

Maronda Systems	4005 Maronda Way	Sanford FL 32771	(407) 321-0064	Fax (407) 321-3913
Engineer/Architect of Record:	<b>Carl Brown P.E.</b>	<b>258 Southhall Lane, Suite 200</b>	<b>Maitland, FL 32751</b>	<b>FL PE # 56126</b>
Engineer/Architect of Record:	<b>Scott A Lewkowski P.E.</b>	<b>258 Southhall Lane, Suite 200</b>	<b>Maitland, FL 32751</b>	<b>FL PE # 78750</b>
Engineer/Architect of Record:	<b>Thien Bao Duong P.E.</b>	<b>258 Southhall Lane, Suite 200</b>	<b>Maitland, FL 32751</b>	<b>FL PE # 94452</b>
Design Criteria: TPI	Design: Matrix Analysis	MITek software		

PLAN JOB #	LOT	ADDRESS	DIV/SUB	MODEL
9FC00701	7-1	TBD SW CADENCE GLEN LAKE CITY, FL 32024	JAW/9FC	WLWF42B/RH

[illegible]



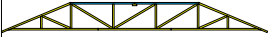






















		EXPOSURE	GENERAL TRUSS NOTES:	
TC LIVE	16.000 lb/ft²	SNOW LOAD	0.00	1. INFORMATION BASED ON 160.0 MPH WIND LOAD. ALL PRESSURES WERE CALCULATED USING MWFRS/C-C HYBRID WIND ASCE 7-16. 2. PROVIDE TRUSS BRACING PER TRUSS ENGINEERING AND BCSI I-03.
TC DEAD	7.000 lb/ft²	LUMBER DOL	1.25	
BC LIVE	0.000 lb/ft²	PLATE DOL	1.25	
BC DEAD	10.000 lb/ft²	WIND	160.0 mph Vasd=124.0 mph	
TOTAL	33.0 lb/ft²	SPACING	24" O.C.	

TRUSS PLACEMENT PLAN



4005 Maronda Way  
Sanford, FL 32771  
(407) 321-0064

**CUSTOMER:**Maronda Systems  
**Model:** WILLOW  
**ELEVATION:** F- BASE  
**DRAWN BY:**  
**RELEASE DATE:** 10/16/23  
**GARAGE:** REACTION

Truss List										Reactions	
Truss	Qty	Span	Ply	Pitch							
	H12	2	45° 0"	1	5, 5	1541.25 lb	1541.25 lb	-1025.84 lb	-1025.84 lb		
	H13	1	45° 0"	1	5, 5	1727.65 lb	1727.65 lb	-1022.97 lb	-1022.97 lb		
	H13S	1	45° 0"	1	5, 5	1728.28 lb	1680.55 lb	-1023.41 lb	-957.78 lb		
	H14	1	45° 0"	1	5, 5	1731.95 lb	1731.95 lb	-1019.63 lb	-1019.63 lb		
	H14S	1	45° 0"	1	5, 5	1505.83 lb	2504.20 lb	-925.59 lb	-1327.91 lb	313.70 lb	-592.59 lb
	H15	1	45° 0"	1	5, 5	1724.35 lb	1724.35 lb	-1015.81 lb	-1015.81 lb		
	H15S	1	45° 0"	1	5, 5	1508.03 lb	2413.95 lb	-925.07 lb	-1242.77 lb	278.96 lb	-517.45 lb
	H16	1	45° 0"	1	5, 5	1750.08 lb	1753.83 lb	-1011.52 lb	-1011.52 lb		
	H16S	1	45° 0"	1	5, 5	1750.71 lb	1706.73 lb	-1011.95 lb	-946.32 lb		
	HGR11	6	45° 0"	3	5, 5	3849.70 lb	3849.71 lb	-2992.11 lb	-2992.11 lb		
	J15	8	1° 0"	1	5	123.66 lb	10.02 lb	-150.18 lb	-2.18 lb	28.47 lb	-5.35 lb
	J35	8	3° 0"	1	5	164.91 lb	49.86 lb	-135.26 lb	-1.08 lb	53.57 lb	-76.85 lb
	J55	8	5° 0"	1	5	226.14 lb	98.21 lb	-167.26 lb	-143.72 lb	87.64 lb	-3.62 lb
	J75	8	7° 0"	1	5	290.54 lb	19.86 lb	-205.19 lb	-44.96 lb	203.99 lb	-150.19 lb
	J95	30	9° 0"	1	5	356.50 lb	79.68 lb	-239.50 lb	-104.26 lb	230.95 lb	-112.32 lb
	JGR95	4	12° 7 1/4"	1	3.5355	544.26 lb	46.75 lb	-591.80 lb	-87.93 lb	668.54 lb	-601.03 lb
	T18	8	45° 0"	1	5, 5	1753.55 lb	1751.02 lb	-962.65 lb	-962.65 lb		
	V01	2	15° 7 11/16"	1	5, 5	43.67 lb	131.50 lb	-33.87 lb	-77.72 lb	137.20 lb	131.26 lb 132.63 lb 131.01 lb 139.03 lb 135.33 lb 51.20 lb
	V11	1	3° 7 7/8"	1	5, 5	114.19 lb	114.19 lb	-72.96 lb	-72.96 lb		
	V13	1	7° 8"	1	5, 5	70.45 lb	378.85 lb	-48.09 lb	-213.17 lb	70.45 lb	-56.35 lb
	V14	1	3° 8"	1	5, 5	111.44 lb	111.44 lb	-71.22 lb	-71.22 lb		
	VG10	1	7° 7 7/8"	1	5, 5	70.73 lb	384.53 lb	-48.11 lb	-216.60 lb	70.73 lb	-56.48 lb
	VG12	1	11° 8"	1	5, 5	76.78 lb	241.11 lb	-42.02 lb	-225.47 lb	133.49 lb	241.11 lb 76.78 lb

FLORIDA:

THIS STRUCTURE WAS DESIGNED IN ACCORDANCE AND MEETS THE REQUIREMENTS OF SECTION R301 OF THE FLORIDA BUILDING CODE 8th EDITION (2023): RESIDENTIAL. ALL CONNECTORS HAVE BEEN CHECKED TO WITHSTAND ALL APPLICABLE LOADS AND DESIGN CRITERIA STATED ON THE COVER SHEET.

DEFINITIONS

MWF = MAIN WIND FORCE  
C&C = COMPONENTS AND CLADDING  
TOB = TOP OF BEARING  
TC = TOP CHORD  
BC = BOTTOM CHORD  
LL = LIVE LOAD  
DL = DEAD LOAD  
psf = POUNDS PER SQUARE FOOT  
# = POUNDS

LOADS PER FBC & FRC

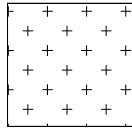
\* NON-CONCURRENT BC LL 10psf  
CONCURRENT STORAGE BC LL 20 psf

SHEET:

TR1



1. ALL MATERIAL IS 2x4
2. THIS DETAIL IS APPLICABLE FOR DESIGNS WITH DOLS. OF 1.15 OR 1.25 AND LUMBER SPECIES SP, DF, HF, OR SPF.
3. DETAIL SHALL BE USED FOR CONDITIONS OF A MISSING OR LOOSE CONNECTOR PLATE ONLY.
4. CHORD MATERIAL IS CONTINUOUS THROUGH JOINT, THERE IS NO MAXIMUM CHORD FORCE AND NO SPLICE PERMITTED.
5. REFER TO MITTEK DESIGN DRAWING FOR WEB FORCES.



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X MIN 2.5") NAILS IN 3 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 THE TRUSS. USE 2" MEMBER END DISTANCE.

EDGE OF WEB NOT TO EXTEND BEYOND CORNER OF GUSSET

WEB MEMBER  
MAX. FORCE  
800 LBS

WEB MEMBER  
MAX. FORCE  
1200 LBS

EDGE OF WEB NOT TO EXTEND BEYOND CORNER OF GUSSET

EDGE OF WEB NOT TO EXTEND BEYOND CORNER OF GUSSET

MINIMUM  
1/6"

2-0-0

CHORD

EDGE OF WEB NOT TO EXTEND BEYOND CORNER OF GUSSET

WEB MEMBER  
MAX. FORCE  
1200 LBS

EDGE OF WEB NOT TO EXTEND BEYOND CORNER OF GUSSET

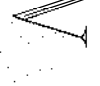
MINIMUM  
1/6"

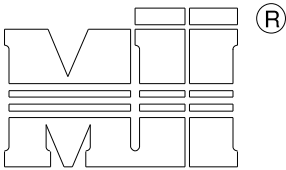
2-0-0

CHORD

2-8-0

\* MEASUREMENT TAKEN AT POINTS WHERE WEB ACHIEVES FULL MEMBER DEPTH (AS MEASURED PERPENDICULAR TO WEB'S SAW-MILLED EDGE)



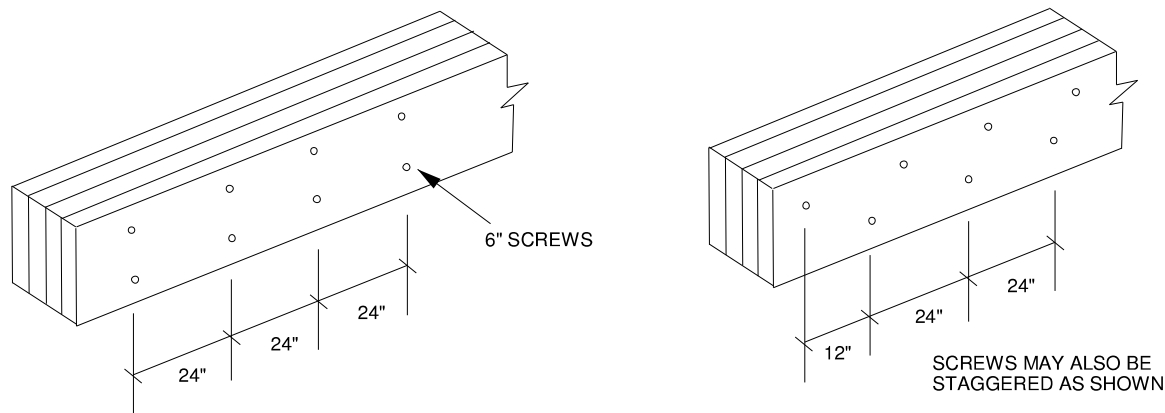


MiTek USA, Inc.

Four ply girder trusses are to be connected together using the nailing or screw schedule provided by Mitek 20/20 software. In addition to the nailing typically specified, 1/2" dia. bolts are sometimes specified throughout certain chords as indicated on the truss design drawing. In lieu of these bolts, the following wood screws may be used: USP WS6, MiTek Trusslok 6", or equivalent.

These screws are to be installed in two rows spaced 24" o.c. in 2x 6 and larger chords (use one row in 2x 4 chords) as shown in the detail below.

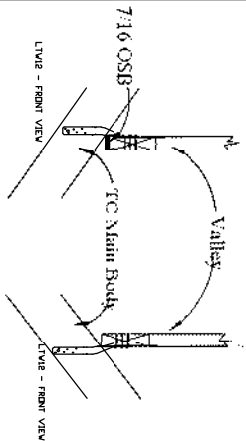
These connections are intended to provide clamping force to aid in allowing the four ply assembly to act as a unit and are not included in the calculation of ply to ply load transfer.



Please note that screws are not required from the back face. However, it is vitally important that the plies are tightly clamped together during the installation of the screws to prevent gaps between the plies.

For trusses where screws are specified for the ply to ply connection instead of nails, the bolts called in the connection notes may be omitted.

NON-BEVELED  
BOTTEM CHORD  
NO-SHEATHING



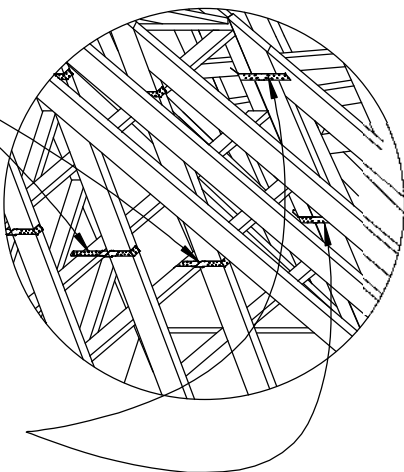
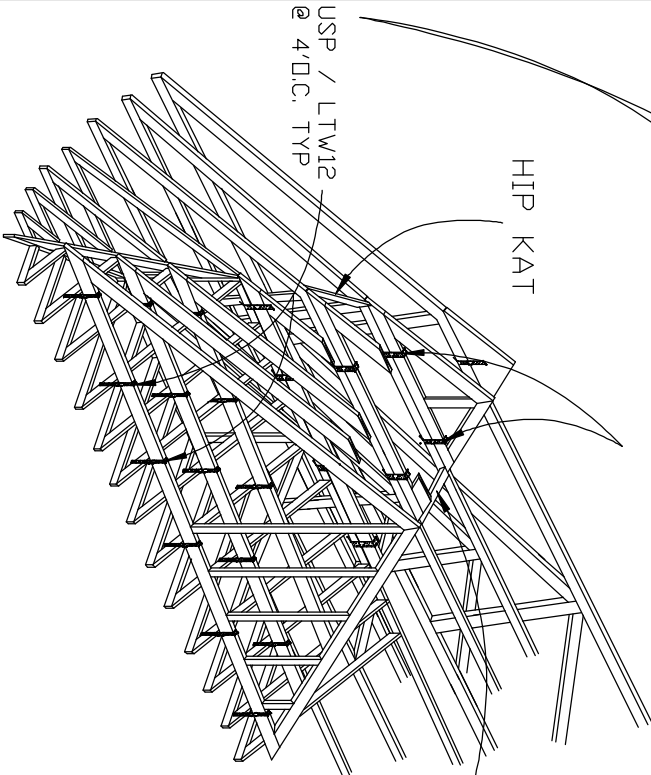
## VALLEY CONNECTIONS

(ELEMENTS NOT SHOWN FOR CLARITY)

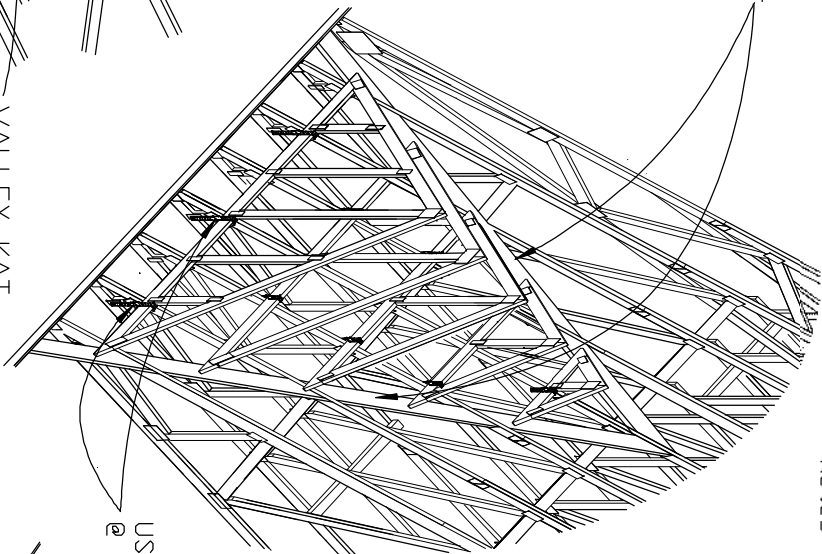
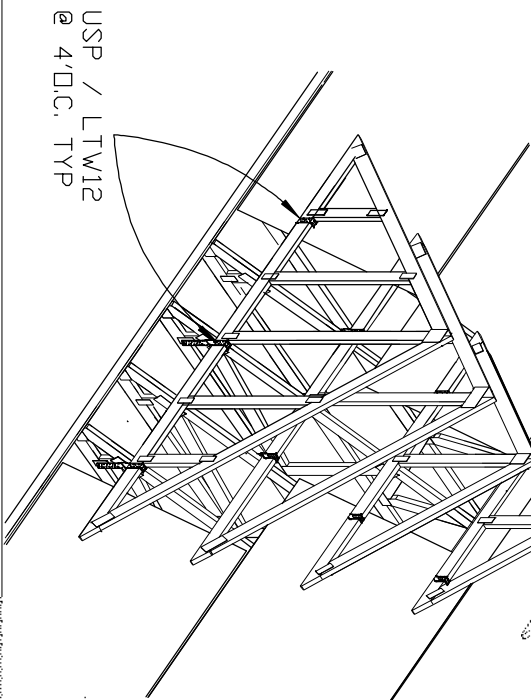
VALLEY KAT

Notes: Valley trusses can be installed either a top main body roof trusses or a top 7/16 sheathing. Connections of strapping remain the same as illustrated. Valley kats are required when a top main body truss option is utilized. See truss engineering and standard details for truss bracing requirements.

Main body trusses 2'OC perpendicular to valley is considered to be continuous bearing. If sheathing exists under valleys, Sheathing is not required to be continuous See NON BEVELED BOTTOM CHORD Detail

USP / MSTA12  
@ 4'D.C. TYP

HIP KAT

USP / LTW12  
@ 4'D.C. TYP

7/16 Sheathing

## TRUSS DETAILS

### VALLEY CONNECTIONS

DRAWN BY: J. FESSIA  
RELEASE DATE: 12/7/09



## REVISIONS

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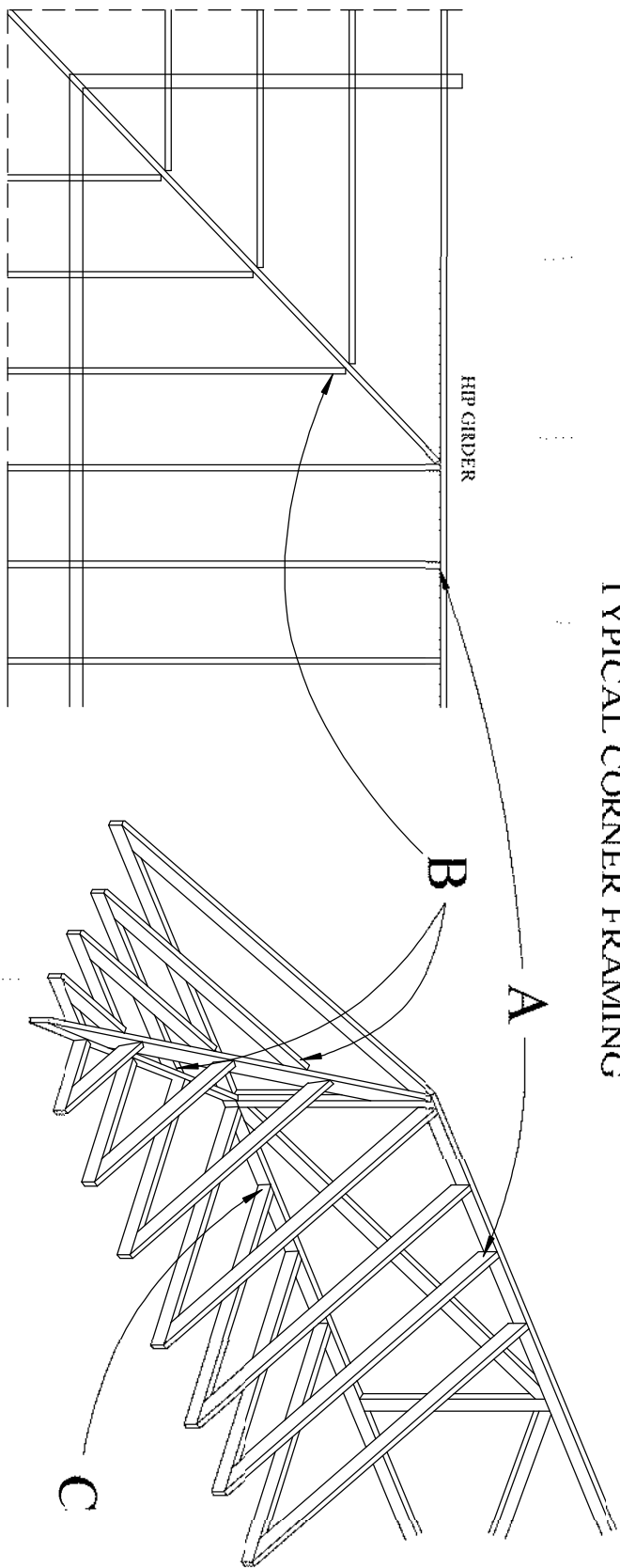
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VCI

THE GREEN CORP. INC. - GREENVILLE

# TOE-NAILED CONNECTIONS AT BEARING LOCATIONS

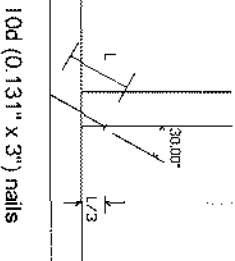
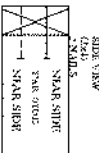
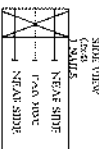
## TYPICAL CORNER FRAMING



### 90 DEGREE ANGLE/SQUARE CUT

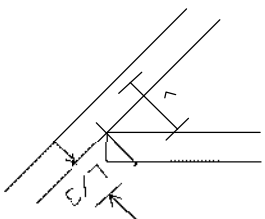
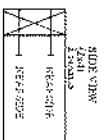
Connection at A

Connection at C



### 45 DEGREE ANGLE / SQUARE CUT

Connection at B



### CONNECTION VALUES:

	GRAVITY	UPLIFT
(3)10D	320	385
(3)16D	355	462

Wind loading: Basic wind speed is 160 MPH U.T. (124 ASD)

Exposure category B or C

Occupancy category II

4.8 psf top chord dead load

4.2 psf bottom chord dead load

25' roof height

INTERIOR gable end zone

Enclosed building (Cond. I)

PRR-10, TPI-07, ASCE 7-10

Duration of load is 1.60

L = NAIL LENGTH

## TRUSS DETAILS

### TOE-NAILED CONNECTIONS

DRAWN BY:

GARAGE

RELEASE DATE: 2/9/09

Maronda Homes

1001 201 60th Ave NW, Suite 200, Westland, MI 48186

SHEET

TN1

PROJECT DATE:



TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

\* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS

(TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN.

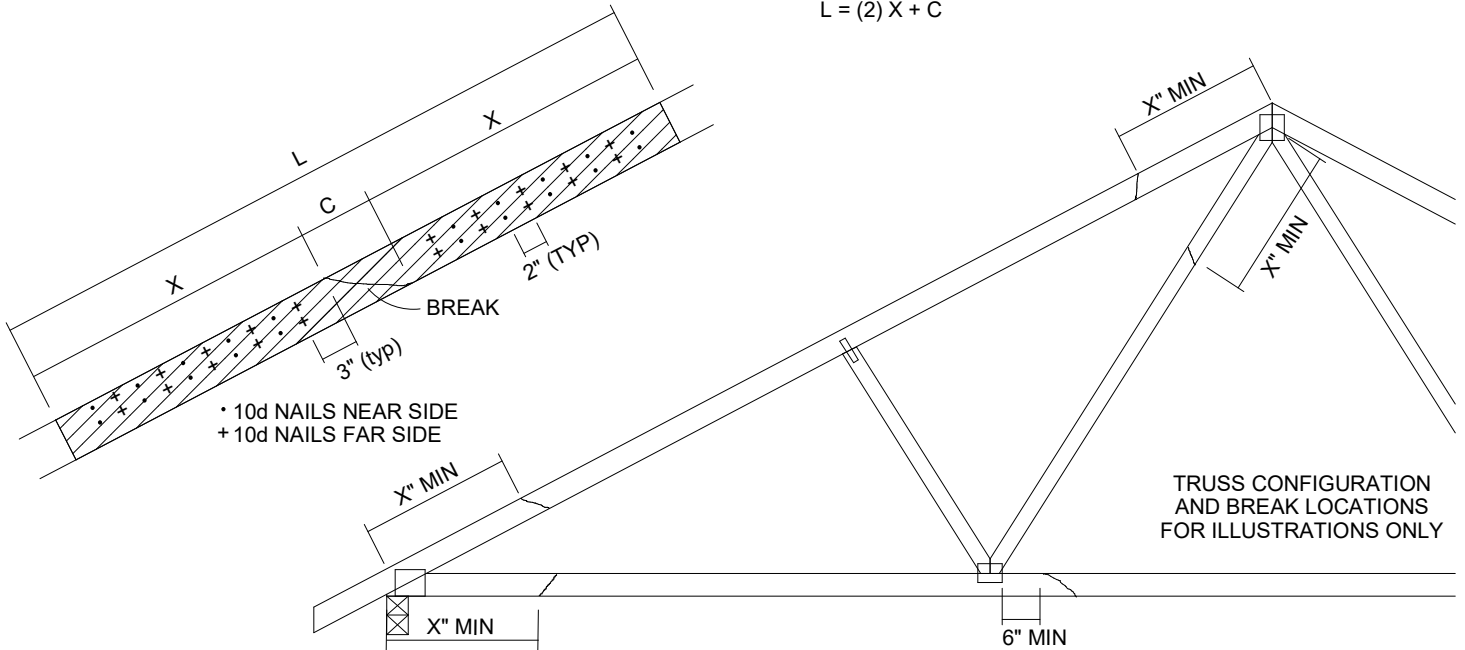
STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C.

SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)

THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:

$$L = (2) X + C$$

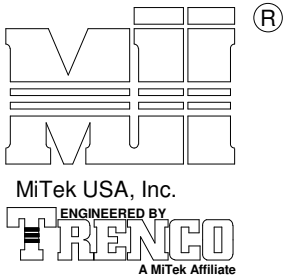


THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

#### NOTES:

1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



MAX MEAN ROOF HEIGHT = 30 FEET  
 BUILDING CATEGORY II  
 WIND EXPOSURE B or C  
 WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 100 MPH (MWFRS)  
 WIND DESIGN PER ASCE 7-10, ASCE 7-16 125 MPH (MWFRS)  
 DURATION OF LOAD INCREASE  
 FOR WIND LOADS: 1.60

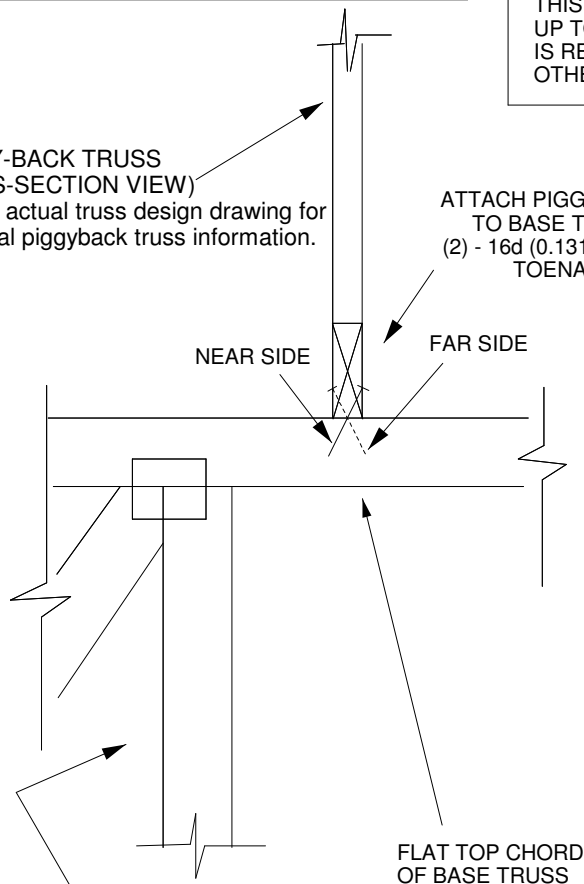
DETAIL IS NOT APPLICABLE FOR TRUSSES  
 TRANSFERRING DRAG LOADS (SHEAR TRUSSES).  
 ADDITIONAL CONSIDERATIONS BY BUILDING  
 ENGINEER/DESIGNER ARE REQUIRED.

THIS DETAIL SHALL BE ONLY USED FOR RESISTING A VERTICAL WIND UPLIFT  
 UP TO 140 LBS MAXIMUM AT EACH CONNECTION POINT. BUILDING DESIGNER  
 IS RESPONSIBLE FOR THE LOAD EXCEEDING THIS LIMITATION AND/OR IN  
 OTHER DIRECTIONS.

### PIGGY-BACK TRUSS (CROSS-SECTION VIEW)

Refer to actual truss design drawing for  
 additional piggyback truss information.

ATTACH PIGGYBACK TRUSS  
 TO BASE TRUSS WITH  
 (2) - 16d (0.131" X 3.5") NAILS  
 TOENAILED.



BASE TRUSS (SIDE VIEW)  
 Refer to actual truss design drawing  
 for additional base truss information.

### NOTES FOR TRUSS:

1. THIS DETAIL IS VALID FOR ONE-PLY PIGGYBACK TRUSS ONLY;
2. THE CHORD MEMBER OF PIGGYBACK AND BASE TRUSSES  
MUST BE SOUTHERN PINE OR DOUGLAS FIR-LARCH LUMBER;
3. THE SPACING OF PIGGYBACK TRUSSES AND BASE TRUSSES  
IS 2 FT OR LESS;
4. THE PIGGYBACK TRUSSES SHOULD BE PERPENDICULAR TO  
BASE TRUSSES.
5. PIGGYBACK TRUSS MAY NOT CANTILEVER OVER BASE TRUSS  
OR HAVE AN OVERHANG WHICH WILL CREATE A HIGHER UPLIFT  
AT CONNECTING POINT.

### NOTES FOR TOE-NAIL:

1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES  
WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE  
NAIL FROM THE MEMBER END AS SHOWN.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF  
NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING  
OF THE WOOD.

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H12	Hip	2	1	Job Reference (optional)

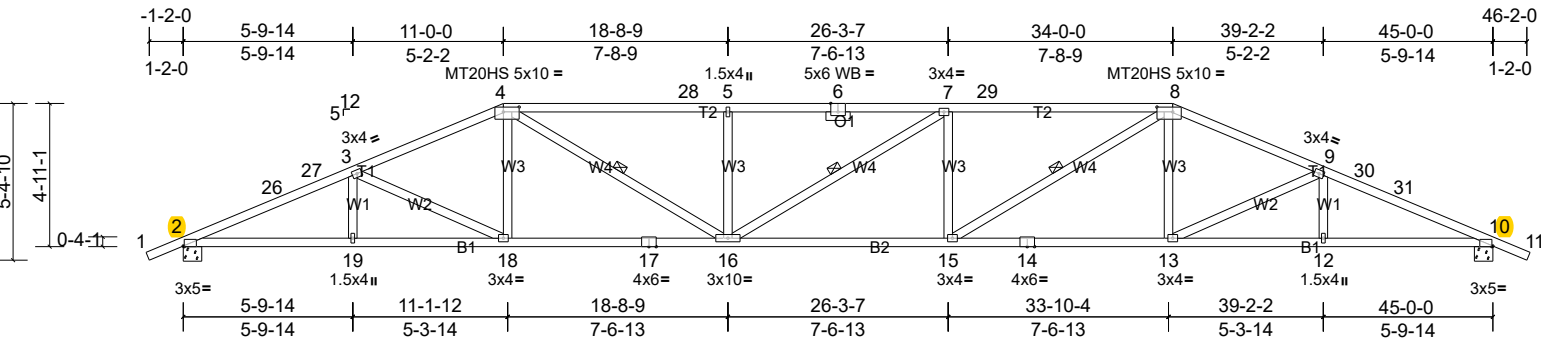


Plate Offsets (X, Y): [2:0-0-6,Edge], [4:0-6-8,0-2-0], [6:0-3-0,Edge], [8:0-6-8,0-2-0], [10:0-0-6,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.88	Vert(LL)	0.69	15-16	>783	240	MT20HS	187/143
TCDL	7.0	Lumber DOL	1.25	BC	0.98	Vert(CT)	-0.74	15-16	>731	180	MT20	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.22	10	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 228 lb	FT = 20%

LUMBER	BRACING
TOP CHORD 2x4 SP No.2 *Except* T2:2x4 SP No.1D	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 4-16, 7-16, 8-15
OTHERS 2x4 SP No.2	
REACTIONS (lb/size) 2=1541/0-7-10, (min. 0-1-13), 10=1541/0-7-10, (min. 0-1-13)	MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.
Max Horiz 2=-157 (LC 17)	
Max Uplift 2=-1026 (LC 12), 10=-1026 (LC 13)	

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-26=-3385/2133, 26-27=-3338/2134, 3-27=-3314/2142, 3-4=-2960/2002, 4-28=-3569/2574, 5-28=-3569/2574, 5-6=-3569/2574, 6-7=-3569/2574, 7-29=-3568/2574, 8-29=-3568/2574, 8-9=-2960/2002, 9-30=-3314/2143, 30-31=-3338/2135, 10-31=-3385/2134
BOT CHORD	2-19=-2004/3086, 18-19=-2004/3086, 17-18=-1662/2698, 16-17=-1662/2698, 15-16=-2330/3568, 14-15=-1632/2698, 13-14=-1632/2698, 12-13=-1855/3085, 10-12=-1855/3085
WEBS	4-18=-115/419, 4-16=-813/1104, 5-16=-374/507, 7-16=-324/325, 7-15=-415/513, 8-15=-813/1102, 8-13=-115/419, 3-18=-461/457, 9-13=-460/458

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 11-0-0, Zone2 11-0-0 to 17-4-6, Zone1 17-4-6 to 34-0-0, Zone2 34-0-0 to 40-4-6, Zone1 40-4-6 to 46-2-11 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
  - Provide adequate drainage to prevent water ponding.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1026 lb uplift at joint 10 and 1026 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H13	Hip	1	1	Job Reference (optional)

Maronda Homes, Sanford, user

Run: 8.72 S Aug 20 2023 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue Aug 13 13:48:29 Page: 1

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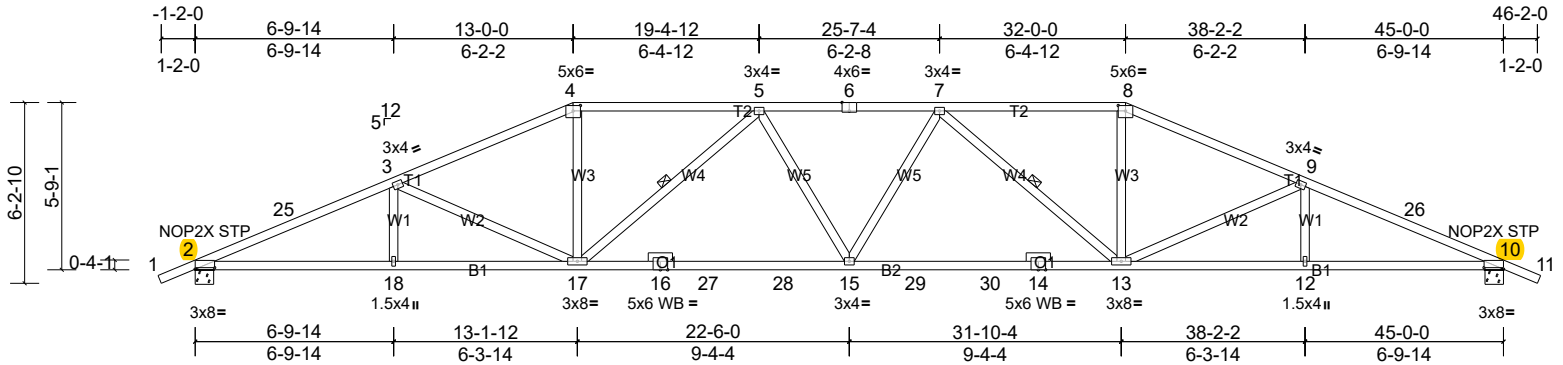


Plate Offsets (X, Y): [2:0-8-0,0-0-10], [4:0-3-0,0-2-4], [6:0-3-0,Edge], [8:0-3-0,0-2-4], [10:0-8-0,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.75	Vert(LL)	0.53	15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.81	15-17	>671	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.19	10	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 228 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1D  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.2

#### BRACING

TOP CHORD  
BOT CHORD  
WEBS

Structural wood sheathing directly applied or 2-5-10 oc purlins.  
Rigid ceiling directly applied or 4-7-9 oc bracing.  
1 Row at midpt 5-17, 7-13

**REACTIONS** (lb/size) 2=1541/0-7-10, (min. 0-1-12), 10=1541/0-7-10, (min. 0-1-12)  
Max Horiz 2=182 (LC 12)  
Max Uplift 2=-1023 (LC 12), 10=-1023 (LC 13)  
Max Grav 2=1728 (LC 2), 10=1728 (LC 2)

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

#### FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-25=-3777/2097, 3-25=-3747/2108, 3-4=-3201/1825, 4-5=-2934/1747, 5-6=-3562/2104, 6-7=-3562/2104, 7-8=-2934/1747, 8-9=-3201/1825, 9-26=-3747/2109, 10-26=-3777/2097  
BOT CHORD 2-18=-1985/3460, 17-18=-1985/3460, 16-17=-1868/3448, 16-27=-1868/3448, 27-28=-1868/3448, 15-28=-1868/3448, 15-29=-1859/3448, 29-30=-1859/3448, 14-30=-1859/3448, 13-14=-1859/3448, 12-13=-1804/3460, 10-12=-1804/3460  
WEBS 3-17=-609/585, 4-17=-398/997, 5-17=-756/551, 5-15=-131/381, 7-15=-131/381, 7-13=-756/551, 8-13=-398/997, 9-13=-609/586

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 13-0-0, Zone2 13-0-0 to 19-4-12, Zone1 19-4-12 to 32-0-0, Zone2 32-0-0 to 38-2-2, Zone1 38-2-2 to 46-2-11 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
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1023 lb uplift at joint 2 and 1023 lb uplift at joint 10.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H13S	Hip	1	1	Job Reference (optional)

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Run: 8.72 S Aug 20 2023 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue Aug 13 13:48:29

Page: 1

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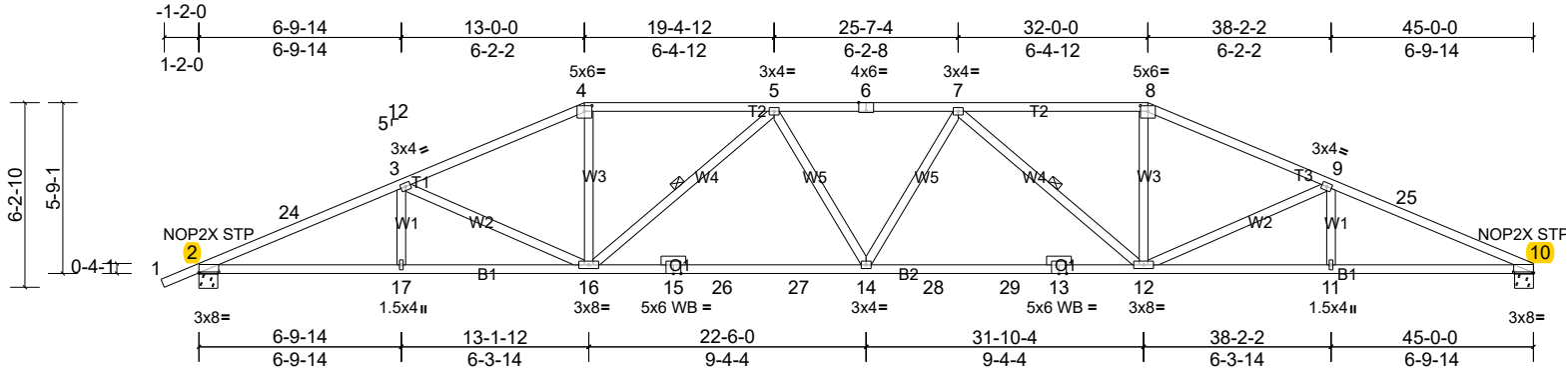


Plate Offsets (X, Y): [2:0-8-0,0-0-6], [4:0-3-0,0-2-4], [6:0-3-0,Edge], [8:0-3-0,0-2-4], [10:0-8-0,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.76	Vert(LL)	0.53	14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.81	12-14	>670	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.19	10	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 226 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1D  
WEBS 2x4 SP No.2  
OTHERS 2x4 SP No.2

#### BRACING

TOP CHORD  
BOT CHORD  
WEBS

Structural wood sheathing directly applied or 2-5-0 oc purlins.  
Rigid ceiling directly applied or 4-7-6 oc bracing.  
1 Row at midpt 5-16, 7-12

**REACTIONS** (lb/size) 2=1542/0-7-10, (min. 0-1-12), 10=1484/0-7-10, (min. 0-1-11)

Max Horiz 2=198 (LC 12)

Max Uplift 2=-1023 (LC 12), 10=-958 (LC 13)

Max Grav 2=1728 (LC 2), 10=1681 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-24=-3778/2098, 3-24=-3749/2109, 3-4=-3202/1827, 4-5=-2935/1749, 5-6=-3564/2109, 6-7=-3564/2109, 7-8=-2937/1754, 8-9=-3205/1833, 9-25=-3740/2127, 10-25=-3788/2115

BOT CHORD 2-17=-2002/3461, 16-17=-2002/3461, 15-16=-1889/3450, 15-26=-1889/3450, 26-27=-1889/3450, 14-27=-1889/3450, 14-28=-1880/3451, 28-29=-1880/3451, 13-29=-1880/3451, 12-13=-1880/3451, 11-12=-1852/3470, 10-11=-1852/3470

WEBS 3-16=-609/585, 4-16=-399/998, 8-12=-400/999, 9-12=-617/600, 5-16=-757/553, 5-14=-133/381, 7-14=-131/381, 7-12=-756/551

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 13-0-0, Zone2 13-0-0 to 19-4-12, Zone1 19-4-12 to 32-0-0, Zone2 32-0-0 to 38-2-2, Zone1 38-2-2 to 45-0-0 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
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 958 lb uplift at joint 10 and 1023 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H14	Hip	1	1	Job Reference (optional)

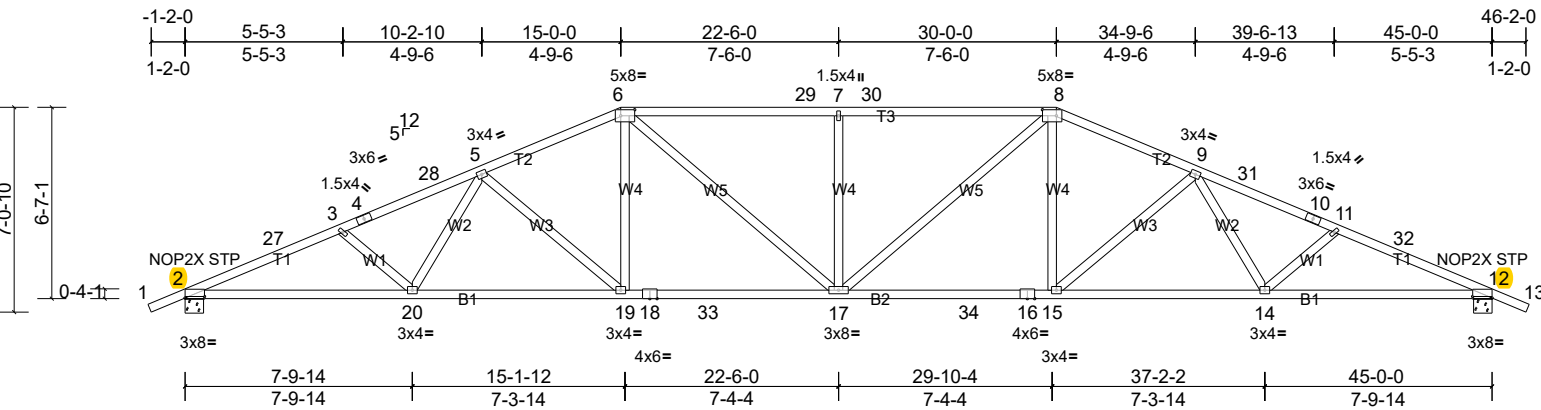


Plate Offsets (X, Y): [2:0-8-0,0-0-10], [6:0-5-12,0-2-8], [8:0-5-12,0-2-8], [12:0-8-0,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.89	Vert(LL)	0.47	17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.66	17-19	>821	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.19	12	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 238 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1d \*Except\* B2:2x4 SP No.2  
WEBS 2x4 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied or 4-7-8 oc bracing.

**REACTIONS** (lb/size) 2=1541/0-7-10, (min. 0-1-12), 12=1541/0-7-10, (min. 0-1-12)  
Max Horiz 2=208 (LC 12)  
Max Uplift 2=-1020 (LC 12), 12=-1020 (LC 13)  
Max Grav 2=1732 (LC 2), 12=1732 (LC 2)

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-27=-3808/2151, 3-27=-3777/2159, 3-4=-3658/2000, 4-28=-3622/2006, 5-28=-3609/2014, 5-6=-3000/1687, 6-29=-3105/1845, 7-29=-3105/1845, 7-30=-3105/1845, 8-30=-3105/1845, 8-9=-3000/1687, 9-31=-3609/2014, 10-31=-3622/2006, 10-11=-3657/2000, 11-32=-3777/2159, 12-32=-3808/2151  
BOT CHORD 2-20=-2077/3498, 19-20=-1710/3120, 18-19=-1330/2750, 18-33=-1330/2750, 17-33=-1330/2750, 17-34=-1249/2750, 16-34=-1249/2750, 15-16=-1249/2750, 14-15=-1536/3120, 12-14=-1869/3498  
WEBS 6-19=-250/634, 6-17=-454/559, 7-17=-398/543, 8-17=-454/559, 8-15=-250/634, 3-20=-247/371, 5-20=-184/459, 5-19=-511/512, 9-15=-511/512, 9-14=-185/459, 11-14=-247/371

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 15-0-0, Zone2 15-0-0 to 21-4-6, Zone1 21-4-6 to 30-0-0, Zone2 30-0-0 to 36-4-6, Zone1 36-4-6 to 46-2-11 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
  - Provide adequate drainage to prevent water ponding.
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1020 lb uplift at joint 12 and 1020 lb uplift at joint 2.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H14S	Hip	1	1	Job Reference (optional)

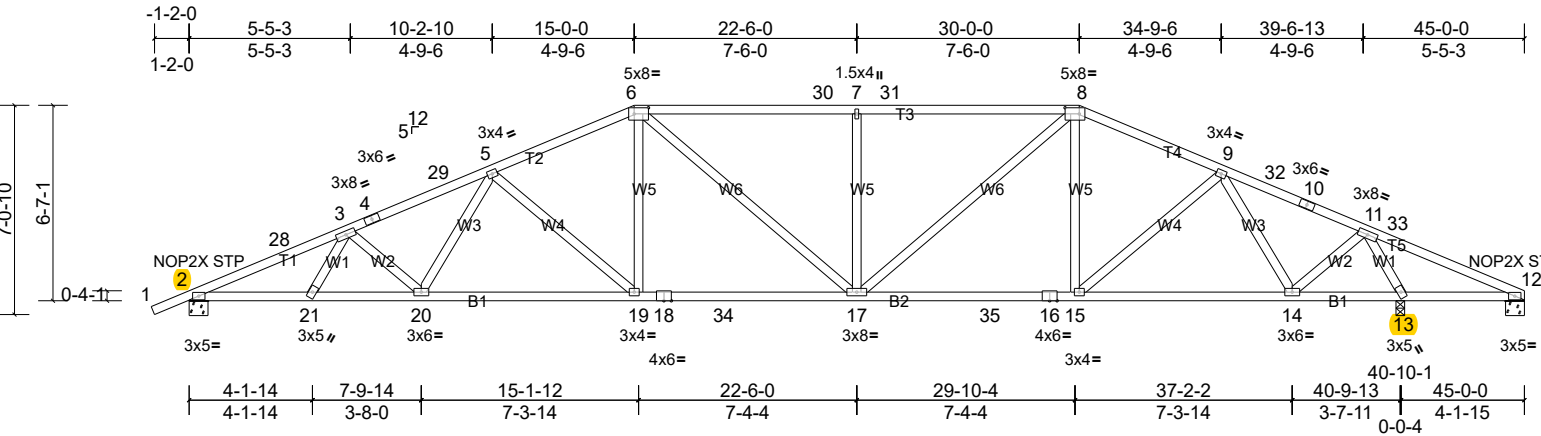


Plate Offsets (X, Y): [6:0-5-12,0-2-8], [8:0-5-12,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	0.31	19	>999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.45	17-19	>999	180	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.13	13	n/a	n/a	
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 243 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 2-11-14 oc purlins.  
Rigid ceiling directly applied or 4-2-13 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** (lb/size) 2=1344/0-7-10, (min. 0-1-12), 12=507/0-7-10, (min. 0-1-8), 13=2190/0-3-8, (min. 0-2-15)  
Max Horiz 2=223 (LC 16)  
Max Uplift 2=-926 (LC 12), 12=-593 (LC 2), 13=-1328 (LC 9)  
Max Grav 2=1506 (LC 2), 12=314 (LC 12), 13=2504 (LC 2)

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-28=-3308/1894, 3-28=-3277/1902, 3-4=-3060/1765, 4-29=-3026/1771, 5-29=-3012/1779, 5-6=-2417/1414, 6-30=-2297/1450, 7-30=-2297/1450, 7-31=-2297/1450, 8-31=-2297/1450, 8-9=-1850/1097, 9-32=-840/607, 10-32=-848/600, 10-11=-889/593, 11-33=-909/1859, 12-33=-921/1815  
BOT CHORD 2-21=-1858/3031, 20-21=-1869/2985, 19-20=-1503/2577, 18-19=-1121/2212, 18-34=-1121/2212, 17-34=-1121/2212, 17-35=-740/1674, 16-35=-740/1674, 15-16=-740/1674, 14-15=-603/1279, 13-14=-458/283, 12-13=-1676/894  
WEBS 6-19=-249/636, 6-17=-275/264, 7-17=-398/543, 8-17=-601/862, 5-19=-505/515, 3-20=-283/364, 5-20=-193/443, 9-15=-219/586, 9-14=-1018/641, 11-14=-679/1597, 11-13=-2632/1429

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 15-0-0, Zone2 15-0-0 to 21-4-6, Zone1 21-4-6 to 30-0-0, Zone2 30-0-0 to 36-4-6, Zone1 36-4-6 to 45-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 593 lb uplift at joint 12, 926 lb uplift at joint 2 and 1328 lb uplift at joint 13.

LOAD CASE(S) Standard

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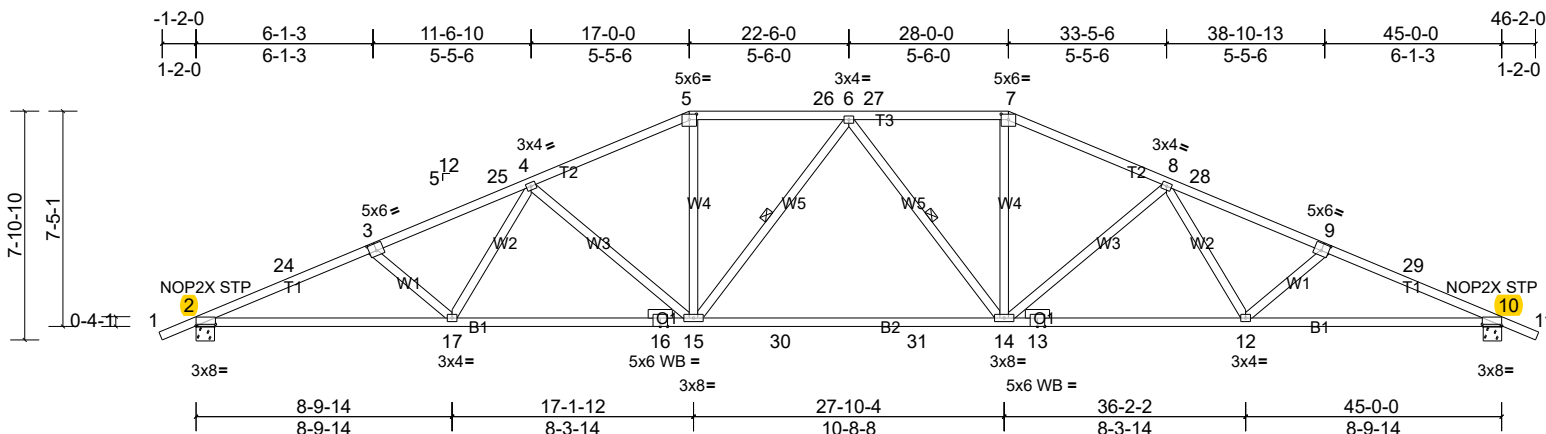


Plate Offsets (X, Y): [2:0-8-0,0-0-10], [3:0-3-0,0-3-0], [5:0-3-0,0-2-4], [7:0-3-0,0-2-4], [9:0-3-0,0-3-0], [10:0-8-0,0-0-10]

[illegible]

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** (lb/size) 2=1541/0-7-10, (min. 0-1-12), 10=1541/0-7-10, (min. 0-1-12)  
 Max Horiz 2=234 (LC 12)  
 Max Uplift 2=-1016 (LC 12), 10=-1016 (LC 13)  
 Max Grav 2=1724 (LC 2), 10=1724 (LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD**  
2-24=-3729/2106, 3-24=-3699/2115, 3-25=-3562/1961, 4-25=-3491/1970, 4-5=-2821/1610, 5-26=-2581/1555, 6-26=-2581/1555, 6-27=-2581/1555, 7-27=-2581/1555, 7-8=-2821/1610, 8-28=-3491/1971, 9-28=-3562/1962, 9-29=-3699/2116, 10-29=-3729/2106

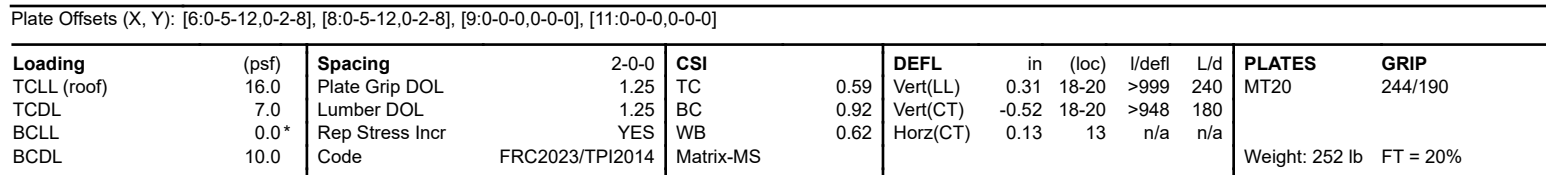
**BOT CHORD**  
2-17=-2049/3423, 16-17=-1637/2998, 15-16=-1637/2998, 15-30=-1218/2666, 30-31=-1218/2666, 14-31=-1218/2666, 13-14=-1474/2998, 12-13=-1474/2998, 10-12=-1816/3423

**WEBS**  
3-17=-280/414, 4-17=-234/518, 4-15=-576/607, 5-15=-359/881, 6-15=-308/369, 6-14=-308/369, 7-14=-359/881, 8-14=-576/607, 8-12=-235/518, 9-12=-280/415

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 17-0-0, Zone2 17-0-0 to 23-4-6, Zone1 23-4-6 to 28-0-0, Zone2 28-0-0 to 34-4-6, Zone1 34-4-6 to 46-2-11 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) Provide adequate drainage to prevent water ponding.
- 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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1016 lb uplift at joint 2 and 1016 lb uplift at joint 10.

LOAD CASE(S) Standard

Maronda Homes, Sanford, user Run: 8.72 S Aug 20 2023 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue Aug 13 13:48:30 Page: 1



<b>FORCES</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
<b>TOP CHORD</b>	2-28=-3315/1874, 3-28=-3277/1883, 3-4=-2995/1719, 4-29=-2938/1723, 5-29=-2921/1728, 5-6=-2237/1330, 6-30=-2018/1304, 7-30=-2018/1304, 7-31=-2018/1304, 8-31=-2018/1304, 8-9=-1886/1144, 9-32=-1190/790, 10-32=-1196/787, 10-11=-1264/774, 11-33=-811/1693, 12-33=-825/1647
<b>BOT CHORD</b>	2-21=-1856/3028, 20-21=-1864/2947, 19-20=-1440/2472, 18-19=-1440/2472, 18-34=-990/2037, 17-34=-990/2037, 17-35=-690/1703, 16-35=-690/1703, 15-16=-717/1486, 14-15=-717/1486, 12-13=-1520/820
<b>WEBS</b>	6-18=-307/684, 7-17=-286/388, 8-17=-456/576, 3-20=-322/423, 5-20=-217/523, 5-18=-594/604, 9-16=-91/372, 9-14=-733/521, 11-14=-493/1309, 11-13=-2762/1513

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 17-0-0, Zone2 17-0-0 to 23-4-6, Zone1 23-4-6 to 28-0-0, Zone2 28-0-0 to 34-4-6, Zone1 34-4-6 to 45-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 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, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 517 lb uplift at joint 12, 925 lb uplift at joint 2 and 1243 lb uplift at joint 13.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H16	Hip	1	1	Job Reference (optional)

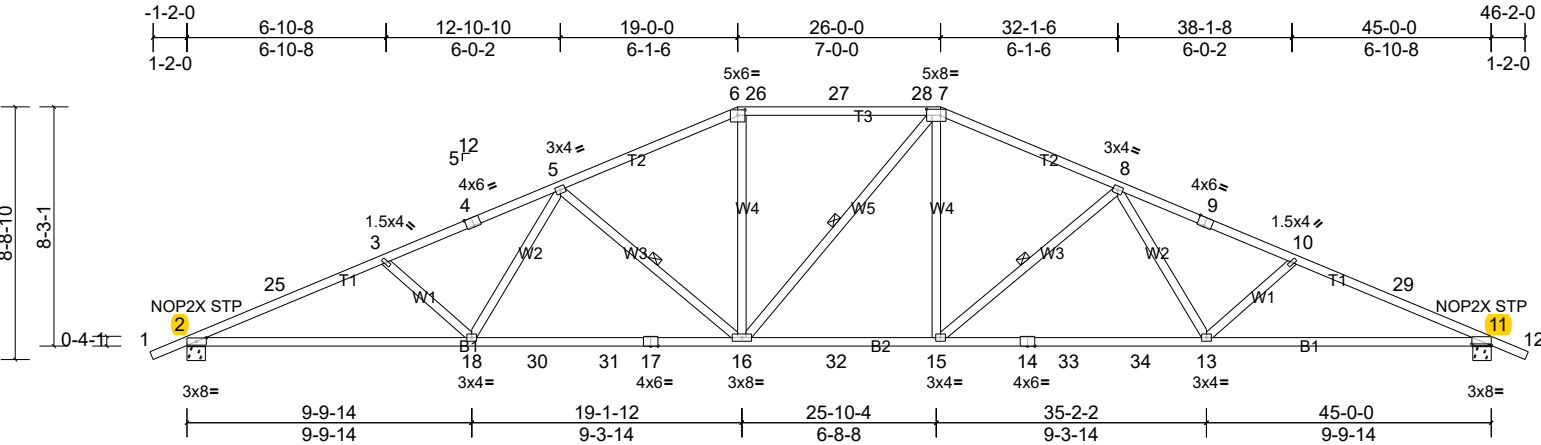


Plate Offsets (X, Y): [2:0-4-2,0-1-8], [4:0-3-0,Edge], [6:0-3-0,0-2-4], [7:0-5-12,0-2-8], [9:0-3-0,Edge], [11:0-8-0,0-0-10]												
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	0.40	15-16	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.70	13-15	>776	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 234 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1D  
WEBS 2x4 SP No.2

**BRACING**  
TOP CHORD  
BOT CHORD  
WEBS  
Structural wood sheathing directly applied or 2-2-0 oc purlins.  
Rigid ceiling directly applied or 4-6-6 oc bracing.  
1 Row at midpt 7-16, 5-16, 8-15

**REACTIONS** (lb/size) 2=1541/0-7-10, (min. 0-1-12), 11=1541/0-7-10, (min. 0-1-12)  
Max Horiz 2=259 (LC 12)  
Max Uplift 2=-1012 (LC 12), 11=-1012 (LC 13)  
Max Grav 2=1750 (LC 2), 11=1754 (LC 2)

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

<b>FORCES</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-25=-3770/2071, 3-25=-3741/2083, 3-4=-3576/1894, 4-5=-3529/1904, 5-6=-2655/1548, 6-26=-2421/1505, 26-27=-2421/1505, 27-28=-2421/1505, 7-28=-2421/1505, 7-8=-2665/1548, 8-9=-3539/1905, 9-10=-3586/1894, 10-29=-3750/2083, 11-29=-3779/2072
BOT CHORD	2-18=-2037/3458, 18-30=-1563/2933, 30-31=-1563/2933, 17-31=-1563/2933, 16-17=-1563/2933, 16-32=-1011/2430, 15-32=-1011/2430, 14-15=-1405/2942, 14-33=-1405/2942, 33-34=-1405/2942, 13-34=-1405/2942, 11-13=-1778/3467
WEBS	6-16=-273/761, 7-15=-344/777, 3-18=-321/477, 5-18=-251/661, 5-16=-696/673, 8-15=-696/673, 8-13=-252/661, 10-13=-321/477

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 19-0-0, Zone2 19-0-0 to 25-4-6, Zone1 25-4-6 to 26-0-0, Zone2 26-0-0 to 32-1-6, Zone1 32-1-6 to 46-2-11 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
  - Provide adequate drainage to prevent water ponding.
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1012 lb uplift at joint 2 and 1012 lb uplift at joint 11.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	H16S	Hip	1	1	Job Reference (optional)

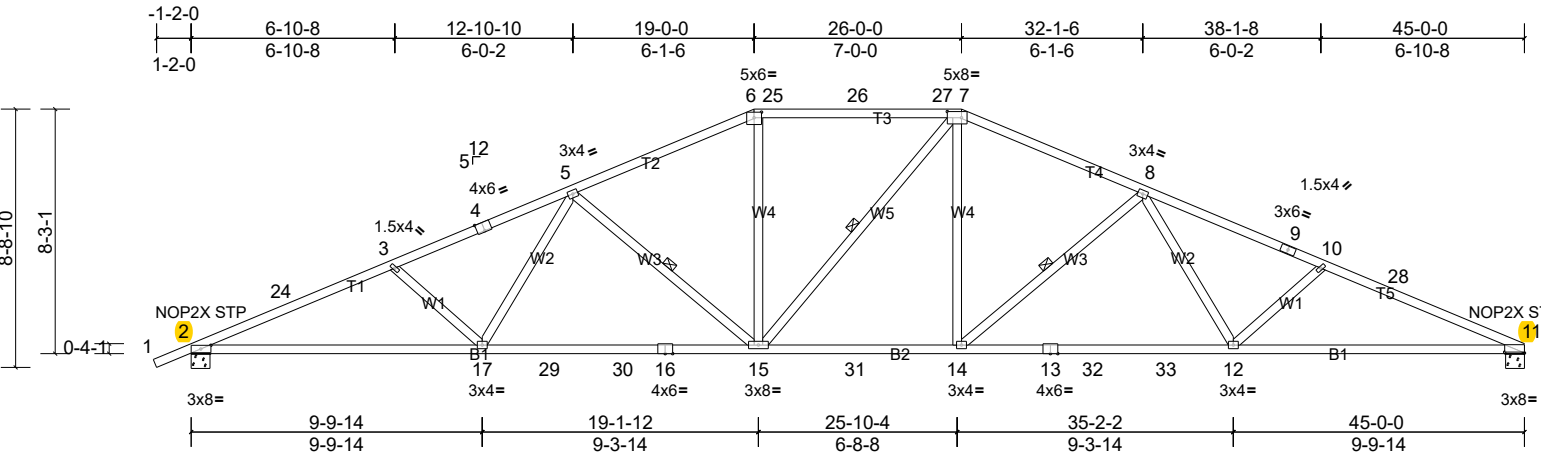


Plate Offsets (X, Y): [2:0-4-2,0-1-8], [4:0-3-0,Edge], [6:0-3-0,0-2-4], [7:0-5-12,0-2-8], [11:0-8-0,0-0-6]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.80	Vert(LL)	0.40	14-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.69	12-14	>778	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 232 lb	FT = 20%

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1D  
WEBS 2x4 SP No.2

**BRACING**  
TOP CHORD  
BOT CHORD  
WEBS  
Structural wood sheathing directly applied or 2-2-0 oc purlins.  
Rigid ceiling directly applied or 4-6-2 oc bracing.  
1 Row at midpt 7-15, 5-15, 8-14

**REACTIONS** (lb/size) 2=1542/0-7-10, (min. 0-1-12), 11=1484/0-7-10, (min. 0-1-12)  
Max Horiz 2=275 (LC 12)  
Max Uplift 2=-1012 (LC 12), 11=-946 (LC 13)  
Max Grav 2=1751 (LC 2), 11=1707 (LC 2)

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD** 2-24=-3772/2072, 3-24=-3742/2084, 3-4=-3578/1895, 4-5=-3531/1905, 5-6=-2657/1556, 6-25=-2422/1512, 25-26=-2422/1512, 26-27=-2422/1512, 7-27=-2422/1512, 7-8=-2667/1550, 8-9=-3546/1917, 9-10=-3593/1899, 10-28=-3741/2098, 11-28=-3788/2087

**BOT CHORD** 2-17=-2053/3460, 17-29=-1580/2935, 29-30=-1580/2935, 16-30=-1580/2935, 15-16=-1580/2935, 15-31=-1036/2432, 14-31=-1036/2432, 13-14=-1433/2946, 13-32=-1433/2946, 32-33=-1433/2946, 12-33=-1433/2946, 11-12=-1824/3476

**WEBS** 6-15=-274/762, 7-14=-346/778, 3-17=-321/477, 5-17=-251/661, 5-15=-696/673, 8-14=-698/677, 8-12=-260/666, 10-12=-321/483

- NOTES**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 19-0-0, Zone2 19-0-0 to 25-4-6, Zone1 25-4-6 to 26-0-0, Zone2 26-0-0 to 32-1-6, Zone1 32-1-6 to 45-0-0 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
  - Provide adequate drainage to prevent water ponding.
  - 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, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1012 lb uplift at joint 2 and 946 lb uplift at joint 11.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	WILLOW F
Willow F - Base	HGR11	Hip Girder	2	3	Job Reference (optional)

Maronda Homes, Sanford, Michael Feightner

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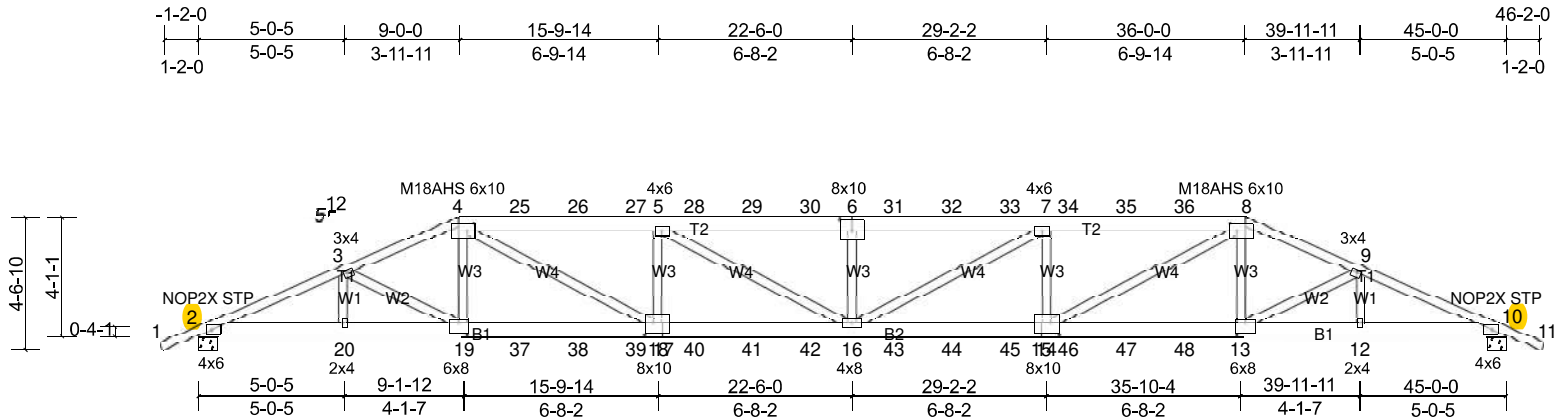


Plate Offsets (X, Y): [4:0-2-12,0-3-0], [6:0-5-0,0-4-8], [8:0-2-12,0-3-0], [13:0-3-8,0-4-8], [15:0-3-8,0-4-8], [17:0-3-8,0-4-8], [19:0-3-8,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	0.95	16-18	>569	240	M18AHS 186/179
TCDL	7.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.75	16-18	>721	180	MT20 244/190
BCLL	0.0*	Rep Stress Incr	NO	WB	0.32	Horz(CT)	-0.20	10	n/a	n/a	
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 855 lb FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2 \*Except\* T2:2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 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 8-3-13 oc bracing.

REACTIONS (lb/size) 2=3850/0-7-10, (min. 0-1-8), 10=3850/0-7-10, (min. 0-1-8)

Max Horiz 2=129 (LC 8)

Max Uplift 2=-3633 (LC 8), 10=-3633 (LC 9)

#### FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-9460/8966, 3-4=-9318/8964, 4-25=-12294/11933, 25-26=-12296/11933, 26-27=-12296/11934, 5-27=-12297/11935, 5-28=-13488/13078, 28-29=-13488/13078, 29-30=-13488/13078, 6-30=-13488/13078, 6-31=-13488/13078, 31-32=-13488/13078, 32-33=-13488/13078, 7-33=-13488/13078, 7-34=-12298/11934, 34-35=-12296/11934, 35-36=-12295/11933, 8-36=-12294/11933, 8-9=-9318/8964, 9-10=-9460/8964  
BOT CHORD 2-20=-8282/8709, 19-20=-8282/8709, 19-37=-8194/8639, 37-38=-8194/8639, 38-39=-8194/8639, 18-39=-8194/8639, 17-18=-11740/12295, 17-40=-11740/12295, 40-41=-11740/12295, 41-42=-11740/12295, 16-42=-11740/12295, 16-43=-11730/12295, 43-44=-11730/12295, 44-45=-11730/12295, 15-45=-11730/12295, 14-15=-11730/12295, 14-46=-8152/8639, 46-47=-8152/8639, 47-48=-8152/8639, 13-48=-8152/8639, 12-13=-8152/8709, 10-12=-8152/8709  
WEBS 4-19=-1201/1396, 8-13=-1201/1396, 3-19=-311/454, 9-13=-311/453, 5-18=-1229/1451, 4-18=-4071/4204, 5-16=-1421/1399, 6-16=-428/667, 7-16=-1422/1399, 7-14=-1229/1451, 8-14=-4071/4204

#### NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 4-19 2x4 - 1 row at 0-6-0 oc, Except member 8-13 2x4 - 1 row at 0-6-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TC DL=4.2psf; BC DL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3633 lb uplift at joint 10 and 3633 lb uplift at joint 2.

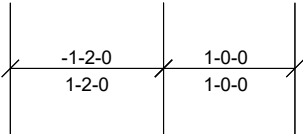
Job	Truss	Truss Type	Qty	Ply	WILLOW F - OPT. 10x20 PORCH
Willow F - Base	HGR11	Hip Girder	4	3	Job Reference (optional)

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 169 lb down and 220 lb up at 9-0-0, 49 lb down and 113 lb up at 11-0-12, 49 lb down and 113 lb up at 13-0-12, 49 lb down and 113 lb up at 15-0-12, 49 lb down and 113 lb up at 17-0-12, 49 lb down and 113 lb up at 19-0-12, 49 lb down and 113 lb up at 21-0-12, 49 lb down and 113 lb up at 22-6-0, 49 lb down and 113 lb up at 23-11-4, 49 lb down and 113 lb up at 25-11-4, 49 lb down and 113 lb up at 27-11-4, 49 lb down and 113 lb up at 29-11-4, 49 lb down and 113 lb up at 31-11-4, and 49 lb down and 113 lb up at 33-11-4, and 169 lb down and 220 lb up at 36-0-0 on top chord, and 832 lb down and 845 lb up at 9-0-0, 191 lb down and 173 lb up at 11-0-12, 191 lb down and 173 lb up at 13-0-12, 191 lb down and 173 lb up at 15-0-12, 191 lb down and 173 lb up at 17-0-12, 191 lb down and 173 lb up at 19-0-12, 191 lb down and 173 lb up at 21-0-12, 191 lb down and 173 lb up at 22-6-0, 191 lb down and 173 lb up at 23-11-4, 191 lb down and 173 lb up at 25-11-4, 191 lb down and 173 lb up at 27-11-4, 191 lb down and 173 lb up at 29-11-4, 191 lb down and 173 lb up at 31-11-4, and 191 lb down and 173 lb up at 33-11-4, and 832 lb down and 845 lb up at 35-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (lb/ft)
- Vert: 1-4=-46, 4-8=-46, 8-11=-46, 2-10=-20
- Concentrated Loads (lb)
- Vert: 4=-15 (F), 8=-15 (F), 19=-832 (F), 13=-832 (F), 16=-191 (F), 6=-34 (F), 25=-34 (F), 26=-34 (F), 27=-34 (F), 28=-34 (F), 29=-34 (F), 30=-34 (F), 31=-34 (F), 32=-34 (F), 33=-34 (F), 34=-34 (F), 35=-34 (F), 36=-34 (F), 37=-191 (F), 38=-191 (F), 39=-191 (F), 40=-191 (F), 41=-191 (F), 42=-191 (F), 43=-191 (F), 44=-191 (F), 45=-191 (F), 46=-191 (F), 47=-191 (F), 48=-191 (F)

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	J15	Jack-Open	8	1	Job Reference (optional)



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5

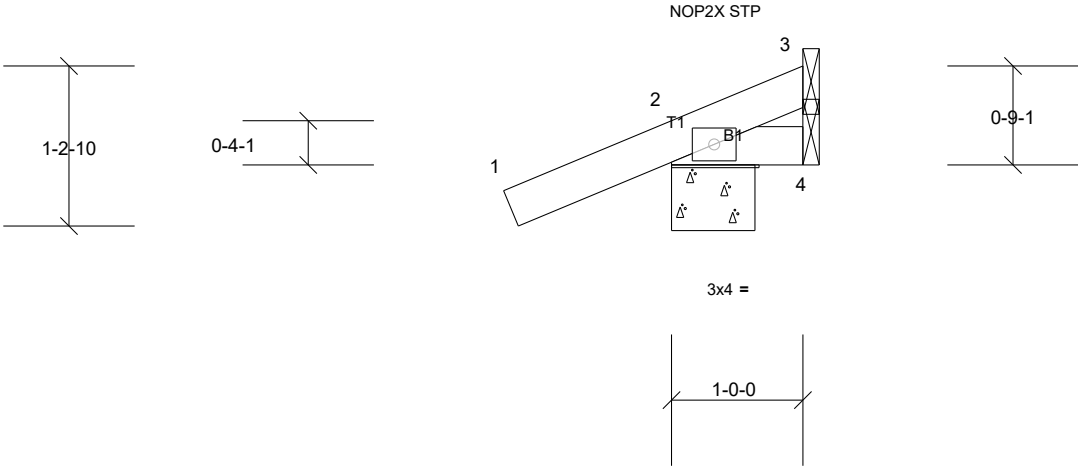


Plate Offsets (X, Y): [2:0-1-14,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP							Weight: 5 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

REACTIONS (lb/size) 2=124/0-7-10, (min. 0-1-8), 3=3/ Mechanical, (min. 0-1-8), 4=-5/ Mechanical, (min. 0-1-8)  
Max Horiz 2=60 (LC 10)  
Max Uplift 2=-150 (LC 6), 3=-2 (LC 10), 4=-5 (LC 1)  
Max Grav 2=124 (LC 1), 3=10 (LC 6), 4=28 (LC 6)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 3, 150 lb uplift at joint 2 and 5 lb uplift at joint 4.

LOAD CASE(S) Standard

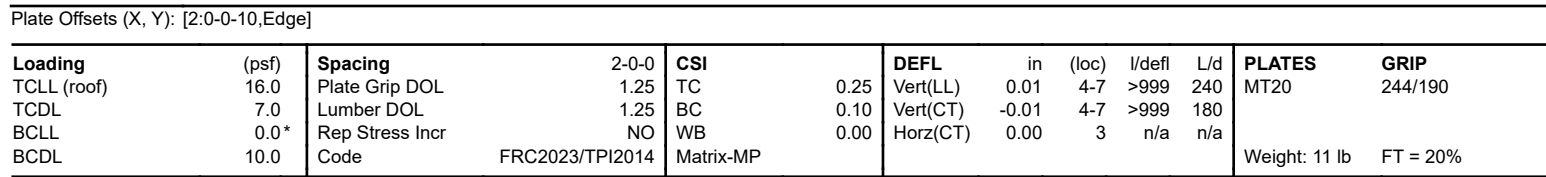
BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 1-0-0 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

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**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES**

- 1) Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 3, 135 lb uplift at joint 2 and 1 lb uplift at joint 4.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	J55	Jack-Open	8	1	Job Reference (optional)

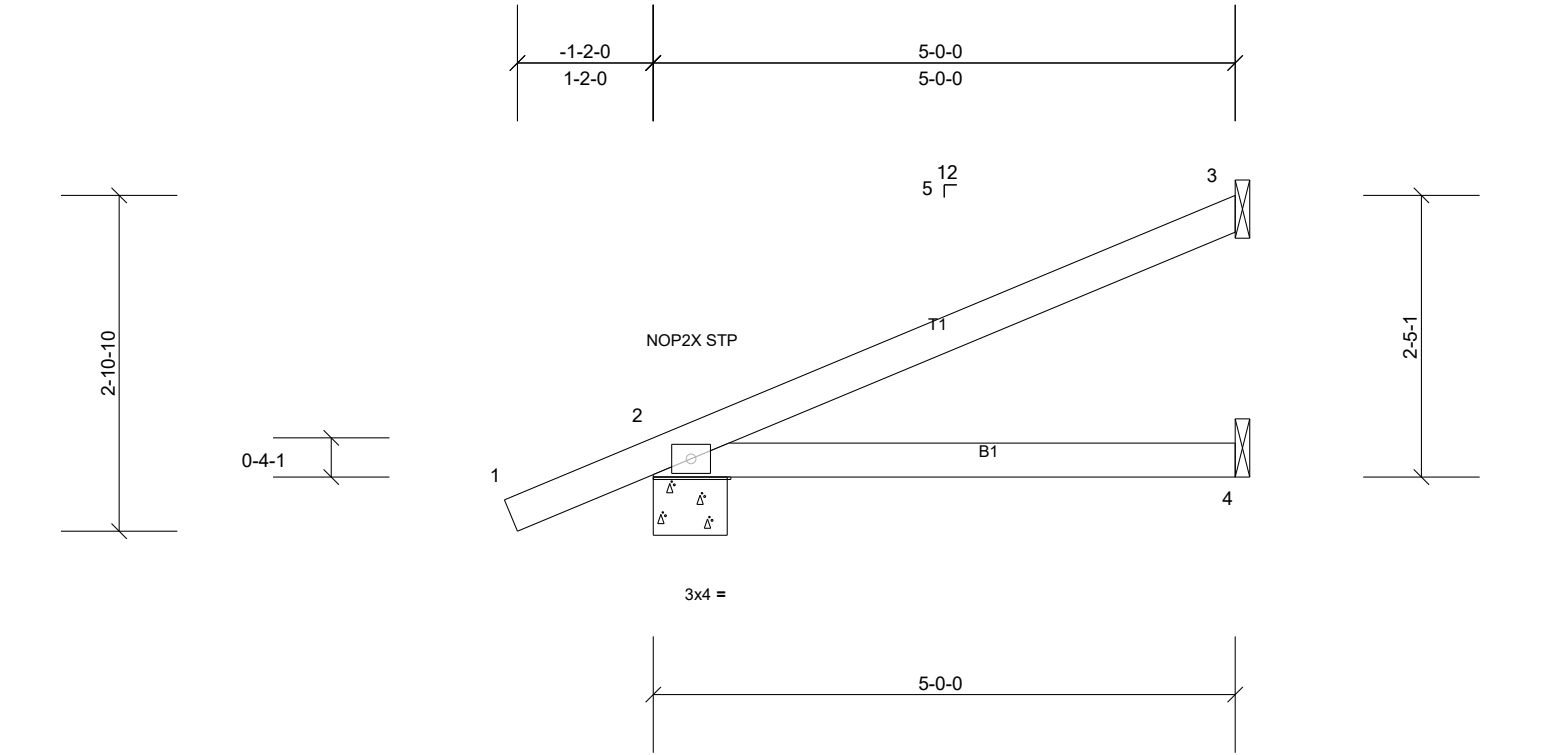


Plate Offsets (X, Y): [2:0-1-14,0-0-2]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.55	Vert(LL)	0.06	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.42	Vert(CT)	-0.06	4-7	>953	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP								
											Weight: 18 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

REACTIONS (lb/size) 2=226/0-7-10, (min. 0-1-8), 3=98/ Mechanical, (min. 0-1-8), 4=58/ Mechanical, (min. 0-1-8)  
Max Horiz 2=177 (LC 10)  
Max Uplift 2=-167 (LC 10), 3=-144 (LC 10), 4=-4 (LC 10)  
Max Grav 2=226 (LC 1), 3=98 (LC 1), 4=88 (LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 3, 167 lb uplift at joint 2 and 4 lb uplift at joint 4.

LOAD CASE(S) Standard

BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 5-0-0 oc purlins.  
Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	J75	Jack-Open	8	1	Job Reference (optional)

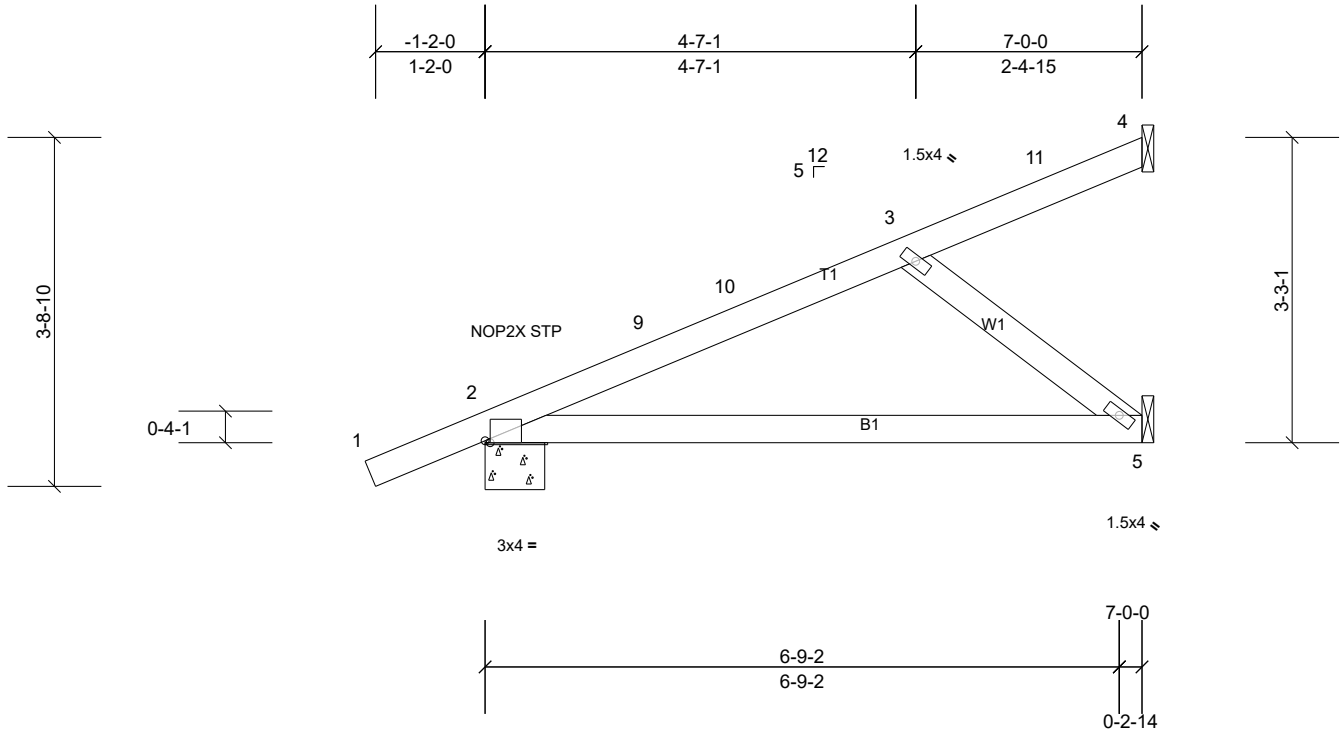


Plate Offsets (X, Y): [2:0-0-10,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.43	Vert(LL)	-0.07	5-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.15	5-8	>570	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2

BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins.  
Rigid ceiling directly applied or 9-5-14 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=291/0-7-10, (min. 0-1-8), 4=20/ Mechanical, (min. 0-1-8),  
5=204/ Mechanical, (min. 0-1-8)  
Max Horiz 2=228 (LC 10)  
Max Uplift 2=-205 (LC 10), 4=-45 (LC 6), 5=-150 (LC 10)

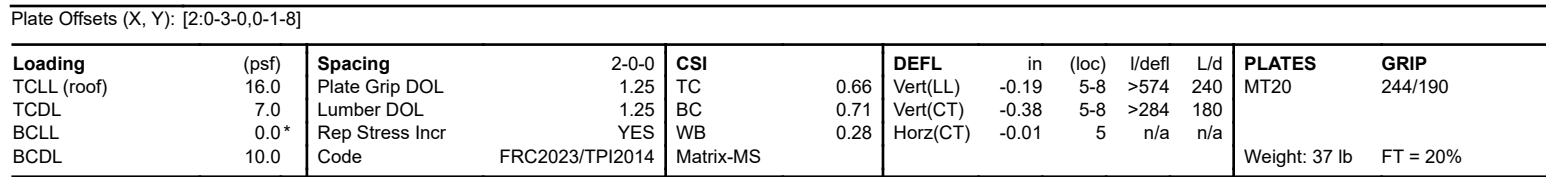
FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
BOT CHORD 2-5=-370/278  
WEBS 3-5=-349/464

NOTES

- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 1-9-5, Zone1 1-9-5 to 2-8-5, Zone2 2-8-5 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 4, 205 lb uplift at joint 2 and 150 lb uplift at joint 5.

LOAD CASE(S) Standard

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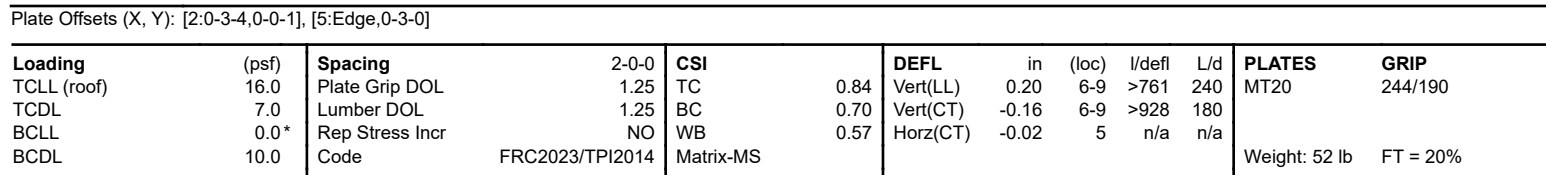
Structural wood sheathing directly applied or 6-0-0 oc purlins.  
Rigid ceiling directly applied or 6-8-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

- NOTES**
- 1) Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=45ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 1-9-5, Zone1 1-9-5 to 8-11-4 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) All plates are MT20 plates unless otherwise indicated.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* 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.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 133 lb uplift at joint 4, 325 lb uplift at joint 2 and 161 lb uplift at joint 5.

**LOAD CASE(S)** Standard

Maronda Homes, Sanford, user Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue Aug 13 13:48:31 Page: 1



**NOTES**

- 1) Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=45ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) WARNING: Top chord live load is below minimum required by FRC. The building design professional for the overall structure to verify adequacy of top chord live load.
- 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) Refer to girder(s) for truss to truss connections.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 4, 714 lb uplift at joint 2 and 654 lb uplift at joint 5.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 45 lb up at 1-6-1, 141 lb down and 45 lb up at 1-6-1, 41 lb down and 78 lb up at 4-4-0, 41 lb down and 78 lb up at 4-4-0, 66 lb down and 134 lb up at 7-1-15, 66 lb down and 134 lb up at 7-1-15, and 12 lb down and 54 lb up at 9-11-14, and 12 lb down and 54 lb up at 9-11-14 on top chord, and 31 lb down and 8 lb up at 1-6-1, 31 lb down and 8 lb up at 1-6-1, 9 lb down and 17 lb up at 4-4-0, 9 lb down and 17 lb up at 4-4-0, 31 lb down and 21 lb up at 7-1-15, 31 lb down and 21 lb up at 7-1-15, and 176 lb down and 167 lb up at 9-11-14, and 176 lb down and 167 lb up at 9-11-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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 + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (lb/ft)

Vert: 1-4=-46, 5-7=-20

Concentrated Loads (lb)

Vert: 10=91 (F=45, B=45), 11=-1 (F=0, B=0), 12=-66 (F=-33, B=-33), 14=45 (F=23, B=23), 16=-11 (F=-6, B=-6), 17=-59 (F=-29, B=-29), 18=-351 (F=-176, B=-176)

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	T18	Hip	8	1	Job Reference (optional)

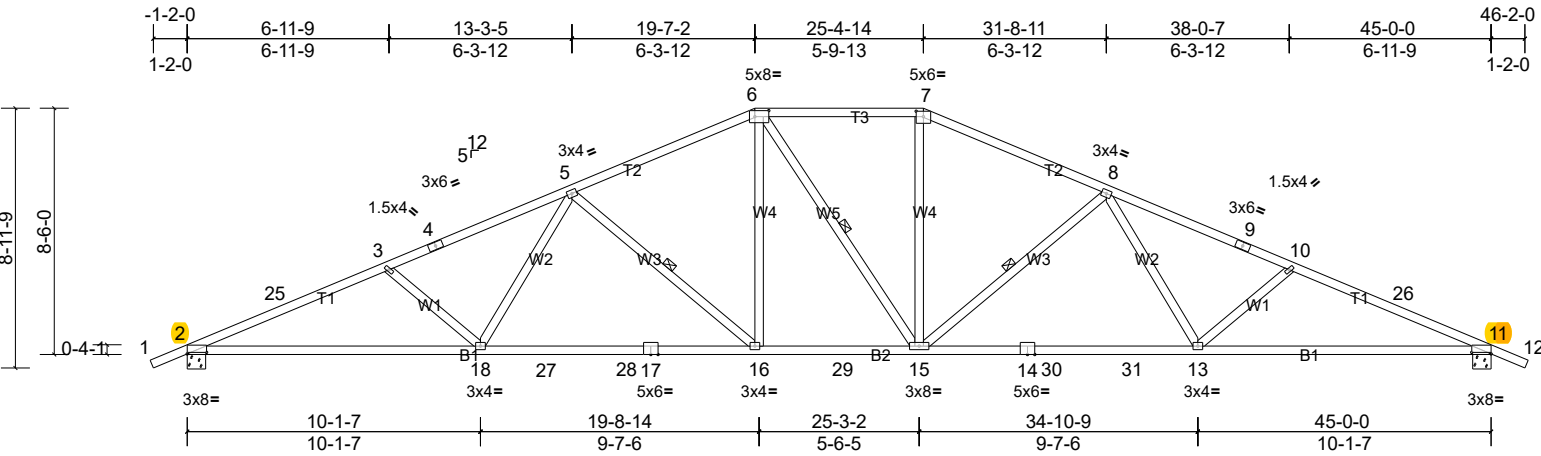


Plate Offsets (X, Y): [2:0-8-0,0-0-10], [6:0-5-12,0-2-8], [7:0-3-0,0-2-4], [11:0-8-0,0-0-10]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.79	Vert(LL)	-0.42	16-18	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.92	Vert(CT)	-0.75	16-18	>722	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.17	11	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 236 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1D  
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 5-16, 6-15, 8-15

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS (lb/size) 2=1541/0-7-10, (min. 0-1-12), 11=1541/0-7-10, (min. 0-1-12)  
Max Horiz 2=267 (LC 12)  
Max Uplift 2=-963 (LC 12), 11=-963 (LC 13)  
Max Grav 2=1754 (LC 2), 11=1751 (LC 2)

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-25=-3771/2260, 3-25=-3742/2271, 3-4=-3564/2098, 4-5=-3516/2117, 5-6=-2604/1771, 6-7=-2364/1743, 7-8=-2598/1789, 8-9=-3509/2142, 9-10=-3558/2124, 10-26=-3735/2279, 11-26=-3765/2267  
BOT CHORD 2-18=-1927/3460, 18-27=-1547/2909, 27-28=-1547/2909, 17-28=-1547/2909, 16-17=-1547/2909, 16-29=-1159/2370, 15-29=-1159/2370, 14-15=-1650/2903, 14-30=-1650/2903, 30-31=-1650/2903, 13-31=-1650/2903, 11-13=-1985/3454  
WEBS 3-18=-335/497, 5-18=-251/685, 5-16=-729/706, 6-16=-371/774, 7-15=-311/762, 8-15=-729/706, 8-13=-251/685, 10-13=-335/497

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 -1-2-11 to 3-3-5, Zone1 3-3-5 to 19-7-2, Zone3 19-7-2 to 25-4-14, Zone2 25-4-14 to 31-8-11, Zone1 31-8-11 to 46-2-11 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 963 lb uplift at joint 2 and 963 lb uplift at joint 11.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	V01	Valley	2	1	Job Reference (optional)

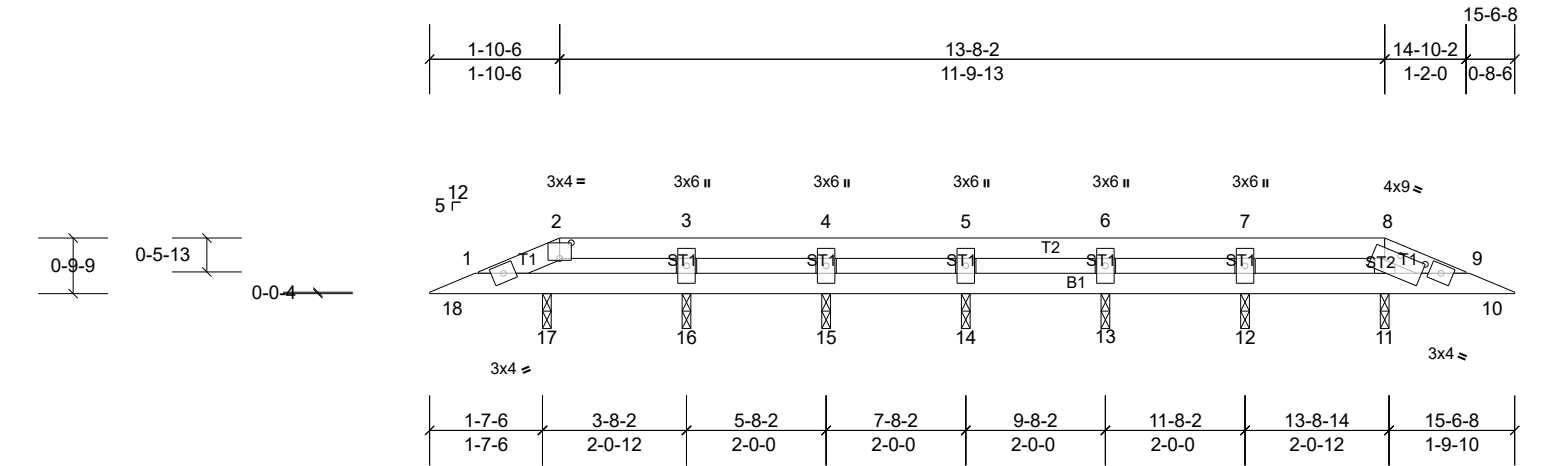


Plate Offsets (X, Y): [2:0-2-0,0-2-11], [8:0-4-8,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.06	Vert(LL)	0.00	11-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	0.00	11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 10-0-0 oc purlins.  
Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
10-0-0 oc bracing: 1-18,9-10.  
MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS

All bearings 0-1-8.  
(lb) - Max Horiz 17=9 (LC 12)  
Max Uplift All uplift 100 (lb) or less at joint(s) 11, 12, 13, 14, 15, 16, 17  
Max Grav All reactions 250 (lb) or less at joint(s) 11, 12, 13, 14, 15, 16, 17

FORCES

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 14, 13, 12, 16, 15, 11, 17.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 13, 12, 16, 15, 11, 17.

LOAD CASE(S) Standard



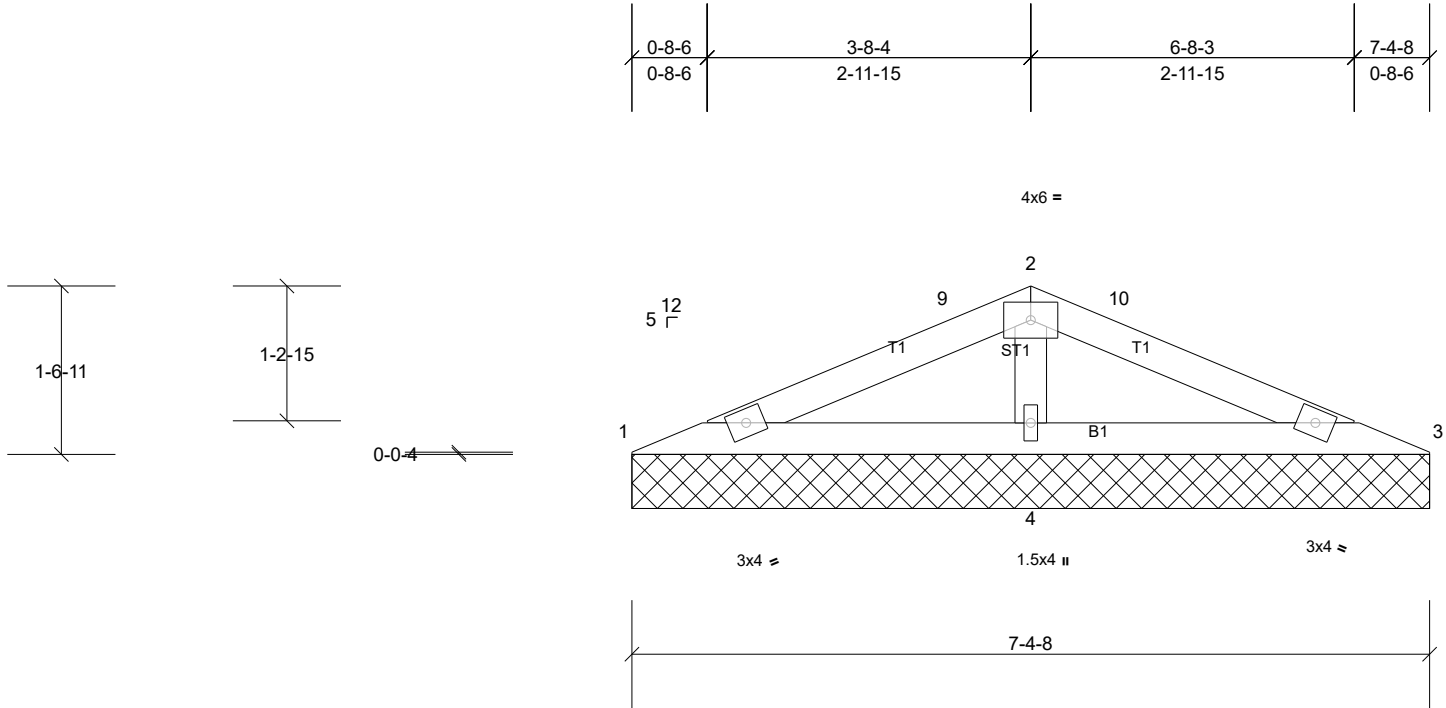
Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	V13	Valley	1	1	Job Reference (optional)

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Page: 1

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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a	Weight: 22 lb
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP							FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 7-4-8 oc purlins.  
Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (lb/size) 1=54/7-4-8, (min. 0-1-8), 3=54/7-4-8, (min. 0-1-8), 4=379/7-4-8, (min. 0-1-8)  
Max Horiz 1=43 (LC 12)  
Max Uplift 1=-48 (LC 12), 3=-56 (LC 13), 4=-213 (LC 12)  
Max Grav 1=70 (LC 25), 3=70 (LC 26), 4=379 (LC 1)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-9=-317/193, 2-9=-312/198, 2-10=-331/198, 3-10=-335/193  
BOT CHORD 1-4=-218/454, 3-4=-218/454  
WEBS 2-4=-285/537

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 0-1-12 to 3-1-12, Zone1 3-1-12 to 3-10-0, Zone3 3-10-0 to 7-6-4 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
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1, 56 lb uplift at joint 3 and 213 lb uplift at joint 4.

**LOAD CASE(S)** Standard

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	V14	Valley	1	1	Job Reference (optional)

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Run: 8.72 S Aug 20 2023 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Tue Aug 13 13:48:32

Page: 1

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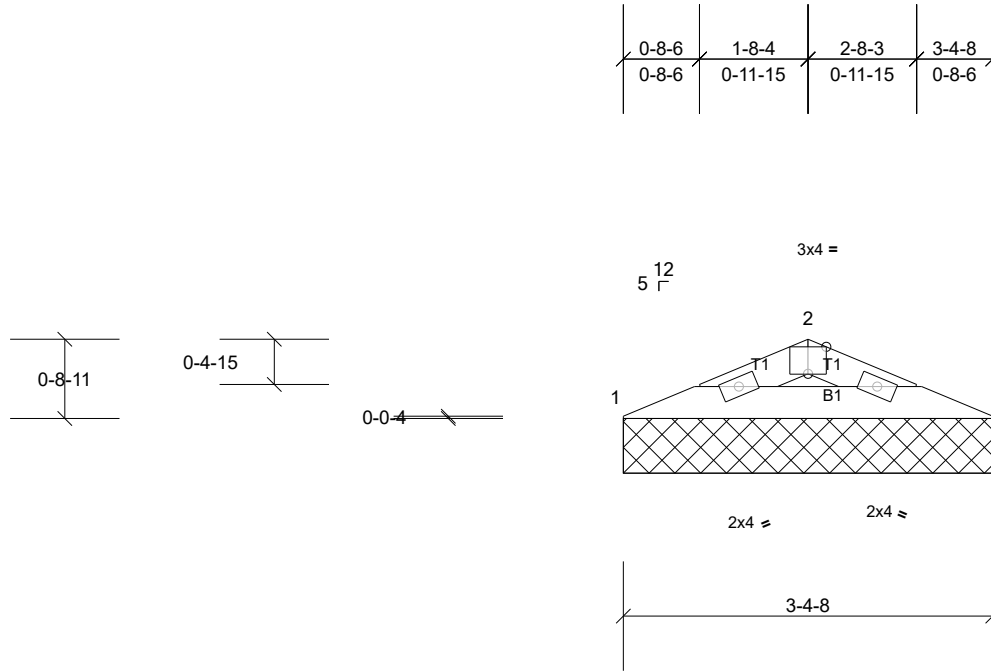


Plate Offsets (X, Y): [2:0-2-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.10	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP							Weight: 8 lb FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

**REACTIONS** (lb/size) 1=111/3-4-8, (min. 0-1-8), 3=111/3-4-8, (min. 0-1-8)  
Max Horiz 1=17 (LC 12)  
Max Uplift 1=-71 (LC 12), 3=-71 (LC 13)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-250/475, 2-3=-235/452  
BOT CHORD 1-3=-404/224

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone 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
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 1 and 71 lb uplift at joint 3.

**LOAD CASE(S)** Standard

#### BRACING

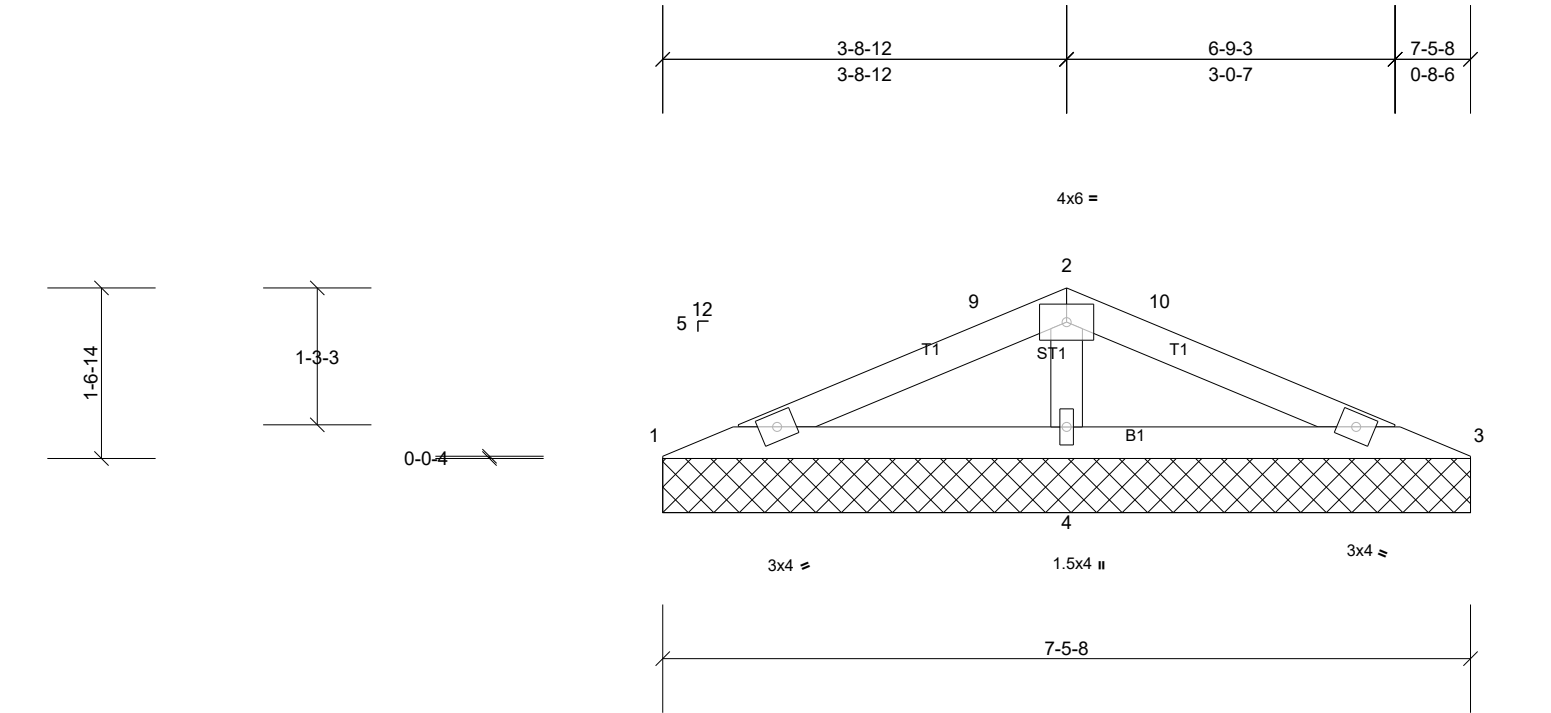
TOP CHORD  
BOT CHORD

Structural wood sheathing directly applied or 3-4-8 oc purlins.  
Rigid ceiling directly applied or 9-4-10 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

Job	Truss	Truss Type	Qty	Ply	Willow F Base
Willow F	VG10	Valley	1	1	Job Reference (optional)

Maronda Homes, Sanford, user



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	16.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	7.0	Lumber DOL	1.25	BC	0.35	Vert(TL)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	10.0	Code	FRC2023/TPI2014	Matrix-MP							Weight: 22 lb FT = 20%

LUMBER

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

REACTIONS	(lb/size)	1=54/7-5-8, (min. 0-1-8), 3=54/7-5-8, (min. 0-1-8), 4=385/7-5-8, (min. 0-1-8)
	Max Horiz	1=44 (LC 12)
	Max Uplift	1=-48 (LC 12), 3=-56 (LC 13), 4=-217 (LC 12)
	Max Grav	1=71 (LC 25), 3=71 (LC 26), 4=385 (LC 1)

FORCES	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-9=-322/197, 2-9=-318/202, 2-10=-337/202, 3-10=-341/197
BOT CHORD	1-4=-222/461, 3-4=-222/461
WEBS	2-4=-290/543

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=160mph (3-second gust) Vasd=124mph; TCDL=4.2psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior (2) zone and C-C Zone3 0-0-10 to 3-0-10, Zone1 3-0-10 to 3-9-6, Zone3 3-9-6 to 7-6-2 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
- Gable requires continuous bottom chord bearing.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1, 56 lb uplift at joint 3 and 217 lb uplift at joint 4.

LOAD CASE(S)	Standard
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BRACING

TOP CHORD
BOT CHORD

Structural wood sheathing directly applied or 7-5-8 oc purlins.  
Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

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