.162 x 3½	5,205	11,915	13,330	14,290	14,350	4,730	10,280	12,420	12,420	12,420		
	HGUS414	11⅞	12	3⅞	12⅞	4	(66) 0.162 x 3½	(22) 0.162 x 3½	5,360	13,860	14,350	14,350	14,350	4,915	11,960	12,420	12,420	12,420		
Double 4x Sizes																				
	HGUS7.37/10	8⅞	12	7⅞	8⅞	4	(46) 0.162 x 3½	(16) 0.162 x 3½	4,095	9,100	9,100	9,100	9,100	3,520	7,825	7,825	7,825	7,825	IBC, FL, LA	
	HGUS7.37/12	10⅞	12	7⅞	10⅞	4	(56) 0.162 x 3½	(20) 0.162 x 3½	5,205	11,915	13,330	14,290	14,350	4,730	10,280	12,420	12,420	12,420		
	HGUS7.37/14	11⅞	12	7⅞	12⅞	4	(66) 0.162 x 3½	(22) 0.162 x 3½	5,360	13,860	14,350	14,350	14,350	4,915	11,960	12,420	12,420	12,420		

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. Wind (160) is a download rating.
3. Minimum heel height shown is required to achieve full table loads. For less than minimum heel height, see technical bulletin T-C-REDHEEL at strongtie.com.
4. Truss chord cross-grain tension may limit allowable loads in accordance with ANSI/TPI 1-2014. Simpson Strong-Tie® Connector Selector™ software includes the evaluation of cross-grain tension in its hanger allowable loads. For additional information, contact Simpson Strong-Tie.
5. Loads shown are based on a two-ply 2x carrying member minimum for nailed hangers. With 3x carrying members: when 0.162" x 3 1/2" nails are specified, use 0.162" x 2 1/2" nails into the header and 0.162" x 3 1/2" nails into the joist with no load reduction. When 0.148" x 3" nails are specified, use 0.148" x 2 1/2" nails into the header and 0.148" x 3" nails into the joist with no load reduction. With 2x carrying members: when 0.162" x 3 1/2" nails are specified, use 0.148" x 1 1/2" nails into the header and 0.148" x 3" nails into the joist and reduce the load to 0.64 of the table values. When 0.148" x 3" nails are specified, use 0.148" x 1 1/2" nails into the header and 0.148" x 3" nails into the joist and reduce the load to 0.77 of the table values.
6. Fasteners: Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.

THGB/THGBH/THGW/THGBV/THGBHV/THGWV

Truss and SCL-to-Truss Girder Hangers

These high-capacity, welded hangers are designed for attaching two-ply, three-ply or four-ply-sized structural composite lumber (SCL) and multi-ply girder trusses to a girder truss.

The THGBV and THGB offer optional installation with Strong-Drive® SDS Heavy-Duty Connector screws, while the bolted THGBHV, THGWV, THGBH and THGW offer higher load capacities.

For the THGBV/THGBHV/THGWV series, two bucket heights are available for each width to accommodate a range of SCL sizes. Options for skewing or dropping the buckets for conditions where the SCL joist is lower than the girder bottom chord provide additional design flexibility for a variety of SCL-to-truss connections.

See the THGQ/THGQH series for a lower-cost alternative that uses Strong-Drive SDS Heavy-Duty Connector screws instead of bolts and offers high-load capacities.

Material: 3 gauge

Finish: Simpson Strong-Tie gray paint

Installation:

- Use all specified fasteners; see General Notes.
- All multiple members must be fastened together to act as a single unit.
- Maximum 11 7/8" bottom chord in the carrying member to allow for the minimum bolt end distance.
- Bolts must be installed symmetrically when using fewer than eight bolts on the eight-bolt backplate.
- Girders must be adequately laterally braced to prevent excessive displacement due to secondary torsional stresses (Ref. ANSI/TPI 1-2014 Section 7.5.3.5).
- Shall be attached to a two-ply girder truss to allow for required minimum screw penetration. See footnote 4.

Options:

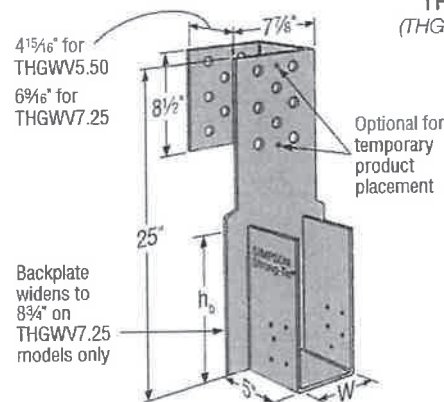
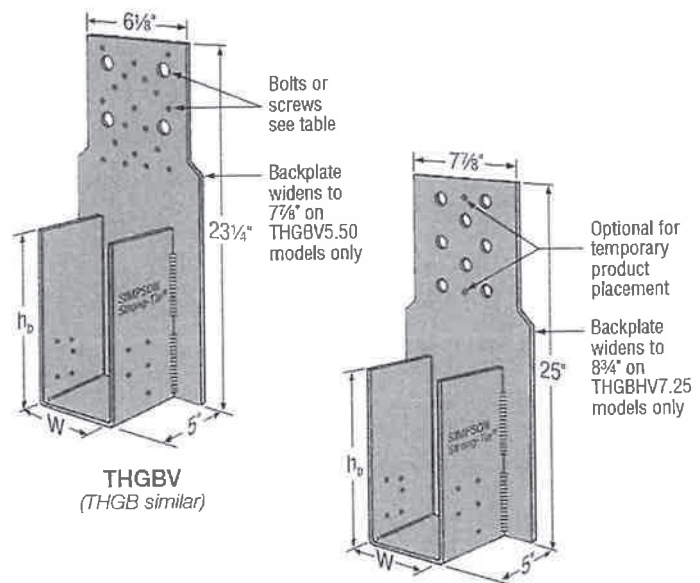
Skewed Seat

- THGB/THGBH/THGBV/THGBHV hangers can be skewed to a maximum of 45°. The maximum allowable down load and uplift load for skew is 0.87 of the table load.

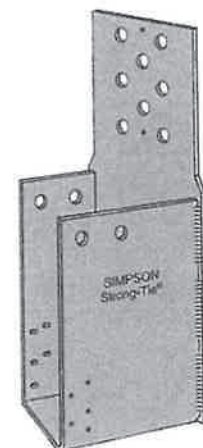
Dropped Bucket

- THGBV/THGBHV backplates can be extended to allow for up to a 6" dropped bucket.
- Allowable loads are 100% of the table loads.
- Order as "X" version, specify the total backplate height, BK_PLT, equal to the hanger height (H) plus the dropped bucket amount (db). Ex: a THGBV3.62/9 with a 4" dropped bucket would have a total backplate height of 27 1/4".

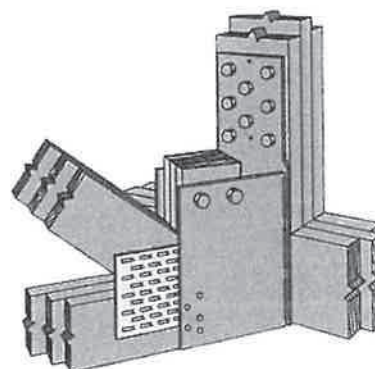
Codes: See p. 11 for Code Reference Key Chart



THGWV
(THGW similar)



THGBH3
(skewed left)

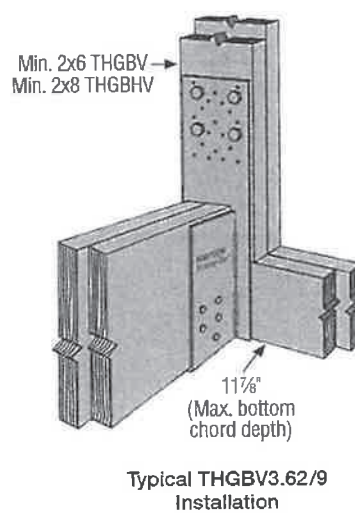
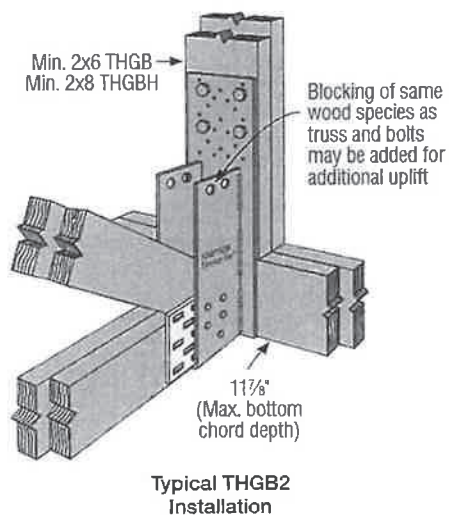
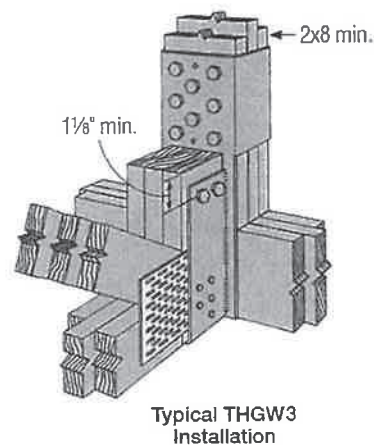


Typical THGBH Installation
Skewed Left

THGB/THGBH/THGW/THGBV/THGBHV/THGWV

Truss and SCL-to-Truss Girder Hangers (cont.)

Joist Dimensions (in.)		Model No.	Hanger Dimensions (in.)	
Width	Depth		W	h _b
3½	9¼ – 14	THGBV3.62/9	3⅝	9
		THGBHV3.62/9		9
	11¼ – 20	THGBV3.62/11		11
		THGBHV3.62/11		11
5¼	9¼ – 14	THGBV5.50/9	5½	9
		THGBHV5.50/9		9
		THGWV5.50/9		9
	11¼ – 20	THGBV5.50/11		11
		THGBHV5.50/11		11
		THGWV5.50/11		11
7	9¼ – 14	THGBHV7.25/9	7¼	9
		THGWV7.25/9		9
	11¼ – 20	THGBHV7.25/11		11
		THGWV7.25/11		11



THGB/THGBH/THGW/THGBV/THGBHV/THGWV

Truss and SCL-to-Truss Girder Hangers (cont.)

Model No.	Beam Width (in.)	Fasteners (in.)		Length of Bolt in Carrying Member	DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
		Carried Member	Carrying Member		Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
THGBV3.62/9 THGBV3.62/11	3½	(10) 0.148 x 3	(4) ¾ MB	3	2,570	6,030	6,835	7,375	8,715	2,570	5,160	5,840	6,290	7,320	
				4½		6,910	7,780	8,350	8,715		6,385	7,185	7,320	7,320	
				6		6,910	7,780	8,350	8,715		6,400	7,200	7,320	7,320	
				(19) ¼ x 3 SDS		7,980	8,675	8,675	8,675		5,700	6,245	6,245	6,245	
THGBHV3.62/9 THGBHV3.62/11	3½	(10) 0.148 x 3	(8) ¾ MB	3	2,570	10,105	10,345	10,505	10,915	2,570	7,465	7,675	7,815	8,285	
				4½		10,915	10,915	10,915	10,915		9,165	9,165	9,165	9,165	
				6		10,915	10,915	10,915	10,915		9,165	9,165	9,165	9,165	
THGBV5.50/9 THGBV5.50/11	5¼	(10) 0.148 x 3	(4) ¾ MB	3	2,570	6,030	6,835	7,375	8,715	2,570	5,160	5,840	6,290	7,320	
				4½		6,910	7,780	8,350	8,715		6,385	7,185	7,320	7,320	
				6		6,910	7,780	8,350	8,715		6,400	7,200	7,320	7,320	
				(19) ¼ x 3 SDS		7,980	8,675	8,675	8,675		5,700	6,245	6,245	6,245	
THGBHV5.50/9 THGBHV5.50/11	5¼	(10) 0.148 x 3	(8) ¾ MB	3	2,570	10,915	10,915	10,915	10,915	2,570	9,165	9,165	9,165	9,165	
				4½		12,665	12,665	12,665	12,665		10,500	10,640	10,640	10,640	
				6		12,815	12,815	12,815	12,815		10,500	10,710	10,765	10,765	
THGBHV7.25/9 THGBHV7.25/11	7	(10) 0.148 x 3	(4) ¾ MB	3	2,570	6,040	6,850	7,390	8,715	2,570	5,165	5,845	6,295	7,320	
				4½		6,910	7,780	8,350	8,715		6,385	7,185	7,320	7,320	
				6		6,910	7,780	8,350	8,715		6,400	7,200	7,320	7,320	
THGBHV7.25/9 THGBHV7.25/11	7	(10) 0.148 x 3	(6) ¾ MB	3	2,570	9,065	10,010	10,010	10,010	2,570	7,750	8,410	8,410	8,410	
				4½		10,010	10,010	10,010	10,010		8,410	8,410	8,410	8,410	
				6		10,010	10,010	10,010	10,010		8,410	8,410	8,410	8,410	
THGBHV7.25/9 THGBHV7.25/11	7	(10) 0.148 x 3	(8) ¾ MB	3	2,570	10,915	10,915	10,915	10,915	2,570	9,165	9,165	9,165	9,165	
				4½		13,830	15,060	15,060	15,060		12,650	12,650	12,650	12,650	
				6		13,830	15,060	15,060	15,060		12,650	12,650	12,650	12,650	
THGWV5.50/9 THGWV5.50/11	5¼	(10) 0.148 x 3	(8) ¾ MB	4½	2,570	21,320	21,835	21,835	21,835	2,570	18,340	18,340	18,340	18,340	
THGWV7.25/9 THGWV7.25/11	7	(10) 0.148 x 3	(8) ¾ MB	6	2,570	24,165	24,165	24,165	24,165	2,570	20,300	20,300	20,300	20,300	

1. Allowable loads are based on a SCL (LVL, PSL, or LSL) carried member with an allowable F'_c of 750 psi and equivalent Specific Gravity of 0.50 or higher.

2. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.

3. A three-ply carrying member is required for the THGWV5.50/9 and THGWV5.50/11; a four-ply carrying member is required for the THGWV7.25/9 and THGWV7.25/11.

4. Strong-Drive® SDS Heavy-Duty Connector screws require a minimum two-ply (3") carrying member.

5. Bolts and Strong-Drive SDS Heavy-Duty Connector screws (not included) may be installed through metal truss connector plates as approved by the Truss Designer, provided the requirements of ANSI/TPI 1-2014, Sections 7.5.3.4 and 8.9.2 are met.

6. Wind (160) is a download rating.

7. To achieve published loads, install bolts into the girder truss with the nut on the opposite side of the hanger with a standard-cut washer (except THGWVs). Standard-cut washers are required for THGBV and THGBHV.

8. Fasteners: Nail dimensions are listed diameter by length. SDS screws are Simpson Strong-Tie® Strong-Drive SDS Heavy-Duty Connector screws. See pp. 21–22 for fastener information.

THGB/THGBH/THGW/THGBV/THGBHV/THGWV

Truss and SCL-to-Truss Girder Hangers (cont.)

Model No.	Width (W) (in.)	Fasteners (in.)		Length of Bolt in Carrying Member	DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
		Carried Member	Carrying Member		Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
THGB2	3 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(4) ¾ MB	3	9,250	6,030	6,840	7,375	9,250	7,765	5,160	5,845	6,290	7,770	FL
				4 ½	9,700	6,915	7,780	8,350	9,350	8,145	6,390	7,185	7,320	7,855	
				6	9,700	6,915	7,780	8,350	9,350	8,145	6,405	7,200	7,320	7,855	
THGB2	3 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(19) ¼ x 3 SDS	—	9,510	7,980	9,175	9,510	9,510	6,845	5,700	6,605	6,845	6,845	
THGBH2	3 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(8) ¾ MB	3	9,700	10,105	10,345	10,505	10,915	8,145	7,465	7,675	7,815	8,285	
				4 ½	9,700	10,105	10,345	10,505	10,915	8,145	8,490	8,690	8,825	9,165	
				6	9,700	10,105	10,345	10,505	10,915	8,145	8,490	8,690	8,825	9,165	
THGB3	4 ¹ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(4) ¾ MB	3	9,250	6,030	6,840	7,375	9,250	7,765	5,160	5,845	6,290	7,770	
				4 ½	9,700	6,915	7,780	8,350	9,350	8,145	6,390	7,185	7,320	7,855	
				6	9,700	6,915	7,780	8,350	9,350	8,145	6,405	7,200	7,320	7,855	
THGB3	4 ¹ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(19) ¼ x 3 SDS	—	9,510	7,980	9,175	9,510	9,510	6,845	5,700	6,605	6,845	6,845	
THGBH3	4 ¹ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(8) ¾ MB	3	9,700	10,915	10,915	10,915	10,915	8,145	9,165	9,165	9,165	9,165	
				4 ½	9,700	12,665	12,665	12,665	12,665	8,145	10,500	10,640	10,640	10,640	
				6	9,700	12,815	12,815	12,815	12,815	8,145	10,500	10,710	10,765	10,765	
THGBH4	6 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(4) ¾ MB	3	9,270	6,040	6,850	7,390	9,270	7,785	5,165	5,845	6,295	7,785	
				4 ½	9,700	6,915	7,780	8,350	9,350	8,145	5,810	7,185	7,320	7,855	
				6	9,700	6,915	7,780	8,350	9,350	8,145	5,810	7,200	7,320	7,855	
THGBH4	6 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(6) ¾ MB	3	9,700	9,065	10,010	10,010	10,010	8,145	7,750	8,410	8,410	8,410	
				4 ½	9,700	10,010	10,010	10,010	10,010	8,145	8,410	8,410	8,410	8,410	
				6	9,700	10,010	10,010	10,010	10,010	8,145	8,410	8,410	8,410	8,410	
THGBH4	6 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(8) ¾ MB	3	9,700	10,915	10,915	10,915	10,915	8,145	9,165	9,165	9,165	9,165	
				4 ½	9,700	13,830	15,060	15,060	15,060	8,145	12,650	12,650	12,650	12,650	
				6	9,700	13,830	15,060	15,060	15,060	8,145	12,650	12,650	12,650	12,650	
THGW3-3 ^e	4 ¹ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(8) ¾ MB	4 ½	9,700	20,630	20,630	20,630	20,630	8,145	17,330	17,330	17,330	17,330	
THGW3-4 ^e				6	9,700	20,630	20,630	20,630	20,630	8,145	17,330	17,330	17,330	17,330	
THGW4-3 ^e	6 ⁵ / ₁₆	(10) 0.148 x 3 and (2) ¾ MB	(8) ¾ MB	4 ½	9,700	22,840	22,840	22,840	22,840	8,145	19,185	19,185	19,185	19,185	
THGW4-4 ^e				6	9,700	22,840	22,840	22,840	22,840	8,145	19,185	19,185	19,185	19,185	

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. A three-ply carrying member is required for the THGW3-3 and THGW4-3; a four-ply carrying member is required for the THGW3-4 and THGW4-4. For all other models, a minimum two-ply carrying member is required.
3. Strong Drive® SDS Heavy-Duty Connector screws require a minimum two-ply (3") carrying member.
4. Bolts and Strong Drive SDS Heavy-Duty Connector screws (not included) may be installed through metal truss connector plates as approved by the Truss Designer, provided the requirements of ANSI/TPI 1-2014, Sections 7.5.3.4 and 8.9.2 are met.
5. (10) 0.148" x 3" nails for the carried member will achieve the maximum downloads. Uplift loads are 2,570 lb. for DF/SP and 2,210 lb. for SPF/HF. To achieve maximum uplift, install nails and bolts listed in the table.
6. Loads for THGW models require that the supported member have minimum 2x6 end verticals to ensure end-grain bearing. Contact Simpson Strong-Tie for loads when horizontal members are bearing in the hanger seat.
7. Wind (160) is a download rating.
8. To achieve published loads, install bolts into the girder truss with the nut on the opposite side of the hanger with a standard-cut washer (except THGWs). Standard-cut washers are required for THGB and THGBH.
9. **Fasteners:** Nail dimensions are listed diameter by length, SDS screws are Simpson Strong-Tie® Strong-Drive SDS Heavy-Duty Connector screws. See pp. 21-22 for fastener information.

THA/THAC

Adjustable Truss Hangers



This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.

The THA series have extra long straps that can be field-formed to give height adjustability and top-flange hanger convenience. THA hangers can be installed as top-flange or face-mount hangers.

THA4x and THA2x-2 models feature a dense nail pattern in the straps, which provides more installation options and allows for easy top-flange installation.

Material: See table

Finish: Galvanized. Some products available in ZMAX® or HDG coating. See Corrosion Information, pp. 12–15.

Installation:

- Use all specified fasteners: see General Notes.

The following installation methods may be used:

- **Top-Flange Installation** — The straps must be field formed over the header 2" minimum (27/16" for the THA29). Install top and face nails according to the table. Top nails shall not be within 1/4" from the edge of the top-flange members. For all top-flange (max.) conditions, nails used for joist attachment must be driven at an angle so that they penetrate through the joist and into the header. For top-flange (min.) installations (not applicable to the THA29), straighten the double-shear nailing tabs and install the nails straight into the joist. Top-flange (max.) installations require full backing to allow for joist slanted fasteners to be properly installed.
- **Face-Mount (Min.) Installation** — Install face nails according to the table, with at least half of the required fasteners in the top half of the header. Not all nail holes in the straps will be filled. Nails must have a minimum 1/2" edge distance. Straighten the double-shear nailing tabs and install the joist nails straight into the joist. The face-mount (min.) installation option accommodates conditions where the supported member hangs either partially or entirely below the header.
- **Face-Mount (Max.) Installation** — Install face nails according to the table. Not all nail holes in the straps will be filled except for the following models: THA29, THA213, THA218 and THA413. For all other models with more nail holes than required, the straps may be installed straight or wrapped over with tabulated quantity of face nails installed into the face and top of the header. The lowest four face holes must be filled. Nails used for the joist attachment must be driven at an angle so that they penetrate through the corner of the joist into the header.
- **Uplift** — Lowest face nails must be filled to achieve uplift loads.

Options:

- THA hangers available with the header flanges turned in for 3/8" (except THA413) and larger, with no load reduction — order THAC hanger.

Codes: See p. 11 for Code Reference Key Chart



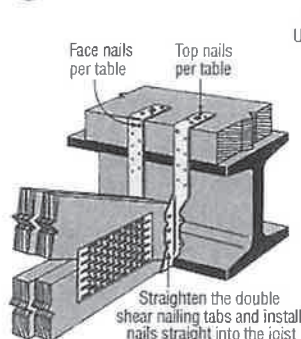
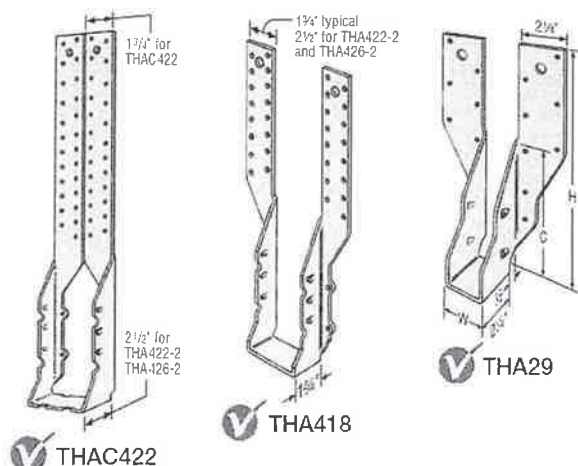
Double-Shear Nailing Top View



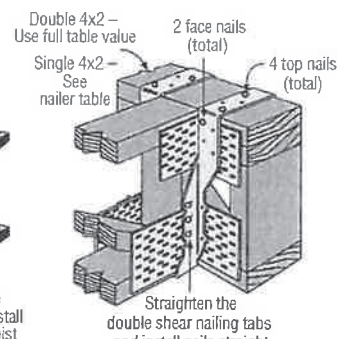
Double-Shear Nailing Side View: Do not bend tab



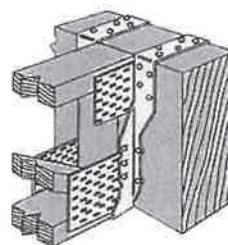
Dome Double-Shear Nailing Side View (Available on some models)



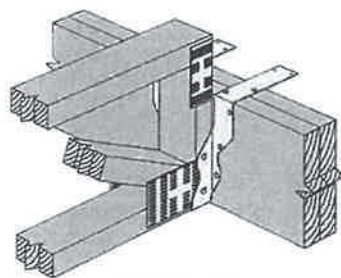
Typical THA Top Flange (Min.) Installation on a Nailer (except THA29)



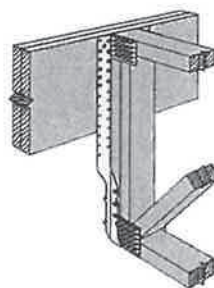
Typical THA422 Top Flange (Min.) Installation on a 4x2 Floor Truss



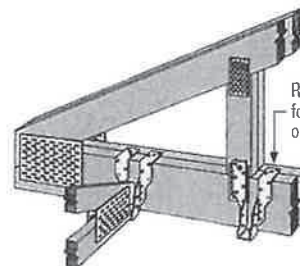
THA422 Face-Mount (Max.) Installation
Straps may be installed straight or wrapped over with tabulated face nails installed into top and face of header.



THA413 Top Flange (Max.) Installation



THA422 Face-Mount (Min.) Installation



Typical THA29 Top Flange Installation

Refer to footnote 5 on p. 193

THA/THAC

Adjustable Truss Hangers (cont.)

These products are available with additional corrosion protection. For more information, see p. 14.

Model No.	Ga.	Dimensions (in.)			Min. Header Depth (in.)	Fasteners (in.)			DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
		W	H	C		Carrying Member		Carried Member	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
						Top	Face												
Top-Flange Installation ¹																			
THA29 Max.	18	1 3/8	9 1/8	5 1/8	5 1/2	(4) 0.148 x 3	(6) 0.148 x 3	(4) 0.148 x 3	465	2,560	2,560	2,560	2,560	405	2,040	2,040	2,040	2,040	IBC, FL, LA
THA213 Min.	18	1 3/8	13 3/8	5 1/8	—	(4) 0.148 x 3	(2) 0.148 x 3	(4) 0.148 x 1 1/2	—	1,430	1,430	1,430	1,430	—	1,170	1,170	1,170	1,170	
THA213 Max.					7 7/8	(4) 0.148 x 3	(6) 0.148 x 3	(4) 0.148 x 3	855	2,090	2,090	2,090	2,090	750	1,620	1,620	1,620	1,620	
THA218 Min.	18	1 3/8	17 3/8	5 1/8	—	(4) 0.148 x 3	(2) 0.148 x 3	(4) 0.148 x 1 1/2	—	1,430	1,430	1,430	1,430	—	1,170	1,170	1,170	1,170	
THA218 Max.					7 7/8	(4) 0.148 x 3	(6) 0.148 x 3	(4) 0.148 x 3	855	2,090	2,090	2,090	2,090	750	1,620	1,620	1,620	1,620	
THA218-2 Min.	16	3 1/8	17 1/8	8	—	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	—	2,245	2,245	2,245	2,245	—	1,835	1,835	1,835	1,835	
THA218-2 Max.					11 1/4	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,670	3,670	3,670	3,670	1,670	2,790	2,790	2,790	2,790	
THA222-2 Min.	16	3 1/8	22 3/8	8	—	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	—	2,245	2,245	2,245	2,245	—	1,835	1,835	1,835	1,835	
THA222-2 Max.					11 1/4	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,670	3,670	3,670	3,670	1,615	2,790	2,790	2,790	2,790	
THA413 Min.	18	3 3/8	13 3/8	4 1/2	—	(4) 0.148 x 3	(2) 0.148 x 3	(4) 0.148 x 3	—	1,430	1,430	1,430	1,430	—	1,055	1,055	1,055	1,055	
THA413 Max.					7 1/4	(4) 0.148 x 3	(6) 0.148 x 3	(4) 0.148 x 3	855	2,090	2,090	2,090	2,090	750	1,620	1,620	1,620	1,620	
THA418 Min.	16	3 3/8	17 1/2	7 7/8	—	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	—	2,245	2,245	2,245	2,245	—	1,835	1,835	1,835	1,835	
THA418 Max.					11 1/4	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,670	3,670	3,670	3,670	1,670	2,790	2,790	2,790	2,790	
THA422 Min.	16	3 3/8	22	7 7/8	—	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	—	2,245	2,245	2,245	2,245	—	1,835	1,835	1,835	1,835	
THA422 Max.					11 1/4	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,670	3,670	3,670	3,670	1,670	2,790	2,790	2,790	2,790	
THA426 Min.	14	3 3/8	26	7 7/8	—	(4) 0.162 x 3 1/2	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	—	2,870	2,870	2,870	2,870	—	2,270	2,270	2,270	2,270	
THA426 Max.					11 1/4	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,755	3,755	3,755	3,755	1,670	2,945	2,945	2,945	2,945	
THA422-2 Min.	14	7 1/4	22 1/8	9 3/4	—	(4) 0.162 x 3 1/2	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	—	3,330	3,330	3,330	3,330	—	2,465	2,465	2,465	2,465	
THA422-2 Max.					11 1/4	(4) 0.162 x 3 1/2	(8) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	4,210	4,210	4,210	4,210	1,670	3,285	3,285	3,285	3,285	
THA426-2 Min.	14	7 1/4	26 1/8	9 3/4	—	(4) 0.162 x 3 1/2	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	—	3,330	3,330	3,330	3,330	—	2,465	2,465	2,465	2,465	
THA426-2 Max.					11 1/4	(4) 0.162 x 3 1/2	(8) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	4,210	4,210	4,210	4,210	1,670	3,285	3,285	3,285	3,285	
Face-Mount (Max.) Installation ⁴																			
THA29	18	1 3/8	9 1/8	5 1/8	9 1/8	—	(16) 0.148 x 3	(4) 0.148 x 3	465	2,295	2,305	2,305	2,305	405	1,965	2,250	2,250	2,250	IBC, FL, LA
THA213	18	1 3/8	13 3/8	5 1/8	13 3/8	—	(14) 0.148 x 3	(4) 0.148 x 3	855	2,060	2,210	2,210	2,210	750	1,760	2,020	2,145	2,145	
THA218	18	1 3/8	17 3/8	5 1/8	17 3/8	—	(18) 0.148 x 3	(4) 0.148 x 3	855	2,210	2,210	2,210	2,210	750	2,145	2,145	2,145	2,145	
THA218-2	16	3 1/8	17 1/8	8	14 1/8	—	(22) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,695	3,695	3,695	3,695	1,670	3,330	3,535	3,535	3,535	
THA222-2	16	3 1/8	22 3/8	8	14 1/8	—	(22) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,695	3,695	3,695	3,695	1,670	3,330	3,535	3,535	3,535	
THA413	18	3 3/8	13 3/8	4 1/2	13 3/8	—	(14) 0.148 x 3	(4) 0.148 x 3	855	2,060	2,210	2,210	2,210	750	1,760	2,020	2,145	2,145	
THA418	16	3 3/8	17 1/2	7 7/8	14 1/8	—	(22) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,695	3,695	3,695	3,695	1,670	3,330	3,535	3,535	3,535	
THA422	16	3 3/8	22	7 7/8	14 1/8	—	(22) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,855	3,695	3,695	3,695	3,695	1,670	3,330	3,535	3,535	3,535	
THA426	14	3 3/8	26	7 7/8	16 1/8	—	(30) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,955	4,315	4,315	4,315	4,315	1,670	3,225	3,225	3,225	3,225	
THA422-2	14	7 1/4	22 1/8	9 3/4	16 3/8	—	(30) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,955	5,170	5,520	5,520	5,520	1,670	4,440	5,010	5,010	5,010	
THA426-2	14	7 1/4	26 1/8	9 3/4	18	—	(38) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,955	5,520	5,520	5,520	5,520	1,670	5,010	5,010	5,010	5,010	

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.

2. Wind (160) is a download rating.

3. Top flange installation loads are based on a minimum two-ply 2x carrying member. For top flange (min.) installation on 4x2 truss carrying members with double top chords, use the specified fasteners for full tabulated values; for single 4x2 top chord or nailer applications, refer to the Nailer Table.

4. Face-mount installation loads are based on a two-ply 2x carrying member minimum. For single 2x carrying members, use 0.148" x 1 1/2" nails in the carrying member and tabulated fasteners in the carried member, and use 0.80 of the table value for 18 gauge, and 0.68 of the table value for 16 gauge and 14 gauge.

5. For the THA 2x models, one strap may be installed vertically according to the face-mount nailing requirements and the other strap wrapped over the truss chord according to the top-flange (min.) nailing requirements (see drawing on p. 192) and achieve full tabulated top flange (min.) installation loads.

6. Refer to installation instructions regarding fastener installation into carried (joist) member. Based on the installation condition, nails will be installed either straight with straightened double-shear nailing tabs or slanted.

7. THA29 may be installed on a single 2x6 or 2x8 carrying member using (2) 0.148" x 3" top nails, (6) 0.148" x 3" face nails and (4) 0.148" x 3" slant nails with an allowable download of 2,020 lb. for DF/SP and 1,500 lb. for SPF/HF.

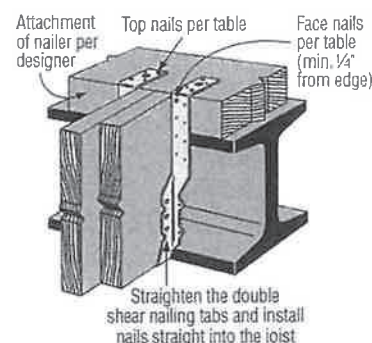
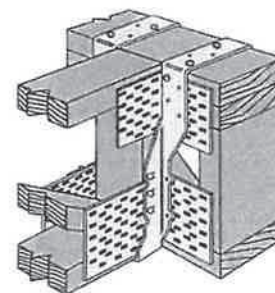
8. Fasteners: Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.

THA/THAC

Adjustable Truss Hangers (cont.)

Nailer Table

Model No.	Nailer	Top Nailing (in.)	Face Nailing (in.)	Joist Nailing (in.)	Allowable Loads (100/115/125)	
					DF/SP	SPF/HF
THA218-2/ THA222-2	2x	(4) 0.148 x 1 1/2	(2) 0.148 x 1 1/2	(6) 0.148 x 1 1/2	1,335	1,245
		(4) 0.148 x 1 1/2	(2) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,415	1,245
	(2) 2x	(4) 0.148 x 3	(2) 0.148 x 3	(6) 0.148 x 3	1,835	1,680
	4x	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	2,245	1,930
THA418/ THA422	2x	(4) 0.148 x 1 1/2	(2) 0.148 x 1 1/2	(6) 0.148 x 1 1/2	1,335	1,245
		(4) 0.148 x 1 1/2	(2) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	1,415	1,245
	(2) 2x	(4) 0.148 x 3	(2) 0.148 x 3	(6) 0.148 x 3	1,735	1,680
	4x	(4) 0.162 x 3 1/2	(2) 0.162 x 3 1/2	(6) 0.148 x 3	2,245	1,930
THA426	2x	(4) 0.148 x 1 1/2	(2) 0.148 x 1 1/2	(6) 0.148 x 1 1/2	1,785	1,360
		(4) 0.148 x 1 1/2	(2) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	2,255	1,940
	(2) 2x	(4) 0.148 x 3	(2) 0.148 x 3	(6) 0.148 x 3	1,735	1,680
	4x	(4) 0.162 x 3 1/2	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	2,435	2,095
THA422-2/ THA426-2	2x	(4) 0.148 x 1 1/2	(2) 0.148 x 1 1/2	(6) 0.148 x 1 1/2	1,375	1,325
		(8) 0.148 x 1 1/2	(2) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	2,345	2,015
	(2) 2x	(4) 0.148 x 3	(4) 0.148 x 3	(6) 0.148 x 3	1,970	1,970
	4x	(4) 0.162 x 3 1/2	(4) 0.162 x 3 1/2	(6) 0.162 x 3 1/2	3,330	2,865

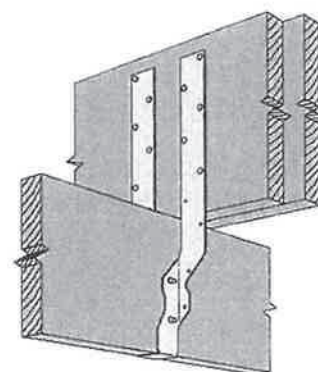


1. Loads for 2x Nailers are applicable to single 4x2 top chord carrying members provided:
 - 1) the hanger is located at a top chord panel point; 2) there is no splice at that panel point location;
 - 3) the floor truss girder must have adequate lateral bracing to prevent excessive displacement due to secondary torsional stresses (refer to ANSI/TPI 1-2014, Section 7.5.3.5).
2. Attachment of nailer to supporting member is the responsibility of the designer.
3. Refer to table on p. 193 for hanger dimensions, minimum top flange requirements and additional footnotes.

Allowable Loads for Face-Mount (Min.) Nailing Installation

Model No.	Ga.	Dimensions (in.)		Fasteners (in.)		Allowable Loads (lb.)					
		W	H	Header (Face) ³	Joist	DF/SP			SPF/HF		
						Floor (100)	Snow (115)	Roof (125)	Floor (100)	Snow (115)	Roof (125)
THA213	18	1 5/8	13 5/8	(10) 0.148 x 3	(4) 0.148 x 1 1/2	1,180	1,200	1,200	1,020	1,160	1,200
THA218	18	1 5/8	17 3/8	(10) 0.148 x 3	(4) 0.148 x 1 1/2	1,180	1,200	1,200	1,020	1,160	1,200
THA218-2	16	3 1/8	17 1/8	(20) 0.148 x 3	(6) 0.148 x 1 1/2	2,440	2,485	2,485	2,100	2,140	2,140
THA222-2	16	3 1/8	22 3/8	(20) 0.148 x 3	(6) 0.148 x 1 1/2	2,440	2,485	2,485	2,100	2,140	2,140
THA413	18	3 3/8	13 3/8	(10) 0.148 x 3	(4) 0.148 x 1 1/2	1,180	1,200	1,200	1,020	1,160	1,200
THA418	16	3 3/8	17 1/2	(20) 0.148 x 3	(6) 0.148 x 1 1/2	2,440	2,485	2,485	2,100	2,140	2,140
THA422	16	3 5/8	22	(20) 0.148 x 3	(6) 0.148 x 1 1/2	2,440	2,485	2,485	2,100	2,140	2,140
THA426	14	3 3/8	26	(30) 0.148 x 3	(6) 0.148 x 1 1/2	3,225	3,225	3,225	2,770	2,770	2,770

1. Loads are based on a min. 2-ply 2x carrying member. 0.148" x 2 1/2" nails may be used instead of the specified 10d commons at 1.00 of the table load. For single-ply 2x or 1 3/4" wide carrying members, use 0.148" x 1 1/2" nails and use 0.77 of the table value. Alternately, #9 x 1 1/2" Strong-Drive® SD Connector screws may be used in place of the specified header and joist nails for full table loads.
2. The joist nails should be installed straight into the carried member by straightening the THA double shear nailing tabs. When used to support 2x4 joists, the THA213 or THA218 may be installed with (2) 0.148" x 1 1/2" nails into the joist (one each side).
3. At least half of the face fasteners must be installed into the upper half of the header, unless some other means of mechanical reinforcement is used to resist the tension perpendicular to grain stresses. Nails must have a minimum 1/2" edge distance.
4. For installations with fewer face fasteners than specified, reduce the allowable load as follows:
Allowable load = No. of Face Nails Used/No. Face Nails in Table x Table Load
5. Fasteners: Nail dimensions are listed diameter by length. SD screws are Simpson Strong-Tie® Strong-Drive SD Connector screws. See pp. 21–22 for fastener information.



Typical THA Face-Mount Min. Nailing Installation for Supporting a Suspended Joist

SUR/SUL/HSUR/HSUL

Skewed 45° Face-Mount Hangers



This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.

The SU and HSU series of hangers are skewed 45° left or right. Angled nail slots direct nails for proper installation.

Material: SUR and SUL — 16 gauge; HSUR and HSUL — 14 gauge

Finish: Galvanized. Some products available in ZMAX® coating. See Corrosion Information, pp. 12–15.

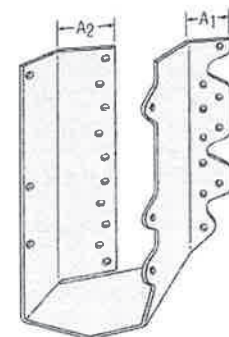
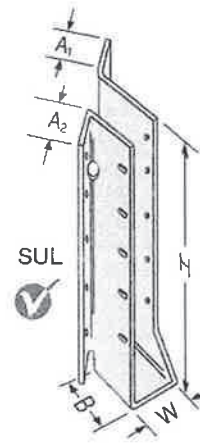
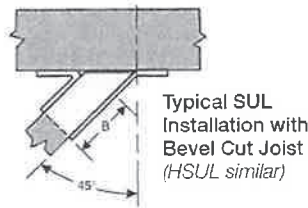
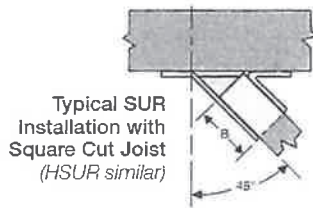
Installation:

- Use all specified fasteners; see General Notes
- These hangers will normally accommodate a 40° to 50° skew
- Illustration shows left and right skews SUR/L (SUR = skewed right; SUL = skewed left)
- The joist end may be square cut or bevel cut

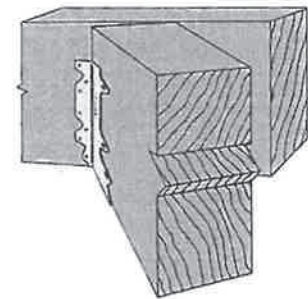
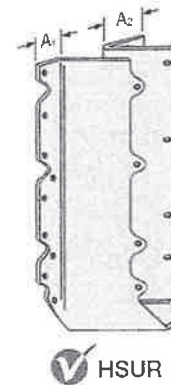
Options:

- Available with the A₂ flange turned in on the 2-2x and 4x models only (see illustration)
- To order, add "C" (for concealed) to the product name
- For example, specify HSURC46, HSULC46, SURC46, or SULC46

Codes: See p. 11 for Code Reference Key Chart



HSULC
Available for 2-2x and 4x models only



Typical SUR410 Installation

These products are available with additional corrosion protection. For more information, see p. 14.

SS For stainless-steel fasteners, see p. 21.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 348–352 for more information.

Joist Size	Model No.	Dimensions (in.)					Fasteners (in.)		DF/SP Species Header Allowable Loads				SPF/HF Species Header Allowable Loads				Code Ref.
		W	H	B	A ₁	A ₂	Face	Joist	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	
2x4	SUR/L24	1 ⁵ / ₁₆	3 ¹ / ₂	2	1 ¹ / ₈	1 ¹ / ₄	(4) 0.162 x 3 ¹ / ₂	(4) 0.148 x 1 ¹ / ₂	395	575	650	705	340	495	560	605	IBC, FL, LA
SS 2x6, x8	SUR/L26	1 ⁵ / ₁₆	5	2	1 ¹ / ₈	1 ⁵ / ₈	(6) 0.162 x 3 ¹ / ₂	(6) 0.148 x 1 ¹ / ₂	675	865	980	1,055	580	745	845	905	
SS 2x10, x12	SUR/L210	1 ⁵ / ₁₆	8 ³ / ₁₆	2	1 ¹ / ₈	1 ⁵ / ₈	(10) 0.162 x 3 ¹ / ₂	(10) 0.148 x 1 ¹ / ₂	1,250	1,440	1,630	1,760	1,075	1,240	1,400	1,515	
2x14	SUR/L214	1 ⁵ / ₁₆	10	2	1 ¹ / ₈	1 ⁵ / ₈	(12) 0.162 x 3 ¹ / ₂	(12) 0.148 x 1 ¹ / ₂	1,890	1,730	1,955	2,110	1,625	1,490	1,680	1,815	
3x10, x12	SUR/L2.56/9	2 ⁵ / ₁₆	8 ¹ / ₁₆	3 ³ / ₁₆	1 ¹ / ₈	2 ¹ / ₈	(14) 0.162 x 3 ¹ / ₂	(2) 0.148 x 1 ¹ / ₂	210	2,015	2,280	2,465	180	1,735	1,960	2,120	
3x14	SUR/L2.56/11	2 ⁵ / ₁₆	11 ³ / ₁₆	3 ³ / ₁₆	1 ¹ / ₈	2 ¹ / ₈	(16) 0.162 x 3 ¹ / ₂	(2) 0.148 x 1 ¹ / ₂	210	2,305	2,610	2,665	180	1,980	2,245	2,290	
(2) 2x6, x8	SUR/L26-2	3 ¹ / ₈	4 ¹ / ₁₆	2 ⁵ / ₁₆	1 ⁷ / ₁₆	2 ³ / ₈	(8) 0.162 x 3 ¹ / ₂	(4) 0.162 x 2 ¹ / ₂	725	1,150	1,305	1,325	625	990	1,120	1,140	
(2) 2x6, x8	HSUR/L26-2	3 ¹ / ₈	4 ¹ / ₁₆	2 ⁷ / ₁₆	1 ¹ / ₄	2 ³ / ₈	(12) 0.162 x 3 ¹ / ₂	(4) 0.162 x 2 ¹ / ₂	725	1,790	1,795	1,795	625	1,540	1,545	1,545	
(2) 2x10, x12	SUR/L210-2	3 ¹ / ₈	8 ¹ / ₁₆	2 ⁵ / ₁₆	1 ⁷ / ₁₆	2 ³ / ₈	(14) 0.162 x 3 ¹ / ₂	(6) 0.162 x 2 ¹ / ₂	1,150	2,015	2,280	2,345	990	1,735	1,960	2,015	
(2) 2x10, x12	HSUR/L210-2	3 ¹ / ₈	8 ¹ / ₁₆	2 ⁷ / ₁₆	1 ¹ / ₄	2 ³ / ₈	(20) 0.162 x 3 ¹ / ₂	(6) 0.162 x 2 ¹ / ₂	1,150	2,980	3,360	3,410	990	2,565	2,890	2,935	
(2) 2x14	HSUR/L214-2	3 ¹ / ₈	12 ¹ / ₁₆	2 ⁷ / ₁₆	1 ¹ / ₄	2 ³ / ₈	(26) 0.162 x 3 ¹ / ₂	(8) 0.162 x 2 ¹ / ₂	1,490	3,875	4,370	4,680	1,280	3,335	3,760	4,025	
4x6, x8	SUR/L46	3 ⁵ / ₁₆	4 ³ / ₄	2 ⁵ / ₁₆	1	2 ³ / ₈	(8) 0.162 x 3 ¹ / ₂	(4) 0.162 x 3 ¹ / ₂	730	1,150	1,265	1,265	630	990	1,090	1,090	
4x6, x8	HSUR/L46	3 ⁵ / ₁₆	4 ³ / ₄	2 ⁷ / ₁₆	1	2 ³ / ₈	(12) 0.162 x 3 ¹ / ₂	(4) 0.162 x 3 ¹ / ₂	725	1,790	1,795	1,795	625	1,540	1,545	1,545	
4x10, x12	SUR/L410	3 ⁵ / ₁₆	8 ¹ / ₂	2 ⁵ / ₁₆	1	2 ³ / ₈	(14) 0.162 x 3 ¹ / ₂	(6) 0.162 x 3 ¹ / ₂	1,140	2,015	2,245	2,245	980	1,735	1,930	1,930	
4x10, x12	HSUR/L410	3 ⁵ / ₁₆	8 ¹ / ₂	2 ⁷ / ₁₆	1	2 ³ / ₈	(20) 0.162 x 3 ¹ / ₂	(6) 0.162 x 3 ¹ / ₂	1,150	2,980	3,360	3,410	990	2,565	2,890	2,935	
4x14	SUR/L414	3 ⁵ / ₁₆	12 ¹ / ₂	2 ⁵ / ₁₆	1	2 ³ / ₈	(18) 0.162 x 3 ¹ / ₂	(8) 0.162 x 3 ¹ / ₂	1,490	2,400	2,400	2,400	1,280	2,065	2,065	2,065	
4x14	HSUR/L414	3 ⁵ / ₁₆	12 ¹ / ₂	2 ⁷ / ₁₆	1	2 ³ / ₈	(26) 0.162 x 3 ¹ / ₂	(8) 0.162 x 3 ¹ / ₂	1,490	3,875	4,370	4,680	1,280	3,335	3,760	4,025	

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. Roof loads are 125% of floor loads unless limited by other criteria. Floor loads may be adjusted for load durations according to the code provided they do not exceed those in the roof column.
3. Truss chord cross-grain tension may limit allowable loads in accordance with ANSI/TPI 1-2014. Simpson Strong-Tie® Connector Selector® software includes the evaluation of cross-grain tension in its hanger allowable loads. For additional information, contact Simpson Strong-Tie.
4. Fasteners: Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.

LTS/MTS/HTS

Twist Straps

Twist straps provide a tension connection between two wood members. They resist uplift at the heel of a truss economically. LTS/MTS have a 2°-bend section and HTS has a 3¼°-bend section that eliminates interference at the transition points between the two members.

Material: LTS — 18 gauge; MTS — 16 gauge; HTS — 14 gauge

Finish: Galvanized. Some products available in stainless steel or ZMAX® coating. See Corrosion Information, pp. 12–15.

Installation:

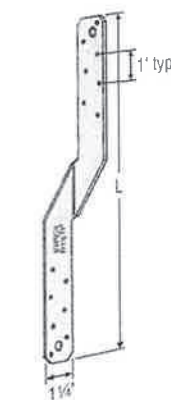
- Use all specified fasteners, with half into each member being connected, to achieve the listed loads; see General Notes.
- LTS, MTS and HTS are available with the bend reversed. Specify "-REV" after the model number, such as MTS16-REV.

Codes: See p. 11 for Code Reference Key Chart

These products are available with additional corrosion protection. For more information, see p. 14.

For stainless-steel fasteners, see p. 21.

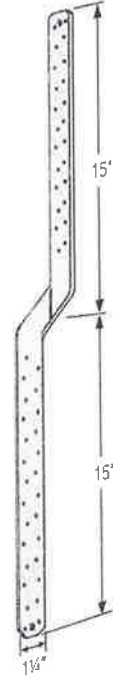
Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 348–352 for more information.



LTS12
(MTS and HTS similar)

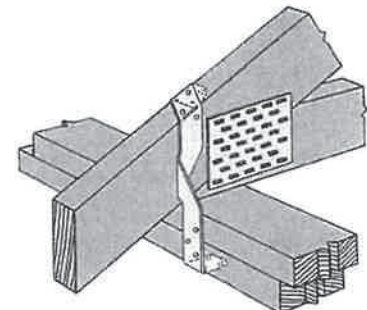


MTS30
(HTS30 similar)



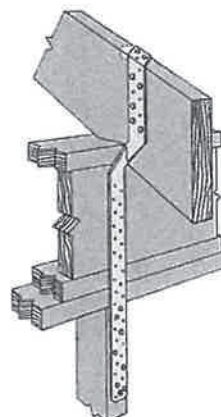
HTS30C
(MTS30C similar)

Model No.	Strap Length (in.)	Total Quantity of Fasteners		DF/SP Allowable Uplift Loads (160)		SPF/HF Allowable Uplift Loads (160)		Code Ref.
		0.148" x 3" Nails	0.148" x 1½" Nails	0.148" x 3" Nails	0.148" x 1½" Nails	0.148" x 3" Nails	0.148" x 1½" Nails	
SS LTS12	12							
LTS16	16	12	12	660	645	570	515	
LTS20	20							
SS MTS12	12							
MTS16	16							
MTS20	20							
SS MTS24C	24	14	14	990	990	850	850	IBC, FL, LA
MTS30	30							
MTS30C	30							
HTS16	16							
HTS20	20							
HTS24	24	16	16	1,415	1,415	1,215	1,215	
HTS30	30							
HTS30C	30							

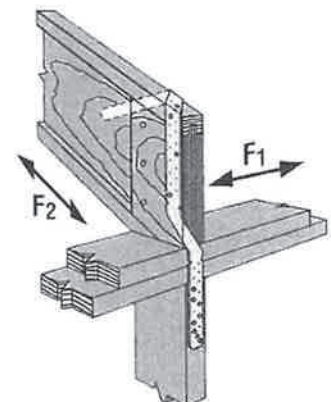


MTS Installation as a Truss-to-Top Plate Tie

1. See pp. 266–267 for Straps and Ties General Notes.
2. All LTS, MTS and HTS models (except for MTS12 and HTS16) have additional nail holes.
3. All straps except the MTS30 and HTS30 have the twist in the center of the strap.
4. Twist straps do not need to be wrapped over the truss to achieve the allowable load.
5. May be installed on the inside face of the stud.
6. Allowable lateral loads are $F_1 = 75$ lb. and $F_2 = 125$ lb., when the following installation requirements are met. The first seven nail holes on each side of the bend must be filled with 0.148" x 1½" minimum nails. All additional fasteners may be installed in any remaining strap holes.
7. For simultaneous loads in more than one direction, the connector must be evaluated using either the Unity Equation or the 75% Rule, as described in Straps and Ties General Notes on p. 267.
8. **Fasteners:** Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.



Typical MTS30 Installation



MTS30 Installation with I-Joist Rafter

THJA26/LTHJA26

Multiple-Truss Hip/Jack Hanger



This product is preferable to similar connectors because of (a) easier installation, (b) higher loads, (c) lower installed cost, or a combination of these features.

The versatile THJA26 can accommodate right- or left-hand hips (at 45-degree skews), and can be installed before or after the hip and jack. Can also be used for double (terminal) hips.

The LTHJA26 is a lighter-capacity version of the THJA26 and offers the lowest-cost alternative for light hip/jack load applications.

Material: THJA26 — 14 gauge; LTHJA26 — 18 gauge

Finish: Galvanized

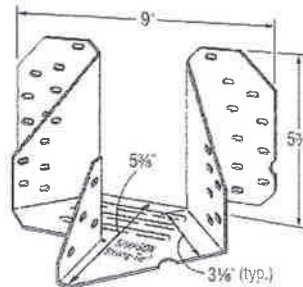
Installation:

- Use all specified fasteners; see General Notes.
- All multi-ply members must be fastened together to act as a single unit.
- Shall be attached to a double girder truss to allow for required minimum nail penetration. See footnote 3 for girder truss requirements.
- LTHJA26 only: 0.148" x 1 1/2" nails must be installed into bottom of hip members through bottom of hanger seat for table loads.

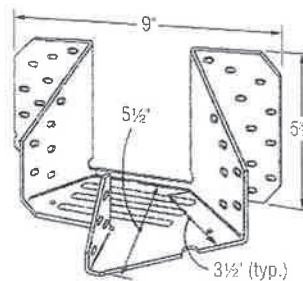
Options:

- These hangers cannot be modified

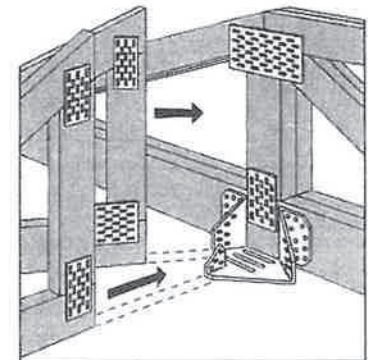
Codes: See p. 11 for Code Reference Key Chart



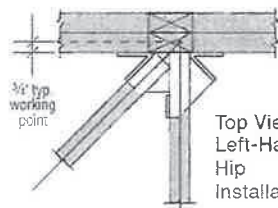
THJA26



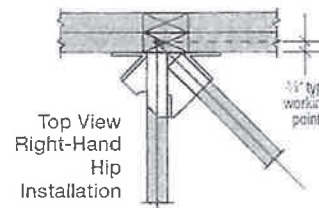
LTHJA26



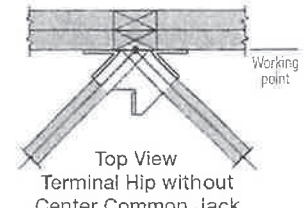
Typical THJA26 Installation
(LTHJA26 similar)



Top View
Left-Hand
Hip
Installation



Top View
Right-Hand
Hip
Installation



Top View
Terminal Hip without
Center Common Jack

Model No.	Carried Member Combination	Fasteners (in.)			Carried Member	DF/SP Allowable Loads					SPF/HF Allowable Loads					Code Ref.
		Carrying Member	Hip (each)	Jack		Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Wind (160)	
LTHJA26	Side hip and center jack	(20) 0.148 x 3	(7) 0.148 x 1 1/2	(4) 0.148 x 1 1/2	Hip	220	845	845	845	845	195	710	710	710	710	IBC, FL
					Jack	75	280	280	280	280	65	235	235	235	235	
					Hip and jack	295	1,125	1,125	1,125	1,125	250	945	945	945	945	
	Double (terminal) hip	(20) 0.148 x 3	(7) 0.148 x 1 1/2	—	Hip (each)	285	630	630	630	630	240	530	530	530	530	
					Two hips	565	1,260	1,260	1,260	1,260	475	1,060	1,060	1,060	1,060	
THJA26	Side hip and center jack	(20) 0.162 x 3 1/2	(6) 0.148 x 1 1/2	(4) 0.148 x 1 1/2	Hip	685	1,890	2,130	2,205	2,205	575	1,590	1,790	1,850	1,850	
					Jack	230	630	710	735	735	195	530	595	615	615	
					Hip and jack	915	2,520	2,840	2,940	2,940	770	2,115	2,385	2,470	2,470	
	Double (terminal) hip	(20) 0.162 x 3 1/2	(6) 0.148 x 1 1/2	—	Hip (each)	460	1,260	1,420	1,470	1,470	385	1,060	1,195	1,235	1,235	
					Two hips	915	2,520	2,840	2,940	2,940	770	2,115	2,385	2,470	2,470	

1. Uplift loads have been increased for earthquake or wind loading with no further increase allowed. Reduce where other loads govern.
2. Wind (160) is a download rating.
3. Loads shown are based on a minimum (2) 2x8 carrying member. For single 2x carrying members (min. 2x8), use 0.148" x 1 1/2" nails and use 0.67 of the table value. For (2) 2x4 carrying members, multiply the download by 0.50.
4. Tabulated hip and jack allowable loads assume that 75% of the total load is distributed to the hip and 25% to the jack. It is permitted to distribute 65% to 85% of the tabulated total load to the hip, and the remaining percentage of total load to the jack. The combined hip and jack load may not exceed the published Total Load.
5. Truss chord cross-grain tension may limit allowable loads in accordance with ANSI/TPI 1-2014, Simpson Strong-Tie® Connector Selector™ software includes the evaluation of cross-grain tension in its hanger allowable loads. For additional information, contact Simpson Strong-Tie.
6. **Fasteners:** Nail dimensions are listed diameter by length. See pp. 21-22 for fastener information.

The GTWS series girder-to-girder hangers feature high uplift capacities along with high gravity load ratings.

Materials: 10 gauge

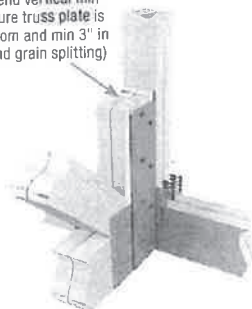
Finish: G90 galvanizing

Codes: FL

Installation:

- Use all specified fasteners. See Product Notes, page 18.
- MiTek's WS structural wood screws are included with hangers where specified.
- **GTWS2T** shall be installed to a minimum 2x4 vertical member of a girder truss with no restriction on the size of the bottom chord.
- **GTWS3T** shall be installed to a minimum 2x6 vertical member of a girder truss with no restriction on the size of the bottom chord.
- **GTWS4T** shall be installed to a minimum 2x8 vertical member of a girder truss with no restriction on the size of the bottom chord.

Supported truss end vertical min 2x6 required. Ensure truss plate is installed flush bottom and min 3" in height (to resist end grain splitting)



Typical GTWS installation



GTWS2T



GTWS3T

Plated Truss

MiTek Stock No.	Ref. No.	Steel Gauge	Dimensions (in)			Fastener Schedule ^{2,3,4}				No. of Plies	DF/SP Allowable Loads (Lbs.)				Code Ref.
						Supporting Truss		Supported Truss							
			W	H	D	Qty	Type	Qty	Type		100%	115%	125%	Uplift ¹	
														160%	
GTWS2T	--	10	3-1/4	16	4	22	WS3	16	WS3	2	8720	10030	10900	9770	FL
GTWS3T	--	10	4-7/8	16	5	28	WS3	24	WS3	3	11100	12470	12470	12490	
GTWS4T	--	10	6-1/2	16	5	28	WS3	24	WS3	4	11100	12470	12470	12490	

- 1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
- 2) MiTek's WS3 structural wood screws require a minimum 3" wood penetration.
- 3) MiTek's WS3 (1/4" dia. x 3" long) structural wood screws are included with the GTWS hangers.
- 4) MiTek's WS3 structural wood screws may be installed in both vertical and horizontal members.



Trusses & Building Materials

13980 SW 252 Street, Princeton, Florida 33032
Telephone: (305) 257-1910 Fax: (305) 257-1911

HIP / JACK HANGER DETAIL SHEET

1. Unless Otherwise Noted on Truss Placement Plan - FOR HIP CORNER JACK 5'-0" AND 7'-0" SETBACK, USE USP HJC26 UNIVERSAL HIP HANGER, ON BOTTOM CHORD. TOP CHORDS NAIL WITH THREE (3) -16D NAILS AND USE USP RT8A (L/R) HURRICANE CLIP

Unless Otherwise Noted on Truss Placement Plan - FOR HIP CORNER JACK 9'-0" AND 11'-0" SETBACK, USE USP HJC28 UNIVERSAL HIP HANGER ON BOTTOM CHORD. TOP CHORDS NAIL WITH THREE (3) -16D NAILS AND USE USP RT8A (L/R) HURRICANE CLIP
2. Unless Otherwise Noted on Truss Placement Plan - FOR 1'-0" TO 9'-0" SIDE JACKS, NAIL TOP & BOTTOM CHORD WITH THREE (3) - 16D NAILS AND USE USP RT8A (L/R) HURRICANE CLIP AT TOP & BOTTOM.
3. Unless Otherwise Noted on Truss Placement Plan - FOR COMMON JACKS 5'-0" TO 7'-0", USE USP JUS26 HANGER ON BOTTOM CHORD AND NAIL TOP CHORD WITH THREE (3) - 16D NAILS AND USE USP RT8A (L/R) HURRICANE CLIP AT TOP
4. Unless Otherwise Noted on Truss Placement Plan - FOR COMMON JACKS 9'-0" TO 11'-0", USE USP THD 26 HANGER ON BOTTOM CHORD AND NAIL TOP CHORD WITH THREE (3) - 16D NAILS AND USE USP RT8A (L/R) HURRICANE CLIP AT TOP

NOTE:

Refer to attached Florida Approvals
For nailing and proper use of hangers.

Hanger / Strap I.D. Number	State of Florida Approval Number	
HJC26 & HJC28	Florida Approval Number	FL17236-R4
SKH26 L/R	Florida Approval Number	FL17243-R1
RT8A – Hurricane Clips	Florida Approval Number	FL17236-R4
JUS 26	Florida Approval Number	FL17232-R3
THD 26	Florida Approval Number	FL17232-R3

Installation:

- Use all specified fasteners. See Product Notes, page 17.
- To achieve full allowable loads listed, fasteners must be installed as prescribed in the chart.
- Depending on pitch, birdsmouth notching may be required with some models to enable installers to fill all nail holes.
- Designer shall determine if solid blocking is required.
- LFTA6, RT4, RT5, and RT7 ship in equal quantities of left and right versions. Left version images shown.

USP Stock No.	Ref. No.	Steel Gauge	Fastener Schedule ^{3,4}						DF/SP Allowable Loads (Lbs.) ¹				S-P-F Allowable Loads (Lbs.) ¹				Corrosion Finish	Code Ref.
			Truss/Rafter		Plate		Stud		Uplift 160%	Lateral		Uplift with 8d x 1-1/2"	Uplift 160%	Lateral		Uplift with 8d x 1-1/2"		
										F1 160%	F2 160%			F1 160%	F2 160%			
RT3A	H3	18	4	8d	4	8d	--	--	610	190	190	610	525	160	160	525	10, R8, F5	
RT4	H4	18	4	8d	4	8d	--	--	410	215	215	410	345	180	180	345		
RT5	H5	18	4	8d	4	8d	--	--	540	265	265	540	450	225	225	450		
RT6	HS24	18	8	10d x 1-1/2	6	10d x 1-1/2	--	--	665	800	800	665	560	670	670	560		
RT7	--	18	5	8d	5	8d	--	--	585	195	195	585	495	160	160	495	F18	
RT7A	H2.5A	18	5	8d	5	8d	--	--	670	210	210	670	565	175	175	565		
RT7AT	H2.5T	18	5	8d x 1-1/2	5	8d x 1-1/2	--	--	555	210	210	555	465	180	180	465		
RT8A	H8	18	5	10d x 1-1/2	5	10d x 1-1/2	--	--	775	215	215	775	650	180	180	650		
RT10	H2, H2A	18	6	8d	8	8d	6	8d	585	195	195	585	495	160	160	495	10, R8, F5	
RT15	H1	18	5	8d x 1-1/2	5	8d	--	--	530	500	340	530	445	285	410	445		
RT16A	H10A, H14	18	9	10d x 1-1/2	8	10d	--	--	1380	800	645	1380	1160	670	545	1160		
RT16AR	H10AR	18	9	10d x 1-1/2	8	10d	--	--	1380	800	645	1380	1160	670	545	1160		
RT16-2	H10-2	18	8	8d	8	8d	--	--	1160	655	415	1160	975	550	345	975	10, R8, F5	
HHCP2	HCP2	18	10	10d x 1-1/2	10	10d x 1-1/2	--	--	800	370	--	800	670	310	--	670		
HHCP4-TZ	HCP4Z	16	8	10d	8	10d	--	--	1100	410	--	--	920	345	--	--		
HC520	GBC	18	--	--	11	8d	6	8d	515	470	430	515	445	405	370	445		
HCPRS	--	18	--	--	5	8d	6	8d	540	500	340	540	455	375	285	455	10, R8, F5	
LFTA6 ²	H6	16	8	8d	8	8d	--	--	1210	700	90	1210	1015	590	75	1015		
RT20	--	16	9	10d x 1-1/2	4	10d	9	10d x 1-1/2	1200	--	--	1200	1005	--	--	1005		

1) Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.

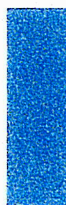
2) LFTA6: To achieve F1 lateral loads, three nails must be installed on each side on the strap located closest to the bend line.

Lateral F1 and F2 load directions do not apply to roof truss-to-top plate installations.

3) 8d common nails may be substituted for 8d x 1-1/2 nails, and 10d common nails may be substituted for 10d x 1-1/2 nails.

4) **NAILS:** 8d x 1-1/2" nails are 0.131" dia. x 1-1/2" long, 8d nails are 0.131" dia. x 2-1/2" long, 10d x 1-1/2" nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long.New products or updated product information are designated in **blue font**.**Corrosion Finish**
 Stainless Steel Gold Coat
 HDG Triple Zinc

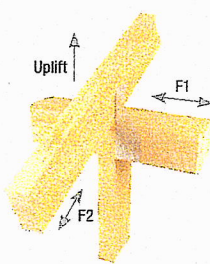
Truss & Rafter



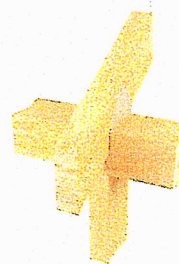
Typical RT3A
truss/rafter to plate
installation



Typical RT4
truss/rafter to plate
installation



Typical RT5
truss/rafter to
double plate installation



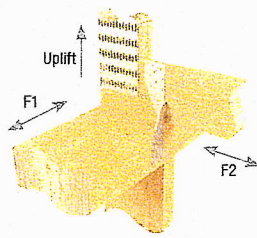
Typical RT6
truss/rafter to
plate installation



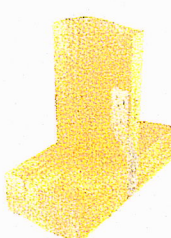
Typical RT7
truss/rafter to
double plate installation



Typical RT7A
truss/rafter to
double plate installation



Typical RT7AT
2x4 bottom chord
installation



Typical RT8A
stud to double plate
installation



Typical RT10
truss/rafter to double plate
to stud installation



Typical RT15
truss/rafter to
double plate installation

HHC / HJC / HJHC / HTHJ Hip/Jack Connectors

HHC – Designed to support hip/hip truss/rafter.
 Contact USP when using in multi-ply applications.

HJHC – Allows for hip/hip support and hip/jack/hip installations.

HJC & HTHJ – Used to simultaneously hang a combination of hips and jacks off girder trusses. These hangers fit both left-hand and right-hand applications. An open back design allows for retrofit installations.

Materials: HHC, HJC, & HJHC – 12 gauge, HTHJ – 18 gauge

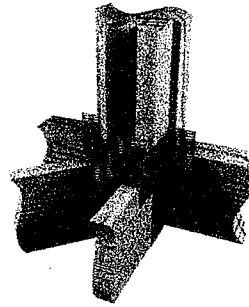
Finish: G90 galvanizing

Options: See Specialty Options Chart

Codes: See page 11 for Code Reference Chart

Installation:

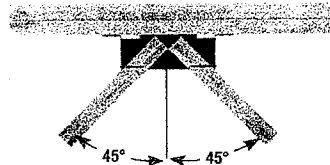
- Use all specified fasteners. See Product Notes, page 17.



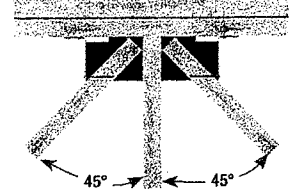
**Typical HJC/HTHJ
installation**



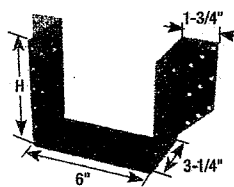
Typical HJC/HTHJ installation top view



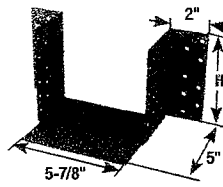
**Typical HHC
installation top view**



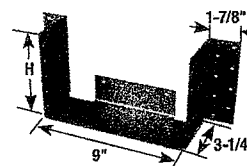
**Typical HJHC
installation top view**



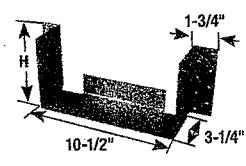
HJC



HTHJ



HHC



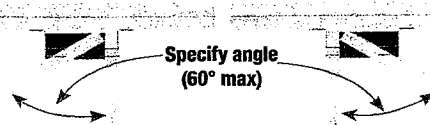
HJHC

Description	USP Stock No.	Ref. No.	Steel Gauge	H (in)	Fastener Schedule ³					DF/SP Allowable Loads (Lbs.) ²				S-P-F Allowable Loads (Lbs.) ²				Code Ref.
					Supporting Member		Supported Member			Floor	Roof	Uplift ¹	Floor	Roof	Uplift ¹			
					Qty	Type	per Hip	per Jack	Type									
2 x 6 right / left	HJC26	LTHJA26, THJA26, THJU26	12	5-3/8	16	16d	5	7	10d	2385	2740	2980	1840	2180	2510	2725	1955	10, R8, F5
2 x 8 right / left	HJC28	—	12	7-1/8	20	16d	6	8	10d	2980	3425	3505	1840	2725	2855	2855	1905	130
2 x 6 terminal	HHC26	LTHJA26, THJA26	12	5-7/16	20	16d	5	—	10d	3100	3505	3505	2130	2725	2800	2800	1870	
2 x 8 terminal	HHC28	—	12	7-3/16	24	16d	6	—	10d	3505	3505	3505	2410	2805	2805	2805	1930	
2 x 6 terminal	HJHC26	—	12	5-7/16	20	16d	5	2	10d	3100	3505	3505	2410	2725	2815	2815	1935	
2 x 8 terminal	HJHC28	—	12	7-3/16	24	16d	6	2	10d	3505	3505	3505	2410	2820	2820	2820	1940	
2 x 6 terminal	HTHJ26-18	—	18	5	16	16d	7	5	16d	2190	2520	2740	1790	1920	2110	2110	1225	10, R8, F5

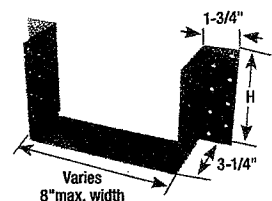
- 1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.
 2) Loading published for total load of hip / jack connection.
 3) **NAILS:** 10d nails are 0.148" dia. x 3" long, 16d nails are 0.162" dia. x 3-1/2" long.
 New products or updated product information are designated in blue font.

HJC Specialty Options Chart

Option	Hip Truss Skew
Range	30° to 60°
Allowable Loads	100% of table load
Ordering	Add SK, angle of hip required, to product number. Ex. HJC26_SK55

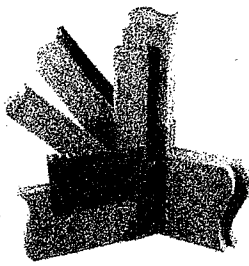


**Typical HJC (skewed) installation
with alternate skew angle top view**

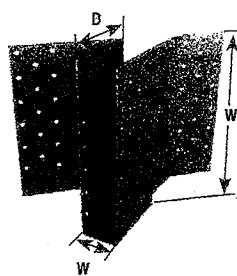


HJC (skewed)

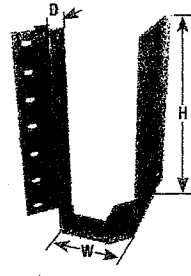
Hangers

SKH / SKHH Skewed 45° Hangers

Typical SKH26L installation
left skew



SKHH210L
left skew



SKHH210L-2
left skew

AVAILABLE IN
**GOLD
COAT**

Beam/Joist Size	USP Stock No.	Ref. No.	Ga.	Dimensions (in)			Fastener Schedule				DF/SP Allowable Loads (Lbs.)				S-P-F Allowable Loads (Lbs.)				Corrosion Finish	Code Ref.	
				W	H	D	Qty	Type	Qty	Type	Floor			Roof			Uplift				
											100%	115%	125%	160%	100%	115%	125%	160%			100%
2 x 4	SKH24L/R	SUR/L24	16	1-9/16	3-1/4	1-7/8	4	16d	4	10d x 1-1/2	510	510	510	565	395	395	395	440		6, R11, F3	
2 x 6-8	SKH26L/R	SUR/L26	16	1-9/16	5-1/4	1-7/8	6	16d	6	10d x 1-1/2	830	890	890	1085	700	700	700	980			
	SKHH26L/R	--	14	1-5/8	5-1/8	3-1/4	18	16d	12	10d x 1-1/2	1850	1980	1980	2885	1555	1555	1555	695		130	
2 x 8-12	SKH28L/R	--	16	1-9/16	7-1/4	1-7/8	10	16d	8	10d x 1-1/2	1380	1465	1465	1960	1160	1160	1160	1075		6, R11, F3	
	SKHH28L/R	--	14	1-5/8	7	3-1/4	26	16d	16	10d x 1-1/2	2465	2780	2780	4260	2115	2200	2200	995		130	
2 x 10-14	SKH210L/R	SUR/L210; SUR/L214	16	1-9/16	9-1/4	1-7/8	14	16d	10	10d x 1-1/2	1790	1790	1790	1565	1425	1425	1425	1245		6, R11, F3	
	SKHH210L/R	--	14	1-5/8	9	4-1/4	34	16d	20	10d x 1-1/2	2935	2935	2935	1520	2330	2330	2330	1210		130	
1-3/4 x 9-1/4 - 14	SKH1720L/R	SUR/L1720/9	16	1-13/16	9-1/8	1-7/8	14	10d	10	10d x 1-1/2	1625	1870	2030	1565	1430	1645	1730	1245			
1-3/4 x 11-1/4 - 18	SKH1724L/R	SUR/L1724/11 SUR/L1814/4	16	1-13/16	11-1/8	1-7/8	16	10d	10	10d x 1-1/2	1855	2135	2320	1565	1635	1880	2040	1245			
2 - 2-1/8 x 9-1/4 - 14	SKH2020L/R	SUR/L2.06/9, SUR/L2.1/9	16	2-1/8	9	1-7/8	14	10d	10	10d x 1-1/2	1625	1870	2030	1565	1430	1645	1715	1235			
2 - 2-1/8 x 11-1/4 - 18	SKH2024L/R	SUR/L2.06/11, SUR/L2.1/11	16	2-1/8	11	1-7/8	16	10d	10	10d x 1-1/2	1855	2135	2320	1565	1635	1880	2040	1235			
2-1/4 x 2-5/16 x 9-1/4 - 14	SKH2320L/R	SUR/L2.37/9	16	2-3/8	8-7/8	1-7/8	14	10d	10	10d x 1-1/2	1625	1870	2030	1565	1430	1645	1715	1235			
2-1/4 x 2-5/16 x 11-1/4 - 18	SKH2324L/R	SUR/L2.37/11 SUR/L2.37/14	16	2-3/8	10-7/8	1-7/8	16	10d	10	10d x 1-1/2	1855	2135	2320	1565	1635	1880	2040	1235		6, R11, F3	
3 x 6-8	SKH36L/R	--	16	2-9/16	4-3/4	1-3/8	6	16d	6	10d x 1-1/2	830	950	1025	1085	725	830	830	980			
3 x 8-12	SKH38L/R	--	16	2-9/16	6-3/4	1-3/8	10	16d	8	10d x 1-1/2	1380	1585	1585	1360	1210	1255	1255	1240			
3 x 10-14	SKH310L/R	--	16	2-9/16	8-3/4	1-3/8	14	16d	10	10d x 1-1/2	1930	2220	2250	1565	1780	2045	2090	1245			
3 x 12 - 14 - 16	SKH312L/R	--	16	2-9/16	10-3/4	1-3/8	16	16d	10	10d x 1-1/2	2210	2500	2500	1565	2035	2190	2190	1245			
2-1/2 x 9-1/4 - 14	SKH2520L/R	SUR/L2.55/9	16	2-9/16	8-5/8	1-7/8	14	10d	10	10d x 1-1/2	1625	1870	2030	1565	1430	1645	1705	1230			
2-1/2 x 11-1/4 - 16	SKH2524L/R	SUR/L2.55/11 SUR/L2.55/14	16	2-9/16	10-3/4	1-7/8	16	10d	10	10d x 1-1/2	1855	2135	2320	1565	1635	1880	2040	1230			
2-5/8 x 9-1/4 - 14	SKH2620L/R	--	16	2-11/16	8-11/16	1-7/8	14	10d	10	10d x 1-1/2	1625	1870	2030	1565	1430	1645	1705	1230			
2-5/8 x 11-1/4 - 16	SKH2624L/R	--	16	2-11/16	10-11/16	1-7/8	16	10d	10	10d x 1-1/2	1855	2135	2320	1565	1635	1880	2040	1230			
(2) 2 x 6-8	SKH26L/R-2 *	SUR/L26-2	16	3-1/16	4-1/2	1-3/8	6	16d	6	10d	830	950	1035	1115	725	835	865	980			
	SKHH26L/R-2	HSUR/L26-2	14	3-1/16	5-1/4	2	12	16d	4	16d x 2-1/2	1850	2040	2040	985	1495	1495	1495	650		130	
	SKHH26L/R-2IF	HSUR/LC26-2	14	3-1/16	5-1/4	2	12	16d	4	16d x 2-1/2	1850	2040	2040	985	1495	1495	1495	650			
(2) 2 x 8-12	SKH28L/R-2 *	--	16	3-1/16	6-1/2	1-3/8	10	16d	8	10d	1380	1585	1725	1360	1210	1395	1515	1065		6, R11, F3	
(2) 2 x 10-14	SKH210L/R-2 *	SUR/L210-2	16	3-1/16	8-1/2	1-3/8	14	16d	10	10d	1930	2220	2415	1565	1695	1960	2120	1235			
	SKHH210L/R-2	HSUR/L210-2 HSUR/L214-2	14	3-1/16	8-1/2	2	20	16d	6	16d x 2-1/2	3080	3475	3695	2280	2580	2735	2735	1695		130	
	SKHH210L/R-2IF	HSUR/LC210-2	14	3-1/16	8-1/2	2	20	16d	6	16d x 2-1/2	3080	3475	3695	2280	2580	2735	2735	1695			
(2) 2 x 12-16	SKH212L/R-2 *	SUR/L212-2	16	3-1/16	10-1/2	1-3/8	16	16d	10	10d	2240	2575	2800	1565	1940	2230	2465	1235			
3-1/2 x 8-14	SKH410L/R *	SUR/L410	14	3-9/16	8-1/2	2-1/2	16	16d	10	16d	2255	2540	2540	1565	1995	2290	2400	1215		6, R11, F3	
3-1/2 x 12-18	SKH414L/R *	SUR/L414	14	3-9/16	12-1/2	2-1/2	22	16d	10	16d	3100	3565	3880	1565	2740	3150	3425	1215			
4 x 6-8	SKH46L/R *	SUR/L46	14	3-9/16	4-3/4	2-1/2	10	16d	6	16d	1410	1590	1590	1355	1225	1225	1225	1050		130	
	SKHH46L/R	HSUR/L46	14	3-9/16	5-1/4	2-1/2	12	16d	6	16d	1850	2040	2040	985	1490	1490	1490	650			
	SKHH46L/RIF	HSUR/LC46	14	3-9/16	5-1/4	2-1/2	12	16d	6	16d	1850	2040	2040	985	1490	1490	1490	650			
4 x 10-14	SKH410L/R *	SUR/L410	14	3-9/16	8-1/2	2-1/2	16	16d	10	16d	2255	2540	2540	1565	1995	2290	2400	1215		6, R11, F3	
	SKHH410L/R	HSUR/L410	14	3-9/16	8-1/2	2-1/2	20	16d	10	16d	3080	3475	3695	2280	2580	2735	2735	1690		130	
	SKHH410L/RIF	HSUR/LC410	14	3-9/16	8-1/2	2-1/2	20	16d	10	16d	3080	3475	3695	2280	2580	2735	2735	1690			
4 x 14-18	SKH414L/R *	SUR/L414	14	3-9/16	12-1/2	2-1/2	22	16d	10	16d	3100	3565	3880	1565	2740	3150	3425	1215		6, R11, F3	
	SKHH414L/R	HSUR/L414	14	3-9/16	12-1/2	2-1/2	26	16d	10	16d	4005	4515	4650	2280	3520	3740	3740	1835		130	
	SKHH414L/RIF	HSUR/LC414	14	3-9/16	12-1/2	2-1/2	26	16d	10	16d	4005	4515	4650	2280	3520	3740	3740	1835			

1) Uplift loads have been increased 60% for wind and seismic loads; no further increase shall be permitted.

2) NAILS: 10d x 1-1/2 nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long, 16d nails are 0.162" dia. x 3-1/2" long.

*Miter cut required on end of joist to achieve design loads.

Corrosion Finish

■ Stainless Steel ■ Gold Coat
■ HDG ■ Triple Zinc

Hangers

HUS / JUS / MUS Slant Nail Face Mount Joist Hangers



The HUS, JUS & MUS hanger series offers double shear nailing. USP's dimple allows for 30° to 45° nailing through the joist into the header resulting in higher loads and less nailing. Slant nailing also eliminates the need for shorter joist nails in 2x applications.

Materials: JUS - 18 gauge; MUS - 18 gauge; HUS - 14 or 16 gauge

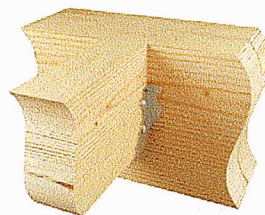
Finish: G90 galvanizing

Options: See Chart for Corrosion Finish Options. See HUS Specialty Options Chart.

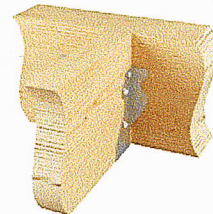
Codes: See page 11 for Code Reference Chart

Installation:

- Use all specified fasteners. See Product Notes, page 17.
- Joist nails must be driven at a 30° to 45° angle through the joist or truss into the header to achieve listed loads. **Standard length "double shear" nails must be used to achieve listed load values.**
- JUS & MUS - 16d sinkers (0.148" x 3-1/4") may be used where 10d commons are specified with no load reduction.



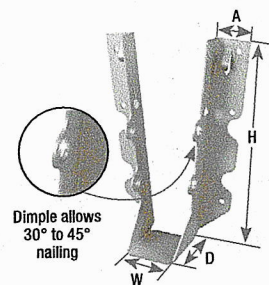
Typical HUS46 installation



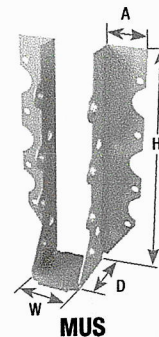
Typical JUS26 installation



HUS28-2

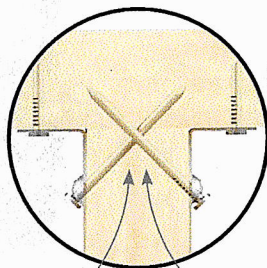


JUS28



MUS

AVAILABLE IN
**GOLD
COAT**



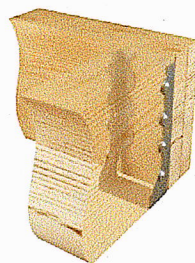
Double shear nail design features fewer nails and faster installation

Uses standard length nails

HUS Specialty Options Chart

Refer to Specialty Options pages 228-229 for additional details.

Option	Inverted Flange
Range	Not available in widths less than 2-1/4".
Allowable Loads	100% of table load. 65% of table load when nailing into the support members end grain.
Ordering	Add IF to product number. Ex. HUS410_IF



Typical HUS410IF inverted flange installation

Face Mount Hanger Charts

Joist Size	USP Stock No.	Ref. No.	Steel Gauge	Dimensions (in)				Fastener Schedule ^{2,4}				DF/SP Allowable Loads (Lbs.) ³				Corrosion Finish	Code Ref.
								Header		Joist							
				W	H	D	A	Qty	Nail	Qty	Nail	Floor 100%	Roof 115%	125%	Uplift ¹ 160%		
2 x 4	JL24	LU24	20	1-9/16	3	1-1/2	15/16	4	10d	2	10d x 1-1/2	470	540	580	320	Green	5, R5, F2
	JL24IF-TZ	---	18	1-9/16	3-1/8	1-1/2	---	4	16d	2	10d x 1-1/2	560	640	695	320		31, R1, F32
	JL24IF-TZ	---	18	1-9/16	3-1/8	1-1/2	---	4	10d HDG	2	10d x 1-1/2 HDG	465	535	580	280	Green, Blue, Yellow	5, R5, F2
	JUS24	LUS24	18	1-9/16	3-1/8	1-3/4	1	4	16d HDG	2	10d x 1-1/2 HDG	550	615	615	280		
	SUH24	U24	16	1-9/16	3-1/4	2	1-3/16	4	10d	2	10d	675	775	835	510		
2 x 6	HD26	HU26	14	1-9/16	3-1/2	2	1-1/8	4	10d	2	10d x 1-1/2	500	560	605	380	Green	5, R5, F2
	HD26	HU26	14	1-9/16	3-1/2	2	1-1/8	4	16d	2	10d x 1-1/2	590	665	720	380		
	JL26	LU26	20	1-9/16	4-3/4	1-1/2	15/16	4	16d	2	10d x 1-1/2	565	650	705	290	Green, Blue, Yellow	31, R1, F32
	JL26	LU26	20	1-9/16	4-3/4	1-1/2	15/16	6	10d	4	10d x 1-1/2	710	805	870	650		
	JL26IF-TZ	LUC26Z	18	1-9/16	4-1/2	1-1/2	---	6	10d HDG	4	10d x 1-1/2 HDG	695	800	870	730	Green, Blue, Yellow	5, R5, F2
	JL26IF-TZ	LUC26Z	18	1-9/16	4-1/2	1-1/2	---	6	16d HDG	4	10d x 1-1/2 HDG	830	950	1035	730		
	JUS26	LUS26	18	1-9/16	4-13/16	1-3/4	1	4	10d	4	10d	870	1000	1080	1115	Green, Blue, Yellow	31, R1, F32
	MUS26	MUS26	18	1-9/16	5-1/16	2	1	6	10d	6	10d	1285	1475	1605	865		
	SUH26	U26	16	1-9/16	5-1/8	2	1-3/16	6	10d	4	10d x 1-1/2	750	840	910	755	Green, Blue, Yellow	5, R5, F2
	SUH26	U26	16	1-9/16	5-1/8	2	1-3/16	6	16d	4	10d x 1-1/2	880	1000	1080	755		
2 x 8	HUS26	HUS26	16	1-5/8	5-7/16	3	2	14	16d	6	16d	2760	3140	3345	1925	Green, Blue, Yellow	5, R5, F2
	HUS26	HUS26	16	1-5/8	5-7/16	3	2	14	16d	6	16d	2760	3140	3345	1925		
	HD26	HU26	14	1-9/16	3-1/2	2	1-1/8	4	16d	2	10d x 1-1/2	565	650	705	290	Green, Blue, Yellow	31, R1, F32
	HD26	HU26	14	1-9/16	3-1/2	2	1-1/8	4	16d	2	10d x 1-1/2	565	650	705	290		
	HD28	HU28	14	1-9/16	5-1/4	2	1-1/8	8	16d	4	10d x 1-1/2	1130	1295	1410	730	Green, Blue, Yellow	5, R5, F2
	HD28	HU28	14	1-9/16	5-1/4	2	1-1/8	8	16d	4	10d x 1-1/2	1130	1295	1410	730		
	JL26	LU26	20	1-9/16	4-3/4	1-1/2	15/16	6	10d	4	10d x 1-1/2	710	805	870	650	Green, Blue, Yellow	31, R1, F32
	JL26	LU26	20	1-9/16	4-3/4	1-1/2	15/16	6	16d	4	10d x 1-1/2	840	960	1045	650		
	JL26IF-TZ	LUC26Z	18	1-9/16	4-1/2	1-1/2	---	6	10d HDG	4	10d x 1-1/2 HDG	695	800	870	730	Green, Blue, Yellow	5, R5, F2
	JL26IF-TZ	LUC26Z	18	1-9/16	4-1/2	1-1/2	---	6	16d HDG	4	10d x 1-1/2 HDG	830	950	1035	730		
	JL28	LU28	20	1-9/16	6-3/8	1-1/2	15/16	10	10d	6	10d x 1-1/2	1180	1295	1295	855	Green, Blue, Yellow	31, R1, F32
	JL28	LU28	20	1-9/16	6-3/8	1-1/2	15/16	10	16d	6	10d x 1-1/2	1400	1600	1740	855		
	JL28IF-TZ	---	18	1-9/16	6-1/8	1-1/2	---	8	10d HDG	4	10d x 1-1/2 HDG	930	1065	1160	730	Green, Blue, Yellow	5, R5, F2
	JL28IF-TZ	---	18	1-9/16	6-1/8	1-1/2	---	8	16d HDG	4	10d x 1-1/2 HDG	1105	1215	1215	730		
	JUS26	LUS26	18	1-9/16	4-13/16	1-3/4	1	4	10d	4	10d	870	1000	1080	1115	Green, Blue, Yellow	31, R1, F32
JUS28	LUS28	18	1-9/16	6-5/8	1-3/4	1	6	10d	4	10d	1110	1270	1375	1115			
MUS26	MUS26	18	1-9/16	5-1/16	2	1	6	10d	6	10d	1285	1475	1605	865	Green, Blue, Yellow	5, R5, F2	
MUS28	MUS28	18	1-9/16	7-1/16	2	1	8	10d	8	10d	1710	1970	2140	1230			
SUH26	U26	16	1-9/16	5-1/8	2	1-3/16	6	10d	4	10d x 1-1/2	750	840	910	755	Green, Blue, Yellow	31, R1, F32	
SUH26	U26	16	1-9/16	5-1/8	2	1-3/16	6	16d	4	10d x 1-1/2	880	1000	1080	755			
SUH28	---	16	1-9/16	6-5/8	2	1-3/16	8	10d	6	10d x 1-1/2	1000	1120	1210	800	Green, Blue, Yellow	5, R5, F2	
SUH28	---	16	1-9/16	6-5/8	2	1-3/16	8	16d	6	10d x 1-1/2	1175	1335	1440	800			
HUS26	HUS26	16	1-5/8	5-7/16	3	2	14	16d	6	16d	2760	3140	3345	1925	Green, Blue, Yellow	5, R5, F2	
HUS28	HUS28	16	1-5/8	7-3/16	3	2	22	16d	8	16d	4170	4345	4345	2570			
HD28	HU28	14	1-9/16	5-1/4	2	1-1/8	8	16d	4	10d x 1-1/2	1130	1295	1410	730	Green, Blue, Yellow	5, R5, F2	
HD210	HU210	14	1-9/16	7-3/16	2	1-1/8	12	16d	4	10d x 1-1/2	1690	1945	2115	730			

1) Uplift loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.

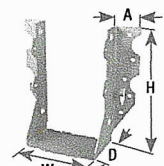
2) 16d sinkers (0.148 dia. x 3-1/4" long) may be used at 0.84 of the table load where 16d commons are specified. This does not apply to JUS, HUS, MUS slant nail hangers.

3) For JUS, HUS, and MUS hangers: Nails must be driven at a 30° to 45° angle through the joist or truss into the header to achieve the table loads.

4) **NAILS:** 10d x 1-1/2" nails are 0.148" dia. x 1-1/2" long, 10d nails are 0.148" dia. x 3" long, 16d nails are 0.162" dia. x 3-1/2" long.

New products or updated product information are designated in **blue font**.

Corrosion Finish ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc



General Notes

Trusses are not marked in any way to identify the frequency or location of temporary lateral restraint and diagonal bracing. Follow the recommendations for handling, installing and temporary restraining and bracing of trusses. Refer to **BCSI - Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses** for more detailed information.

Truss Design Drawings may specify locations of permanent lateral restraint or reinforcement for individual truss members. Refer to the **BCSI-B3*** for more information. All other permanent bracing design is the responsibility of the building designer.

⚠ DANGER The consequences of improper handling, erecting, installing, restraining and bracing can result in a collapse of the structure, or worse, serious personal injury or death.

¡PELIGRO! El resultado de un manejo, levantamiento, instalación, restricción y arrioste incorrecto puede ser la caída de la estructura o aún peor, heridos o muertos.

⚠ CAUTION Exercise care when removing banding and handling trusses to avoid damaging trusses and prevent injury. Wear personal protective equipment for the eyes, feet, hands and head when working with trusses.

¡CAUTELA! Utilice cautela al quitar las ataduras o los pedazos de metal de sujetar para evitar daño a los trusses y prevenir la herida personal. Lleve el equipo protector personal para ojos, pies, manos y cabeza cuando trabaja con trusses.

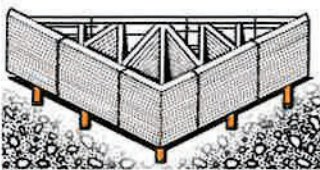
Handling — Manejo

NOTICE Avoid lateral bending.

Evite la flexión lateral.

NOTICE The contractor is responsible for properly receiving, unloading and storing the trusses at the jobsite. Unload trusses to smooth surface to prevent damage.

El contratista tiene la responsabilidad de recibir, descargar y almacenar adecuadamente los trusses en la obra. Descargue los trusses sobre una superficie lisa para prevenir el daño.



Trusses may be unloaded directly on the ground at the time of delivery or stored temporarily in contact with the ground after delivery. If trusses are to be stored for more than one week, place blocking of sufficient height beneath the stack of trusses at 8' (2.4 m) to 10' (3 m) on-center (oc).

Los trusses pueden ser descargados directamente en el suelo en aquel momento de entrega o almacenados temporalmente en contacto con el suelo después de entrega. Si los trusses estarán guardados para más de una semana, ponga bloques de altura suficiente debajo de la pila de los trusses a 8 hasta 10 pies en centro (oc).

If trusses are to be stored for more than one week, cover bundles to protect from the environment.

Para trusses guardados por más de una semana, cubra los paquetes para protegerlos del ambiente.

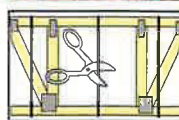
Refer to **BCSI*** for more detailed information pertaining to handling and jobsite storage of trusses.

Vea el folleto **BCSI*** para información más detallada sobre el manejo y almacenado de los trusses en el sitio de trabajo.

Notas generales

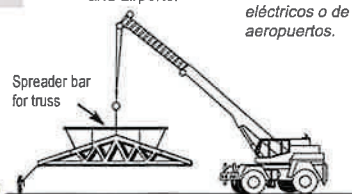
Los trusses no están marcados de ningún modo que identifique la frecuencia o localización de restricción lateral y arrioste diagonal temporales. Use las recomendaciones de manejo, instalación, restricción y arrioste temporal de los trusses. Vea el folleto **BCSI - Guía de Buena Práctica para el Manejo, Instalación, Restricción y Arrioste de los Trusses de Madera Conectados con Placas de Metal*** para información más detallada.

Los dibujos de diseño de los trusses pueden especificar las localizaciones de restricción lateral permanente o refuerzo en los miembros individuales del truss. Vea la hoja resumen **BCSI-B3*** para más información. El resto de los diseños de arriostres permanentes son la responsabilidad del diseñador del edificio.



⚠ CAUTION Use special care in windy weather or near power lines and airports.

¡CAUTELA! Utilice cuidado especial en días ventosos o cerca de cables eléctricos o de aeropuertos.



Use proper rigging and hoisting equipment.

Use equipo apropiado para levantar e improvisar.



DO NOT store unbraced bundles upright.

NO almacene verticalmente los trusses sueltos.



DO NOT store on uneven ground.

NO almacene en tierra desigual.



Hoisting and Placement of Truss Bundles

Recomendaciones para levantar paquetes de trusses

⚠ DON'T overload the crane.

NO sobrecargue la grúa.

⚠ NEVER use banding to lift a bundle.

NUNCA use las ataduras para levantar un paquete.



⚠ WARNING Do not overload supporting structure with truss bundle.

¡ADVERTENCIA! No sobrecargue la estructura apoyada con el paquete de trusses.

Place truss bundles in stable position.

Puse paquetes de trusses en una posición estable.

A single lift point may be used for bundles of top chord pitch trusses up to 45' (13.7 m) and parallel chord trusses up to 30' (9.1 m).

Use at least two lift points for bundles of top chord pitch trusses up to 60' (18.3 m) and parallel chord trusses up to 45' (13.7 m). Use at least three lift points for bundles of top chord pitch trusses >60' (18.3 m) and parallel chord trusses >45' (13.7 m).

Puede usar un solo lugar de levantar para paquetes de trusses de la cuerda superior hasta 45' y trusses de cuerdas paralelas de 30' o menos. Use por lo menos dos puntos de levantar con grupos de trusses de cuerda superior inclinada hasta 60' y trusses de cuerdas paralelas hasta 45'.

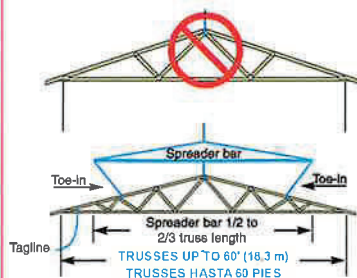
Use por lo menos dos puntos de levantar con grupos de trusses de cuerda superior inclinada mas de 60' y trusses de cuerdas paralelas mas de 45'.

Mechanical Hoisting Recommendations for Single Trusses

Recomendaciones para levantar trusses individuales

NOTICE Using a single pick-point at the peak can damage the truss.

El uso de un solo lugar en el pico para levantar puede hacer daño al truss.



Hold each truss in position with the erection equipment until top chord temporary lateral restraint is installed and the truss is fastened to the bearing points.

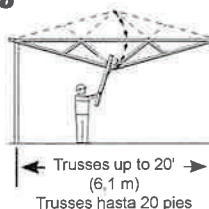
Sostenga cada truss en posición con equipo de grúa hasta que la restricción lateral temporal de la cuerda superior esté instalada y el truss está asegurado en los soportes.

Installation of Single Trusses by Hand

Recomendaciones de levantamiento de trusses individuales por la mano

Trusses 20' (6.1 m) or less, support near peak.

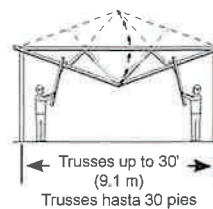
Soporte cerca del pico los trusses de 20 pies o menos.



Trusses up to 20' (6.1 m)
Trusses hasta 20 pies

Trusses 30' (9.1 m) or less, support at quarter points.

Soporte en los puntos de cuarto los trusses de 30 pies o menos.



Trusses up to 30' (9.1 m)
Trusses hasta 30 pies

Temporary Restraint & Bracing

Restricción y arrioste temporal

NOTICE Refer to **BCSI-B2*** for more information.

Vea el resumen **BCSI-B2*** para más información.

Locate ground braces directly in line with all rows of top chord temporary lateral restraint (see table in the next column).

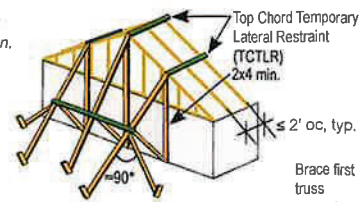
Coloque los arriostres de tierra para el primer truss directamente en línea con cada una de las filas de restricción lateral temporal de la cuerda superior (vea la tabla en la próxima columna).

DO NOT walk on unbraced trusses.

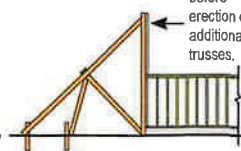
NO camine sobre trusses sueltos.

DO NOT stand on truss overhangs until Structural Sheathing has been applied to the truss and overhangs.

NO se pare en voladizos cerchas hasta Revestimiento estructural ha sido aplicado a la armadura y voladizos.



Top Chord Temporary Lateral Restraint (TCLTR) 2x4 min.
Brace first truss securely before erection of additional trusses.



Steps to Setting Trusses

Las medidas de la instalación de los trusses

1) Install ground bracing. 2) Set first truss and attach securely to ground bracing. 3) Set next 4 trusses with short member temporary lateral restraint (see below). 4) Install top chord diagonal bracing (see below). 5) Install web member plane diagonal bracing to stabilize the first five trusses (see below). 6) Install bottom chord temporary lateral restraint and diagonal bracing (see below). 7) Repeat process with groups of four trusses until all trusses are set.

1) Instale los arriostres de tierra. 2) Instale el primero truss y afe seguramente al arriostre de tierra. 3) Instale los próximos 4 trusses con restricción lateral temporal de miembro corto (vea abajo). 4) Instale el arriostre diagonal de la cuerda superior (vea abajo). 5) Instale arriostre diagonal para los planos de los miembros secundarios para estabilice los primeros cinco trusses (vea abajo). 6) Instale la restricción lateral temporal y arriostre diagonal para la cuerda inferior (vea abajo). 7) Repita este procedimiento en grupos de cuatro trusses hasta que todos los trusses estén instalados.

NOTICE Refer to **BCSI-B10** for trusses spaced greater than 2' oc. Consult **BCSI-B10** para trusses espaciados a más de 2' en el centro.

Restraint/Bracing for All Planes of Trusses

Restricción/Arriostre para todos planos de trusses
Minimum lumber used for lateral restraint and diagonal bracing is 2x4 stress-graded lumber. Attach to each truss with at least 2-10d (0.128x3"), 2-12d (0.128x3.25") or 2-16d (0.131x3.5") nails. La madera 2x4 clasificada para arriostres es la madera mínima utilizada para restricción lateral y arriostre diagonal. Añalar a cada braguero con al mínimo 2 clavos 10d (0.128x3"), 12d (0.128x3.25") o 16d (0.131x3.5").

This restraint and bracing method is for all trusses except 3x2 and 4x2 parallel chord trusses (PCTs). See top of next column for temporary restraint and bracing of PCTs. Este método de restricción y arriostre es para todo trusses excepto trusses de cuerdas paralelas (PCTs) 3x2 y 4x2. Vea la parte superior de la columna para la restricción y arriostre temporal de PCTs.

1) TOP CHORD PLANE — CUERDA SUPERIOR

Truss Span Longitud de Tramo	Top Chord Temporary Lateral Restraint (TCTLR) Spacing Espaciamiento del Arriostre Temporal de la Cuerda Superior
Up to 30' (9.1 m)	10' (3 m) oc max.
30' – 45' (9.1 m – 13.7 m)	8' (2.4 m) oc max.
45' – 60' (13.7 m – 18.3 m)	6' (1.8 m) oc max.
60' – 80' * (18.3 m – 24.4 m) *	4' (1.2 m) oc max.

*Consult a Registered Design Professional for trusses longer than 60' (18.3 m).
*Consulte a un Profesional Registrado de Diseño para trusses más de 60 pies.

See **BCSI-B2*** for TCTLR options.

Vea el **BCSI-B2*** para las opciones de TCTLR.

NOTICE Refer to **BCSI-B3*** for Gable End Frame restraint/bracing/reinforcement information.

Para información sobre restricción/arriostre/refuerzo para Armaones Haciales vea el resumen **BCSI-B3***

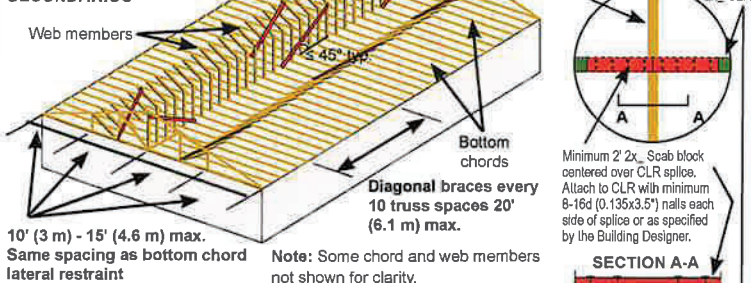
Note: Ground bracing not shown for clarity.

Repeat diagonal braces for each set of 4 trusses.
Repita los arriostres diagonales para cada grupo de 4 trusses.

NOTICE LATERAL RESTRAINT & DIAGONAL BRACING ARE VERY IMPORTANT

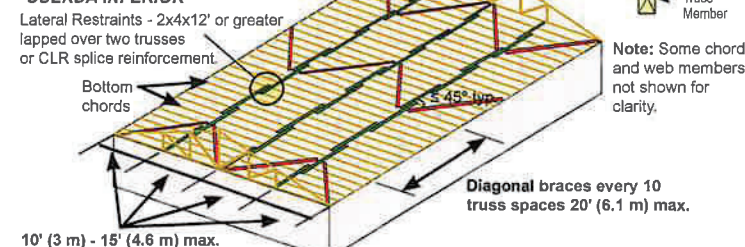
¡LA RESTRICCIÓN LATERAL Y EL ARRIOSTRE DIAGONAL SON MUY IMPORTANTES!

2) WEB MEMBER PLANE — PLANO DE LOS MIEMBROS SECUNDARIOS



Note: Some chord and web members not shown for clarity.

3) BOTTOM CHORD PLANE — CUERDA INFERIOR



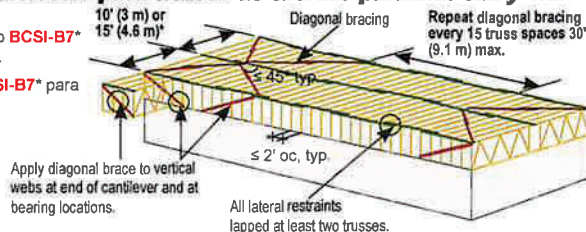
Note: Some chord and web members not shown for clarity.

Restraint & Bracing for 3x2 and 4x2 Parallel Chord Trusses

Restricción y arriostre para trusses de cuerdas paralelas 3x2 y 4x2

NOTICE Refer to **BCSI-B7*** for more information.

Vea el resumen **BCSI-B7*** para más información.

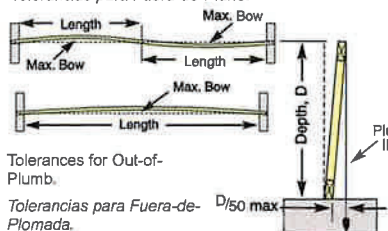


*Top chord temporary lateral restraint spacing shall be 10' (3 m) oc max. for 3x2 chords and 15' (4.6 m) oc for 4x2 chords.

Installing — Instalación

Tolerances for Out-of-Plane.

Tolerancias para Fuera-de-Plano.



Tolerances for Out-of-Plumb.

Tolerancias para Fuera-de-Plomada.

Out-of-Plumb		Out-of-Plane	
D/50	D (ft.)	Max. Bow	Truss Length
1/4"	1'	3/4"	12.5'
(6 mm)	(0.3 m)	(19 mm)	(3.8 m)
1/2"	2'	7/8"	14.6'
(13 mm)	(0.6 m)	(22 mm)	(4.5 m)
3/4"	3'	1"	16.7'
(19 mm)	(0.9 m)	(25 mm)	(5.1 m)
1"	4'	1-1/8"	18.8'
(25 mm)	(1.2 m)	(29 mm)	(5.7 m)
1-1/4"	5'	1-1/4"	20.8'
(32 mm)	(1.5 m)	(32 mm)	(6.3 m)
1-1/2"	6'	1-3/8"	22.9'
(38 mm)	(1.8 m)	(35 mm)	(7.0 m)
1-3/4"	7'	1-1/2"	25.0'
(44 mm)	(2.1 m)	(38 mm)	(7.6 m)
2"	8'	1-3/4"	29.2'
(51 mm)	(2.4 m)	(44 mm)	(8.9 m)
		2"	≥33.3'
		(51 mm)	(10.1 m)

Construction Loading

Carga de construcción

DO NOT proceed with construction until all lateral restraint and bracing is securely and properly in place.

NO proceda con la construcción hasta que todas las restricciones laterales y los arriostres estén colocados en forma apropiada y segura.

DO NOT exceed maximum stack heights in table at right. Refer to **BCSI-B4*** for more information.

NO exceda las alturas máximas de montón. Vea el resumen **BCSI-B4*** para más información.



Maximum Stack Height for Material on Trusses ^{1,2}	
Material	Height
Gypsum Board	12" (305 mm)
Plywood or OSB	16" (406 mm)
Asphalt Shingles	2 bundles
Concrete Block	8" (203 mm)
Clay Tile	3-4 tiles high

1. Based on truss live load of 40 psf or greater. For other conditions, contact a Registered Design Professional.
2. Install stacks of materials as quickly as possible.

NEVER stack materials near a peak, at mid-span, on cantilevers or overhangs.

NUNCA apile los materiales cerca de un pico, a centro de la luz, en cantilevers o aleros.

DO NOT overload small groups or single trusses.

NO sobrecargue pequeños grupos o trusses individuales.

Place loads over as many trusses as possible.

Coloque las cargas sobre tantos trusses como sea posible.

Position loads over load bearing walls.

Coloque las cargas sobre las paredes soportantes.

Alterations — Alteraciones

NOTICE Refer to **BCSI-B5***.

Vea el resumen **BCSI-B5***.

DO NOT cut, alter, or drill any structural member of a truss unless specifically permitted by the truss design drawing.

NO corte, altere o perfore ningún miembro estructural de un truss, a menos que esté específicamente permitido en el dibujo del diseño del truss.

NOTICE Trusses that have been overloaded during construction or altered without the Truss Manufacturer's prior approval may render the Truss Manufacturer's limited warranty null and void.

Trusses que se han sobrecargado durante la construcción o han sido alterados sin la autorización previa del Fabricante de Trusses, pueden hacer nulo y sin efecto la garantía limitada del Fabricante de Trusses.

*Contact the Component Manufacturer for more information or consult a Registered Design Professional for assistance.

NOTE: The truss manufacturer and truss designer rely on the presumption that the contractor and crane operator (if applicable) are professionals with the capability to undertake the work they have agreed to do on any given project. If the contractor believes it needs assistance in some aspect of the construction project, it should seek assistance from a competent party. The methods and procedures outlined in this document are intended to ensure that the overall construction techniques employed will put the trusses into place SAFELY. These recommendations for handling, installing, restraining and bracing trusses are based upon the collective experience of leading personnel involved with truss design, manufacture and installation, but must, due to the nature of responsibilities involved, be presented only as a GUIDE for use by a qualified building designer or contractor. It is not intended that these recommendations be interpreted as superior to the building designer's design specialization for handling, installing, restraining and bracing trusses and it does not preclude the use of other equivalent methods for restraining/bracing and providing stability for the walls, columns, floors, roofs and all the interrelated structural building components as determined by the contractor. Thus, SBCA expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein.

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2701 E. Grauwylar Rd. • Building 1, DPT#1026 • Irving, TX 75061-3414
608-274-4849 • sbccomponents.com

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