



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

RE: 0624-024 - Swanson

MiTek, Inc.

16023 Swingley Ridge Rd.
Chesterfield, MO 63017
314.434.1200

Site Information:

Customer Info: BB Homes Project Name: . Model: .
Lot/Block: . Subdivision: .
Address: ., .
City: Columbia County State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

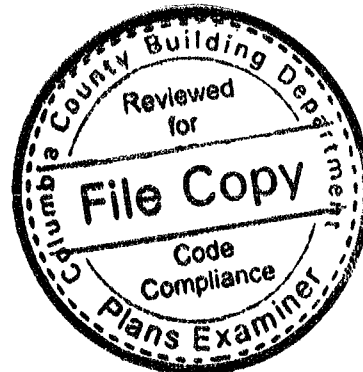
Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-22 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 2 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

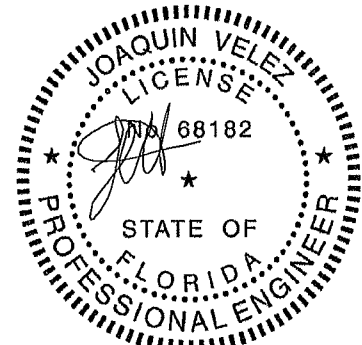
No.	Seal#	Truss Name	Date
1	T34414303	A01	7/11/24
2	T34414304	A02	7/11/24



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

Truss Design Engineer's Name: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2025.

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.



Joaquin Velez PE No. 68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

July 11, 2024

Velez, Joaquin

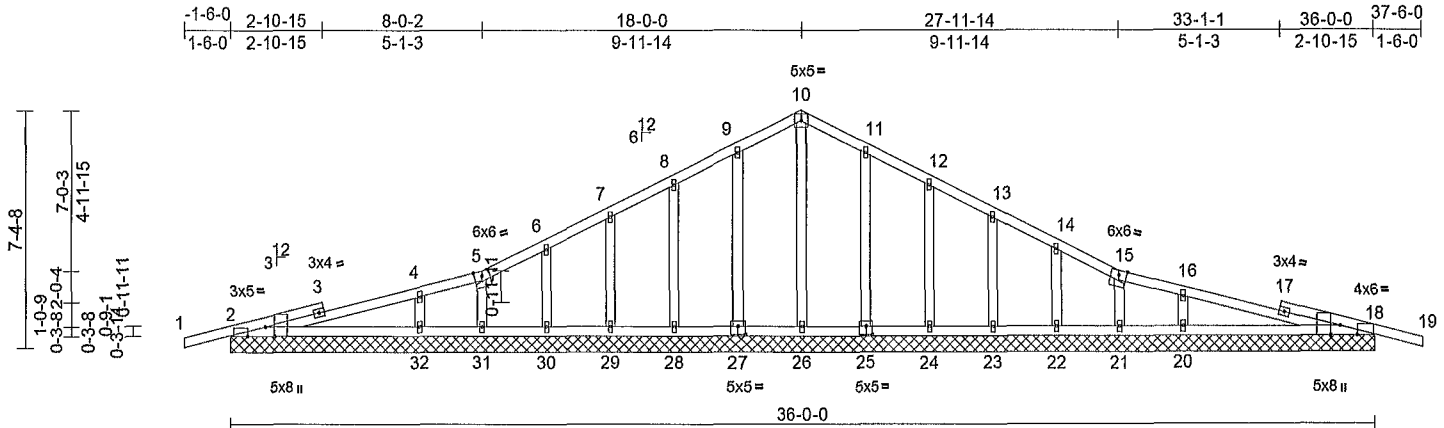
1 of 1

Job	Truss	Truss Type	Qty	Ply	Swanson	T34414303
0624-024	A01	Roof Special Supported Gable	2	1	Job Reference (optional)	

Mayo Truss Company Inc., Mayo FL - 32066,

Run: 8.73 S Jun 13 2024 Print: 8 730 S Jun 13 2024 MITek Industries, Inc. Thu Jul 11 07:30:58
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Page: 1



Scale = 1:69 1

Plate Offsets (X, Y) [2 0-3-8,Edge], [2 0-6-12,Edge], [18 0-3-8,Edge], [18 0-6-7,Edge], [25 0-2-8,0-3-0], [27 0-2-8,0-3-0]

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	0.28	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10 0	Lumber DOL	1.25	BC	0.27	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0 0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	18	n/a	n/a	
BCDL	10 0	Code	FBC2023/TPI2014	Matrix-AS							Weight 186 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2
BOT CHORD 2x4 SP No 2
OTHERS 2x4 SP No 2

BRACING

TOP CHORD Structural wood sheathing directly applied
BOT CHORD Rigid ceiling directly applied

REACTIONS

(size) 2=36-0-0, 18=36-0-0, 20=36-0-0,
21=36-0-0, 22=36-0-0, 23=36-0-0
24=36-0-0, 25=36-0-0, 26=36-0-0
27=36-0-0, 28=36-0-0, 29=36-0-0,
30=36-0-0 31=36-0-0, 32=36-0-0,
33=36-0-0 36=36-0-0
Max Horiz 2=-105 (LC 10), 33=-105 (LC 10)
Max Uplift 2=-37 (LC 12), 18=-37 (LC 12),
21=-16 (LC 3), 22=-11 (LC 12),
23=-12 (LC 12), 24=-13 (LC 12),
25=-8 (LC 12), 27=-8 (LC 12),
28=-13 (LC 12) 29=-12 (LC 12),
30=-11 (LC 12), 31=-16 (LC 17),
33=-37 (LC 12), 36=-37 (LC 12)
Max Grav 2=295 (LC 23), 18=295 (LC 24),
20=477 (LC 24), 21=-5 (LC 9)
22=199 (LC 24), 23=151 (LC 1),
24=161 (LC 1), 25=168 (LC 24),
26=197 (LC 1), 27=168 (LC 23),
28=161 (LC 1) 29=151 (LC 1),
30=199 (LC 23), 31=-2 (LC 11),
32=477 (LC 23), 33=295 (LC 23),
36=295 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/22, 2-4=-88/131, 4-5=-55/92,
15-16=-36/59 16-18=-88/99, 18-19=0/22,
5-6=-45/127 6-7=-41/111, 7-8=-31/118,
8-9=-38/176, 9-10=-56/229, 10-11=-56/229,
11-12=-38/176, 12-13=-20/118, 13-14=-2/77,
14-15=-9/92

BOT CHORD

2-32=-62/132, 31-32=-62/132,
30-31=-61/132 29-30=-61/132,
28-29=-61/132, 26-28=-61/132,
24-26=-61/132 23-24=-61/132,
22-23=-61/132, 21-22=-61/132,
20-21=-62/132, 18-20=-62/132

WEBS

10-26=-157/0 9-27=-128/94, 8-28=-119/105,
7-29=-116/98, 6-30=-139/111, 5-31=-24/51,
4-32=-303/161 11-25=-128/94
12-24=-119/105, 13-23=-116/98,
14-22=-139/111, 15-21=-24/51,
16-20=-303/161

NOTES

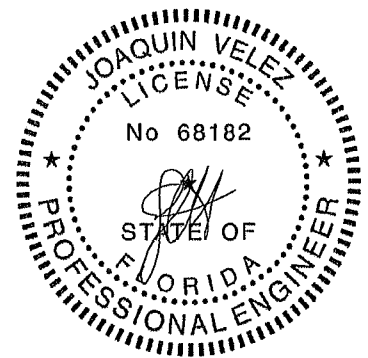
- Unbalanced roof live loads have been considered for this design
- Wind ASCE 7-22, Vult=130mph (3-second gust) Vasd=101mph, TCDL=6 0psf, BCDL=6 0psf, h=15ft; B=45ft, L=36ft, eave=2ft, Cat II, Exp B, Enclosed MWFRS (directional) and C-C Zone3 zone, cantilever left and right exposed, end vertical left and right exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1 60 plate grip DOL=1 60
- 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 1 5x4 MT20 unless otherwise indicated
- Gable requires continuous bottom chord bearing
- Gable studs spaced at 2-0-0 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

10) All bearings are assumed to be SP No 2

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 2 37 lb uplift at joint 18, 8 lb uplift at joint 27, 13 lb uplift at joint 28, 12 lb uplift at joint 29, 11 lb uplift at joint 30, 16 lb uplift at joint 31, 8 lb uplift at joint 25, 13 lb uplift at joint 24, 12 lb uplift at joint 23, 11 lb uplift at joint 22, 16 lb uplift at joint 21, 37 lb uplift at joint 2 and 37 lb uplift at joint 18

12) 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



Joaquin Velez PE No.68182
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date

July 11, 2024

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.tpinet.org) and BC91 Building Component Safety Information available from the Structural Building Component Association (www.sbcocomponents.com)

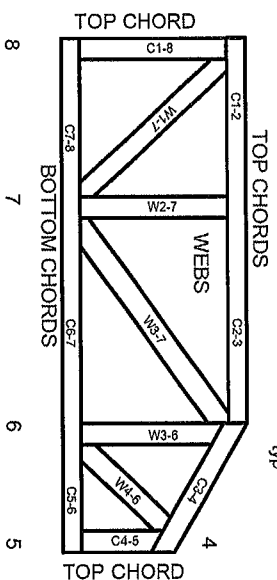
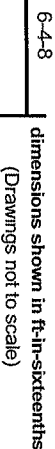
MiTek®

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314.434.1200 / MITek-US.com

Numbering System

General Safety Notes

1

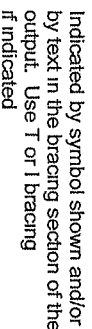


* Plate location details available in MiTek

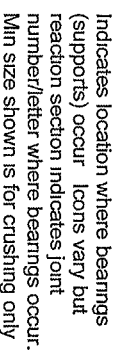
Product Code Approvals

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

Design General Notes



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



DSB-22.
BCSI

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.

Mitek®

MITek Engineering Reference Sheet MI-7473 rev 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

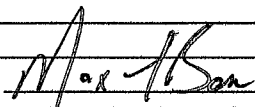
1. Additional stability bracing for truss system, e.g., diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 1 bracing should be considered.
3. Never 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 ANSII/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSII/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. Gamber 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 ANSII/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

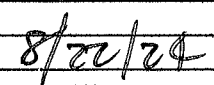
PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 555 842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit.

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A SWINGING Single Door	Plast Pro	Single Exterior Fiberglass	FI 15213.14
B SWINGING Double Door	Plast Pro	Double Exterior Fiberglass	FI 15213.17
F OTHER			
2. WINDOWS			
A. SINGLE HUNG	YKK	Windows	FI 8114 Rev 3
L. OTHER			
3. PANEL WALL			
A SIDING	James Hardie	Lap Siding	13192
B SOFFITS	Kaycon	Aluminum-Vented	12198.1
J OTHER			
4. ROOFING PRODUCTS			
A ASPHALT SHINGLES	GAF	30 year Architectural	10124-R27
B UNDERLAYMENTS	GAF	Synthetic Underlayment	10626-R22
C. ROOFING FASTENERS	Grip Rite	1'1/4" Nails	ASTM #F1667
METAL ROOFING	Tri County Metals	29 Gauge Metal	4595 R10 R3
5. SHUTTERS			
G. OTHERS			
6. SKYLIGHTS			
A SKYLIGHT			
B OTHER			
7. STRUCTURAL			
A WOOD CONNECTORS/ ANCHORS	Simpson	Truss to Wall Connector	17236
B TRUSS PLATES	Mitek	Truss Plates	17227-R2
F. CONCRETE			
M. OTHER			
8. NEW EXTERIOR ENVELOPE PRODUCTS			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite, 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.


 APPLICANT SIGNATURE


 DATE