

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 2500402-21363
504 Creekside Oaks South

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I73256580 thru I73256582

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

North Carolina COA: C-0844



May 7, 2025

Fox, Steve

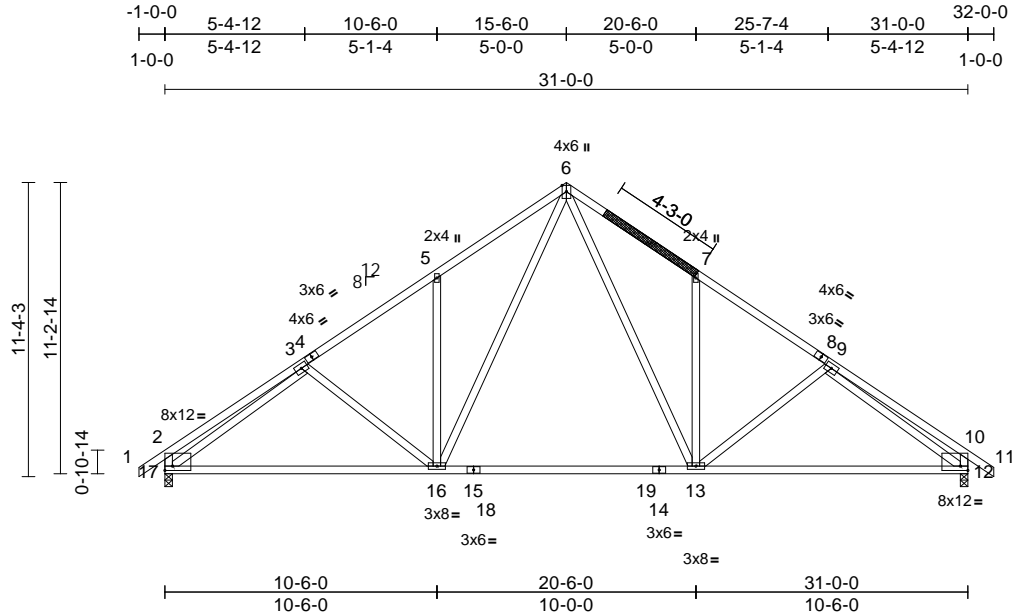
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	504 Creekside Oaks South	173256580
2500402-21363	A_RP	Common	4	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:89

Plate Offsets (X, Y): [2:Edge,0-2-0], [12:Edge,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	0.64	Vert(LL)	-0.51	13-16	>728	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.63	13-16	>589	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 214 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 14-15:2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 17-2,12-10:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 12=0-3-8, 17=0-3-8
Max Horiz 17=272 (LC 11)
Max Uplift 12=-153 (LC 13), 17=-153 (LC 12)
Max Grav 12=1297 (LC 1), 17=1297 (LC 1)

FORCES

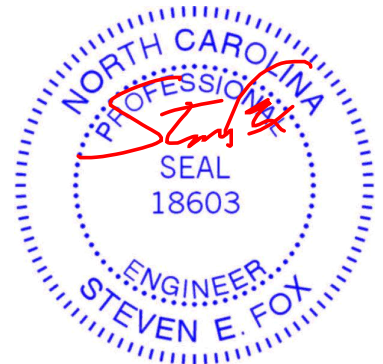
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-506/127, 3-5=-1483/309, 5-6=-1535/463, 6-7=-1535/463, 7-9=-1484/309, 9-10=-506/127, 10-11=0/38, 2-17=-445/166, 10-12=-445/166
BOT CHORD 16-17=-259/1457, 13-16=-2/964, 12-13=-163/1268
WEBS 6-13=-252/859, 7-13=-354/238, 9-13=-202/193, 6-16=-252/859, 5-16=-355/239, 3-16=-202/193, 3-17=-1285/211, 9-12=-1284/211

NOTES

- Repair Condition: top chord has 0-6-0 long break centered at 4-0-2 below joint 6.
- Apply 51" long 2x4 SP No.2 scab to both side(s) of truss centered on damage located 4-0-2 below joint 6 with 2 row(s) of 10d (0.131"x3") nails spaced 4" o.c. from each face. Minimum 0-3-0 end distance.
- N/A.

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint 17 and 153 lb uplift at joint 12.

LOAD CASE(S) Standard



May 7, 2025

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.sbcacomponents.com)

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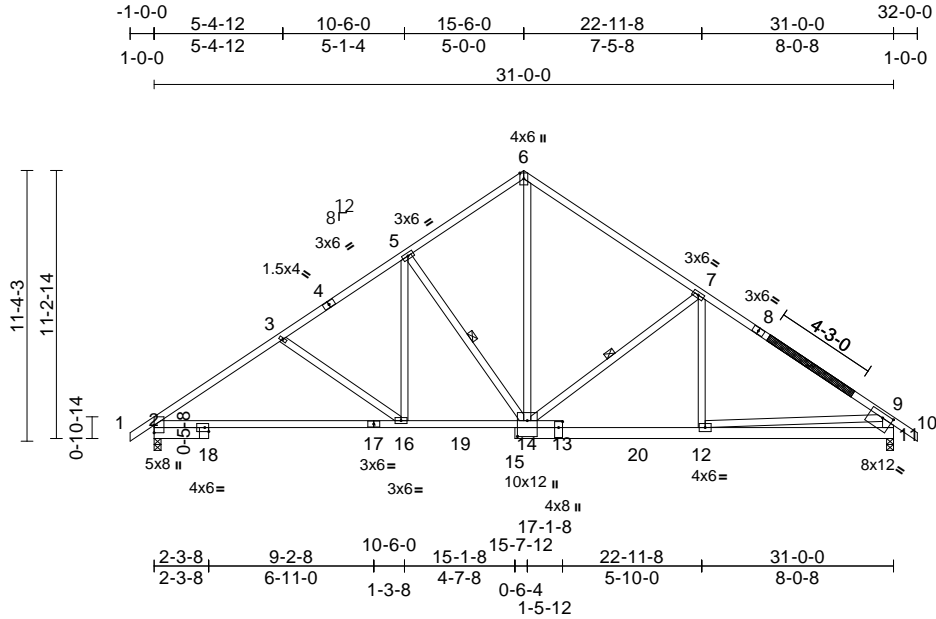
Job	Truss	Truss Type	Qty	Ply	504 Creekside Oaks South	I73256581
2500402-21363	A7_RP	Roof Special	4	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Tue May 06 08:18:49

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Scale = 1:96.6

Plate Offsets (X, Y): [11:0-5-0,0-2-4], [13:Edge,0-2-0], [14:0-8-0,0-5-0]

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	0.79	Vert(LL)	-0.30	2-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.70	2-16	>525	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.11	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 220 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 17-13:2x4 SP No.1,
17-2:2x4 SP DSS
WEBS 2x4 SP No.2 *Except* 0-0-0,0-0-0,7-12:2x4
SP No.3, 11-9:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing, Except:
2-2-0 oc bracing: 2-16.
WEBS 1 Row at midpt 5-14, 7-14

REACTIONS

(size) 2=0-3-8, 11=0-3-8
Max Horiz 2=-276 (LC 10)
Max Uplift 2=-151 (LC 12), 11=-155 (LC 13)
Max Grav 2=1290 (LC 1), 11=1305 (LC 1)

FORCES

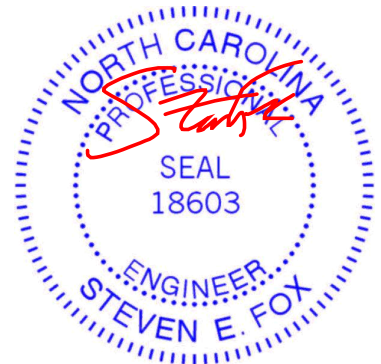
(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/10, 2-3=-1843/345, 3-5=-1593/322,
5-6=-1160/346, 6-7=-1231/332,
7-9=-1659/293, 9-10=0/41, 9-11=-1214/287
BOT CHORD 2-16=-292/1595, 14-16=-124/1379,
12-14=-105/1274, 11-12=-188/612
WEBS 3-16=-269/195, 5-16=-28/516,
5-14=-701/219, 7-12=0/241, 9-12=0/824,
6-14=-217/907, 7-14=-567/247

NOTES

- 1) Repair Condition: top chord has 0-6-0 long break
centered at 2-7-9 below joint 8.
- 2) Apply 51" long 2x4 SP No.2 scab to both side(s) of truss
centered on damage located 2-7-9 below joint 8 with 2
row(s) of 10d (0.131"x3") nails spaced 4" o.c. from each
face. Minimum 0-3-0 end distance.
- 3) N/A.

- 4) Unbalanced roof live loads have been considered for
this design.
- 5) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat.
II; Exp B; Enclosed; MWFRS (envelope) exterior zone
and C-C Exterior (2) zone; C-C for members and forces
& MWFRS for reactions shown; Lumber DOL=1.60 plate
grip DOL=1.60
- 6) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 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, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 151 lb uplift at joint
2 and 155 lb uplift at joint 11.

LOAD CASE(S) Standard



May 7, 2025

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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)

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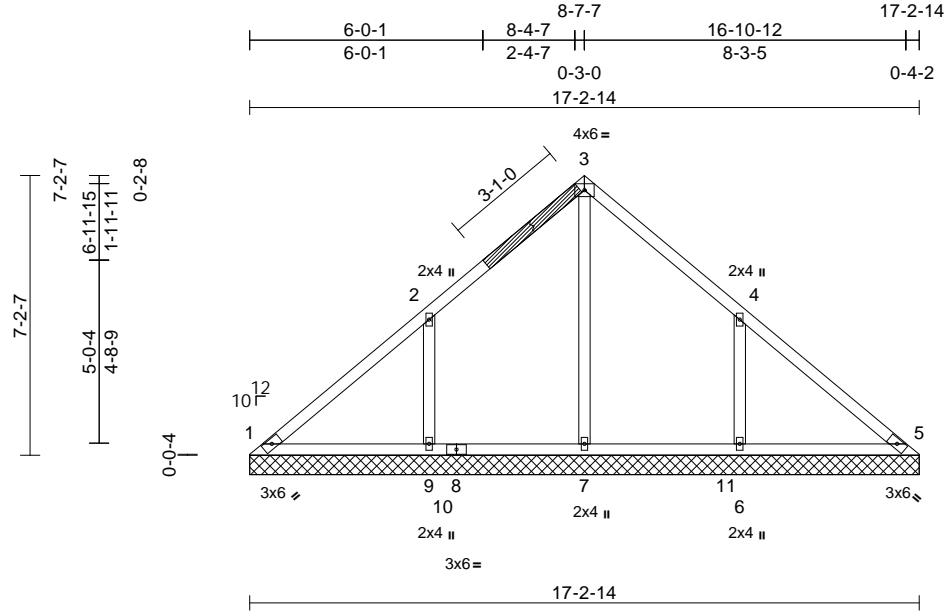
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Job	Truss	Truss Type	Qty	Ply	504 Creekside Oaks South	
2500402-21363	V1_RP	Valley	1	1	Job Reference (optional)	I73256582

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Scale = 1:59.3

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	0.24	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 82 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 7-3:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=17-2-14, 5=17-2-14, 6=17-2-14, 7=17-2-14, 9=17-2-14
Max Horiz 1=-170 (LC 8)
Max Uplift 1=-13 (LC 8), 6=-209 (LC 13), 9=-210 (LC 12)
Max Grav 1=176 (LC 20), 5=160 (LC 1), 6=478 (LC 20), 7=365 (LC 22), 9=478 (LC 19)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-161/133, 2-3=-155/146, 3-4=-155/138, 4-5=-131/92
BOT CHORD 1-9=-69/130, 7-9=-69/130, 6-7=-69/130, 5-6=-69/130
WEBS 3-7=-158/0, 2-9=-342/255, 4-6=-342/255

NOTES

- Repair Condition: top chord has 0-1-0 long break centered at 1-10-6 below joint 3.
- Apply 37" long 2x4 SP No.2 scab to front side(s) of truss centered on damage located 1-10-6 below joint 3 with 2 row(s) of 10d (0.131"x3") nails spaced 2" o.c. from front face. Minimum 0-3-0 end distance.
- N/A.
- Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 1, 210 lb uplift at joint 9 and 209 lb uplift at joint 6.

LOAD CASE(S) Standard



May 7, 2025

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

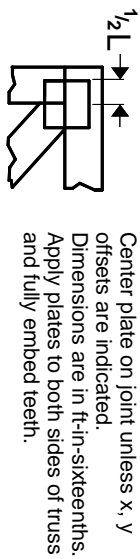
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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)

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Symbols

PLATE LOCATION AND ORIENTATION



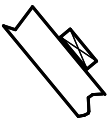
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

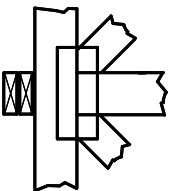
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

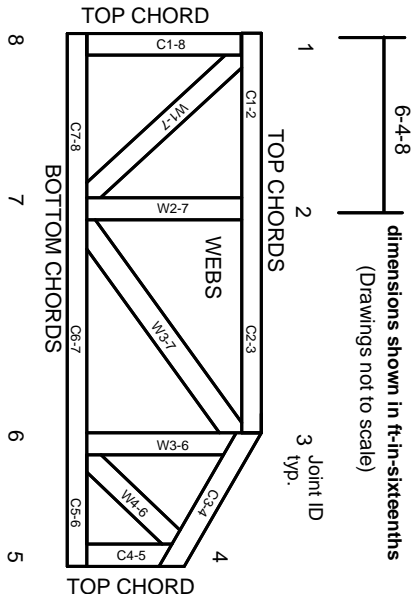


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

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/TP1 section 6.3. These truss designs rely on lumber values established by others.

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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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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