TEAGLE METAL

The truss designs referenced below have been prepared by me or under my direct supervision based on the truss design criteria and requirements ("design criteria") provided by **Quality Line Truss**.

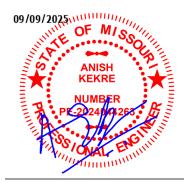
These truss designs are intended for the fabrication of individual building components that will perform to the design criteria provided. Any variance from the design criteria will render the affected truss designs inapplicable.

Listed below are the truss designs included in this package and covered by this seal.

Job: **QU02705_RESERVE BLDG J_REFRESHED_11272024** - 1246636 F01

Any location identification is for file reference only. No determination of the appropriateness of design criteria for any specific project has been made in preparing the truss designs.

Please refer to individual truss designs for specific design criteria.



Anish Kekre (MO, 2024044263)

My license expiration date for the state of MO is 12/31/2026.

IMPORTANT NOTE: The responsibility of the engineer sealing this package, as a Truss Engineer, is solely for design of individual trusses as individual building components based upon design criteria provided by others and set forth in the referenced truss drawings. The truss design criteria for the components have not been verified as appropriate for any particular building, project or use. Adequacy and suitability of design criteria and requirements for the truss designs for any specific project are the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Empowering great component manufacturers.

DESIGN NOTES

- The Truss Design Drawing(s) provided with these Design Notes have been prepared under and are subject to ANSI / TPI 1 published by the Truss Plate Institute, www.tpinst.org.
 Capitalized terms have the meanings provided in ANSI / TPI 1.
- Copies of each Truss Design Drawing shall be furnished to the installation contractor, Building Designer, Owner and all persons fabricating, handling, installing, bracing, or erecting the trusses.

DESIGN LIMITATIONS

- 3. The Truss Design Drawing is based upon specifications provided by the Building Designer in accordance with ANS1 / TPI 1. Neither the Truss Designer, Eagle, nor an engineer who seals this design (if any) assumes any responsibility for the adequacy or accuracy of specifications provided by the Building Designer.
- 4. The Building Designer is solely responsible for the suitability based upon the Truss Design Drawing and shall be responsible for reviewing and verifying that the information shown is in general conformance with the design of the Building.
- Each Truss Design Drawing is for the individual building component (a truss). A seal on the Truss Design Drawing indicates acceptance of professional engineering responsibility solely for the individual truss.
- **6.** Each Truss Design Drawing assumes trusses will be suitably protected from the environment.

HANDLING, INSTALLING, & BRACING

- Refer to Building Component Safety Information (BCSI) for handling, installing, restraining and bracing trusses. Copies can be obtained from the Structural Building Components Association, www.sbcindustry.com.
- 8. Bracing shown on each Truss Design Drawing is for lateral support of individual truss components only to reduce buckling lengths. All temporary and permanent bracing, including lateral load and diagonal or cross bracing, are the responsibility, respectively, of the erector and Building Designer.
- Eagle is not responsible for improper truss fabrication, handling, erection or bracing.
- 10. Compression chords shall be laterally braced by the roof or floor sheathing, directly attached, or have purlins provided at spacing shown, unless noted otherwise.

- Bottom chord required bracing shall be at 10ft spacing or less, if no structural rated ceiling is installed, unless noted otherwise.
- **12.** Strongbacking shall be installed on all parallel chord trusses, including flooring systems, to limit deflection and reduce vibration. Refer to BCSI-B7.
- 13. Never exceed the design loading shown. Never stack building or other materials on inadequately braced truss; refer to BCSI.
- Concentration of construction loads greater than the design loads shall not be applied to the trusses at any time; refer to BCSI.
- Trusses shall be handled with care prior to erection to avoid damage.
 Refer to BCSI for recommended truss handling and erection.

MATERIALS & FABRICATION

- **16.** Lumber moisture content shall be 19% or less at the time of fabrication unless noted otherwise.
- 17. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Unless expressly noted, the truss designs are not applicable for use with fire retardant or preservative treated lumber.
- 19. Plates shall be applied on both faces of truss at each joint and embedded fully. Knots and wane at joint locations shall be regulated in accordance with ANSI / TPI 1.
- **20.** For a specified plate gauge and grade, the specified size is a minimum.
- 21. Connections not shown are the responsibility of others.
- **22.** Adequate support shall be provided to resist gravity, lateral and uplift loads.
- 23. For 4X2 truss orientation, locate plates 0 1/16" from outside the edge of the truss.
- 24. Fabrication of truss shall be in accordance with ANSI / TPI 1.

OTHER NOTES

- Camber is a non-structural consideration and is the responsibility of truss fabricator.
- **26.** Do not cut or alter any truss member or plate without prior approval from a professional engineer.
- Lumber design values are in accordance with ANSI / TPI 1; lumber design values are by others.
- 28. Install specified hangers per manufacturer recommendations.

SYMBOLS

PLATE SIZE

3X4 - The first dimension is the width perpendicular to slots. Second dimension is the length parallel to slots.

-, /, I, Indicates required direction of slots; Reference "Joint Details" for more information.

20 Ga Gr40 connectors required

3X10-20HS - 20 Ga Gr60 connectors required

8X10-18HS - 18 Ga Gr60 connectors required

LATERAL BRACING

When this symbol shown, continuous lateral bracing is required on the member of the truss.



Indicates location where bearings (supports) occur.



The plate shall be centered on joint and/or placed in accordance with the design drawing/QC full scale details.



REFERENCES

- •ANSI / TPI 1: National Design Standard for Metal Plate Connected Wood Trusses
- •BCSI: Building Component & Safety Information - Guide to Good Practice for Handling, Installing, Restraining, & Bracing of Metal Plate Connected Wood Trusses.
- •NDS: National Design Specification for Wood Construction
- •ESR: 1082 published by the International Code Council. www.icc-es.org



Quality Line Truss Co., LLC

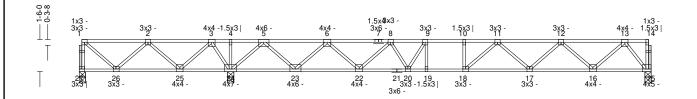
34593 S 4350 RD Address 2 Adair, OK 74330 Truss:F01

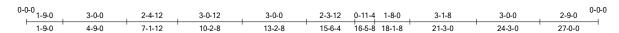
Job: QU02705_RESERVE BLDG J_REFRES

Date: 09/09/25 11:57:51

Page: 1 of 1

SPAN 27-0-0		PITCH 0/12	-			OHR 0-0-0		PLYS 1		SPACING 19.19 in	
	11				27-0-0						1
	3-3-0	3-0-0	0-10-12 1-6-12	3-0-0	3-0-0	1-9-0	1-8-0	1-7-8	3-0-0	3-0-0	1-3-0
	3-3-0	6-3-0	7-1-12 8-8-8	11-8-8	14-8-8	16-5-8	18-1-8	19-9-0	22-9-0	25-9-0	27-0-0
	———	Zone 1	+	Zon	ie 2 ———		+	—	Zon	e 3 ———	





All plates shown to be Eagle 20 unless otherwise noted.

Loading (psf)	General		CSI		Deflection	n	L/	(loc)	Allowed
TCLL: 40 TCDL: 10 BCLL: 0 BCDL: 10	Bldg Code : Rep Mbr : Lumber D.O.L.	IBC 2018/ TPI 1-2014 Yes :: 100 %	TC: BC: Web:	0.59 (4-5) 0.82 (18-19) 0.24 (5-23)	Vert TL: Vert LL: Horz TL:	0.3 in 0.17 in 0.03 in	L/772 L/999	(17-18) (17-18) 15	L/240 L/360
Reaction									09/09/2025,\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

Rea	action								
JT	Brg Combo	Brg Width	Rqd Brg Width	Max React	Max Grav Uplift	Max MWFRS Up	olift Max C&C Uplift	Max Uplift	Max Horiz
24	1	3.5 in	1.50 in	2,186 lbs	•	•	•		
27	1	3.5 in	1.50 in	190 lbs	-306 lbs	•	•	-306 lbs	
15	1	3.5 in	1.50 in	940 lbs	•	•	•		•

Material

TC: SYP#1 4x 2 BC: SYP#1 4x 2 Web: SYP#1 4x 2

Loads

 $1) \, Concurrent \, minimum \, storage \, attic \, loading \, has \, been \, applied \, in \, accordance \, with \, IBC \, 1607.1$

Member Forces			Tabl	e indicates: M	ember ID	, max CSI,	max tension fo	rce, (max comp	nession f	orce). Only	forces greater th	nan 300lbs are	shown in	this table.	
TC	1-2	0.439	380 lbs		4-5	0.592	2,532 lbs		9-10	0.431		(-2,704 lbs)	12-13	0.268	(-1,446 lbs)
	2-3	0.586	1,268 lbs		6-8	0.306		(-1,588 lbs)	10-11	0.374		(-2,704 lbs)			•
	3-4	0.581	2,532 lbs		8-9	0.431		(-2,415 lbs)	11-12	0.316		(-2,488 lbs)			
BC	15-16	0.179	690 lbs		18-19	0.816	2,704 lbs		22-23	0.237	895 lbs		25-26	0.100	(-793 lbs)
	16-17	0.461	2,104 lbs		19-20	0.816	2,704 lbs		23-24	0.136		(-1,177 lbs)			
	17-18	0.659	2,734 lbs		20-22	0.408	2,179 lbs		24-25	0.207		(-1,977 lbs)			
Web	1-27	0.060	315 lbs		5-24	0.219		(-1,805 lbs)	9-20	0.075		(-599 lbs)			
	1-26	0.068		(-507 lbs)	5-23	0.245	1,477 lbs		11-17	0.043		(-333 lbs)			
	2-26	0.107	560 lbs		6-23	0.162		(-1,333 lbs)	12-17	0.086	521 lbs				
	2-25	0.107		(-879 lbs)	6-22	0.156	941 lbs		12-16	0.108		(-893 lbs)			
	3-25	0.166	1,002 lbs		8-22	0.097		(-802 lbs)	13-16	0.170	1,026 lbs				
	3-24	0.112		(-1,017 lbs)	8-20	0.086	464 lbs		13-15	0.127		(-1,128 lbs)	l		

Notes

- 1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
- 2) Unless otherwise specified by the Building Designer, one strongback every 10-0".
- 3) The fabrication tolerance for this floor truss is 10% (Cq = 0.90).
- 4) A creep factor of 2.00 has been applied for this truss analysis.
- 5) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
- Indicates non-structural members.
- 7) Due to negative reactions in gravity load cases, special connections to the bearing surface at joint 27 may need to be considered.

WARNING: Verify all design parameters and follow all notes on this drawing and in the Eagle Metal Design Notes.

This design is for an individual building component (a truss), not a truss system, and is based only on parameters shown and provided by the Building Designer. The applicability of the design parameters must be verified by the Building Designer and should properly incorporate this design into the overall building design before use. Bracing shown is only to prevent buckling of individual truss web and/or chord members. Additional temporary and permanent bracing is always required to prevent collapse and provide stability. Design valid only when Eagle Metal connectors are used. Aseal on this drawing indicates acceptance of professional engineering responsibility solely for the truss component design shown.

TrueBuild®Truss Software v5.8.5 Eagle Metal Products

ANISH