

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: MF2300043-01
Senters Assisted Living-Roof-Main Bldg PART A

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: I62634246 thru I62634248

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844



December 20, 2023

Gilbert, Eric

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.

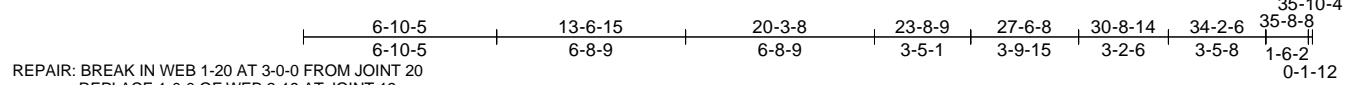
Job MF2300043-01	Truss A41	Truss Type Attic	Qty 1	Ply 1	Senters Assisted Living-Roof-Main Bldg PART A I62634246 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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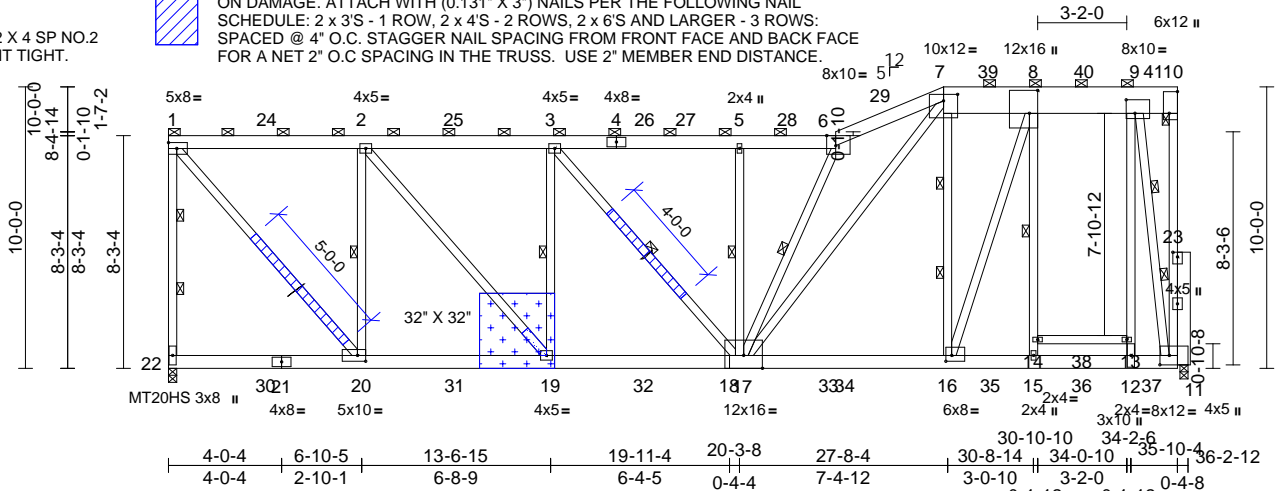
REPAIR: BREAK IN WEB 1-20 AT 3-0-0 FROM JOINT 20
REPLACE 1-0-0 OF WEB 2-19 AT JOINT 19
BREAK AT MIDPOINT OF WEB 3-17



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 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.

INSTALL 2 X 4 SP NO.2 CUT TO FIT TIGHT.

APPLY 2 X 4 SP NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 1 ROW, 2 X 4'S - 2 ROWS, 2 X 6'S AND LARGER - 3 ROWS: 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.



Scale = 1:81.9

Plate Offsets (X, Y): [6:0-3-14,Edge], [7:0-6-0,0-2-12], [8:0-9-12,0-3-8], [9:0-3-12,0-5-12], [10:Edge,0-3-8], [11:0-4-0,0-4-0], [16:0-2-8,0-2-8], [20:0-3-8,0-2-8], [23:0-2-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.30	17-19	>999	360	MT20HS	187/143
Snow (Pf)	20.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.52	17-19	>822	240	MT20	244/190
TCDL	20.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.06	11	n/a	n/a		
BCLL	0.0*	Code	IBC2015/TPI2014	Matrix-MSH		Wind(LL)	0.12	17-19	>999	240		
BCDL	10.0											Weight: 397 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 7-10:2x12 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2 *Except* 14-13:2x4 SP No.3
WEBS 2x4 SP No.3 *Except*
22-1,16-8,17-7,3-17,20-1,19-2:2x4 SP No.2,
10-11,11-9:2x4 SP 2400F 2.0E, 11-23:2x6 SP No.2

WEBS
7-16=-2578/321, 8-16=-283/3072,
14-15=-239/157, 8-14=-85/274,
12-13=-27/616, 9-13=-27/864,
9-11=-5445/505, 5-17=-907/143,
7-17=-297/3098, 6-17=-1721/205,
3-17=-28/283, 2-20=-2137/260,
1-20=-210/2995, 2-19=-98/1510,
3-19=-988/147

- 10) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 22 and 121 lb uplift at joint 11.
12) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

BRACING
TOP CHORD Sheathed or 3-5-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-9 max.): 1-6, 7-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-15, 5-17, 6-17, 3-17, 2-20, 3-19
WEBS 2 Rows at 1/3 pts 1-22, 7-16, 9-11
REACTIONS (size) 11=0-3-8, 22=0-3-8
Max Horiz 22=180 (LC 11)
Max Uplift 11=121 (LC 14), 22=193 (LC 14)
Max Grav 11=3144 (LC 37), 22=2709 (LC 37)

- NOTES**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 10-1-12, Interior (1) 10-1-12 to 23-8-9, Exterior (2) 23-8-9 to 35-8-8 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.00 Plate DOL=1.00); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-2644/218, 1-2=-1966/211,
2-3=-2950/234, 3-5=-3041/211,
5-6=-3035/211, 6-7=-4024/356,
10-11=-206/2133, 7-8=-1721/162,
8-9=-841/77, 9-10=-38/3
BOT CHORD 20-22=-171/127, 19-20=-270/1966,
17-19=-293/2950, 16-17=-170/1838,
15-16=-77/841, 12-15=-76/832,
11-12=-77/828, 13-14=-1/10



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Continued on page 2

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)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Senters Assisted Living-Roof-Main Bldg PART A
MF2300043-01	A41	Attic	1	1	I62634246
					Job Reference (optional)

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

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- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.
- 16) 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

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

Uniform Loads (lb/ft)

Vert: 1-6=-80, 6-7=-80, 15-22=-20, 12-15=-100
 (F=-80), 11-12=-20, 13-14=-100 (F=-80), 7-10=-80

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818 Soundside Road
 Edenton, NC 27932

Job MF2300043-01	Truss A49	Truss Type Attic	Qty 1	Ply 1	Senters Assisted Living-Roof-Main Bldg PART A 162634247
Job Reference (optional)					

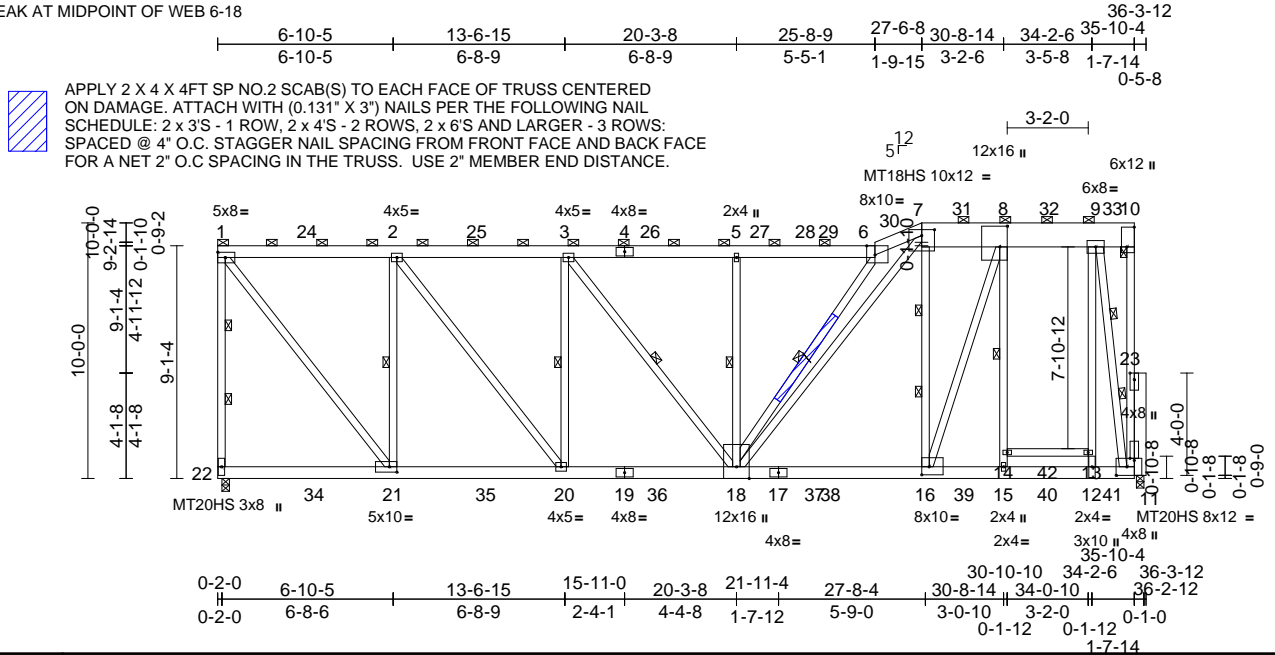
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REPAIR: BREAK AT MIDPOINT OF WEB 6-18



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.30	18-20	>999	360	MT20HS	187/143
Snow (Pf)	20.0	Lumber DOL	1.00	BC	0.87	Vert(CT)	-0.52	18-20	>829	240	MT20	244/190
TCDL	20.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.06	11	n/a	n/a	MT18HS	244/190
BCLL	0.0*	Code	IBC2015/TPI2014	Matrix-MSH		Wind(LL)	0.12	18-20	>999	240		
BCDL	10.0											
											Weight: 407 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 7-10:2x12 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2 *Except* 14-13:2x4 SP No.3
WEBS 2x4 SP No.2 *Except* 22-1:2x4 SP No.1, 5-18,21-2-20-3,6-18:2x4 SP No.3, 11-9:2x4 SP 2400F 2.0E
OTHERS 2x6 SP No.2

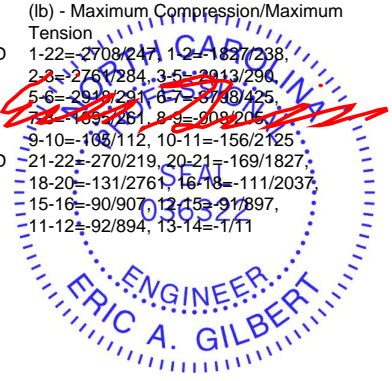
BRACING
TOP CHORD Sheathed or 2-4-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-1 max.): 1-6, 7-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-18, 5-18, 8-15, 2-21, 3-20, 6-18
WEBS 2 Rows at 1/3 pts 1-22, 7-16, 9-11
REACTIONS (size) 11=0-3-8, 22=0-3-8
Max Horiz 22=311 (LC 13)
Max Uplift 11=-108 (LC 11), 22=-225 (LC 10)
Max Grav 11=3247 (LC 37), 22=2772 (LC 37)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-22=-2708/247, 1-2=-1837/238, 2-3=-2761/284, 3-5=-3943/290, 5-6=-2999/291, 6-7=-3748/425, 7-8=-1695/261, 8-9=-808/206, 9-10=-108/112, 10-11=-156/2125
BOT CHORD 21-22=-270/219, 20-21=-169/1827, 18-20=-131/276, 16-18=-111/2037, 15-16=-90/907, 12-15=-91/897, 11-12=-92/894, 13-14=-1/11

WEBS 3-18=-33/294, 5-18=-1026/169, 7-16=-2959/237, 8-16=-183/3479, 14-15=-296/147, 8-14=-123/264, 12-13=-171/649, 9-13=-172/828, 9-11=-5543/562, 7-18=-253/2721, 2-21=-2201/297, 1-21=-243/2959, 2-20=-134/1521, 3-20=-1049/177, 6-18=-1460/194

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 10-1-12, Interior (1) 10-1-12 to 25-8-9, Exterior (2) 25-8-9 to 35-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.00 Plate DOL=1.00); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

10) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 22 and 108 lb uplift at joint 11.
12) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
13) This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) Attic room checked for L/360 deflection.
16) 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
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15



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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Senters Assisted Living-Roof-Main Bldg PART A I62634247
MF2300043-01	A49	Attic	1	1	Job Reference (optional)

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

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Uniform Loads (lb/ft)

Vert: 1-6=-80, 6-7=-80, 7-10=-80, 15-22=-20,
12-15=-100 (F=-80), 11-12=-20, 13-14=-100 (F=-80)

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

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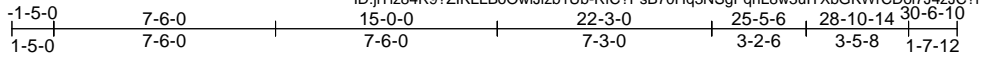
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Senters Assisted Living-Roof-Main Bldg PART A
MF2300043-01	A04	Attic	14	1	I62634248
Job Reference (optional)					


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

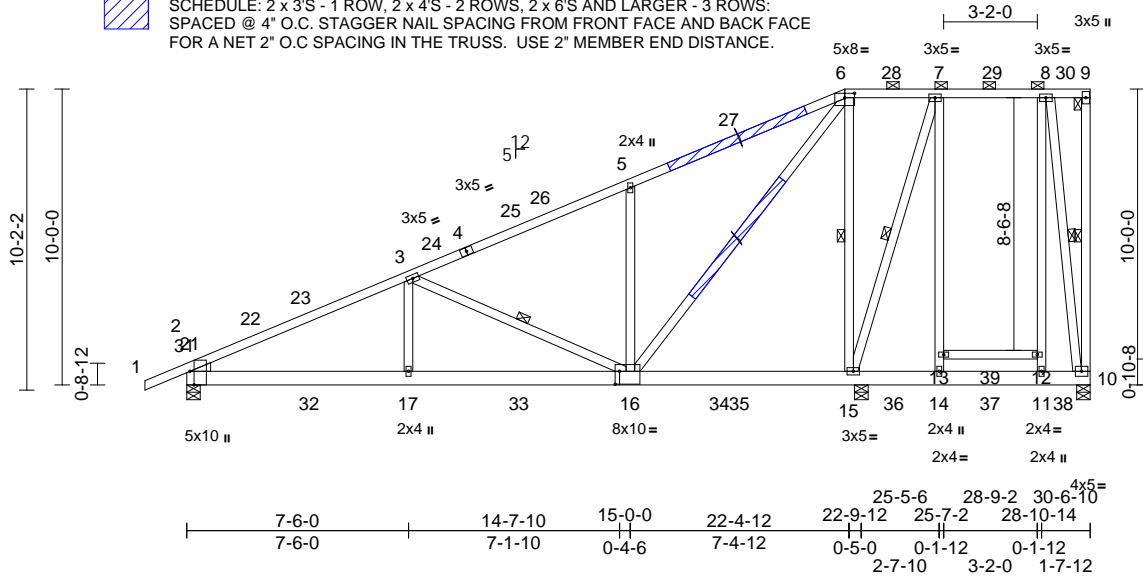
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REPAIR: BREAK AT MIDPOINT OF WEB 6-16
BREAK IN TOP CHORD AT 4-0-0 LEFT OF JOINT 6

 APPLY 2 X 4 X 5FT SP NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: 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.



Scale = 1:77.9

Plate Offsets (X, Y): [2:0-5-8,Edge], [6:0-4-0,0-1-13], [16:0-1-12,0-5-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.94	Vert(LL)	-0.11	16-17	>999	360
Snow (Pf)	20.0	Lumber DOL	1.00	BC	0.95	Vert(CT)	-0.19	16-17	>999	240
TCDL	20.0	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.04	10	n/a	n/a
BCLL	0.0*	Code	IBC2015/TPI2014	Matrix-MSH		Wind(LL)	0.04	16-17	>999	240
BCDL	10.0									

Weight: 254 lb FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E *Except* 6-9:2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 13-12:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 16-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Sheathed or 4-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.
WEBS 1 Row at midpt 9-10, 3-16, 6-15, 7-15, 8-10

REACTIONS (size) 2=0-5-8, 10=0-5-8, 15=0-5-8
Max Horiz 2=375 (LC 13)
Max Uplift 2=-119 (LC 14), 10=-55 (LC 11), 15=-169 (LC 14)
Max Grav 2=1633 (LC 35), 10=785 (LC 34), 15=2575 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/65, 2-3=-2745/198, 3-5=-1497/146, 5-6=-1529/277, 6-7=-77/184, 7-8=-176/146, 8-9=-126/138, 9-10=-303/111
BOT CHORD 2-17=-238/2408, 15-17=-238/2408, 14-15=-85/134, 11-14=-86/134, 10-11=-89/135, 12-13=0/3
WEBS 3-17=0/406, 3-16=-1317/176, 5-16=-1084/254, 6-16=-281/2223, 6-15=-1808/261, 7-15=-951/79, 13-14=0/391, 7-13=0/508, 11-12=-84/277, 8-12=-84/394, 8-10=-695/70

- Wind: ASCE 7-10; Vult=125mph (3-second gust) Vasd=99mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 1-5-0 to 8-7-0, Interior (1) 8-7-0 to 12-3-0, Exterior (2) 12-3-0 to 30-4-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.00 Plate DOL=1.00); Pf=20.0 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 10, 119 lb uplift at joint 2 and 169 lb uplift at joint 15.
- This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss has been designed for a moving concentrated load of 250.0lb live and 40.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.

- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.
 - 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
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-80, 6-9=-80, 14-18=-20, 11-14=-100 (F=-80), 10-11=-20, 12-13=-100 (F=-80)



December 20, 2023

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

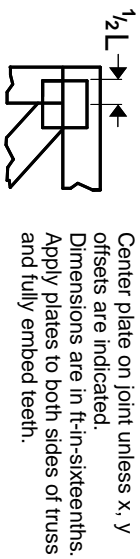
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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/TPI 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.sbccomponents.com)



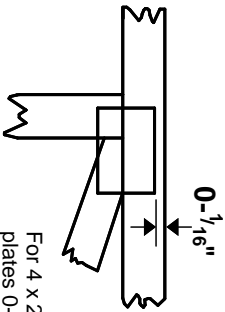
818 Soundside Road
Edenton, NC 27932

Symbols

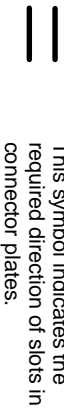
PLATE LOCATION AND ORIENTATION



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.



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

PLATE SIZE

4 X 4

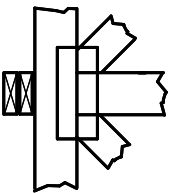
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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.

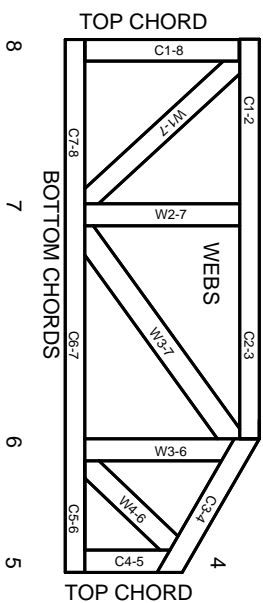
Industry Standards:

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

Numbering System



1 TOP CHORDS
2 Joint ID
3 typ.



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 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

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