SIMPSON

COMPONENT DESIGN DRAWINGS & DETAILS

Simpson Strong-Tie Company, Inc.

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Pleasanton, CA 94588
(800) 999-5099
www.strongtie.com

M & M Trusses

P-716 - wohlleber barn

4/15/2024 2:25 PM

228958

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.

2 Component Design Drawing(s):

1-common: SID 2848570 **2-gable: SID 2848571**

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Component Solutions™ Important Information & 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.

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.
9. For IBC 2021 and newer, truss chords without a diaphragm require a project specific bracing design prepared by a registered design professional.

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).

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.

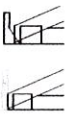
II = ⩤⩥ These symbols following the plate size indicate the direction of the plate length (and tooth slots) for square and nearly square plates.

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.

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.

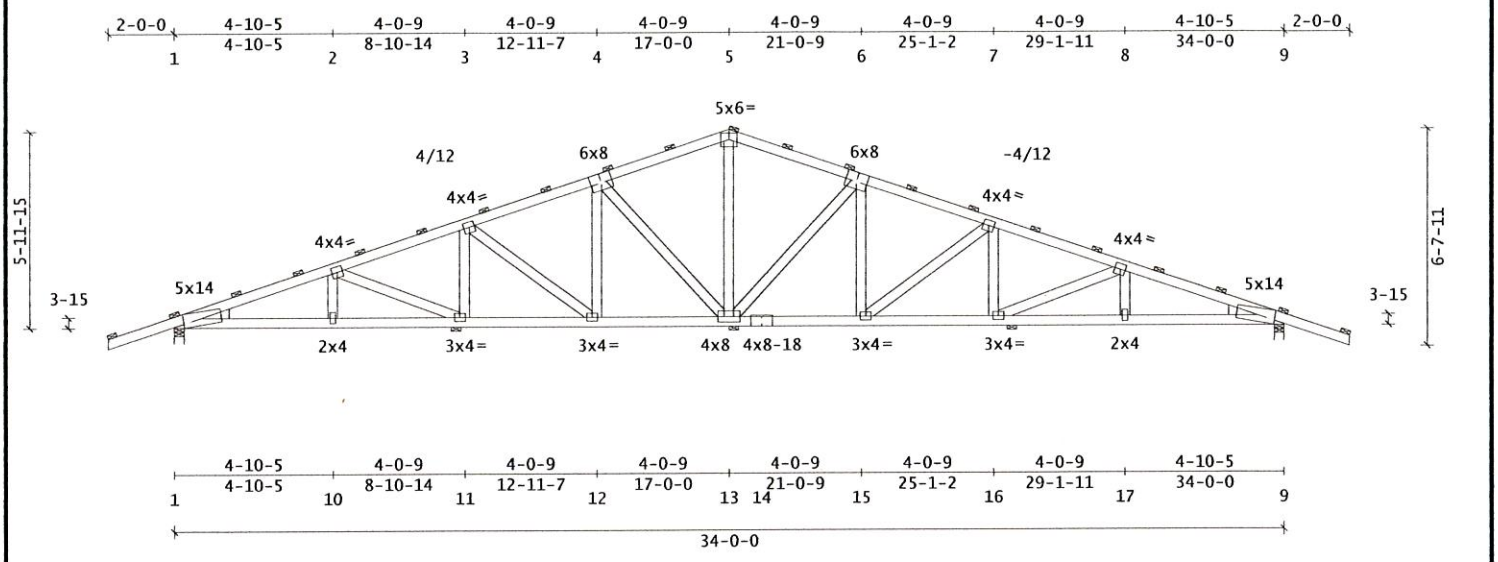
DSB-89 Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses, a Truss Plate Institute publication (www.tpinst.org).
NDS: National Design Specification for Wood Construction published by American Forest & Paper Association and American Wood Council.
ESR-2762 Simpson Strong-Tie® AS Truss Plates are covered under ESR-2762 published by the International Code Council Evaluation Service (www.icc-es.org).

P-716 - wohlleber barn | Qty: 13 | Truss: common

Customer: Bill Wohlleber

SID: 0002848570
TID: 228958
Date: 04 / 16 / 24
Page: 1 of 1

Truss Mfr. Contact: Dan Beard



Truss Weight = 208.7 lb

Code/Design: IRC-2015/TPI-2014

PSF	Live	Dead		Dur Factors		
TC	20.0	10.0	Live	Wind	Snow	
BC	0.0	10.0	Lum	1.15	1.60	1.15
Total	40.0	Plt	1.15	1.60	1.15	

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) = 30.0 psf
Risk Cat: II Terrain Cat: C
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin): No
Unbalanced Snow Loads: Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00

Wind Load Specs
ASCE7-10 Wind Speed(V) = 115 mph
Risk Cat: II 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 = 6.0 BC = 6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 4-00-00

Additional Design Checks

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

Material Summary

TC	2x4	SP	2400/2.0		
	2x4	SP	(ALSC6-2013)	#1	4-5
5-6					
BC	2x4	SP	2400/2.0		
Webs	2x4	SP	(ALSC6-2013)	#1	
Wedge	2x4	SP	(ALSC6-2013)	#1	

Member Forces Summary

Max CSI in TC PANEL 4 - 5 0.88
Max CSI in BC PANEL 10 - 11 0.77
Max CSI in Web 4 - 13 0.93

...Mem...		Ten	Comp	.CSI.
TC	OH- 1	94	0	0.41
	1- 2	1692	7497	0.80
	2- 3	1628	6735	0.77
	3- 4	1507	5694	0.56
	4- 5	1342	4627	0.88
	5- 6	1342	4627	0.88
	6- 7	1507	5694	0.56
	7- 8	1628	6735	0.77
	8- 9	1692	7497	0.80
	9-OH	94	0	0.41
BC	1-10	7047	1434	0.75
	9-17	7047	1462	0.75
	10-11	7047	1434	0.77
	11-12	6320	1274	0.60
	12-13	5297	1049	0.52
	13-14	5297	1076	0.52
	14-15	5297	1076	0.51
	15-16	6320	1302	0.60
	16-17	7047	1462	0.77
Web	2-10	258	0	0.04
	2-11	172	785	0.23
	3-11	552	0	0.08
	3-12	290	1264	0.48
	4-12	902	73	0.15
	4-13	482	1763	0.93
	5-13	2364	523	0.39
	6-13	482	1763	0.93
	6-15	902	73	0.15
	7-15	290	1264	0.48
	7-16	552	0	0.08
	8-16	172	785	0.23
	8-17	258	0	0.04

Reaction Summary

Reaction Summary(Lbs)

Jnt	--X-Loc-	React	-Up-	--Width-	-Reqd	-Mat	PSI
1	01-12	3211	178	03-08	04-00**	SPF	531
9	33-10-04	3211	178	03-08	04-00**	SPF	531

Max Horiz = -143 / +143 at Joint 1
(**) indicates Reqd Width > actual Width; enhancement may be required.

If applicable, bearing enhancement detail TD-BRG-0003A may be used.

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [17-00-00] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for load combinations and additional details.

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.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

TrussSpan	Limit	Actual(in)	Location
Vert LL	L/240	L/927(-0.44)	13-15
Vert DL	L/120	L/999(-0.38)	13-15
Vert CR	L/180	L/496(-0.81)	13-15
Horz LL	0.75in	(0.14)	@Jt 9
Horz CR	1.25in	(0.26)	@Jt 9
Ohng CR	2L/180	2L/933(-0.05)	1- 1
Ohng CR	2L/180	2L/933(-0.05)	9- 9

Bracing Data Summary

Bracing Data
Chords; continuous except where shown
Purlins

	---oc---	--From--	---To---	#Bays
TC	2-00-00	-2-00-00	36-00-00	21
BC	8-06-00	0	34-00-00	4

Web Bracing -- None

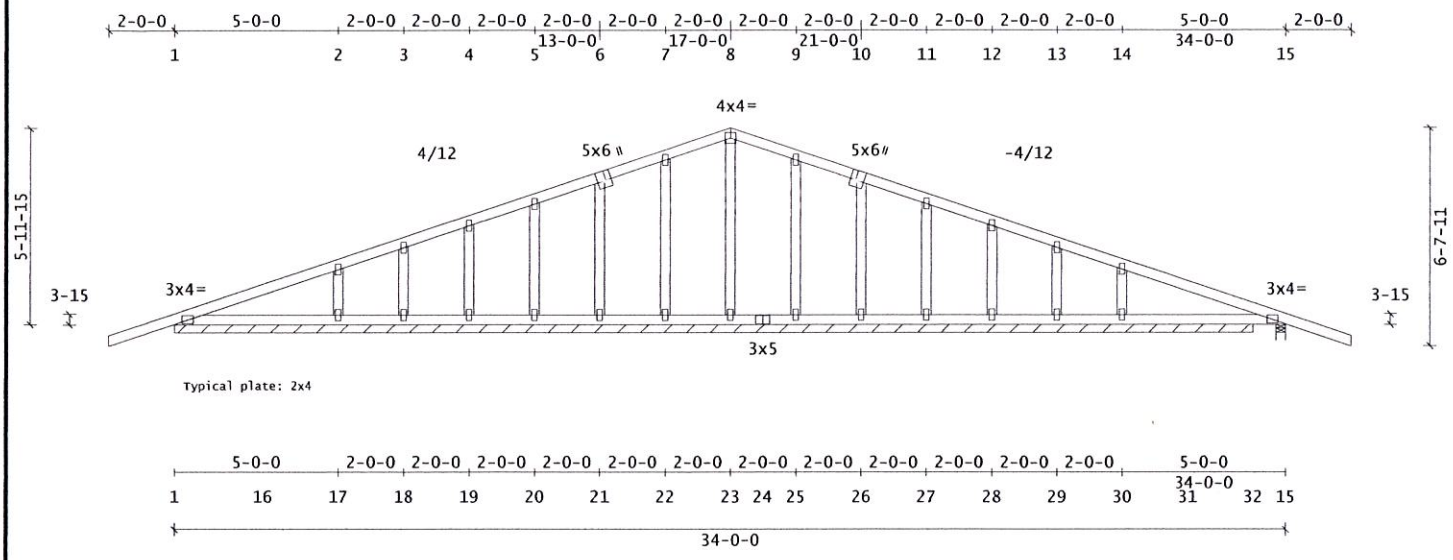
Plate offsets (X, Y):

(None unless indicated below)
Jnt4(-00-03,00-08), Jnt6(00-03,00-08), Jnt14(0,00-04), Jnt1(05-07,01-11), Jnt9(-05-07,01-11)

SIMPSON Component Solutions
Truss Studio V
2023.9.2.1

EngDrwg: 2021r5RGT_Eng

Project Name: P-716 - wohlleber barn	Qty: 2	Truss: gable
Customer: Bill Wohlleber		SID: 0002848571 TID: 228958 Date: 04 / 16 / 24
Truss Mfr. Contact: Dan Beard		Page: 1 of 1



Truss Weight = 181.3 lb

```
Code/Design: IRC-2015/TPI-2014
PSF  Live  Dead        Dur Factors
TC   20.0  10.0      Live  Wind  Snow
BC    0.0  10.0  Lum 1.15  1.60  1.15
Total      40.0  Plt 1.15  1.60  1.15
Spacing:  2-00-00 o.c.   Plies: 1
Repetitive Member Increase: Yes
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) =  30.0 psf
Risk Cat: II  Terrain Cat: C
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00
```

```
----------Wind Load Specs----------
ASCE7-10  Wind Speed(V) = 115 mph
Risk Cat: II  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 =  6.0 BC =  6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 4-00-00
```

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

Material Summary

TC	2x4	SP (ALSC6-2013)	#1
BC	2x4	SP (ALSC6-2013)	#1
Webs	2x4	SP (ALSC6-2013)	#1

Member Forces Summary

Max CSI in TC PANEL	1 - 1	0.27
Max CSI in BC PANEL	1 - 16	0.09
Max CSI in Web	22 - 7	0.07

...Mem...		Ten	Comp	.CSI.
TC	OH- 1	47	0	0.27
	1- 2	45	63	0.19
	2- 3	44	54	0.14
	3- 4	57	40	0.04
	4- 5	86	42	0.06
	5- 6	116	44	0.06
	6- 7	147	71	0.06
	7- 8	189	84	0.06
	8- 9	192	84	0.06
	9-10	167	71	0.06
	10-11	136	44	0.06
	11-12	106	42	0.06
	12-13	77	40	0.04
	13-14	56	54	0.16
	14-15	46	64	0.16
	15-OH	47	0	0.27
BC	1-16	106	43	0.09
	15-32	107	43	0.03
	16-17	106	43	0.04
	17-18	106	43	0.03
	18-19	106	43	0.02
	19-20	106	43	0.02
	20-21	106	43	0.02
	21-22	104	40	0.02
	22-23	104	40	0.02
	23-24	104	40	0.01
	24-25	104	40	0.01
	25-26	104	40	0.02
	26-27	107	43	0.02
	27-28	107	43	0.02
	28-29	107	43	0.02
	29-30	107	43	0.02
	30-31	107	43	0.02
	31-32	107	43	0.02
Web	2-17	121	253	0.02
	3-18	50	97	0.01
	4-19	69	138	0.02
	5-20	68	187	0.04
	6-21	93	194	0.05
	7-22	117	195	0.07
	8-23	0	120	0.06
	9-25	118	195	0.07
	10-26	93	194	0.05
	11-27	68	187	0.04
	12-28	69	138	0.02
	13-29	44	90	0.01
	14-30	127	249	0.02

Reaction Summary

```
--------------Reaction Summary(Lbs)----------------
Jnt  --X-Loc- React -Up- --Width- -Reqd   -Mat  PSI
 15  33-10-04   333   71    03-08 01-08    SPF  531
Reactions not shown: down < 400 and up < 150
---- Reaction Summary (plf) -----
Jnt-Jnt       React -Up- --Width-
  1- 32          88    4 33-00-00
Max Horiz =    -71 /    +71 at Joint   1
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [17-00-00] using a 1.00 Full and 0.00 Reduced load factor. See Loadcase Report for load combinations and additional details.

Notes

If this truss is exposed to wind load perpendicular to the plane of the truss, gable studs must be braced according to the Construction Documents, BCSI-B3, or a gable stud bracing detail matching the design wind speed shown. Lateral bracing of the truss itself to resist out-of-plane wind load must be in accordance with the Construction Documents.
The maximum rake overhang length is 0".
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.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

TrussSpan	Limit	Actual(in)	Location
Vert LL	L/240	L/999(-0.00)	1-16
Vert DL	L/120	L/999(0.00)	1-16
Vert CR	L/180	L/999(-0.00)	1-16
Horz LL	0.75in	(0.01)	@Jt15
Horz CR	1.25in	(0.01)	@Jt15
Ohng CR	2L/180	2L/999(-0.03)	1- 1
Ohng CR	2L/180	2L/999(-0.03)	15-15

Bracing Data Summary

```
------------Bracing Data------------
Chords; continuous except where shown
Web Bracing -- None
```

Plate offsets (X, Y):

(None unless indicated below)
Jnt6(-00-03,00-08), Jnt10(00-03,00-08)

SIMPSON Component Solutions
Truss Studio V
2023.9.2.1

EngDrwg: 2021r5RGI_Eng

SIMPSON

BEARING BLOCK DETAIL FOR SINGLE-PLY TRUSS - BLOCK ON BOTH FACES

TD-BRG-0003A

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

NOTES:

1. This detail provides information for attaching a bearing block to both faces of a single-ply truss to increase the allowable reaction of the truss.
2. Refer to the individual truss design drawing for the bottom chord size and other design information.
3. The bearing blocks must be min. 16" long and the same size, species and grade as the truss bottom chord.
4. If the truss bottom chord species is different than the bearing material, the lower of the listed reactions for Details A-C shall apply. Values listed for SP do not apply to Non-Dense (ND) grades.

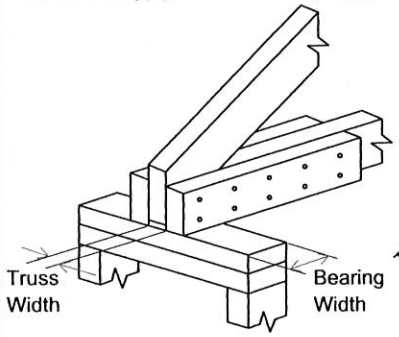


Fig. 1 Bearing Block at End of Truss

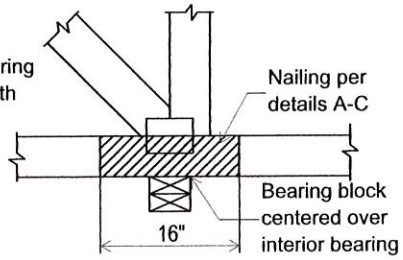
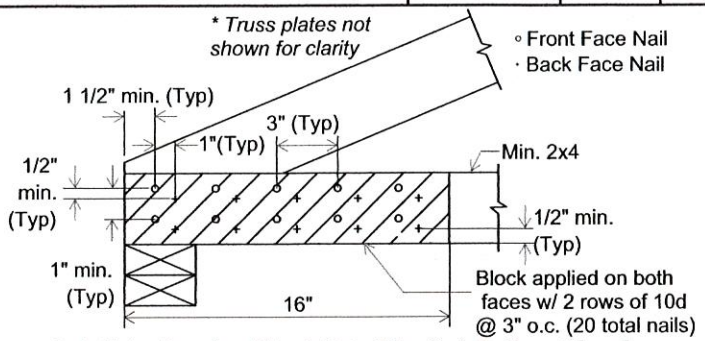


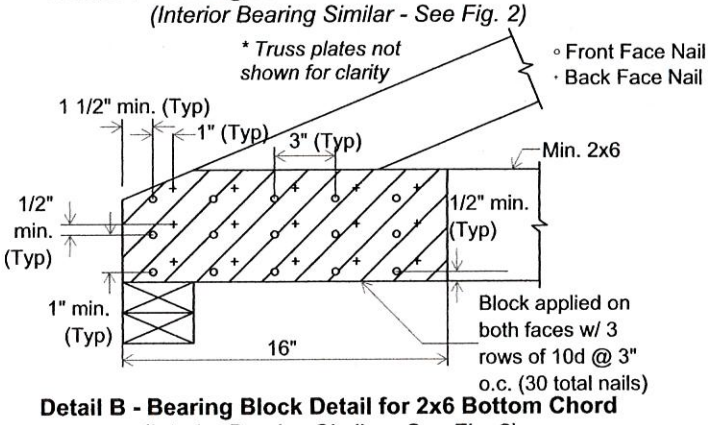
Fig. 2 Bearing Block at Interior Bearing

Maximum Reactions for Bearing Block Details A-C (Single-Ply Truss with Bearing Block on Both Face)

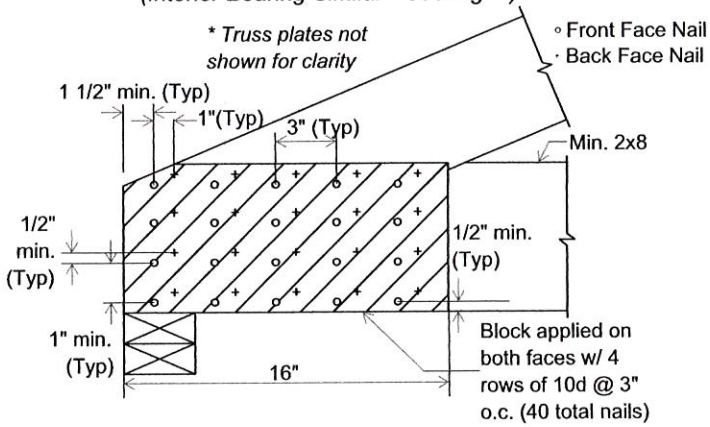
Detail	Bottom Chord (BC) Size	Lumber Species	Max. Reaction	
			3.5" Brg Width	5.5" Brg Width
A	2x4	SP	5405 lbs.	7100 lbs.
		DF	5510 lbs.	7385 lbs.
		HF	4060 lbs.	5275 lbs.
		SPF	4115 lbs.	5390 lbs.
B	2x6	SP	6625 lbs.	8320 lbs.
		DF	6630 lbs.	8505 lbs.
		HF	5025 lbs.	6240 lbs.
		SPF	5060 lbs.	6335 lbs.
C	2x8 or larger	SP	7840 lbs.	9535 lbs.
		DF	7745 lbs.	9620 lbs.
		HF	5990 lbs.	7205 lbs.
		SPF	6005 lbs.	7280 lbs.



Detail A - Bearing Block Detail for 2x4 Bottom Chord
(Interior Bearing Similar - See Fig. 2)



Detail B - Bearing Block Detail for 2x6 Bottom Chord
(Interior Bearing Similar - See Fig. 2)



Detail C - Bearing Block Detail for 2x8 or Larger Bottom Chord
(Interior Bearing Similar - See Fig. 2)

DETAIL LIMITATIONS:
Load Duration Factor: 1.15

Nail Dimension
10d = 3" x 0.131"

Simpson Strong-Tie Company

SIMPSON

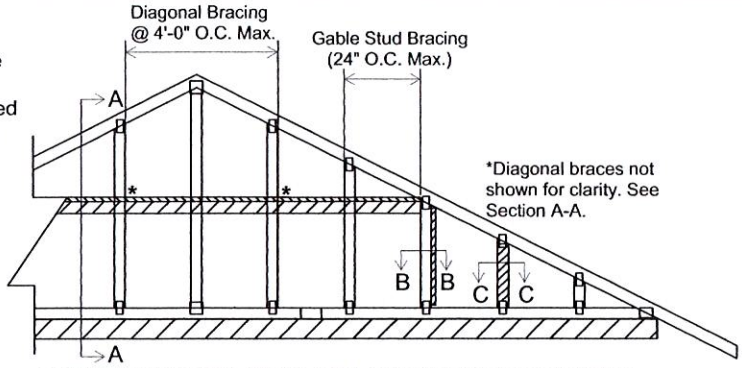
GABLE STUD BRACING DETAIL - 90 MPH (NOMINAL), 115 MPH (ULTIMATE)

TD-GBL-0002B

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

NOTES:

1. This detail provides bracing/reinforcement options for the gable studs to resist the out-of-plane wind loading. Refer to the individual truss design drawing for bracing/reinforcement requirements for resisting the vertical (in-plane) loads assumed in the design of the gable end frame. Additional bracing/reinforcement at the end of the building and/or at the gable end wall may be required. Refer to the Building Designer/Construction Documents for all gable end frame and roof system bracing requirements. For additional information, see BCSI-B3.
2. This detail does not apply to structural gables.
3. Connection requirements between the gable end frame and the wall to be specified by the Building Designer.
4. The gable end frame must match the profile of the adjacent trusses. Do not use a gable end frame with a flat bottom chord next to trusses with sloped bottom chords, such as scissor or vaulted trusses.

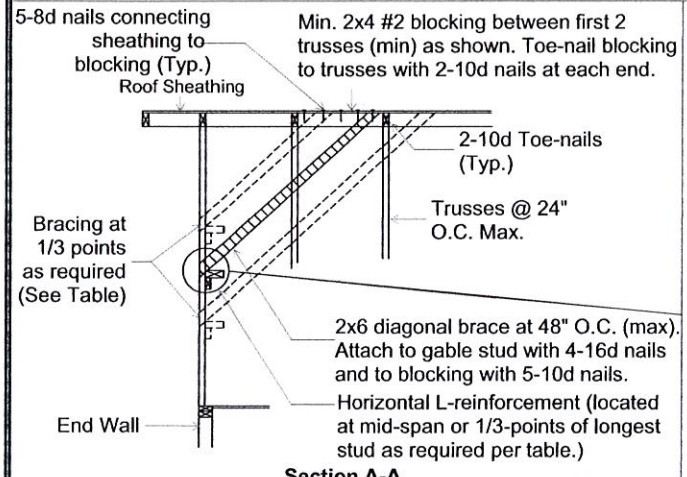


GABLE END WITH STUD BRACING/REINFORCEMENT

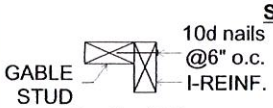
MINIMUM GABLE STUD SIZE, SPECIES & GRADE	MAX. GABLE STUD SPACING	WITHOUT BRACE	L-REINFORCEMENT [1]	SCAB REINFORCEMENT [1]	DIAGONAL BRACING @ MID-SPAN [2]	DIAGONAL BRACING @ 1/3 POINTS [2]
		MAXIMUM STUD LENGTH [3]				
2X4 SPF STUD or STANDARD	12" O.C.	5-1-12	9-0-12	10-3-12	10-3-12	15-5-12
	16" O.C.	4-8-4	8-3-0	9-4-8	9-4-8	14-0-12
	24" O.C.	4-1-0	7-0-0	8-2-4	8-2-4	12-3-8

DETAIL LIMITATIONS:
Max. Mean Roof Height: 30'
Category: II
Exposure: B or C
Load Duration Factor: 1.6
Wind Speed: 90 mph Nominal
(115 mph Ultimate)

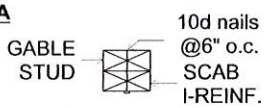
1. L- and Scab Reinforcements shall be minimum 2x4 stud grade and must be a minimum of 90% of the gable stud length. Fasten the reinforcement member to the gable stud with 10d nails @ 6" o.c.
2. Attach horizontal reinforcing member at mid-span (or 1/3 points as required) of the longest stud and install diagonal bracing @ 4' o.c. (max) as shown in Section A-A.
3. Tabulated maximum stud lengths are based on components and cladding wind pressures using the wind design parameters listed in the detail limitations. Gable stud deflection criteria is L/240.



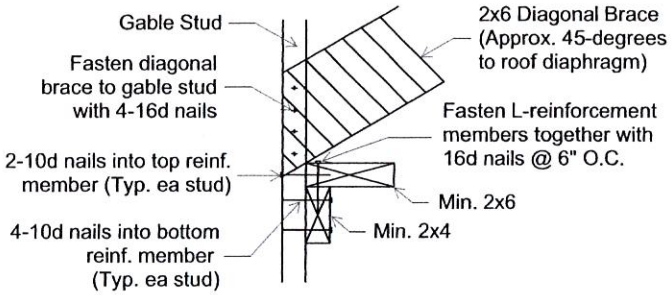
Section A-A



Section B-B



Section C-C



NOTE: Diagonal braces over 6'-3" require a 2x4 T-brace attached to one narrow edge. Diagonal braces over 12'-6" require 2x4s attached on both narrow edges. The braces must cover 90% of the diagonal brace and shall be fastened to the narrow edge with 10d nails at 6" o.c.(min. 3" end distance). When attached on both narrow edges, stagger the nails on each side by 3".

Nail Dimension
16d = 3.5" x 0.162"
10d = 3" x 0.148"
8d = 2.5" x 0.131"

Simpson Strong-Tie Company

LAMPEN ENGINEERING, INC.
P.O. Box 1054
Blue Springs, MO 64013
(816) 220-0246

April 1, 2024

RE: Rising Star Ranch
2807 NW Chipman Rd
Lee's Summit, MO 64081

Parcel Number: 62310020101000000

At the request of the City of Lee's Summit, Missouri I have performed an inspection of the above referenced property. The structure was damaged in a fire which destroyed the roof and walls completely. At the time of my inspection, everything had been cleared out down to the floor slab and the foundation walls.

The property owner dug down alongside an area of the foundation so that I could see the foundation wall and footing. The building has a concrete slab-on-grade floor that is level with the top of the foundation wall. The foundation wall is composed of 4 courses of 8" cmu sitting on an 8"x18" wide concrete footing. The cmu walls are in relatively good shape. The owner intends to install 2 more courses of 8" cmu on top of the existing cmu. I have recommended reinforcing the cells with #4 at 32" o.c. and grout filling all cells full height.

The owner will bring in +/-8" clean rock to be placed on top of the existing floor slab and then install 2" of rigid insulation before pouring a new +/-5 ½" thick floor slab which will have heated water lines running throughout the slab. This will raise the finish floor 16" above the current finish floor elevation.

In my opinion, the existing cmu foundation wall has not been compromised, and will be better than it was due to grouting all cells full. The existing floor slab is adequate to support the new aggregate and floor slab proposed.

Joseph G. Lampen, P.E.
Lampen Engineering, Inc.

CG Engineering, LLC
1624 N Glen Ellyn St., Independence, MO
816.516.9540

September 20, 2024

City of Lee's Summit, MO
Development Services

Re: Rising Star Ranch, 2807 NW Chipman Rd., Electrical and Plumbing Inspection

I performed an inspection on Wednesday, 9/19/24, of the electrical and plumbing installation progress at the above-listed project. I found no deficiencies to be addressed.

Conditions of note:
Electrical:

- All circuits have properly sized conductors (though not connected inside panel yet) for their relative breaker size. No 14ga wire was used for any circuit.
- Receptacles are GFCI (or downstream of a GFCI) where required.
- Receptacle spacing meets the required maximum.

Plumbing:

- Slope of waste piping is just over 2% from existing exterior cleanout to furthest water closet (14" fall over 54' of pipe run).

If you have any questions or require discussion, please contact me.

Sincerely,

9-20-2024

Chris Gross, PE
CG Engineering, LLC

LAMPEN ENGINEERING, INC.
P.O. Box 1054
Blue Springs, MO 64013
(816) 220-0246

October 21, 2024

RE: Rising Star Ranch
2807 NW Chipman Rd
Lee's Summit, MO 64081

Parcel Number: 62310020101000000

STRUCTURAL INSPECTION

The property owner of Rising Star Ranch has retained me to conduct a structural inspection of the rebuilt ranch hand residence on the property. I previously provided a letter dated April 1, 2024 regarding my inspection of the existing footing and floor slab, and I gave recommendations to reinforce the foundation and pour a new floor slab. During the time of that work, I stopped by the site for an informal visit and witnessed the progress being made. The foundation work and the slab installation were done in compliance with the recommendations in that letter.

On September 25th, I visited the site for an inspection of the structural framing. The structure was all framed and had gypsum board on all the interior walls. The exterior walls had sheathing and weather barrier on all walls except the gable ends of the trusses. The soffits were not installed at that time, so I could see the truss connections to the walls. I had the property owner pull the weather barrier off the areas where the braced walls were to be located so that I could verify the nailing pattern. On October 21st I made one last inspection to verify that some endwall truss bracing had been installed.

Based on my observations, the foundation and floor slab were installed per the plans. The braced walls have been installed per the plans. The premanufactured roof trusses were installed and anchored to the walls and had the hurricane clips installed as required. It appears that this structure, as constructed, was built in general conformance with the approved plans, and conforms with general construction practices in this area.

Joseph G. Lampen, P.E.
Lampen Engineering, Inc.