

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 4722941
364 SERENITY - A02 REPAIR - TRI POINTE HOMES

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Stock Building Supply.

Pages or sheets covered by this seal: T37912511 thru T37912512

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844



July 15, 2025

Velez, Joaquin

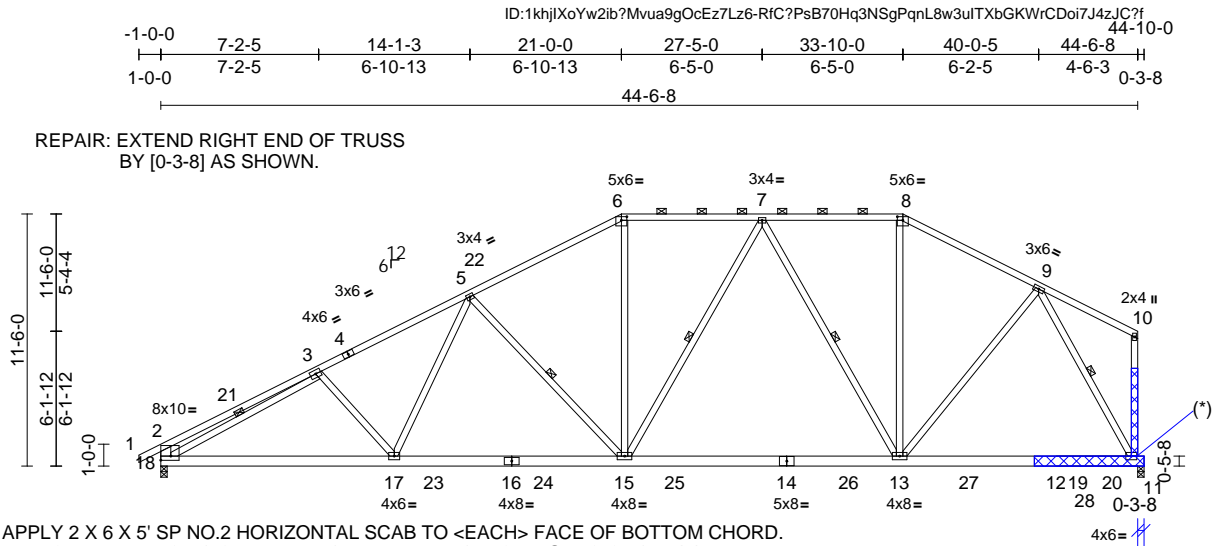
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	364 SERENITY - A02 REPAIR - TRI POINTE HOMES
4722941	A02-FIX	Piggyback Base	4	1	Units: 1.0 T37912512 Job Reference (optional) Eng: T.R

Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

Run: 8.83 S Jun 11 2025 Print: 8.830 S Jun 11 2025 MiTek Industries, Inc. Mon Jul 14 16:13:25

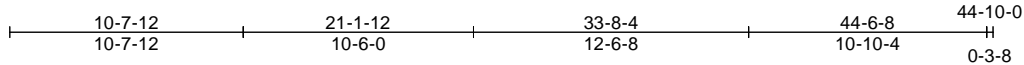
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APPLY 2 X 6 X 5' SP NO.2 HORIZONTAL SCAB TO <EACH> FACE OF BOTTOM CHORD. ATTACH WITH 3 ROWS OF 10d NAILS (0.131" X 3") SPACED @4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

APPLY 2 X 4 X 4' SP NO.2 VERTICAL SCAB TO <EACH> FACE OF RIGHT END VERTICAL. ATTACH WITH 2 ROWS OF 10d NAILS (0.131" X 3") SPACED @4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

(+) BOTTOM EDGE OF VERTICAL SCAB AND TOP EDGE OF HORIZONTAL SCAB MUST BE FLUSH AND HAVE SOLID CONTACT.



Scale = 1:105

Plate Offsets (X, Y): [2:Edge,0-2-4], [6:0-3-0,0-2-0], [8:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.25	13-15	>999	360	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.44	13-15	>999	240	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.09	11	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.09	15-17	>999	240	Weight: 339 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 15-7,13-7:2x4 SP No.2, 18-2:2x6 SP No.2
LBR SCAB 12-11 SP No.2 one side

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-10 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-15, 9-11, 7-15, 7-13, 3-18

REACTIONS

(size) 11=0-3-8, 18=0-3-8
Max Horiz 18=242 (LC 11)
Max Uplift 11=36 (LC 13), 18=105 (LC 12)
Max Grav 11=1882 (LC 2), 18=1841 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-802/130, 3-5=-2812/186, 5-6=-2192/212, 6-7=-1890/221, 7-8=-1426/213, 8-9=-1663/199, 9-10=-106/109, 10-11=-115/59, 2-18=-609/163
BOT CHORD 17-18=-278/2519, 15-17=-234/2293, 13-15=-152/1758, 11-13=-117/913
WEBS 5-15=-666/180, 6-15=0/648, 8-13=-11/453, 9-13=0/837, 9-11=-1877/165, 7-15=-45/334, 7-13=-776/141, 5-17=0/443, 3-17=-187/163, 3-18=-2265/58

NOTES

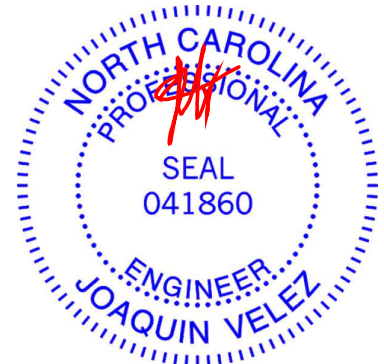
1) N/A

2) Unbalanced roof live loads have been considered for this design.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

TOP CHORD UNDER PIGGYBACKS TO BE Laterally BRACED BY PURLINS AT 2-0-0 OC. MAX. (TYPICAL)



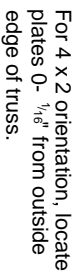
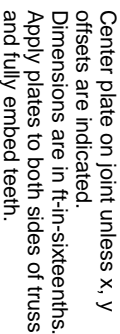
July 15, 2025

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Numbering System

Center plate on joint unless x, y offsets are indicated.



— This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MiTek software or upon request.

4x4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

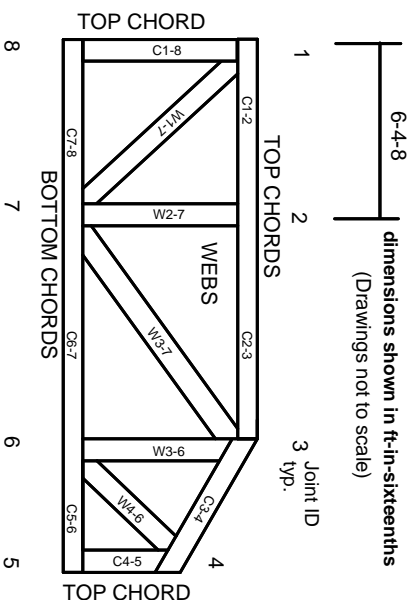


Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

ANSI/TP1:	National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22:	Design Standard for Bracing.
BCSI:	Building Component Safety Information.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3. These truss designs rely on lumber values established by others.

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TRENCO ENGINEERING BY
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MITek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.