

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 25080099-01

580 Creekside Oaks North-Roof-Embark A CRP GLH

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I77219310 thru I77219310

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

North Carolina COA: C-0844



October 22,2025

Galinski, John

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.

Ply Job Truss Truss Type Qtv 580 Creekside Oaks North-Roof-Embark A CRP GLH 25080099-01 A11 Roof Special Girder Job Reference (optional) Carter Components (Sanford, NC), Sanford, NC - 27332 Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Oct 21 12:48:53 Page: 1 ID:cdiBSpt4CM9LjNcJCHuUrvzXUei-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 27-7-0 21-11-0 22-3-8 26-0-026-1-12 3-11-12 0-4-8 3-8-8 14-11-0 ₁₇₋₁₁₋₄ 38-11-0 3-0-0 6-4-0 9-8-0 13-10-8 32-7-8 3-11-12 0-4-8 3-0-0 3-4-0 4-2-8 3-0-4 3-8-8 0-1-12₁₋₅₋₄ 5-3-8 3-4-0 5-0-8 1-0-8 1-0-0 12 5x6= 42 REPAIR: 10" SPLIT IN 1.5" DIM. OF BOTTOM CHORD AT RIGHT HEEL 2x4 II 2x4 II 3x6 14 55₁₅ DRILL 1/4" HOLE AT END(S) OF CRACK 9 NAILED NAILED NAILED TO PREVENT FURTHER DAMAGE. 4 8-4-6 .-9-8-7-4 6 3x5 Special NAILED NAILED NAILED 2-8-0 3x6= NAILED NAILED NAILED NAILED 16 3x5= 3x5 3x5= 5x6= 1-0 " 0-1-11 3 33 34 36 7_⊠ 8 /37 38 11 39 40 H 1-11-0 Ξ X 25 43 45 24 46 47 48 23 49 51 21 52 53 19 44 22 20 3x5= 3x5= 3x8= 3x6= 3x6= 4x5: 3x8= NAILED NAILED NAILED 3x8= NAILED NAILED NAILED NAILED NAILED NAILED NAILED ATTACH 3/4" PLYWOOD OR OSB GUSSET (23/32" RATED SHEATHING 48/24 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE 2-10-4 9-9-12 17-11-4 26-1-12 32-7-8 37-11-0 2-10-4 6-11-8 8-1-8 8-2-8 6-5-12 5-3-8 Scale = 1:70.1 Plate Offsets (X, Y): [5:0-4-0,0-1-0], [10:0-5-0,0-2-8]

Snow (Pf/Pg) TCDL BCLL BCDL

LUMBER

Loading

TCLL (roof)

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or

(psf)

20.0

10.0

0.0

10.0

18.9/20.0

Spacing

Code

Plate Grip DOL

Rep Stress Inci

Lumber DOL

5-3-15 oc purlins, except

2-0-0 oc purlins (5-11-7 max.): 3-13. Rigid ceiling directly applied or 6-0-0 oc

BOT CHORD Rigid ceili bracing.

WEBS 1 Row at midpt 10-12 JOINTS 1 Brace at Jt(s): 10,

7, 11

REACTIONS (size) 2=0-3-8, 17=0-3-8, 20=0-3-8,

22=0-3-8 Horiz 2=-86 (LC

Max Horiz 2=-86 (LC 9)

Max Uplift 2=-20 (LC 11), 17=-59 (LC 65), 20=-70 (LC 12), 22=-91 (LC 11)

Max Grav 2=738 (LC 39), 17=330 (LC 59),

20=835 (LC 59), 17=356 (LC 39),

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/36, 2-3=-1072/16, 3-4=-889/25, 4-5=-900/12, 5-7=-1526/0, 7-10=-37/397, 10-11=0/704, 11-13=-45/38, 5-6=0/915,

6-9=-24/1234, 9-12=0/1201, 12-14=0/484, 14-16=0/532, 16-17=-270/124, 17-18=0/33

BOT CHORD 2-25=-67/908, 24-25=-91/1188,

22-24=-22/163, 20-22=-486/36, 19-20=-58/190, 17-19=-58/190

WEBS

IRC2021/TPI2014

2-0-0

1.15

1.15

NO

3-25=0/251, 4-25=-333/72, 4-24=-483/114, 5-24=0/152, 10-22=-1681/141, 13-20=-482/99, 13-14=-389/115, 9-10=-402/94, 10-12=-1098/1, 12-13=-73/81, 610=482/94, 7-24=0/902, 7-22=-1069/26

0.70

0.61

0.57

DEFL

Vert(LL)

Vert(CT)

Horz(CT)

in

0.13

-0.16

0.02

(loc)

20-22

24-25

22

6-10=-488/94, 7-24=0/803, 7-22=-1268/26, 11-22=-678/60, 11-20=0/133, 16-19=0/139,

16-20=-588/66

CSI

TC

BC

WB

Matrix-MSH

NOTES

 Unbalanced roof live loads have been considered for this design.

Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
 II; Exp B; Enclosed; MWFRS (envelope); cantilever left
 and right exposed; end vertical left and right exposed;
 porch exposed 17-11-4 to 26-1-12; Lumber DOL=1.60
 plate grip DOL=1.33

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0

Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

6) Provide adequate drainage to prevent water ponding.

7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

8) All bearings are assumed to be SP No.2

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 91 lb uplift at joint 22, 70 lb uplift at joint 20 and 59 lb uplift at joint 17

 Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

PLATES

MT20

GRIP

244/190

FT = 20%

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 145 lb down and 64 lb up at 3-0-0 on top chord, and 47 lb down and 2 lb up at 3-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Weight: 246 lb

13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

I/defl

>736

>999

L/d

240

180

 Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-3=-48, 3-5=-58, 5-12=-48, 26-29=-20,

12-18=-48

Concentrated Loads (lb)



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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 we be 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.sbcacomponents.com)



Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	580 Creekside Oaks North-Roof-Embark A CRP GLH
25080099-01	A11	Roof Special Girder	1	1	Job Reference (optional)

Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Oct 21 12:48:53 ID:cdiBSpt4CM9LjNcJCHuUrvzXUei-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?fdiscolored and the property of the

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818 Soundside Road Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- ¹/16" from outside edge of truss.

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

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

PLATE SIZE

4 × 4

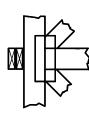
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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.

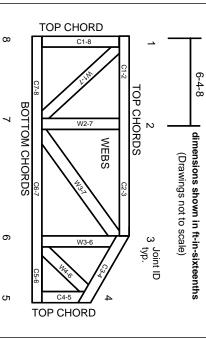
Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction Design Standard for Bracing.

Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-22:

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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MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

▲ General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.

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Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

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- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.