

**WORLD INTERNATIONAL TRUSS INC.**  
 14258 HESPERIA RD.  
 VICTORVILLE, CA. 92395  
 760- 985-5329  
 CITY OF LOS ANGELES APPROVED  
 FABRICATOR: 112

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JOB NAME: 2022-127 RETAIL D  
 NEC RANCHO & HWY 395  
 ADELANTO CA. 92301

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WORLD INTERNATIONAL TRUSS INC.  
 IN STRICT ACCORDANCE W/ CBC 2019 / IBC 2018

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TRUSS LOADING

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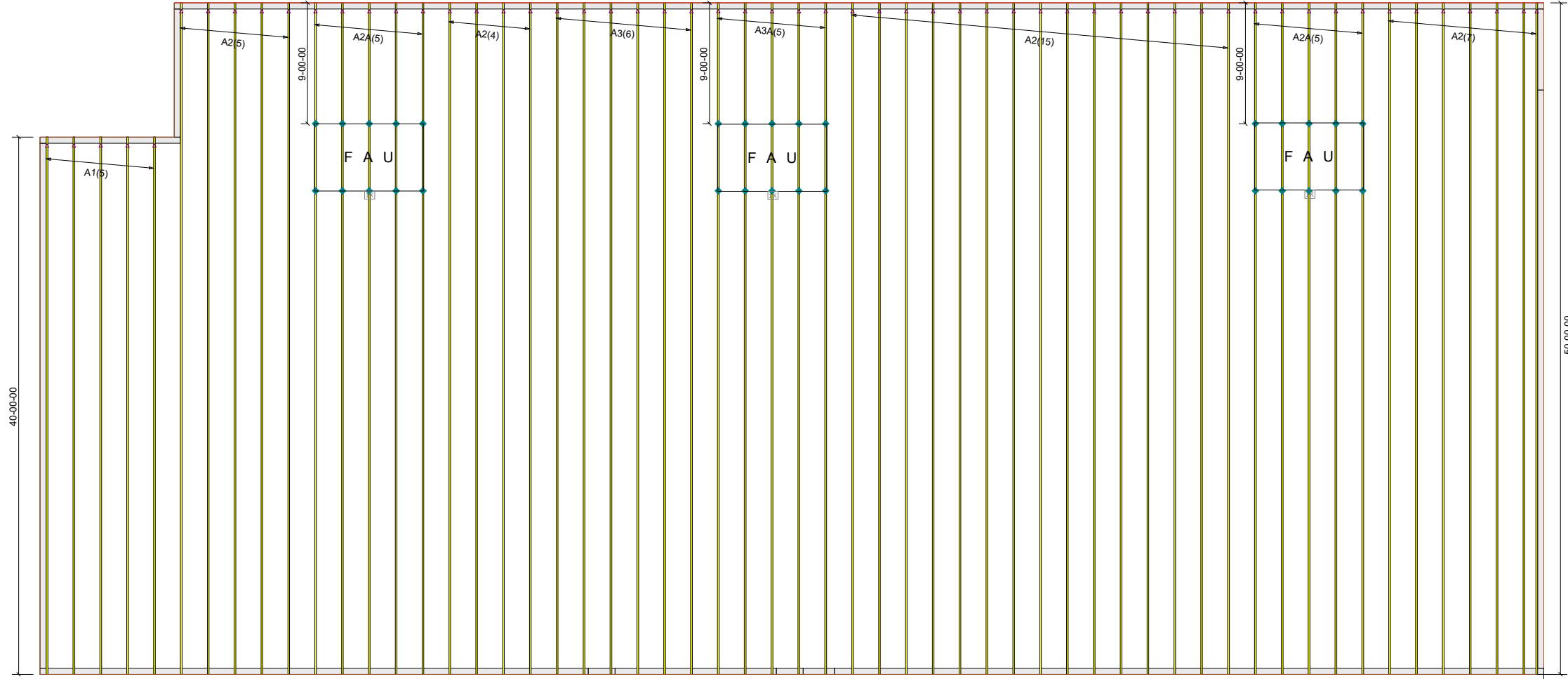
TCLL: 25 PSF (SNOW LOAD)  
 TCDL: 18 PSF  
 BCDL: 10 PSF

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HANGER LIST:

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\*HANGERS & BEAMS BY OTHERS  
 \*DIMENSIONS TO BE VERIFIED BY OWNER,  
 CONTRACTOR, OR FRAMER  
 \*BOTTOM CHORD STRAIGHT EDGE BY OTHERS



**ALL DESIGNS ARE PROPERTY OF WORLD INTERNATIONAL TRUSS. ALL DESIGNS ARE NULL AND VOID IF NOT FABRICATED BY WORLD INTERNATIONAL TRUSS.**

BUILDER:	DATE:
PROJECT:	REV. 1:
PLAN:	REV. 2:
ADDRESS:	REV. 3:
DRAWN BY:	SCALE:

ABOVE PLAN PROVIDED FOR TRUSS  
 PLACEMENT ONLY. REFER TO TRUSS  
 CALCULATIONS AND ENGINEERED  
 STRUCTURAL DRAWINGS FOR ALL  
 FURTHER INFORMATION. BUILDING  
 DESIGNER/ENGINEER OF RECORD  
 RESPONSIBLE FOR ALL NON-TRUSS TO  
 TRUSS CONNECTIONS. BUILDING  
 DESIGNER/ENGINEER OF RECORD TO  
 REVIEW OF ALL DESIGNS PRIOR TO  
 CONSTRUCTION.





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MiTek USA, Inc.  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661  
Telephone 916-755-3571

Re: 1-2022-127 RETAIL D  
2022-127 RETAIL D

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by World International Truss.

Pages or sheets covered by this seal: R72712073 thru R72712077

My license renewal date for the state of California is September 30, 2024.



September 20, 2022

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Zhao, Xiaoming

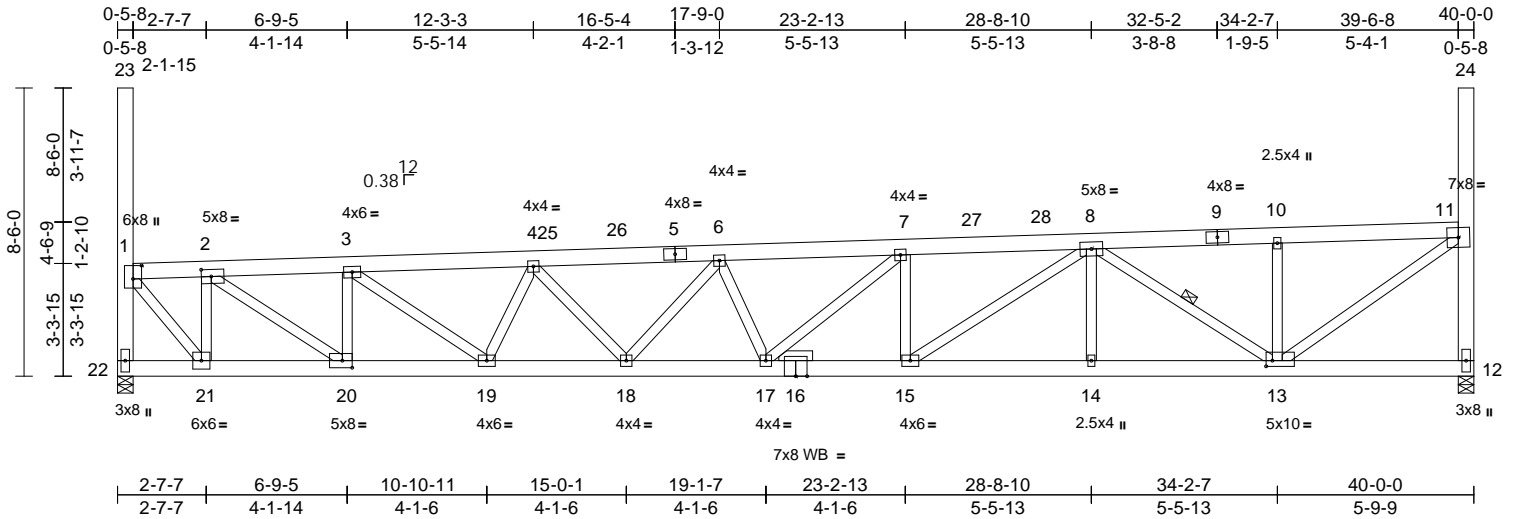
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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	2022-127 RETAIL D	R72712073
1-2022-127 RETAIL	A1	Monopitch	5	1	Job Reference (optional)	

World International Truss, Victorville, CA - 92395,

Run: 8.53 S Sep 12 2022 Print: 8.530 S Sep 12 2022 MiTek Industries, Inc. Tue Sep 20 16:11:46  
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Page: 1



Scale = 1:67.9  
 Plate Offsets (X, Y): [1:0-4-12,0-3-0], [2:0-3-8,0-2-8], [13:0-2-4,0-2-0], [20:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	-0.26	17	>999	360	MT20	220/195
Snow (Pf)	25.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.85	15-17	>559	240		
TCDL	18.0	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.17	12	n/a	n/a		
BCLL	0.0*	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.22	17	>999	240		
BCDL	10.0										Weight: 293 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2X6 DF SS G  
 BOT CHORD 2X6 DF SS G  
 WEBS 2X4 DF Std G \*Except\* 22-23,24-12:2X6 DF SS G, 13-11,2-20,21-1:2X4 DF No.1&Btr G  
**OTHERS**  
 2X4 DF Std G  
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 8-13  
**REACTIONS** (size) 12=0-5-8, 22=0-5-8  
 Max Horiz 22=600 (LC 11)  
 Max Uplift 12=-138 (LC 11), 22=-134 (LC 10)  
 Max Grav 12=2096 (LC 1), 22=2096 (LC 1)  
**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-22=-2026/678, 1-23=0/0, 1-2=-1856/929, 2-3=-3774/1296, 3-4=-5064/1464, 4-6=-5781/1507, 6-7=-5953/1434, 7-8=-5668/1402, 8-10=-2612/931, 10-11=-2612/942, 11-12=-2019/660, 11-24=0/0  
 BOT CHORD 21-22=-1018/977, 20-21=-1398/1997, 19-20=-1753/3807, 18-19=-1985/5435, 17-18=-1946/6014, 15-17=-1683/5658, 14-15=-1247/4492, 13-14=-1247/4492, 12-13=-100/150  
 WEBS 6-18=-409/279, 6-17=-223/223, 7-15=-700/354, 8-15=-528/1412, 8-14=0/221, 8-13=-2289/742, 10-13=-478/260, 11-13=-867/3139, 2-20=-880/2633, 2-21=-1797/560, 1-21=-593/2374, 7-17=-239/422, 4-18=-222/540, 4-19=-973/419, 3-20=-1431/568, 3-19=-558/1606

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-2-12 to 15-2-12, Exterior (2) 15-2-12 to 24-9-4, Corner (3) 24-9-4 to 39-9-4 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 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.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 134 lb uplift at joint 22 and 138 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard

**NOTES**



September 20,2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

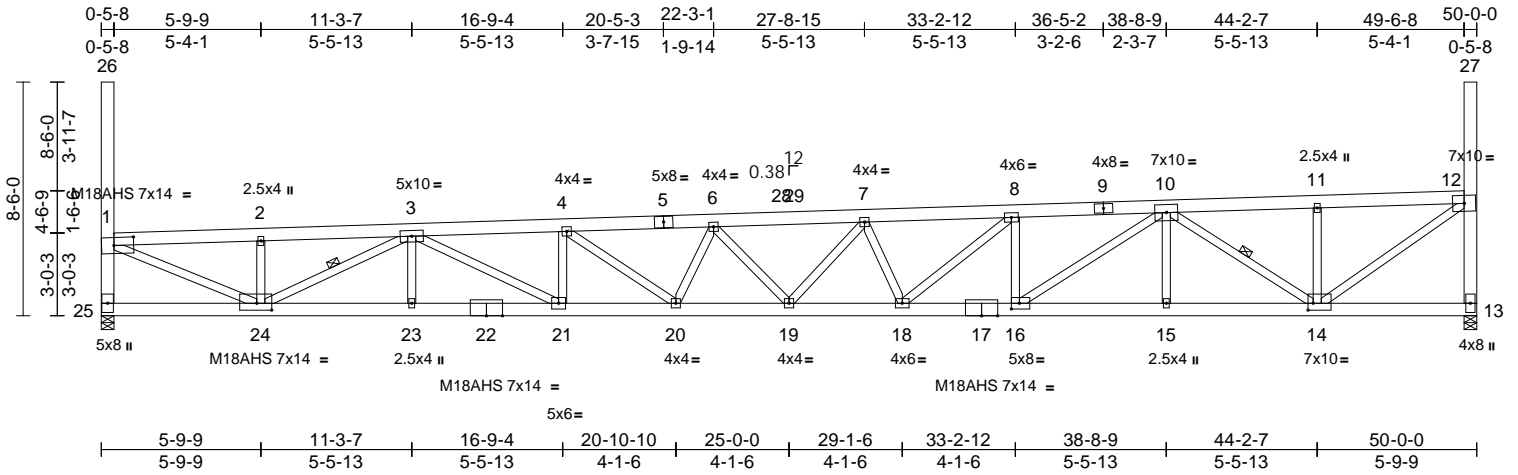
**MiTek**  
 MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	2022-127 RETAIL D	R72712074
1-2022-127 RETAIL	A2	Monopitch	31	1	Job Reference (optional)	

World International Truss, Victorville, CA - 92395,

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Page: 1



Scale = 1:83.8

Plate Offsets (X, Y): [1:0-8-10,0-3-8], [14:0-2-4,0-3-0], [16:0-3-8,0-2-8], [24:0-6-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.66	19-20	>904	360	MT20	220/195
Snow (Pf)	25.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-2.13	19-20	>279	240	M18AHS	169/162
TCDL	18.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.36	13	n/a	n/a		
BCLL	0.0*	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.54	19-20	>999	240		
BCDL	10.0											
											Weight: 350 lb	FT = 20%

**LUMBER**  
TOP CHORD 2X6 DF SS G  
BOT CHORD 2X6 DF SS G  
WEBS 2X4 DF Std G \*Except\* 25-26,27-13:2X6 DF SS G, 24-1,3-21,10-16,10-14,12-14:2X4 DF No.1.&Btr G

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-24, 10-14

**REACTIONS** (size) 13=0-5-8, 25=0-5-8  
Max Horiz 25=609 (LC 11)  
Max Uplift 13=-127 (LC 14), 25=-118 (LC 14)  
Max Grav 13=2626 (LC 1), 25=2626 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-25=-2522/768, 1-26=0/0, 1-2=-4798/1689, 2-3=-4798/1701, 3-4=-9450/2484, 4-6=-9830/2461, 6-7=-9707/2326, 7-8=-9103/2231, 8-10=-8108/2094, 10-11=-3352/1142, 11-12=-3351/1153, 12-13=-2540/768, 12-27=0/0  
BOT CHORD 24-25=-1170/1093, 23-24=-2696/7790, 21-23=-2696/7790, 20-21=-2942/9438, 19-20=-2918/9909, 18-19=-2657/9414, 16-18=-2193/8097, 15-16=-1573/6053, 14-15=-1573/6053, 13-14=-92/158  
WEBS 1-24=-1360/5047, 2-24=-450/283, 3-24=-3394/1082, 3-23=0/215, 3-21=-643/1863, 4-21=-765/354, 8-16=-1292/478, 10-16=-751/2476, 10-15=0/224, 10-14=-3284/951, 12-14=-1054/4042, 6-20=-247/215, 4-20=-246/495, 6-19=-348/238, 7-19=-172/462, 7-18=-867/364, 8-18=-435/1317, 11-14=-464/256

**NOTES**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-2-12 to 5-2-12, Exterior (2) 5-2-12 to 44-9-4, Corner (3) 44-9-4 to 49-9-4 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- All plates are MT20 plates unless otherwise indicated.
- 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.
- A plate rating reduction of 20% has been applied for the green lumber members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 25 and 127 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



September 20, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



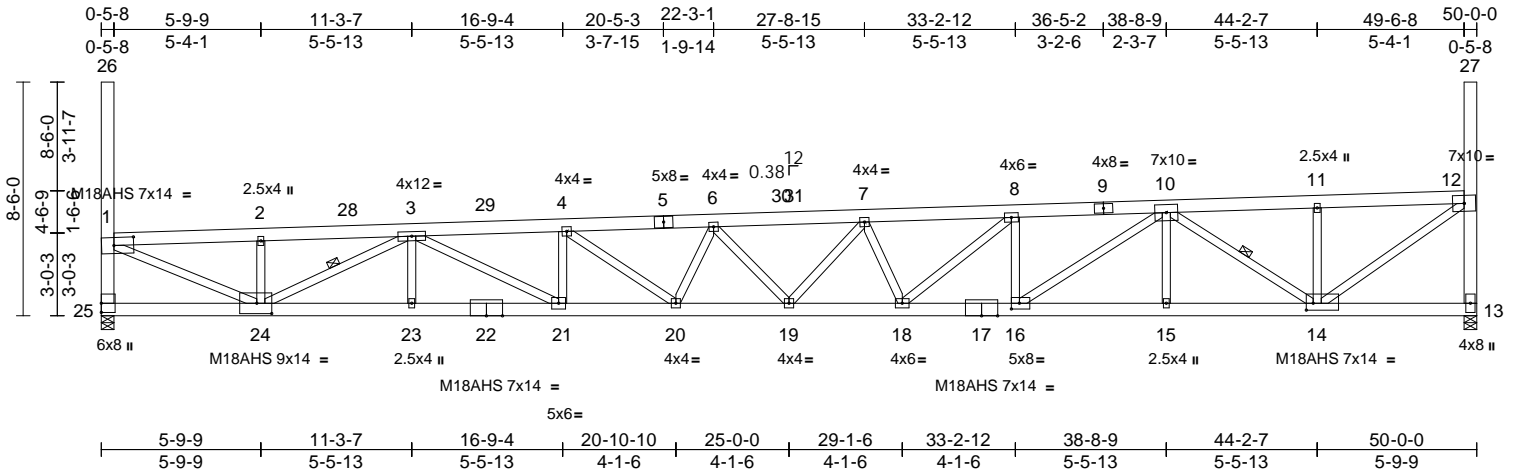
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	2022-127 RETAIL D	R72712075
1-2022-127 RETAIL	A2A	Monopitch	10	1	Job Reference (optional)	

World International Truss, Victorville, CA - 92395,

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Page: 1



Scale = 1:83.8

Plate Offsets (X, Y): [1:0-8-10,0-3-8], [14:0-3-0,0-3-0], [16:0-3-8,0-2-8], [24:0-6-8,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.66	19-20	>904	360	MT20	220/195
Snow (Pf)	25.0	Lumber DOL	1.25	BC	0.90	Vert(CT)	-2.25	19-20	>265	240	M18AHS	169/162
TCDL	18.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.38	13	n/a	n/a		
BCLL	0.0*	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.54	19-20	>999	240		
BCDL	10.0											

Weight: 350 lb FT = 20%

**LUMBER**  
 TOP CHORD 2X6 DF SS G  
 BOT CHORD 2X6 DF SS G  
 WEBS 2X4 DF Std G \*Except\* 25-26,27-13:2X6 DF SS G, 24-1,3-21,10-16,10-14,12-14:2X4 DF No.1&Btr G

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-24, 10-14

**REACTIONS** (size) 13=0-5-8, 25=0-5-8  
 Max Horiz 25=609 (LC 11)  
 Max Uplift 13=81 (LC 14)  
 Max Grav 13=2671 (LC 1), 25=2780 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-25=-2674/616, 1-26=0/0, 1-2=-5119/1368, 2-3=-5120/1381, 3-4=-9948/1990, 4-6=-10240/2051, 6-7=-10043/1990, 7-8=-9373/1960, 8-10=-8317/1885, 10-11=-3416/1078, 11-12=-3415/1089, 12-13=-2585/723, 12-27=0/0  
 BOT CHORD 24-25=-1164/1099, 23-24=-2163/8323, 21-23=-2163/8323, 20-21=-2446/9934, 19-20=-2536/10291, 18-19=-2364/9707, 16-18=-1984/8306, 15-16=-1440/6187, 14-15=-1440/6187, 13-14=-91/159  
 WEBS 1-24=-1014/5394, 2-24=-484/249, 3-24=-3634/842, 3-23=0/212, 3-21=-684/1821, 4-21=-745/374, 8-16=-1343/427, 10-16=-660/2567, 10-15=0/224, 10-14=-3368/866, 12-14=-976/4120, 6-20=-176/285, 4-20=-353/387, 6-19=-419/167, 7-19=-102/532, 7-18=-925/305, 8-18=-353/1398, 11-14=-463/257

**NOTES**  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-2-12 to 5-2-12, Exterior (2) 5-2-12 to 44-9-4, Corner (3) 44-9-4 to 49-9-4 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10  
 4) All plates are MT20 plates unless otherwise indicated.  
 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 6) \* 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.  
 7) A plate rating reduction of 20% has been applied for the green lumber members.  
 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 13.  
 9) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.  
 10) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.  
 11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 100 lb down at 14-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.  
 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  
 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (lb/ft)  
 Vert: 1-12=-86, 13-25=-20  
 Concentrated Loads (lb)  
 Vert: 28=-100, 29=-100 (F)



September 20, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

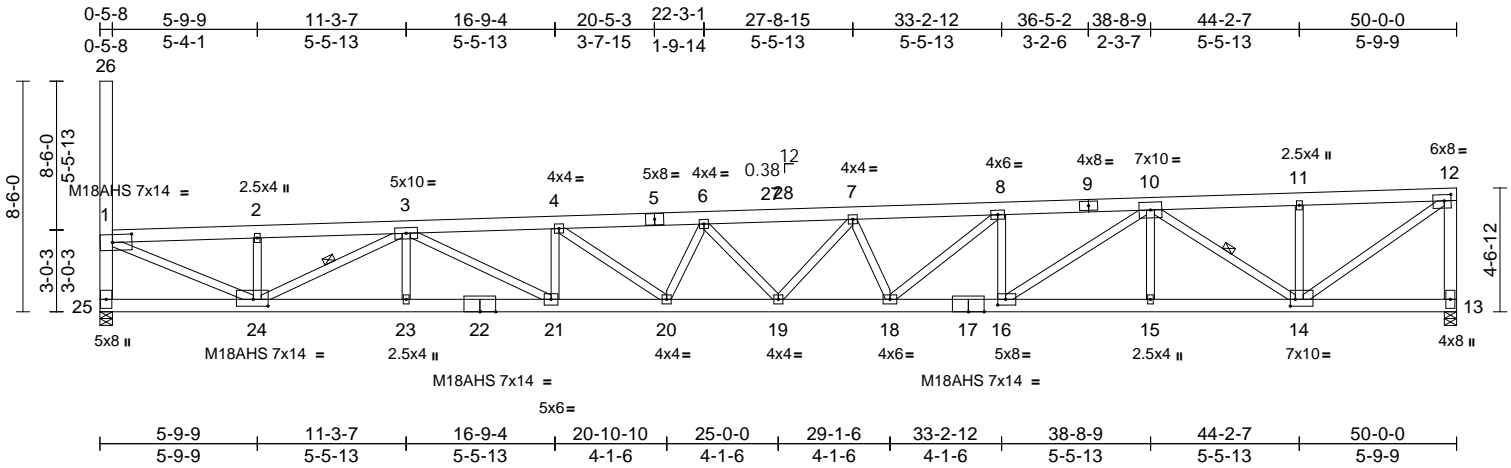
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job	Truss	Truss Type	Qty	Ply	2022-127 RETAIL D	R72712076
1-2022-127 RETAIL	A3	Monopitch	6	1	Job Reference (optional)	

World International Truss, Victorville, CA - 92395,

Run: 8.53 S Sep 12 2022 Print: 8.530 S Sep 12 2022 MiTek Industries, Inc. Tue Sep 20 16:11:52  
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Page: 1



Scale = 1:84.9

Plate Offsets (X, Y): [1:0-8-10,0-3-8], [12:0-3-0,0-2-12], [14:0-2-4,0-3-0], [16:0-3-8,0-2-8], [24:0-6-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.66	19-20	>904	360	MT20	220/195
Snow (Pf)	25.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-2.13	19-20	>279	240	M18AHS	169/162
TCDL	18.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.36	13	n/a	n/a		
BCLL	0.0*	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.55	19-20	>999	240		
BCDL	10.0											
											Weight: 341 lb	FT = 20%

**LUMBER**  
 TOP CHORD 2X6 DF SS G  
 BOT CHORD 2X6 DF SS G  
 WEBS 2X4 DF Std G \*Except\* 25-26,12-13:2X6 DF SS G, 24-1,3-21,10-16,10-14,12-14:2X4 DF No.1&Btr G

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-24, 10-14

**REACTIONS** (size) 13=0-5-8, 25=0-5-8  
 Max Horiz 25=484 (LC 11)  
 Max Uplift 13=146 (LC 14), 25=98 (LC 14)  
 Max Grav 13=2626 (LC 1), 25=2626 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-25=-2522/740, 1-26=0/0, 1-2=-4798/1768, 2-3=-4798/1780, 3-4=-9450/2700, 4-6=-9830/2720, 6-7=-9707/2624, 7-8=-9103/2428, 8-10=-8109/2143, 10-11=-3353/837, 11-12=-3353/847, 12-13=-2541/710

BOT CHORD 24-25=-854/868, 23-24=-2530/7790, 21-23=-2530/7790, 20-21=-2836/9438, 19-20=-2869/9909, 18-19=-2658/9414, 16-18=-2240/8098, 15-16=-1661/6053, 14-15=-1661/6053, 13-14=-58/96

WEBS 1-24=-1302/5047, 2-24=-450/279, 3-24=-3394/1020, 3-23=0/215, 3-21=-595/1863, 4-21=-765/331, 8-16=-1292/453, 10-16=-701/2477, 10-15=0/224, 10-14=-3281/892, 12-14=-1076/4053, 6-20=-241/189, 4-20=-207/484, 6-19=-334/198, 7-19=-132/448, 7-18=-867/331, 8-18=-390/1316, 11-14=-471/220

- NOTES**
- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-2-12 to 5-2-12, Exterior (2) 5-2-12 to 44-9-4, Corner (3) 44-9-4 to 49-9-4 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
  - 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 Plate DOL=1.25); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* 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.
  - 6) A plate rating reduction of 20% has been applied for the green lumber members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 98 lb uplift at joint 25 and 146 lb uplift at joint 13.
  - 8) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
  - 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

**LOAD CASE(S)** Standard



September 20, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661

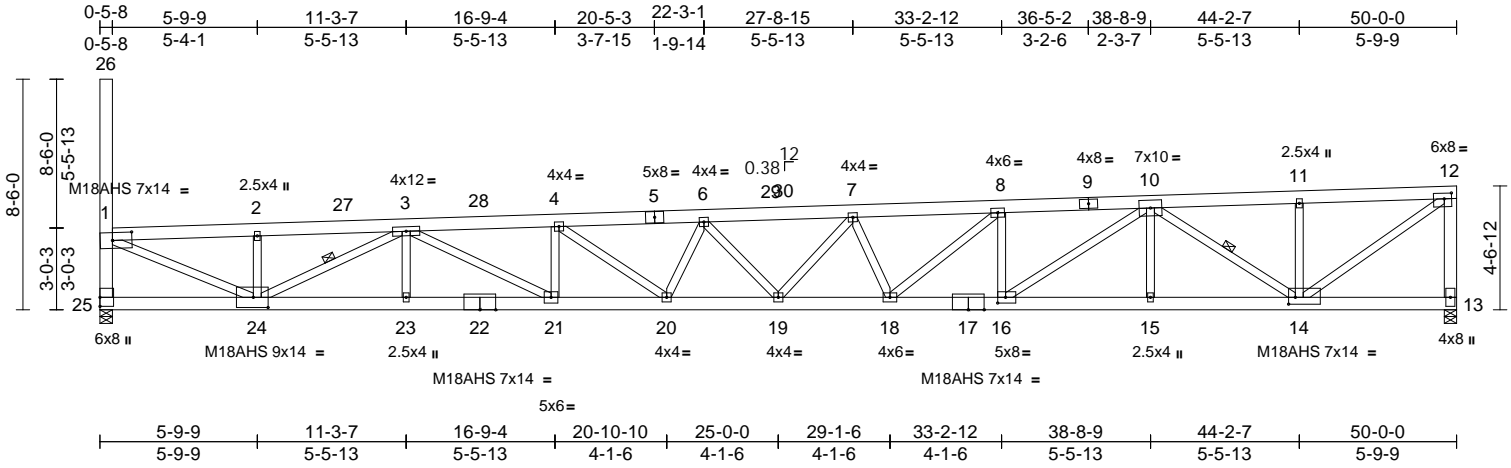
Job	Truss	Truss Type	Qty	Ply	2022-127 RETAIL D	R72712077
1-2022-127 RETAIL	A3A	Monopitch	5	1	Job Reference (optional)	

World International Truss, Victorville, CA - 92395,

Run: 8.53 S Sep 12 2022 Print: 8.530 S Sep 12 2022 MiTek Industries, Inc. Tue Sep 20 16:11:53

Page: 1

Id:Hs8M4zStbcWONpukSn9wmJybJXg-RfC?PsB70Hq3NSgPqnL8w3uITxBGKwRcDoi7J4zJC7f



Scale = 1:84.9

Plate Offsets (X, Y): [1:0-8-10,0-3-8], [12:0-3-4,0-2-8], [14:0-3-0,0-3-0], [16:0-3-8,0-2-8], [24:0-6-8,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.66	19-20	>904	360	MT20	220/195
Snow (Pf)	25.0	Lumber DOL	1.25	BC	0.90	Vert(CT)	-2.25	19-20	>265	240	M18AHS	169/162
TCDL	18.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.38	13	n/a	n/a		
BCLL	0.0*	Code	IBC2018/TPI2014	Matrix-AS		Wind(LL)	0.55	19-20	>999	240		
BCDL	10.0											
											Weight: 341 lb	FT = 20%

**LUMBER**  
TOP CHORD 2X6 DF SS G  
BOT CHORD 2X6 DF SS G  
WEBS 2X4 DF Std G \*Except\* 25-26,12-13:2X6 DF SS G, 24-1,3-21,10-16,10-14,12-14:2X4 DF No.1&Btr G

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-24, 10-14

**REACTIONS** (size) 13=0-5-8, 25=0-5-8  
Max Horiz 25=484 (LC 11)  
Max Uplift 13=100 (LC 14)  
Max Grav 13=2671 (LC 1), 25=2780 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-25=-2674/589, 1-26=0/0, 1-2=-5119/1447, 2-3=-5120/1461, 3-4=-9948/2205, 4-6=-10240/2310, 6-7=-10043/2288, 7-8=-9373/2157, 8-10=-8318/1934, 10-11=-3417/773, 11-12=-3417/783, 12-13=-2586/665

BOT CHORD 24-25=-848/873, 23-24=-1997/8323, 21-23=-1997/8323, 20-21=-2340/9934, 19-20=-2487/10291, 18-19=-2365/9707, 16-18=-2031/8307, 15-16=-1528/6187, 14-15=-1528/6187, 13-14=-57/97  
WEBS 1-24=-956/5394, 2-24=-484/245, 3-24=-3634/781, 3-23=0/212, 3-21=-636/1821, 4-21=-745/352, 8-16=-1343/402, 10-16=-610/2568, 10-15=0/224, 10-14=-3366/807, 12-14=-998/4131, 6-20=-170/260, 4-20=-315/376, 6-19=-405/127, 7-19=-62/518, 7-18=-925/272, 8-18=-308/1398, 11-14=-470/221

**NOTES**

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=9.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=50ft; eave=6ft; Cat. II; Exp C; Enclosed; MWFRS (directional) and C-C Corner (3) 0-2-12 to 5-2-12, Exterior (2) 5-2-12 to 44-9-4, Corner (3) 44-9-4 to 49-9-4 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
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.25 bottom DOL=1.25); Pf=25.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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.
- 6) A plate rating reduction of 20% has been applied for the green lumber members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 13.
- 8) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 9) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 100 lb down at 14-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) 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: 1-12=-86, 13-25=-20  
Concentrated Loads (lb)  
Vert: 27=-100, 28=-100 (F)



September 20, 2022

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

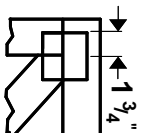
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



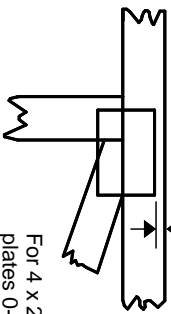
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

# 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.

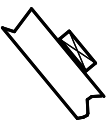
\* Plate location details available in **MITek 20/20 software** or upon request.

## 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



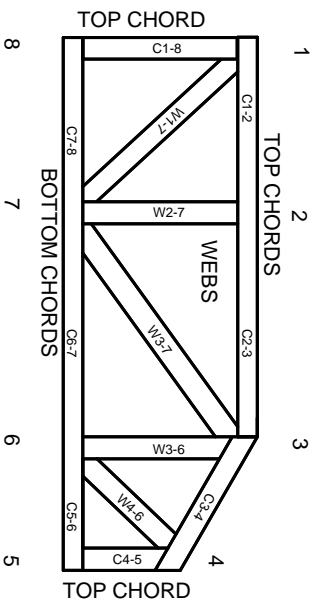
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**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-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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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# 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 T or 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.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020