803-428-2122

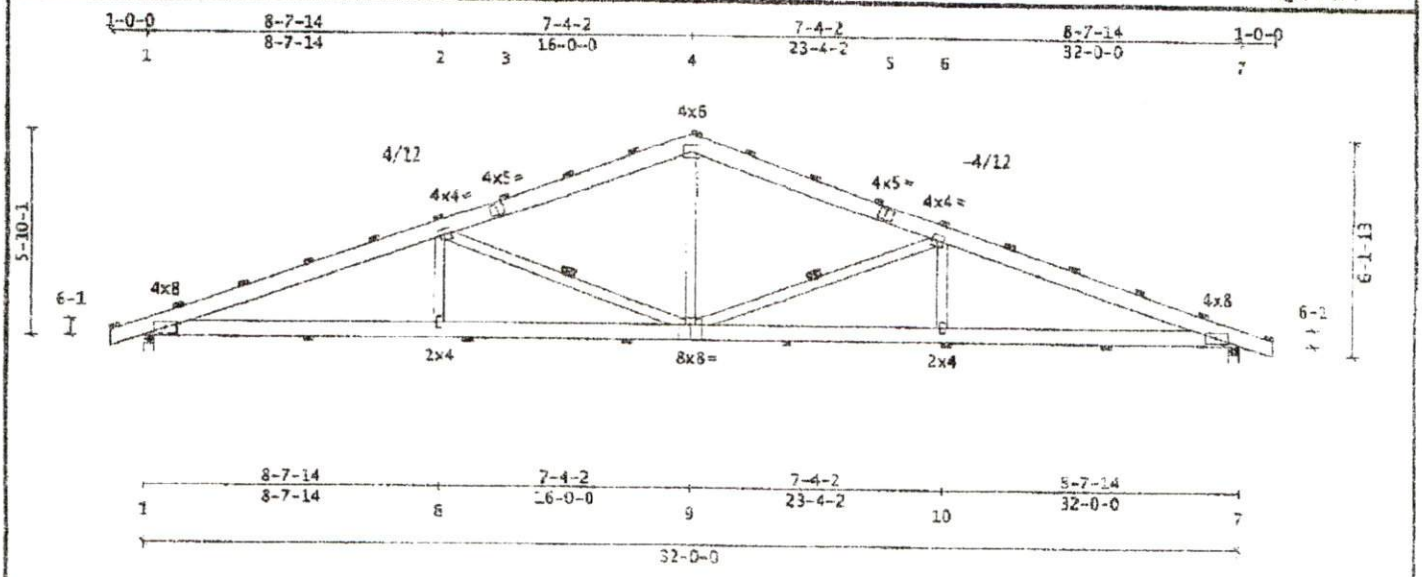
1745 - Cline

Qty: 13 Truss: T1

Customer: David & Shelly Johnson

SID: 0001140207
TID: 137203
Date: 10/13/21
Page: 1 of 1

Truss Mfr. Contact: McKayla Cole



Truss Weight = 195.1 lb

Code/Design: IRC-2015/TPI-2014
PSF Live Dead Dur Factors
TC 20.0 5.0 Live Wind Snow
BC 0.0 5.0 Lum 1.25 1.60 N/A
Total 30.0 Plt 1.25 1.60 N/A
Spacing: 4-00-00 o.c. Plies: 1
Repetitive Member Increase: No
Green Lumber: No Wet Service: No
Plate Tolerance: 20% Creep (Kcr) = 2.0
CR Soffit Load: 2.0 psf

----------Snow Load Specs----------
ASCE7-10 Ground Snow(Pg) = N/A
Risk Cat: I Terrain Cat: C
Roof Exposure: Partially Exposed
Thermal Condition: Unheated(1.2)
Unobstructed Slippery Roof: Yes
Low-Slope Minimums(Pfmin): No
Unbalanced Snow Loads: No
Rain Surcharge: No Ice Dam Chk: Yes

----------Wind Load Specs----------
ASCE7-10 Wind Speed(V) = 110 mph
Risk Cat: I Exposure Cat: C
Bldg Dims: L = 0.0 ft W = 0.0 ft
M.R.H(h) = 15.0 ft Mzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC = 4.0 BC = 1.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-02-06

----------Additional Design Checks----------
10 psf Non-Concurrent SCLL: No
20 psf BC Limited Storage: No
200 lb BC Accessible Ceiling: No
300 lb TC Maintenance Load: No
2000 lb TC Safe Load: No
Unbalanced TCLL: Yes

Material Summary

TC	2x6	SP	(ALSC6-2013)	#1
BC	2x6	SP	(ALSC6-2013)	#1
Webs	2x4	SP	(ALSC6-2013)	#3/Stud

Member Forces Summary

	Mem.	Ten	Comp	%Str.
TC	CH- 1	38	0	0.03
	1- 2	2281	4553	0.67
	2- 3	2697	3139	0.52
	3- 4	1726	3086	0.47
	4- 5	1725	3086	0.47
	5- 6	1697	3139	0.52
	6- 7	2291	4553	0.67
	7-OH	38	0	0.05
BC	1- 8	4225	2011	0.68
	8-10	4225	2027	0.68
	8- 9	4225	3011	0.56
	9-10	4225	2027	0.56
Web	2- 8	156	0	0.08
	2- 9	838	1519	0.52
	4- 9	1259	585	0.48
	6- 9	618	1519	0.52
	6-10	156	0	0.08

Reaction Summary

----------Reaction Summary(Lbs)----------

Jnt	--K-Loc-	React -Up-	--Width-	-Reqd	-Mat	PSI
1	01-12	2027	520	03-08	D2-14	SPF	470
7	31-10-04	2028	520	03-08	D2-14	SPF	470

Max Horiz = -121 / +121 at Joint 1

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [16-00-00] using a 1.00 Full and 0.60 Reduced load factor.

See Loadcase Report for loading combinations and additional details.
Dead Loads may be slope adjusted: > 12.0/12

Notes

Plates designed for Cg at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRACE. Alternatively, see D-WEBREINFORCE.

Deflection Summary

TrussSpan	Limit	Actual(in)	Location
Vert LL	L/240	L/999(-0.25)	9-10
Vert DL	L/120	L/999(-0.14)	8- 9
Vert CR	L/180	L/963(-0.39)	8- 9
Horz LL	0.75in	0.09)	8Jt 7
Horz CR	1.25in	0.13)	8Jt 7
Ohng CR	2L/180	2L/999(0.00)	1- 1
Ohng CR	2L/180	2L/999(0.00)	7- 7

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl_LL + (Kcr - 1) x Defl_DL in accordance with ANSI/TPI 1.

Bracing Data Summary

----------Bracing Data----------
Chords; Sheathing required or bracing indicated:

----------Purlins----------

	--Oc--	--From--	--To--	#Bays
TC	2-00-00	-1-00-00	33-00-00	18
BC	4-00-00	0	32-00-00	9

------- Web Bracing -- CLR ----------
Single: 2- 9 9- 6
Continuous Restraint Bracing Req'd
See WCSI-B3 2.0

Plate offsets (X, Y):

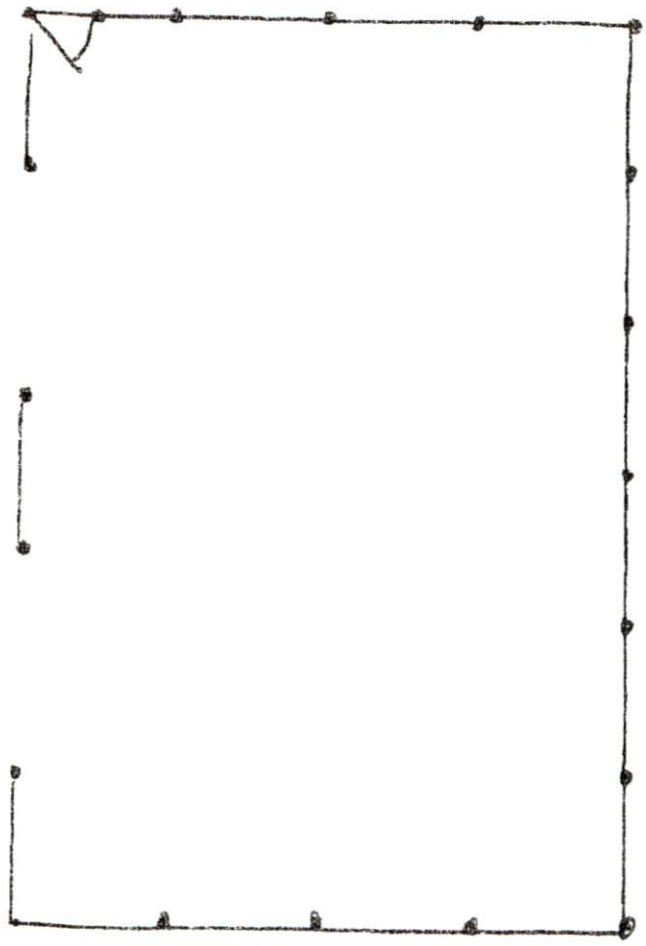
(None unless indicated below)
Jnt1(-03-06,-00-02), Jnt7(00-06,-00-02), Jnt9(0,-01-08)

Job#PER212897 P.E. Robbins, P.E. 1777 State Route 167 Victoria IL 61485 10/12/2021

SIMPSON Strong-Tie

Component Solutions
Truss Studio V
2021.3.0.190

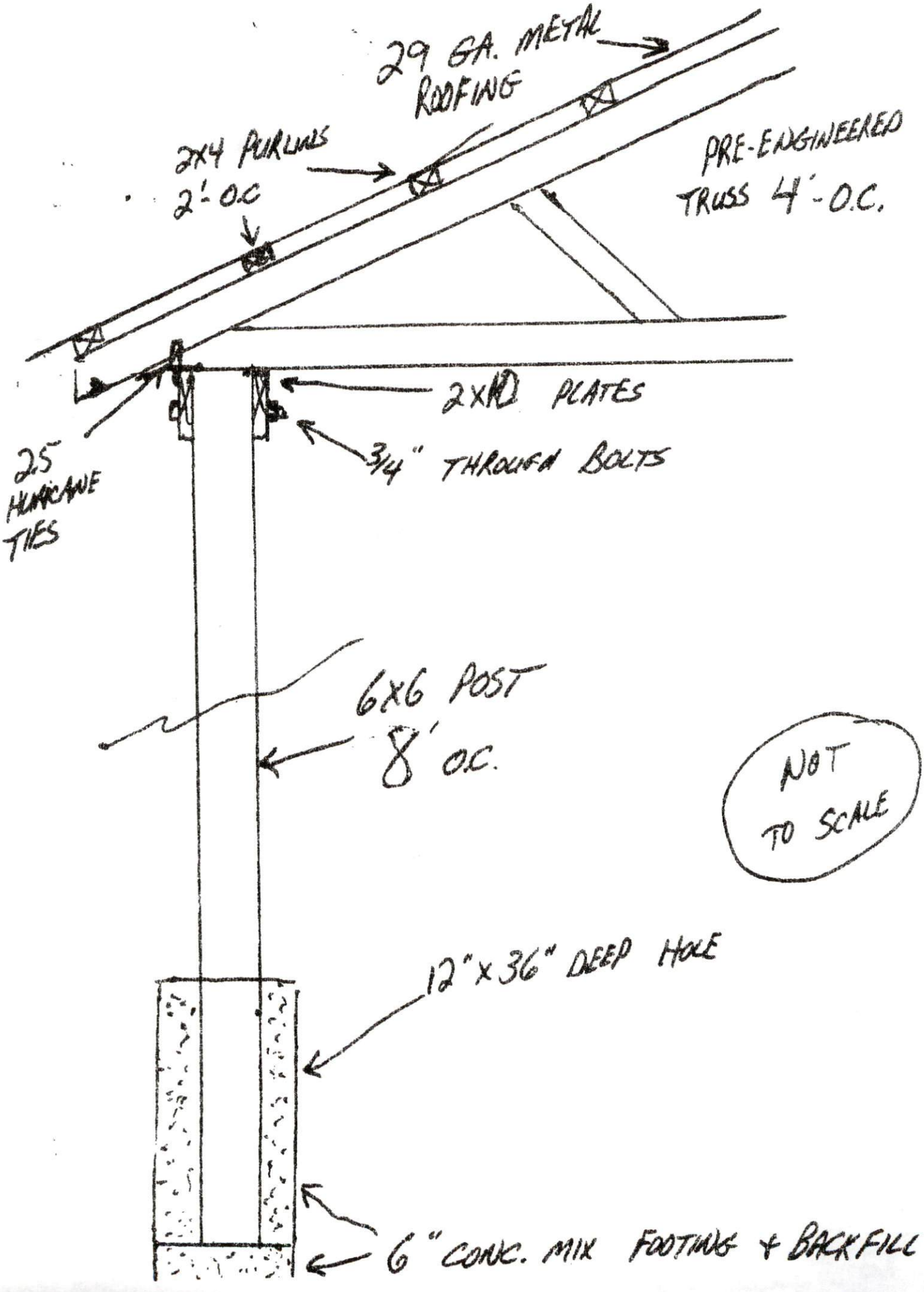
32x48 POLE BUILDING



6x6 POST 8' O.C

TRUSS 4' O.C

2- 9¼ LVL OVER GARAGE DOORS


29 GA. METAL ROOFING
2X4 PURLINS 2'-O.C
PRE-ENGINEERED TRUSS 4'-O.C.
2X10 PLATES
3/4" THROUGH BOLTS
2.5 HURRICANE TIES
6X6 POST 8' O.C.
NOT TO SCALE
12"X36" DEEP HOLE
6" CONC. MIX FOOTING + BACKFILL

COMPONENT DESIGN DRAWINGS & DETAILS

Simpson Strong-Tie Company, Inc.

5956 W. Las Positas Blvd.
Pleasanton, CA 94588
(800) 999-5099
www.strongtie.com

Prepared for:	East Coast Components Inc
Job:	1745 - Cline
Date:	10/12/2021 8:21 AM
Ref. Number:	137203

Notes:

1. The component design drawings referenced below have been prepared based on design criteria and requirements set forth in the Construction Documents, as communicated by the Component Manufacturer.
2. The engineer's signature on these drawings indicates professional engineering responsibility solely for the individual components to be able to resist the design loads indicated, utilizing all the design parameter and materials indicated or referenced on each individual design.
3. It is the Building Designer's responsibility to review the component design drawings to insure compatibility with the Building design, Refer to all notes on the individual component design drawings.

1 Component Design Drawing(s):

1-T1: SID 1140207

Component Solutions™ Important Information & General Notes

General Notes

1. Each Truss Design Drawing (TDD) provided with this sheet has been prepared in conformance with ANSI/TPI 1. Refer to ANSI/TPI 1 Chapter 2 for the responsibilities of all parties involved, which include but are not limited to the responsibilities listed on this sheet, and for the definitions of all capitalized terms referenced in this document.
2. TDDs should not be assumed to be to scale.
3. The Contractor and Building Designer shall review and approve the Truss Submittal Package.
4. The suitability and use of the component depicted on the TDD for any particular building design is the responsibility of the Building Designer.
5. The Building Designer is responsible for the anchorage of the truss at all bearing locations as required to resist uplift, gravity and lateral loads, and for all Truss-to-Structural Element connections except Truss-to-Truss connections.
6. The Building Designer shall ensure that the supporting structure can accommodate the vertical and/or horizontal truss deflections.
7. Unless specifically stated otherwise, each Design assumes trusses will be adequately protected from the environment and will not be used in corrosive environments unless protected using an approved method. This includes not being used in locations where the sustained temperature is greater than 150°F.
8. Trusses are designed to carry loads within their plane. Any out-of-plane loads must be resisted by the Permanent Building Stability Bracing.
9. Design dead loads must account for all materials, including self-weight. The TDD notes will indicate the min. pitch above which the dead loads are automatically increased for pitch effects.
10. Trusses installed with roof slopes less than 0.25/12 may experience (but are not designed for) ponding. The Building Designer must ensure that adequate drainage is provided to prevent ponding.
11. Camber is a non-structural consideration and is the responsibility of truss fabricator.

Handling, Installing, Restraint & Bracing

1. The Contractor is responsible for the proper handling, erection, restraint and bracing of the Trusses. In lieu of job-specific details, refer to BCSI.
2. ANSI/TPI 1 stipulates that for trusses spanning 60' or greater, the Owner shall contract with any Registered Design Professional for the design and inspection of the temporary and permanent truss restraint and bracing. Simpson Strong-Tie is not responsible for providing these services.
3. Trusses require permanent lateral restraint to be applied to chords and certain web members (when indicated) at the locations or intervals indicated on the TDD. Web restraints are to be located at mid points, or third points of the member and chord purlins are not to exceed the spacing specified by the TDD. Chords shown without bracing indicated are assumed to be continuously braced by sheathing or drywall. Permanent lateral restraint shall be accomplished in accordance with: standard industry lateral restraint/bracing details in BCSI-B3 or BCSI-B7, supplemental bracing details referenced on the TDD, or as specified in a project-specific truss permanent bracing plan provided by the Building Designer.
4. Additional building stability permanent bracing shall be installed as specified in the Construction Documents.
5. Special end wall bracing design considerations may be required if a flat gable end frame is used with adjacent trusses that have sloped bottom chords (see BCSI-B3).
6. Do not cut, drill, trim, or otherwise alter truss members or plates without prior written approval of an engineer, unless specifically noted on the TDD.
7. Piggyback assemblies shall be braced as per BCSI-B3 unless otherwise specified in the Construction Documents.
8. For floor trusses, when specified, Strongbacking shall be installed per BCSI-B7 unless otherwise specified in the Construction Documents.

Symbols and Nomenclature

5x7 Plate size; the first digit is the plate width (perp. to the slots) and the second digit is the plate length (parallel to the slots).

5x7-18 -18, -18S5, or -18S6 following the plate size indicates different 18 gauge plate types.

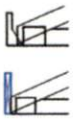
These symbols following the plate size indicate the direction of the plate length (and tooth slots) for square and nearly square plates.

10-3-14 Dimensions are shown in feet-inches-sixteenths (for this example, the dimension is 10'-3 14/16").

Joints are numbered left to right, first along the top chord and then along the bottom chord. Mid-panel splice joint numbers are not shown on the drawing. Members are identified using their end joint numbers (e.g., TC 2-3).

When this symbol is shown, permanent lateral restraint is required. Lateral restraint may be applied to either edge of the member. See Note 3 under Handling, Installing, Restraint & Bracing for more information.

Bearing supports (wall, beam, etc.), locations at which the truss is required to have full bearing. Minimum required bearing width for the given reactions are reported on the TDD. Required bearing widths are based on the truss material and indicated PSI of the support material. The Building Designer is responsible for verifying that the capacity of the support material exceeds the indicated PSI, and for all other bearing design considerations.



Truss-to-Truss or Truss-to-Structural Element connection, which require a hanger or other structural connection (e.g., toe-nail) that has adequate capacity to resist the maximum reactions specified in the Reaction Summary. Structural connection type is not limited by type shown on TDD. Toe-nails may be used where hanger type shown where allowed by detail or other connection design information. Design of the Structural Element and the connection of the Truss to a Structural Element is by others.

Note: These symbols are for graphical interpretation only; they are not intended to give any indication of the geometry requirements of the actual item that is represented.

Materials and Fabrication

1. Design assumes truss is manufactured in accordance with the TDD and the quality criteria in ANSI/TPI 1 Chapter 3, unless more restrictive criteria are part of the contract specifications.
2. Unless specifically stated, lumber shall not exceed 19% moisture content at time of fabrication or in service.
3. Design is not applicable for use with fire retardant, preservative treated or green lumber unless specifically stated on the TDD.
4. Plate type, size, orientation and location indicated are based on the specified design parameters. Larger plate sizes may be substituted in accordance with ANSI/TPI, Section 3.6.3. Plates shall be embedded within ANSI/TPI 1 tolerances on both faces of the truss at each joint, unless noted otherwise.
5. Truss plates shall be centered on the joint unless otherwise specified.

Referenced Standards

ANSI/TPI 1: National Design Standard for Metal Plate Connected Wood Truss Construction, a Truss Plate Institute publication (www.tpinst.org).

BCSI: Guide to Good Practice for Handling, Installing, Restraining & Bracing Metal Plate Connected Wood Trusses, a joint publication of the Truss Plate Institute (www.tpinst.org) and the Structural Building Components Association (www.sbcindustry.com).

DSB-89 Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses, a Truss Plate Institute publication (www.tpinst.org).

NDS: National Design Specification for Wood Construction published by American Forest & Paper Association and American Wood Council.

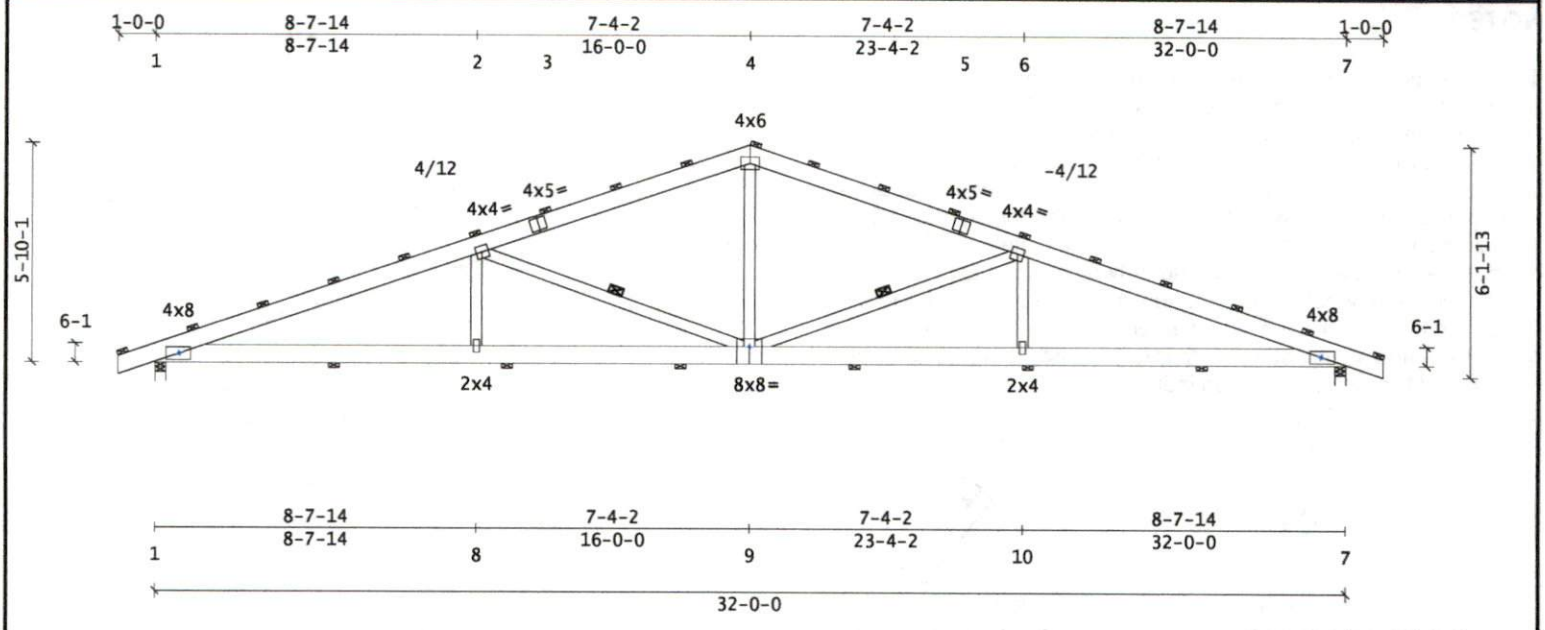
ESR-2762 Simpson Strong-Tie® AS Truss Plates are covered under ESR-2762 published by the International Code Council Evaluation Service (www.icc-es.org).

1745 - Cline | **Qty: 13** | **Truss: T1**

Customer: David & Shelly Johnson

SID: 0001140207
TID: 137203
Date: 10 / 13 / 21
Page: 1 of 1

Truss Mfr. Contact: McKayla Cole



Truss Weight = 195.1 lb

```
Code/Design: IBC-2015/TPI-2014
PSF  Live  Dead          Dur Factors
TC   20.0   5.0       Live  Wind  Snow
BC    0.0   5.0  Lum 1.25  1.60   N/A
Total      30.0  Plt 1.25  1.60   N/A
Spacing:  4-00-00 o.c.   Plies: 1
Repetitive Member Increase:  No
Green Lumber:  No  Wet Service:  No
Fab Tolerance:  20% Creep (Kcr) = 2.0
OH Soffit Load:  2.0 psf
```

```
----------Snow Load Specs----------
ASCE7-10 Ground Snow(Pg) = N/A
Risk Cat: I  Terrain Cat: C
Roof Exposure: Partially Exposed
Thermal Condition: Unheated(1.2)
Unobstructed Slippery Roof: Yes
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      No
Rain Surcharge: No Ice Dam Chk: Yes
```

```
----------Wind Load Specs----------
ASCE7-10  Wind Speed(V) = 110 mph
Risk Cat: I  Exposure Cat: C
Bldg Dims: L =    0.0 ft  B =    0.0 ft
M.R.H(h) =  15.0 ft  Kzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC =  4.0 BC =  1.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-02-06
```

```
-------Additional Design Checks------
10 psf Non-Concurrent BCLL:        No
20 psf BC Limited Storage:         No
200 lb BC Accessible Ceiling:      No
300 lb TC Maintenance Load:        No
2000 lb TC Safe Load:              No
Unbalanced TCLL:                   Yes
```

Material Summary

```
TC      2x6   SP (ALSC6-2013)  #1
BC      2x6   SP (ALSC6-2013)  #1
Webs    2x4   SP (ALSC6-2013)  #3/Stud
```

Member Forces Summary

...Mem...		Ten	Comp	.CSI.
TC	OH- 1	38	0	0.05
	1- 2	2291	4553	0.67
	2- 3	1697	3139	0.52
	3- 4	1726	3086	0.47
	4- 5	1725	3086	0.47
	5- 6	1697	3139	0.52
	6- 7	2291	4553	0.67
	7-OH	38	0	0.05
BC	1- 8	4225	2011	0.68
	7-10	4225	2027	0.68
	8- 9	4225	2011	0.56
	9-10	4225	2027	0.56
Web	2- 8	156	0	0.08
	2- 9	838	1519	0.52
	4- 9	1259	585	0.48
	6- 9	838	1519	0.52
	6-10	156	0	0.08

Reaction Summary

```
-------------Reaction Summary(Lbs)----------------
Jnt   --X-Loc- React -Up- --Width- -Reqd   -Mat  PSI
  1      01-12  2027  520     03-08 02-14    SPF  470
  7  31-10-04  2028  520     03-08 02-14    SPF  470
Max Horiz =   -121 /   +121 at Joint   1
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [16-00-00] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.
Dead Loads may be slope adjusted: > 12.0/12

Notes

Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRACE. Alternatively, see D-WEBREINFORCE.

Deflection Summary

Truss	Span	Limit	Actual(in)	Location
Vert LL		L/240	L/999(-0.25)	9-10
Vert DL		L/120	L/999(-0.14)	8- 9
Vert CR		L/180	L/968(-0.39)	8- 9
Horz LL		0.75in	(0.09)	@Jt 7
Horz CR		1.25in	(0.13)	@Jt 7
Ohng CR		2L/180	2L/999(0.00)	1- 1
Ohng CR		2L/180	2L/999(0.00)	7- 7

Vert CR and Horz CR are the vertical and horizontal deflections due to live load plus the creep component of deflection due to dead load, computed as Defl_LL + (Kcr - 1) x Defl_DL in accordance with ANSI/TPI 1.

Bracing Data Summary

```
------------Bracing Data------------
Chords; Sheathing required or bracing
indicated:
-------------Purlins------------
      ---oc---  --From--  ---To--- #Bays
TC     2-00-00  -1-00-00  33-00-00   18
BC     4-08-00          0  32-00-00    7
------- Web Bracing -- CLR -----------
Single:     2- 9  9- 6
Continuous Restraint Bracing Req'd
See BCSI-B3 3.0
```

Plate offsets (X, Y):

(None unless indicated below)
Jnt1(-00-06,-00-02), Jnt7(00-06,-00-02), Jnt9(0,-01-08)

NORTH CAROLINA PROFESSIONAL SEAL 20809 ENGINEER PHILLIP EDWARD ROBBINS

Job#PER212897 P.E. Robbins, P.E. 1777 State Route 167 Victoria IL 61485 10/12/2021

SIMPSON Strong-Tie

Component Solutions
Truss Studio V
2021.3.0.190

EngDrwg: 2020r3RGT_Eng

SIMPSON Strong-Tie

INDIVIDUAL WEB REINFORCEMENT DETAIL

D-WEBREINFORCE

Date: 06/11/2014 | Rev: A | Pg. 1 of 1

NOTES:

1. This detail provides web reinforcement options that may be used as an alternative to continuous lateral restraint (CLR) when installing CLRs in combination with diagonal bracing is not practical or desired.
2. Refer to the truss design drawing for web lateral restraint requirements. A ⊠ on the truss design drawing indicates that continuous lateral restraint is required at the locations shown (either at the midpoint or 1/3-points of the web member). Refer to the tables below for acceptable web reinforcement options that may be used in place of one or two rows of CLR.
3. This detail may not be used to substitute CLRs for T-, L-, I- or scab reinforcements that are specified on the truss design drawing.
4. T-, L-, I- and scab web reinforcements must be the same or better species and grade of the web member as indicated on the truss design drawing.
5. All reinforcements must extend to within 6" of each end of the web member.
6. This detail does not apply to single-ply webs that exceed 14' in length.

1 Row of CLR @ Web Mid-point

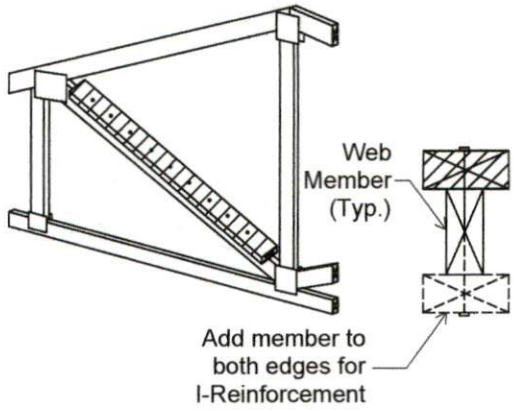
2 Rows of CLRs @ Web 1/3 points

WEB REINFORCEMENT OPTIONS FOR SINGLE-PLY TRUSSES [1]						
Specified Web Member Lateral Restraint (CLRs)	Web Member Size	Acceptable Web Reinforcement Substitutions - Type & Size				Reinforcement-to-Web Connection Requirements
		T-	L-	Scab	I-	
1 Row @ Mid-point	2x4	2x4	2x4	2x4	---	16d gun nails @ 6" on-center
	2x6	2x6	2x6	2x6	---	
	2x8	2x8	2x8	2x8	---	
2 Row @ 1/3-points	2x4	No substitutions allowed			2-2x4	
	2x6				2-2x6	
	2x8				2-2x8	

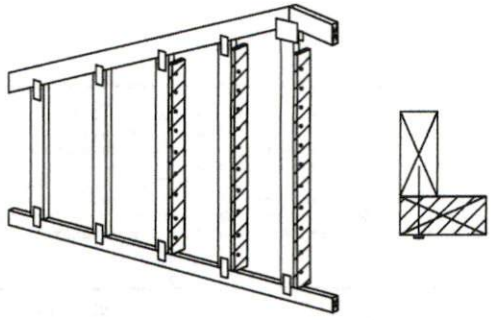
WEB REINFORCEMENT OPTIONS FOR 2-PLY TRUSSES [2]						
Specified Web Member Lateral Restraint (CLRs)	Web Member Size	Acceptable Web Reinforcement Substitutions - Type & Size				Reinforcement-to-Web Connection Requirements
		T-	L-	Scab	I-	
1 Row @ Mid-point	2x4	2x4	2x4	---	---	16d gun nails @ 6" on-center
	2x6	2x6	2x6	---	---	
	2x8	2x8	2x8	---	---	
2 Row @ 1/3-points	2x4	No substitutions allowed			2-2x4	
	2x6				2-2x6	
	2x8				2-2x8	

1. The maximum allowable web length for single-ply trusses is 14'.
2. For 2-ply trusses, the reinforcement must be nailed to both plies of the web with the nailing pattern specified in the table.
3. For the scab reinforcement, 2 rows of 10d gun nails @ 6" o.c may be used in place of 16d gun nails for attaching the reinforcement to the web.
4. For I-reinforcement, attach each 2x_member to opposite edges of the web using the nailing pattern specified in the table.

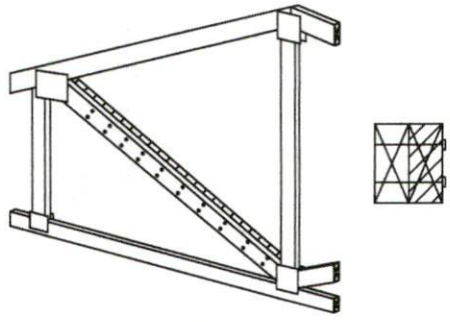
Nail Dimension
16d = 3.5" x 0.131"
10d = 3" x 0.120"



T- Reinforcement
(I-Reinforcement similar)



L- Reinforcement



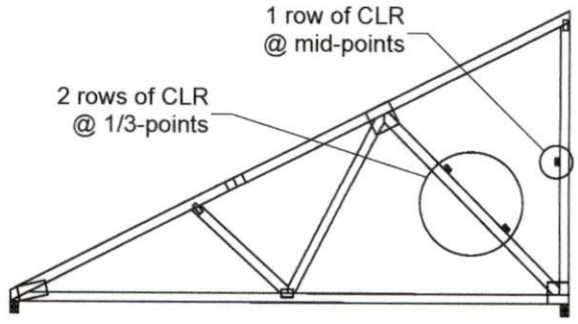
Scab Reinforcement

LATERAL RESTRAINT & DIAGONAL BRACING DETAILS FOR WEB MEMBERS

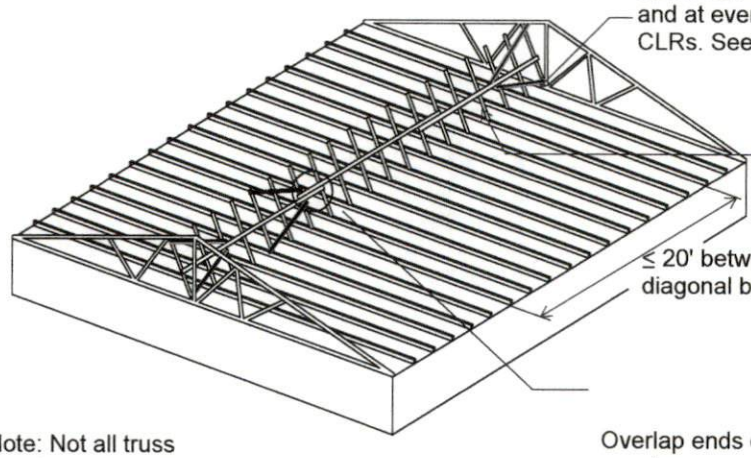
D-WEBCLRBRACE

Date: 05/24/2021 | Rev: A | Pg. 1 of 1

This detail provides information for laterally restraining and bracing web members to prevent lateral buckling using continuous lateral restraints (CLRs) in combination with diagonal bracing. In addition to the CLRs indicated on the truss design drawing, diagonal bracing must be installed as indicated in this detail and BSCI-B3. See WEBREINFORCE for web reinforcement options that may be used as an alternative to this detail when installing CLRs and diagonal bracing is not practical or desired. Properly attached full-length sheathing satisfies (may replace) any bracing requirements specified for end vertical webs. Refer to the Construction Documents for additional bracing requirements. For trusses with spacing greater than 2' o.c., refer to BCSI-B10.

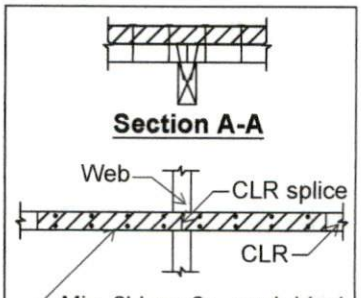


WEB MEMBERS WITH LATERAL RESTRAINT



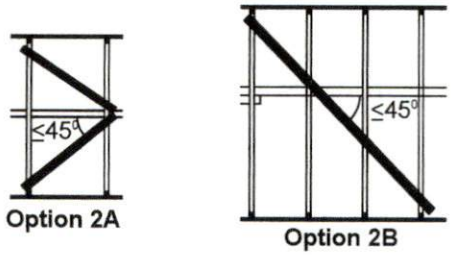
Note: Not all truss members shown for clarity.

Overlap ends of CLRs at least one truss spacing or use splice detail (see Detail 1)



Detail 1 - CLR Splice

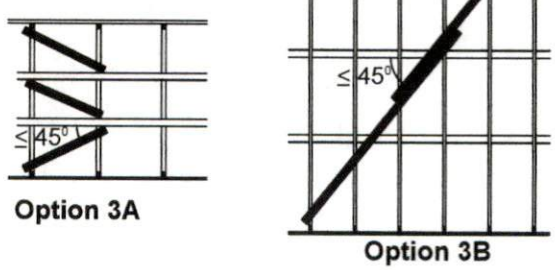
For webs with one row of CLRs, diagonal bracing shall be installed using Option 2A or 2B. Attach diagonal braces to each truss with min. 2-10d nails.



Option 2A Option 2B

Detail 2 - Diagonal Bracing for 1 Row of CLRs

For webs with 2 rows of CLRs, diagonal bracing shall be installed using Option 3A or 3B. Attach diagonal braces to each truss with min. 2-10d nails.



Option 3A Option 3B

Detail 3 - Diagonal Bracing for 2 Rows of CLRs

Nail Dimensions:
10d = 3" x 0.128"

DETAIL LIMITATIONS:

1. Restraint and Bracing Material min. 2x4 stress graded lumber.
2. This detail does not address permanent building stability bracing to resist lateral forces acting on the building.
3. This detail shall not supersede any project-specific truss member permanent bracing design for the roof framing structural system.
4. This detail is not applicable for trusses with spacing greater than 2' o.c.