

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Master_120
Mattamy Homes; Voyageur; FHSP; Master.RT120

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Apex,NC).

Pages or sheets covered by this seal: I77679091 thru I77679108

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

North Carolina COA: C-0844



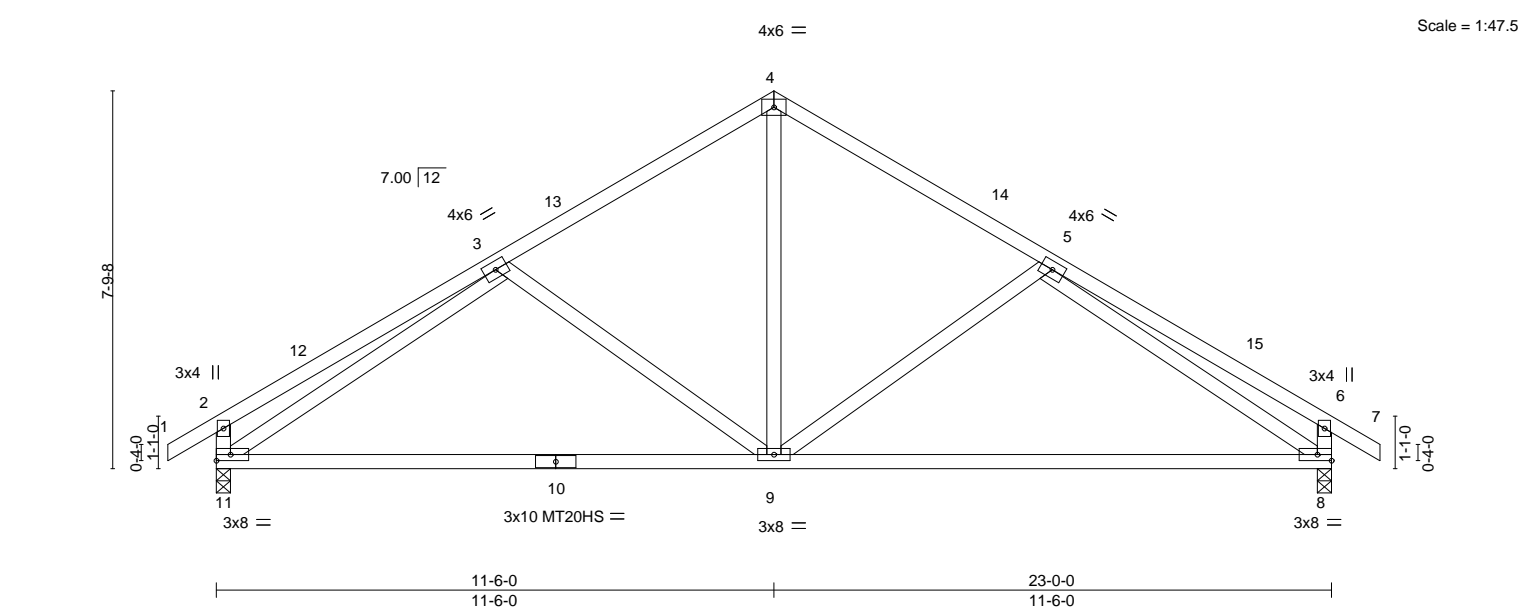
November 11, 2025

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	B02	COMMON	2	1	177679091

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:06 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-EnFHGQcgdDcutCq3C4CyAp?n9h7RyZNgWnrBbAyKZrN



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.31	9-11	>866	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-0.64	9-11	>428	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MS	Wind(LL)	0.02	9	>999	240	Weight: 131 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-2 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-183(LC 10)
Max Uplift 11=-24(LC 12), 8=-24(LC 13)
Max Grav 11=977(LC 1), 8=977(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-11=-385/113, 2-3=-389/86, 3-4=-941/30, 4-5=-941/50, 5-6=-389/87, 6-8=-385/113
BOT CHORD 9-11=-38/941, 8-9=0/928
WEBS 4-9=0/585, 5-9=-277/159, 5-8=-834/15, 3-9=-277/159, 3-11=-834/29

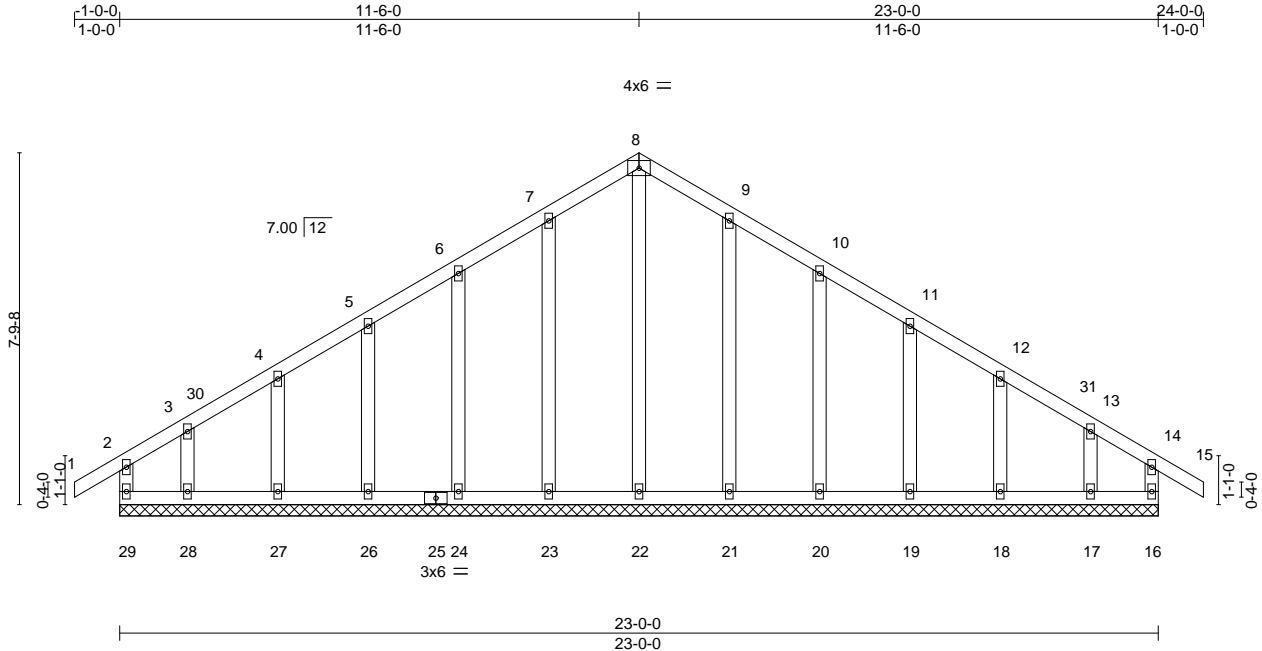
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-15 to 2-0-1, Interior(1) 2-0-1 to 11-6-0, Exterior(2E) 11-6-0 to 15-8-15, Interior(1) 15-8-15 to 23-11-15 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) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.



November 11, 2025

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	B02G	GABLE	1	1	177679092

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:07 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-izpfTIdIOWkiVLPFmnbj1X4z5glhAKpkRbl8dykZrM



Scale = 1:51.0

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.00	15	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18	Horz(CT)	0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-R						Weight: 146 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 23'-0".
(lb) - Max Horz 29=183(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 29, 16, 23, 24, 26, 27, 28, 21, 20, 19, 18, 17
Max Grav All reactions 250 lb or less at joint(s) 29, 16, 22, 23, 24, 26, 27, 28, 21, 20, 19, 18, 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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-15 to 2-0-1, Exterior(2N) 2-0-1 to 11-6-0, Corner(3R) 11-6-0 to 14-6-0, Exterior(2N) 14-6-0 to 23-11-15 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-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'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 29, 16, 23, 24, 26, 27, 28, 21, 20, 19, 18, 17.



November 11, 2025

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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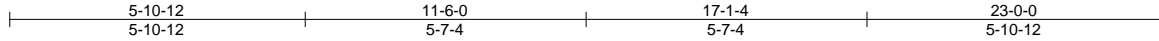
Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	B02GR	COMMON	1	4	

I77679093

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:08 2025 Page 1

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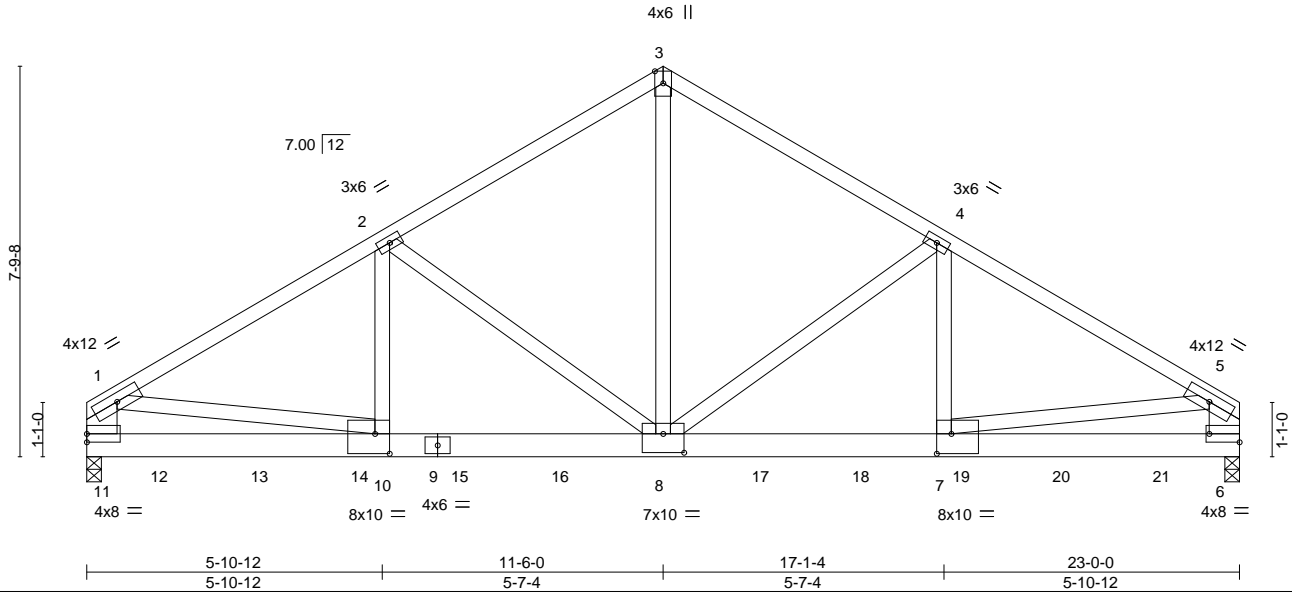


Plate Offsets (X,Y)--		[6:Edge,0-2-0], [7:0-3-8,0-4-12], [8:0-5-0,0-4-8], [10:0-3-8,0-4-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.15		TC 0.48		Vert(LL)	-0.11 8-10	>999	360	MT20	244/190
TCDL 10.0		Lumber DOL 1.15		BC 0.50		Vert(CT)	-0.19 8-10	>999	240		
BCLL 0.0 *		Rep Stress Incr NO		WB 0.77		Horz(CT)	0.03 6	n/a	n/a		
BCDL 10.0		Code IRC2021/TP12014		Matrix-MS		Wind(LL)	0.00 10	>999	240	Weight: 617 lb	FT = 20%

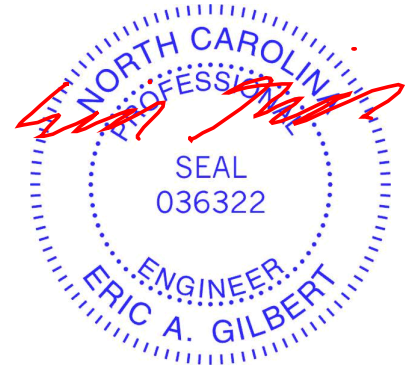
LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	
1-11,5-6: 2x8 SP 2400F 2.0E or 2x8 SP DSS	
3-8,5-7,1-10: 2x4 SP No.2	

REACTIONS. (size) 11=0-3-8 (req. 0-3-9), 6=0-3-8
Max Horz 11=167(LC 7)
Max Grav 11=12020(LC 2), 6=11732(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-9261/0, 1-2=-15051/0, 2-3=-11122/0, 3-4=-11123/0, 4-5=-14899/0, 5-6=-9177/0
BOT CHORD 10-11=0/2947, 8-10=0/12918, 7-8=0/12787, 6-7=0/2864
WEBS 3-8=0/10823, 4-8=-4015/0, 4-7=0/4080, 5-7=0/10040, 2-8=-4177/0, 2-10=0/4253, 1-10=0/10088

- NOTES-
- 4-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - WARNING: Required bearing size at joint(s) 11 greater than input bearing size.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2047 lb down at 1-5-4, 2047 lb down at 3-5-4, 2047 lb down at 5-5-4, 2047 lb down at 7-5-4, 2047 lb down at 9-5-4, 2047 lb down at 11-5-4, 1981 lb down at 13-5-4, 1981 lb down at 15-5-4, 1981 lb down at 17-5-4, and 1981 lb down at 19-5-4, and 1981 lb down at 21-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	B02GR	COMMON	1	4	177679093
					Job Reference (optional)

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 6-11=-20
Concentrated Loads (lb)
Vert: 8=-1781(F) 12=-1781(F) 13=-1781(F) 14=-1781(F) 15=-1781(F) 16=-1781(F) 17=-1781(F) 18=-1781(F) 19=-1781(F) 20=-1781(F) 21=-1781(F)

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	C01	COMMON	3	1	177679094
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:09 2025 Page 1
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1-0-0 7-9-0 15-6-0 22-8-0 29-10-0 37-7-0 45-4-0 46-4-0
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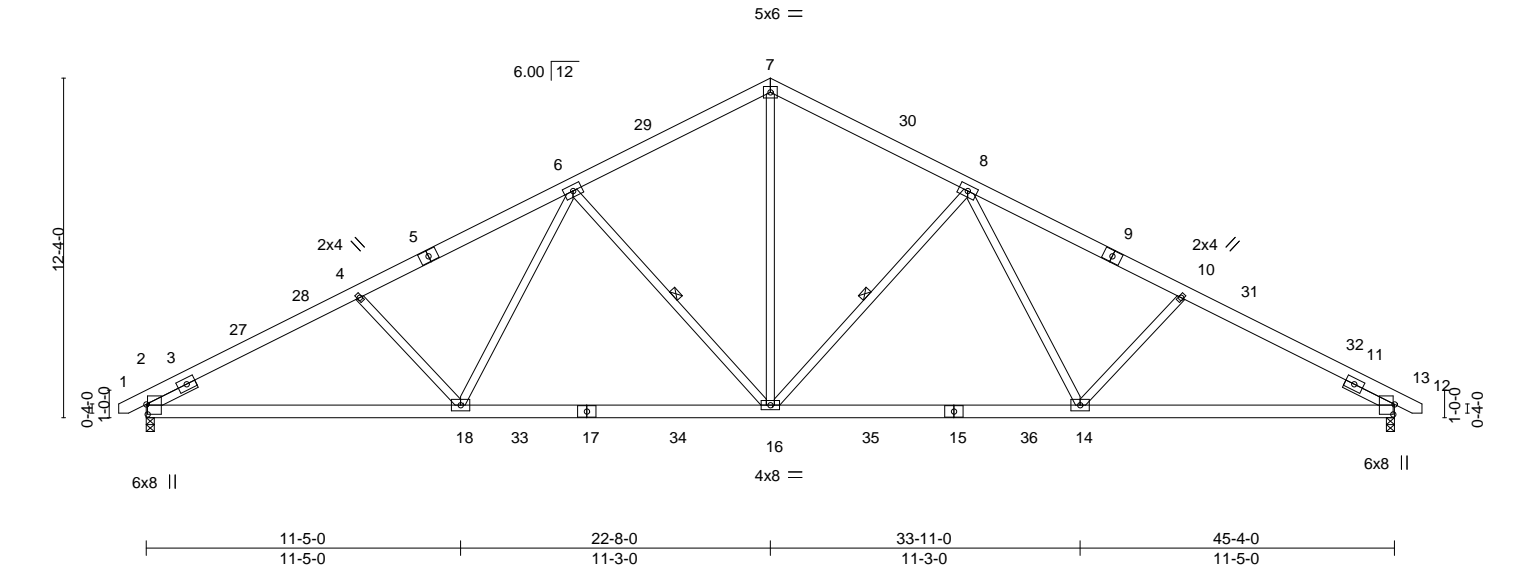


Plate Offsets (X,Y)--		[2:0-4-6,0-0-9], [12:0-4-6,0-0-9]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.70
TCDL 10.0	Lumber DOL	1.15	BC 0.98
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71
BCDL 10.0	Code	IRC2021/TP12014	Matrix-MS
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.29 16-18	>999	360
Vert(CT)	-0.50 16-18	>999	240
Horz(CT)	0.13 12	n/a	n/a
Wind(LL)	0.08 16-18	>999	240
PLATES	GRIP		
MT20	244/190		
Weight: 326 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
Max Horz 2=136(LC 13)
Max Grav 2=2054(LC 2), 12=2054(LC 2)

FORCES.

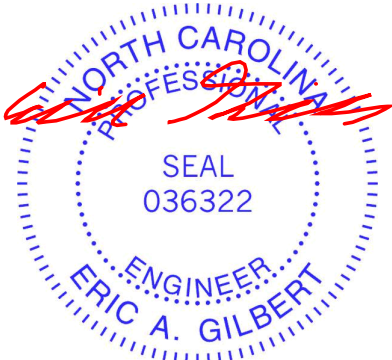
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-3408/179, 4-6=-3195/185, 6-7=-2346/221, 7-8=-2346/221, 8-10=-3195/185, 10-12=-3408/179
BOT CHORD 2-18=-68/2956, 16-18=0/2533, 14-16=0/2533, 12-14=-70/2956
WEBS 7-16=-73/1706, 8-16=-805/142, 8-14=0/646, 10-14=-327/154, 6-16=-805/142, 6-18=0/646, 4-18=-327/153

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-9-14 to 2-2-2, Interior(1) 2-2-2 to 22-8-0, Exterior(2E) 22-8-0 to 26-10-15, Interior(1) 26-10-15 to 46-1-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 5x8 MT20 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-16, 6-16



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Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	C01G	GABLE	1	1	177679095
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:10 2025 Page 1

ID:whs5sxHCVy0zsWPodSMdtHyQpff-6YUn5nfBgR6Kmp8qRvHuLf9ZHliiMuX2GROpPkyyKZrJ

-1-0-0
1-0-0

22-8-0
22-8-0

45-4-0
22-8-0

46-4-0
1-0-0

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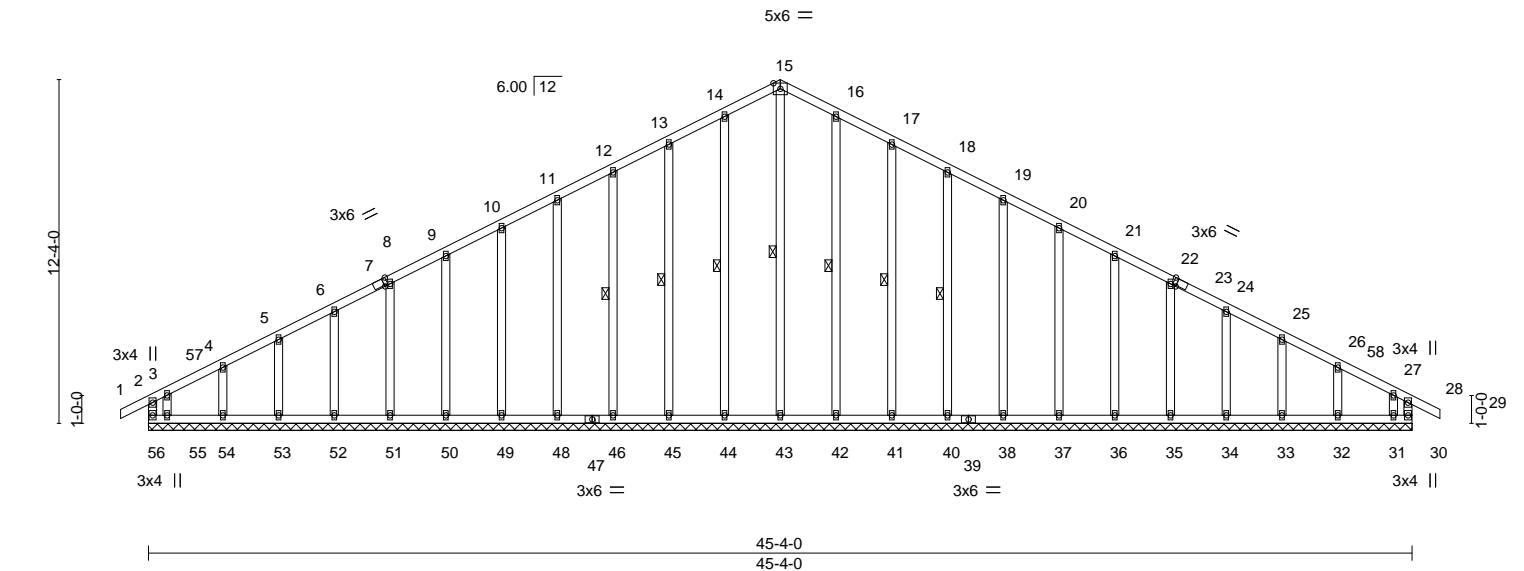


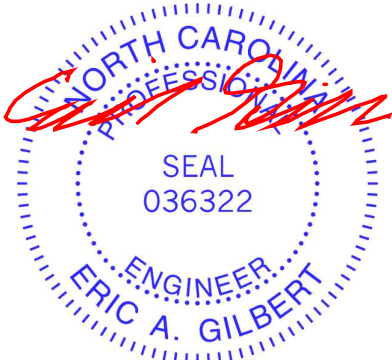
Plate Offsets (X,Y)--		[7:0-1-9,Edge], [23:0-1-9,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21
TCDL 10.0	Lumber DOL	1.15	BC 0.12
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-R
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.00	29	n/r 120
Vert(CT)	-0.00	29	n/r 120
Horz(CT)	0.01	30	n/a n/a
PLATES	GRIP		
MT20	244/190		
Weight: 355 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 15-43, 14-44, 13-45, 12-46, 16-42, 17-41, 18-40
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 45-4-0.
(lb) - Max Horz 56=150(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 30, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32 except 56=115(LC 10), 55=283(LC 12), 31=221(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 30, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31 except 56=316(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 12-13=-116/278, 13-14=-136/322, 14-15=-151/356, 15-16=-151/356, 16-17=-136/322, 17-18=-116/278

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 22-8-0, Corner(3R) 22-8-0 to 25-8-0, Exterior(2N) 25-8-0 to 46-4-0 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 30, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32 except (jt=lb) 56=115, 55=283, 31=221.



November 11,2025

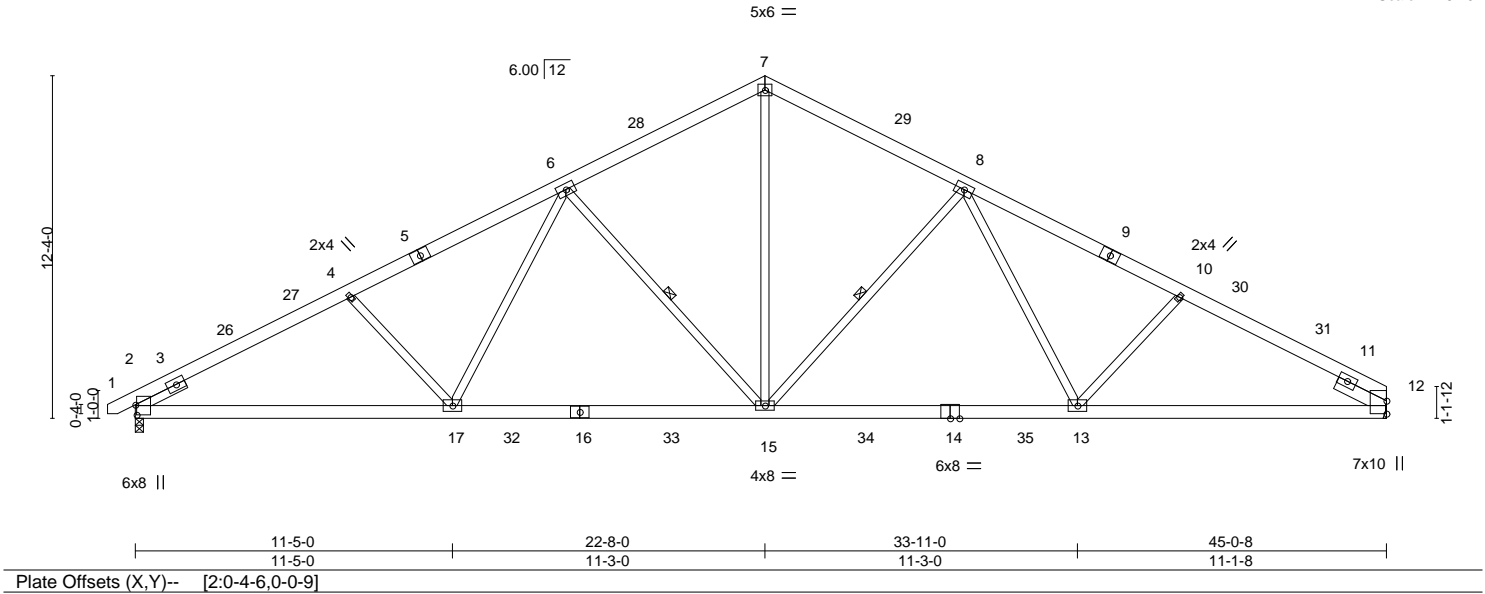
Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	C02	COMMON	5	1	
					Job Reference (optional)

Builders FirstSource, Apex, NC 27523

8.830 s Jan 17 2025 MiTek Industries, Inc. Mon Nov 10 16:09:51 2025 Page 1
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Scale = 1:82.9



Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120	177679098
MASTER_120	C02H	COMMON	6	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.830 s Jan 17 2025 MiTek Industries, Inc. Mon Nov 10 16:10:15 2025 Page 1
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5x6 =

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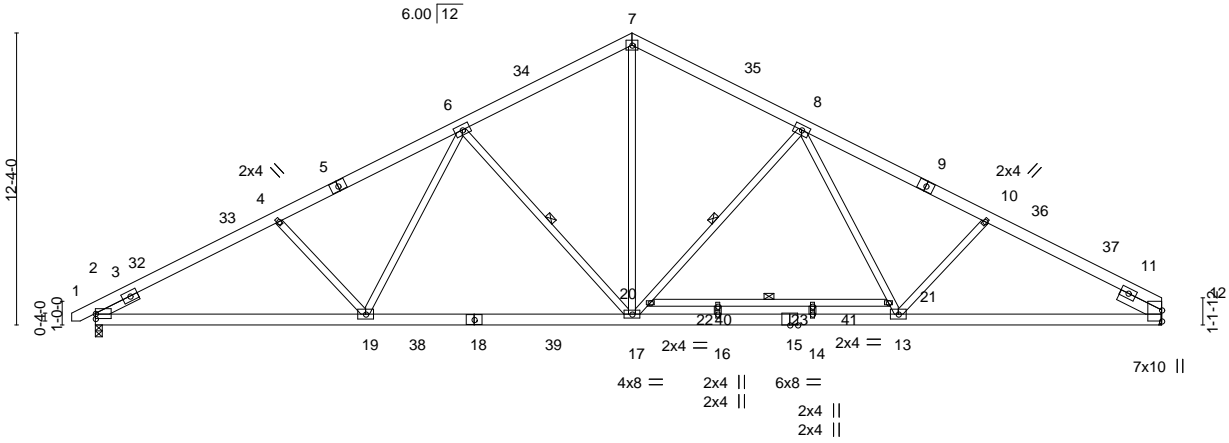


Plate Offsets (X,Y)--	[2:0-0-0,0-2-10]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.31 14-16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.48 14-16	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.12 12	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MS	Wind(LL)	0.07 17-19	>999	240	Weight: 340 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2 *Except*
9-12: 2x6 SP 2400F 2.0E or 2x6 SP DSS
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-17, 6-17, 20-21

REACTIONS. (lb/size) 2=1851/0-3-8 (min. 0-2-7), 12=1801/Mechanical
Max Horz 2=142(LC 12)
Max Grav 2=2082(LC 2), 12=2067(LC 2)

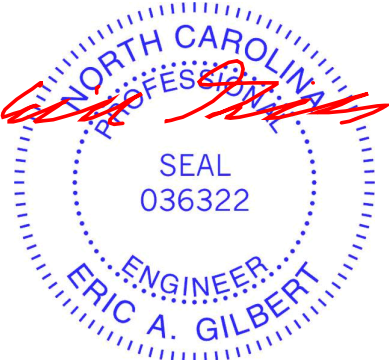
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1477/0, 3-32=-3460/145, 32-33=-3444/160, 4-33=-3359/178, 4-5=-3245/156,
5-6=-3188/184, 6-34=-2413/186, 7-34=-2322/221, 7-35=-2322/222, 8-35=-2414/187,
8-9=-3185/187, 9-10=-3235/159, 10-36=-3306/181, 36-37=-3387/162,
11-37=-3423/149, 11-12=-569/0
BOT CHORD 2-19=-87/3006, 19-38=-15/2584, 18-38=-15/2584, 18-39=-15/2584, 17-39=-15/2584,
16-17=-4/2588, 15-16=-4/2588, 14-15=-4/2588, 13-14=-4/2588, 12-13=-86/2947
WEBS 7-17=-73/1769, 17-20=-814/134, 8-20=-804/141, 8-21=0/618, 13-21=0/596,
10-13=-281/158, 6-17=-793/141, 6-19=0/629, 4-19=-335/152

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-9-14 to 2-2-2, Interior(1) 2-2-2 to 22-8-0, Exterior(2E) 22-8-0 to 26-10-15, Interior(1) 26-10-15 to 45-0-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 5x8 MT20 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Load case(s) 2, 3, 18, 19, 20, 21, 22, 27, 28 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15



November 11,2025

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	C02H	COMMON	6	1	177679098

Builders FirstSource, Apex, NC 27523

8.830 s Jan 17 2025 MiTek Industries, Inc. Mon Nov 10 16:10:15 2025 Page 2
ID:whs5sxHCVy0zsWPodSMdtHyQpff-qHjedFbaUcBMdbfm5wfIA4VZKB0vOWc52JEp5jbyKXas

LOAD CASE(S) Standard

- Uniform Loads (plf)
Vert: 1-7=-60, 7-12=-60, 24-28=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-50, 7-12=-50, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-7=-20, 7-12=-20, 24-28=-40, 40-41=-40(F)
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-7=-20, 7-12=-20, 24-38=-40, 38-39=-60, 28-39=-40, 40-41=-40(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-7=-50, 7-12=-42, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
Horz: 1-2=-4, 2-7=-0, 7-12=8
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 2-7=-42, 7-12=-50, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
Horz: 1-2=-12, 2-7=-8, 7-12=0
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-33=-32, 7-33=-40, 7-12=-46, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
Horz: 1-2=-22, 2-33=-18, 7-33=-10, 7-12=4
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-43, 2-7=-46, 7-36=-40, 12-36=-32, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
Horz: 1-2=-7, 2-7=-4, 7-36=10, 12-36=18
- 27) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-50, 7-12=-20, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)
- 28) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-20, 7-12=-50, 24-38=-35, 38-39=-50, 28-39=-35, 40-41=-30(F)

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

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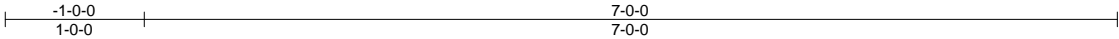
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

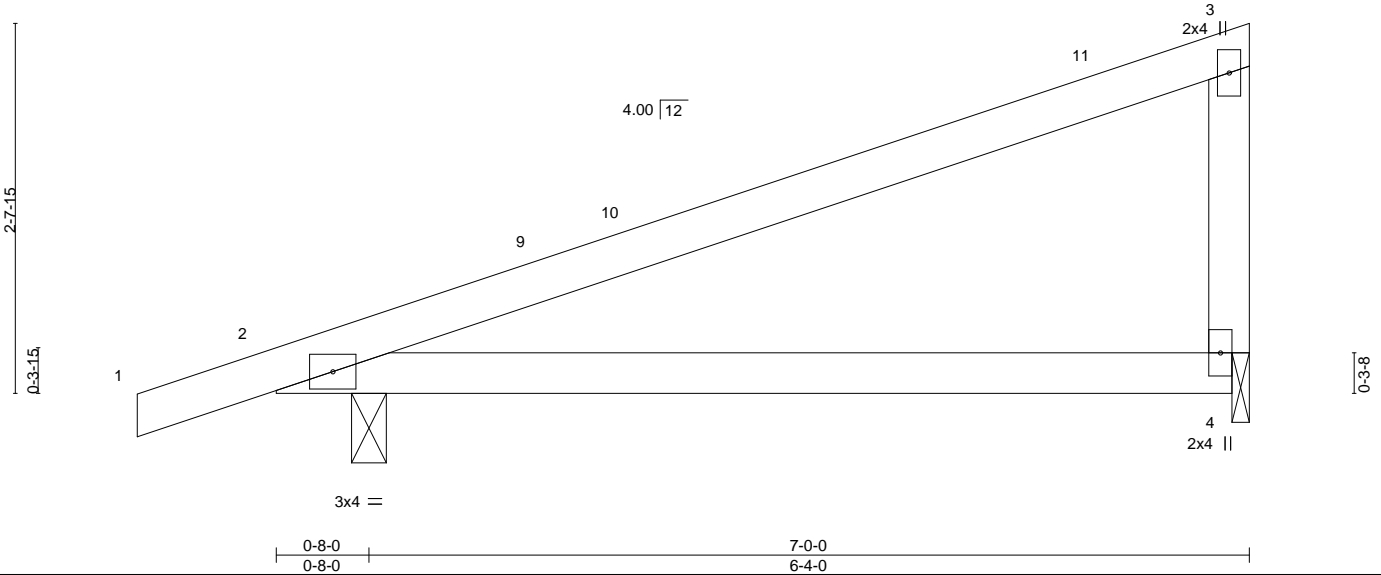
Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	P03	JACK	8	1	177679099

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:13 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-X7Awkpi3zMUuDGsP62qbyIn_aWeP5wti7M23LGyKZrG



Scale = 1:16.6



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.06	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.14	4-7	>584	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MP	Wind(LL)	0.06	4-7	>999	240	Weight: 26 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 2=0-3-0, 4=0-1-8
Max Horz 2=92(LC 8)
Max Uplift 2=61(LC 8), 4=37(LC 8)
Max Grav 2=375(LC 1), 4=233(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-10-4 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



November 11, 2025

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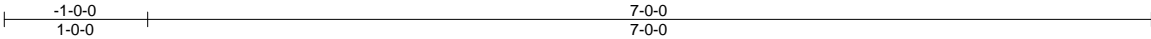
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	P03G	GABLE	1	1	177679100

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:13 2025 Page 1
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Scale: 3/4"=1'

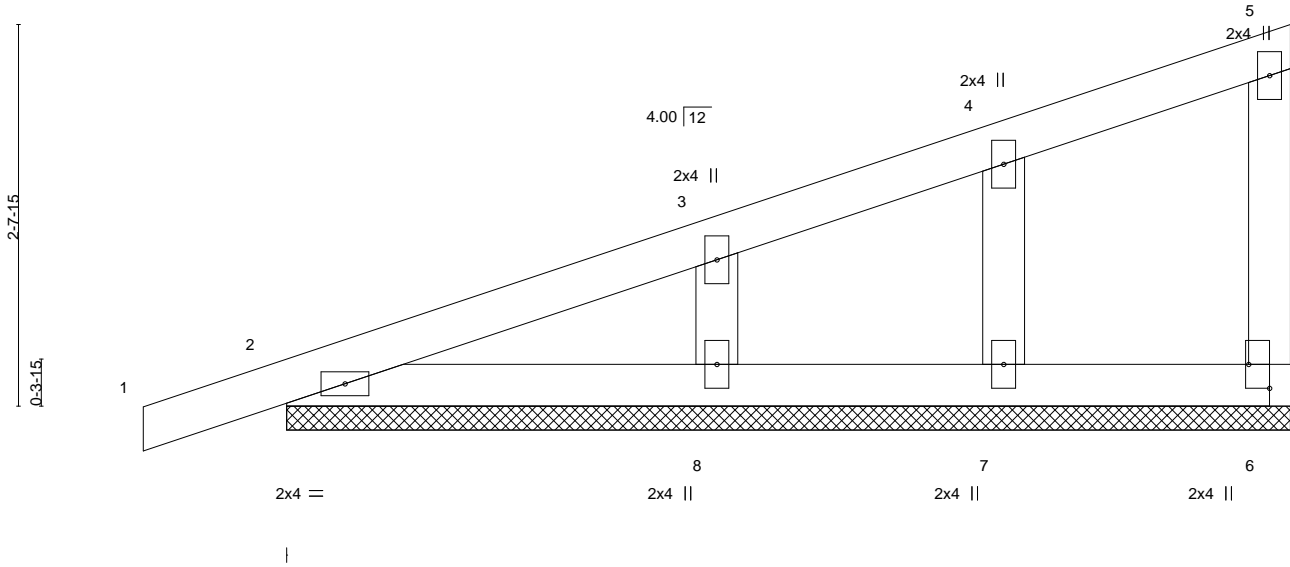


Plate Offsets (X,Y)--		[6:Edge,0-1-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10
TCDL 10.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.06
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) 0.00 6 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 29 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 7-0-0.
(lb) - Max Horz 2=90(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7, 8

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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 6-10-4 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
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7, 8.



November 11,2025

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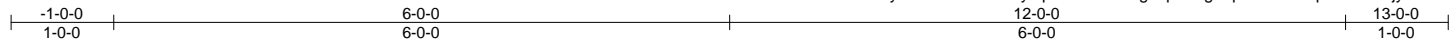
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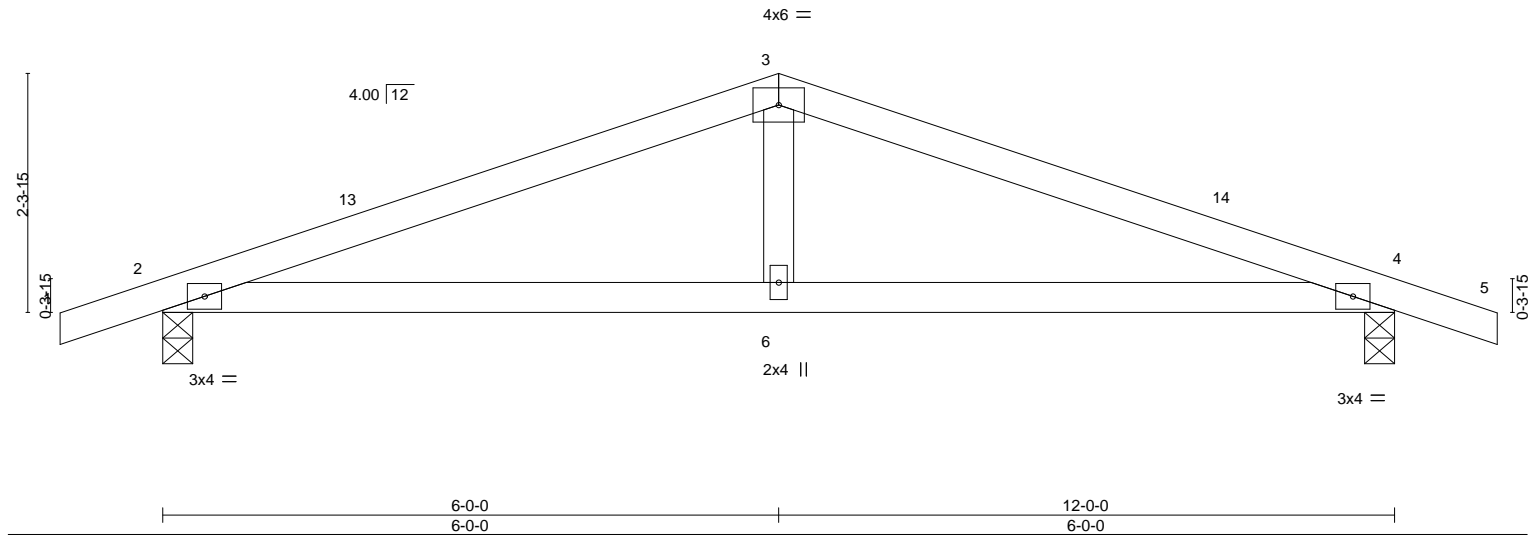
Job MASTER_120	Truss SP01	Truss Type COMMON	Qty 4	Ply 1	Mattamy Homes; Voyageur; FHSP; Master.RT120 Job Reference (optional)	177679101
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:14 2025 Page 1
ID:whs5sxHCVy0zsWPodSMdtHyQpff-?Kklx9ihkgclqQRbglLqVVKClvzJqMBrL0ndtjyKZrF



Scale = 1:22.4



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.43	Vert(LL) -0.05	6-9	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.50	Vert(CT) -0.10	6-9	>999	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.11	Horz(CT) 0.01	4	n/a	n/a			
BCDL 10.0	Code IRC2021/TPI2014		Matrix-MS	Wind(LL) 0.04	6-9	>999	240		Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=44(LC 12)
Max Uplift 2=73(LC 8), 4=73(LC 9)
Max Grav 2=540(LC 1), 4=540(LC 1)

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

TOP CHORD 2-3=-888/258, 3-4=-888/255
BOT CHORD 2-6=-160/810, 4-6=-160/810
WEBS 3-6=0/276

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 6-0-0, Exterior(2E) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 13-0-0 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
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



November 11, 2025

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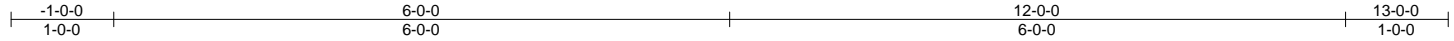
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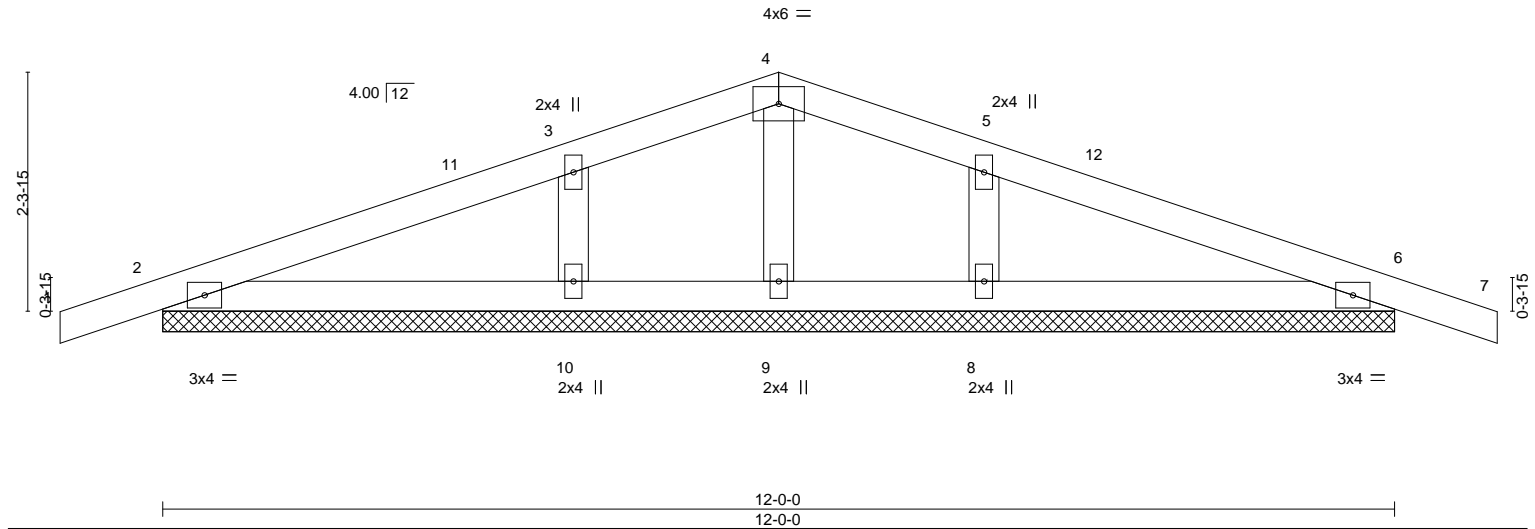
Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	SP01G	GABLE	1	1	177679102

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:14 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-?Kklx9ihkgclqQRbgllQvVKFUv37qMprL0ndtjyKZrF



Scale = 1:22.4



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.19	Vert(LL)	0.00	7	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.01	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 12-0-0.
(lb) - Max Horz 2=34(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=322(LC 1), 8=322(LC 1)

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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 13-0-0 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 10, 8.



November 11, 2025

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

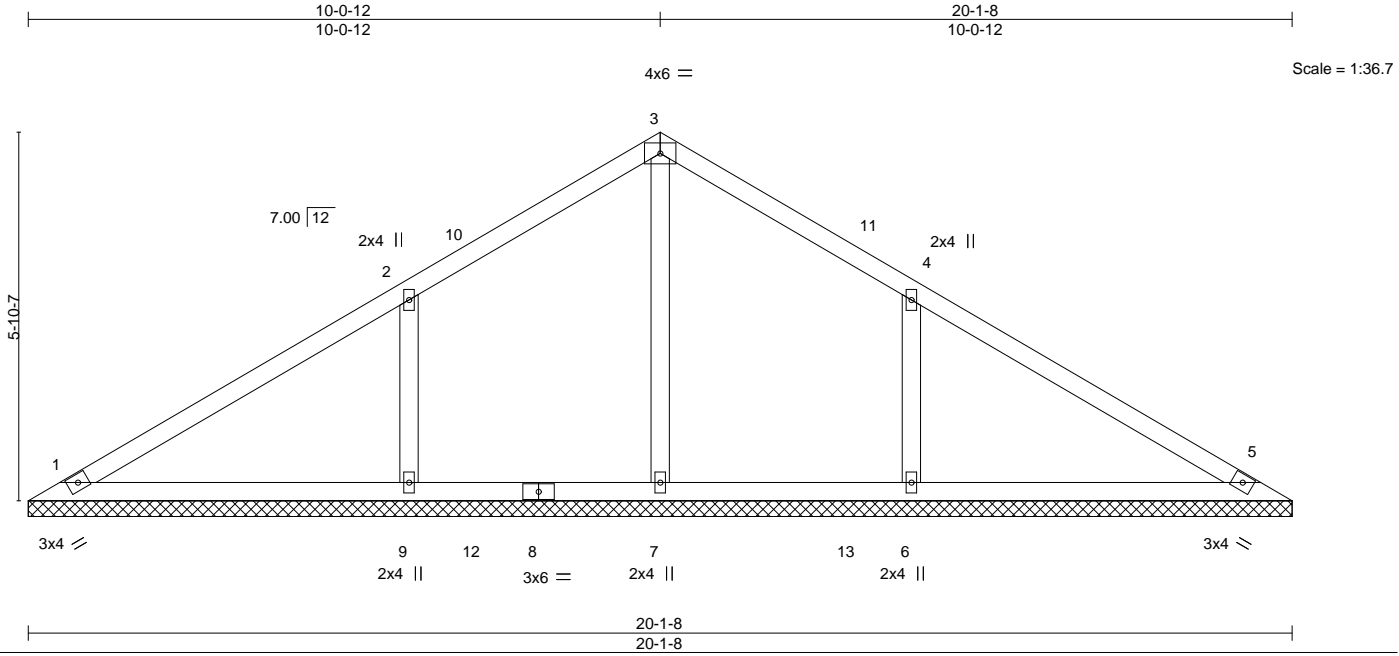
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	V01	GABLE	1	1	177679103

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:15 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-TWlg9UjJV_kcSa0nETs32jtKIJHZoe?agXAQ9yKZrE



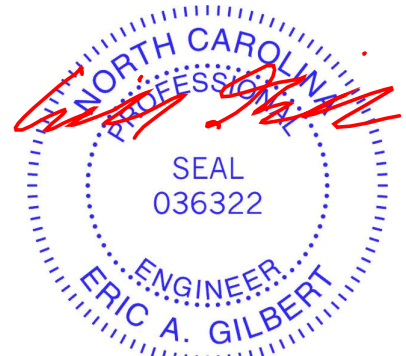
LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.64	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.45	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 80 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 20-1-8.
(lb) - Max Horz 1=119(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=127(LC 12), 6=127(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=300(LC 22), 9=592(LC 19), 6=592(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=364/186, 4-6=364/186

- 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=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 10-0-12, Exterior(2R) 10-0-12 to 13-0-12, Interior(1) 13-0-12 to 19-7-1 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) Gable requires continuous bottom chord bearing.
 - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=127, 6=127.



November 11, 2025

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

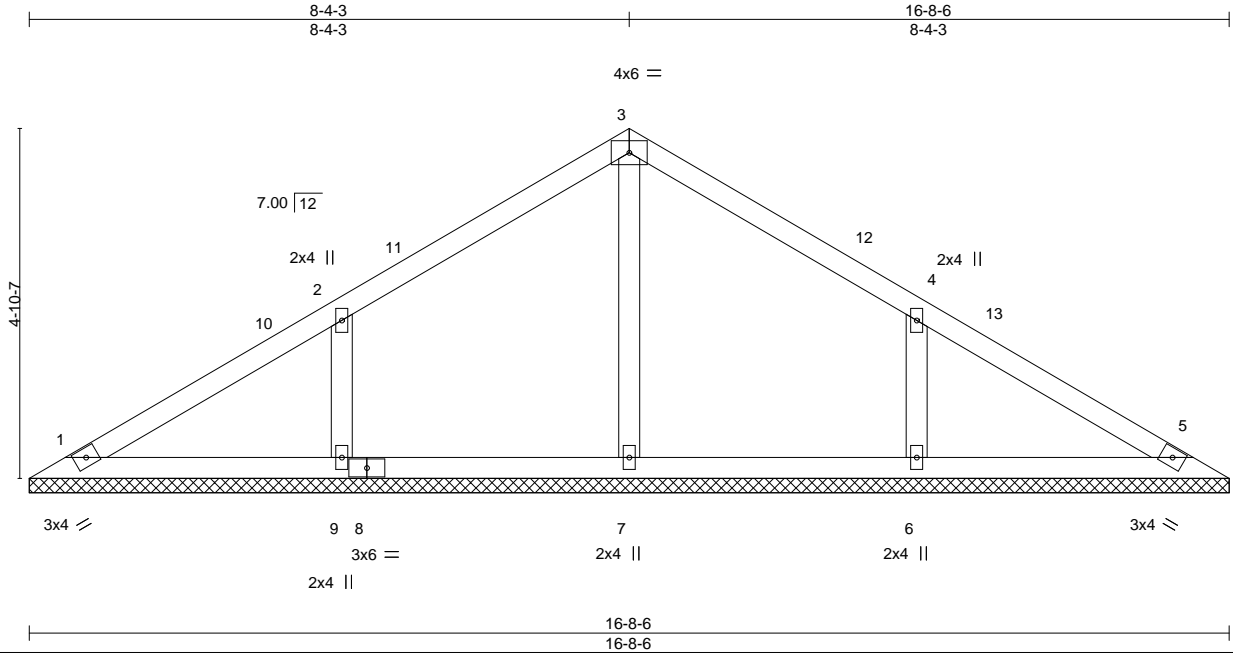
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	V02	GABLE	1	1	177679104

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:15 2025 Page 1
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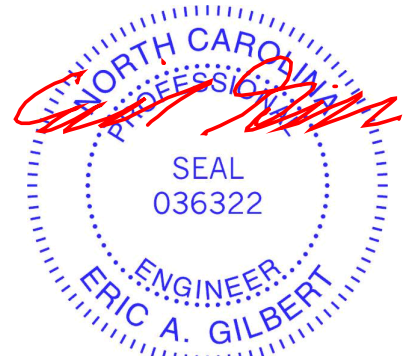
LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15		TC 0.38	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.21	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.08	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S					Weight: 64 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 16-8-6.
(lb) - Max Horz 1=98(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=102(LC 12), 6=102(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=253(LC 1), 9=379(LC 19), 6=379(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=285/149, 4-6=285/149

- 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=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 8-4-3, Exterior(2R) 8-4-3 to 11-4-3, Interior(1) 11-4-3 to 16-1-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Gable requires continuous bottom chord bearing.
 - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=102, 6=102.



November 11, 2025

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

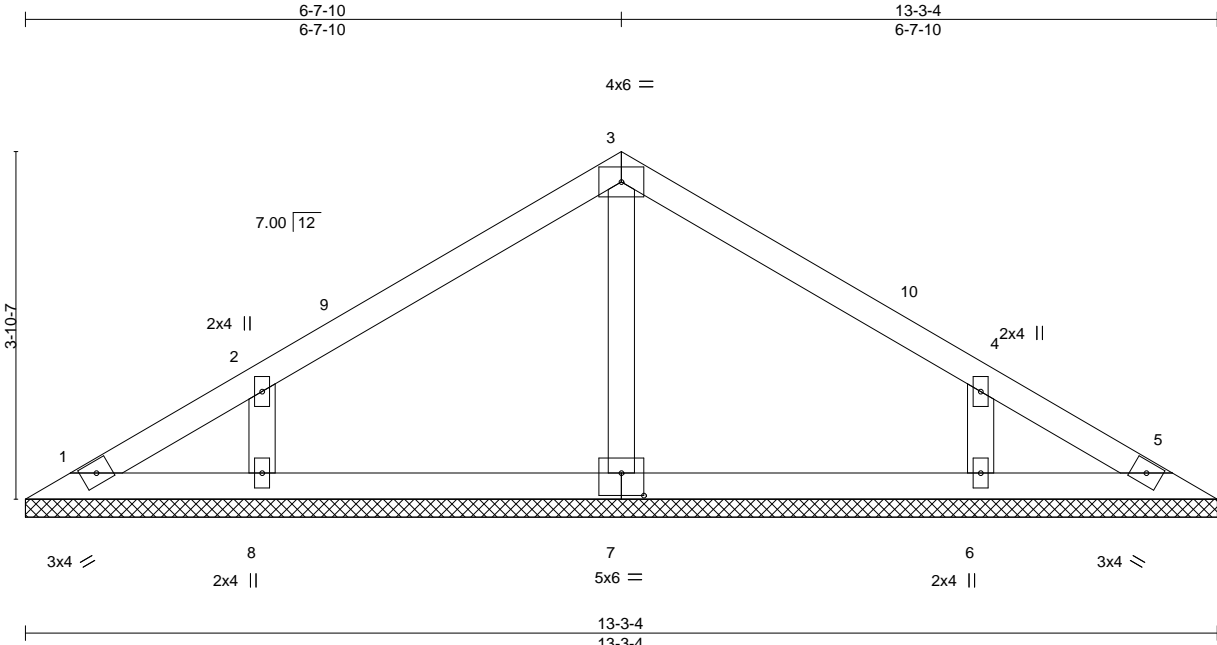
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

ENGINEERING BY
TRENCO
A MITEK Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Mattamy Homes; Voyageur; FHSP; Master.RT120
MASTER_120	V03	GABLE	1	1	177679105

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:16 2025 Page 1
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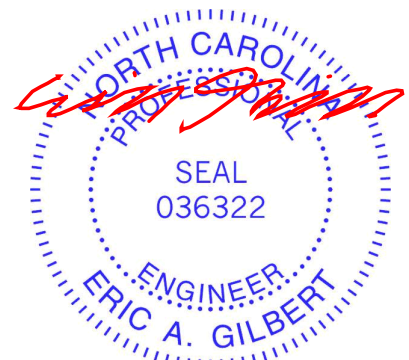
Plate Offsets (X,Y)--		[7:0-3-0,0-3-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Vert(CT) n/a - n/a 999
BCDL 10.0	Code IRC2021/TP12014	Matrix-S	Horz(CT) 0.00 5 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 49 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 13-3-4.
(lb) - Max Horz 1=76(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=279(LC 1), 8=306(LC 19), 6=305(LC 20)

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

- 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=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-7-10, Exterior(2R) 6-7-10 to 9-7-10, Interior(1) 9-7-10 to 12-8-12 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) Gable requires continuous bottom chord bearing.
 - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 6.

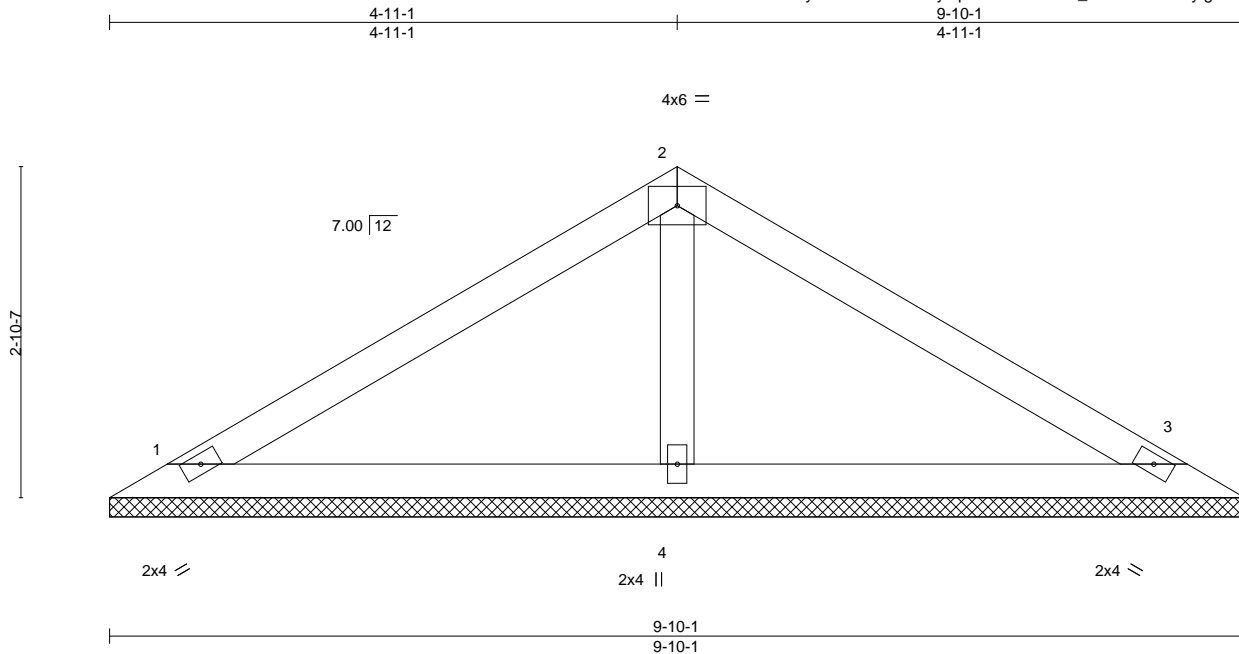


November 11,2025

Job MASTER_120	Truss V04	Truss Type GABLE	Qty 1	Ply 1	Mattamy Homes; Voyageur; FHSP; Master.RT120 Job Reference (optional)	I77679106
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:17 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpf-PvPRZA1b_KhuAALtvX78yig71k1jki2_0HU2yKZrC



Scale = 1:20.0

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2021/TPI2014		Matrix-S						Weight: 33 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=9-10-1, 3=9-10-1, 4=9-10-1
Max Horz 1=-55(LC 8)
Max Uplift 1=-22(LC 12), 3=-29(LC 13)
Max Grav 1=165(LC 25), 3=165(LC 26), 4=372(LC 1)

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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-11-1, Exterior(2R) 4-11-1 to 7-11-1, Interior(1) 7-11-1 to 9-3-10 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'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



November 11, 2025

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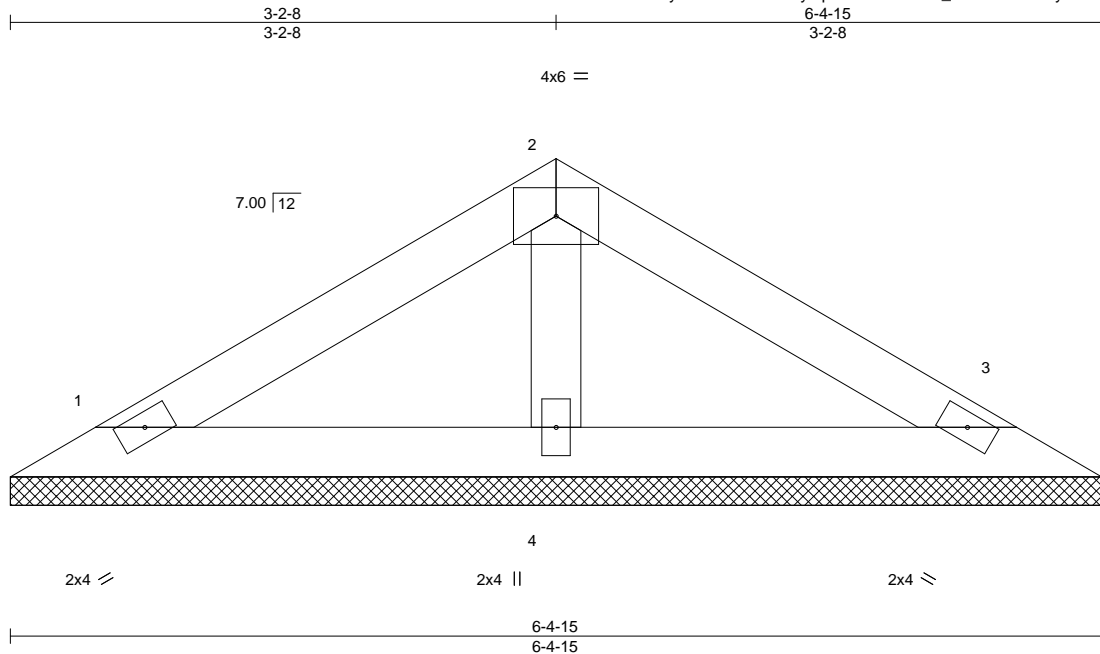
ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job MASTER_120	Truss V05	Truss Type VALLEY	Qty 1	Ply 1	Mattamy Homes; Voyageur; FHSP; Master.RT120 Job Reference (optional)	177679107
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:17 2025 Page 1
ID:whs5sxHCvY0zsWPodSMdtHyQpff-PvPRZAla1b_KhuAALtvX78ymP75u1j9I2_0HU2yKZrC



Scale = 1:13.5

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2021/TPI2014	Matrix-P						Weight: 21 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=6-4-15, 3=6-4-15, 4=6-4-15
Max Horz 1=33(LC 9)
Max Uplift 1=-18(LC 12), 3=-22(LC 13)
Max Grav 1=111(LC 1), 3=111(LC 1), 4=205(LC 1)

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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



November 11, 2025

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

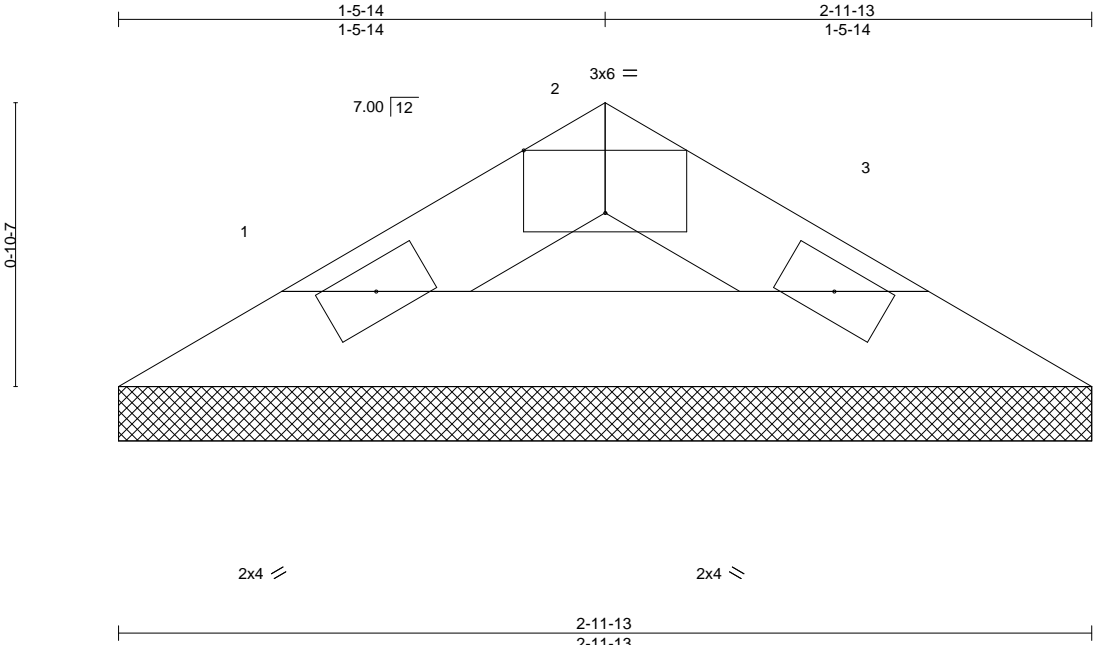
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompoments.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job MASTER_120	Truss V06	Truss Type VALLEY	Qty 1	Ply 1	Mattamy Homes; Voyageur; FHSP; Master.RT120 177679108
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.830 s Sep 3 2025 MiTek Industries, Inc. Mon Nov 10 13:36:17 2025 Page 1
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Scale = 1:7.1

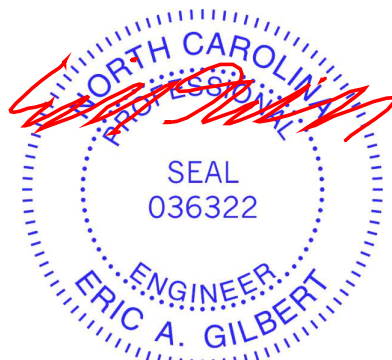
Plate Offsets (X,Y)-- [2:0-3-0,Edge]		2-11-13		2-11-13	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a - n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a - n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 3 n/a n/a
BCDL 10.0	Code IRC2021/TP12014		Matrix-P		
				PLATES	GRIP
				MT20	244/190
				Weight: 8 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 2-11-13 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-11-13, 3=2-11-13
Max Horz 1=12(LC 10)
Max Uplift 1=4(LC 12), 3=4(LC 13)
Max Grav 1=76(LC 1), 3=76(LC 1)

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 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



November 11, 2025

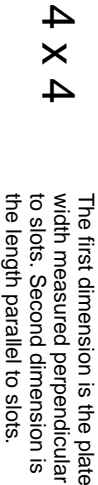
Symbols

PLATE LOCATION AND ORIENTATION

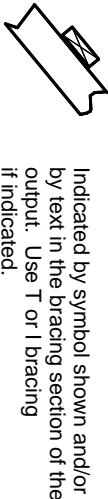


* Plate location details available in MITek software or upon request.

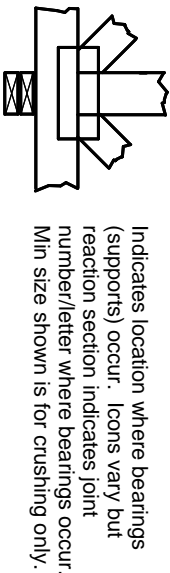
PLATE SIZE



LATERAL BRACING LOCATION

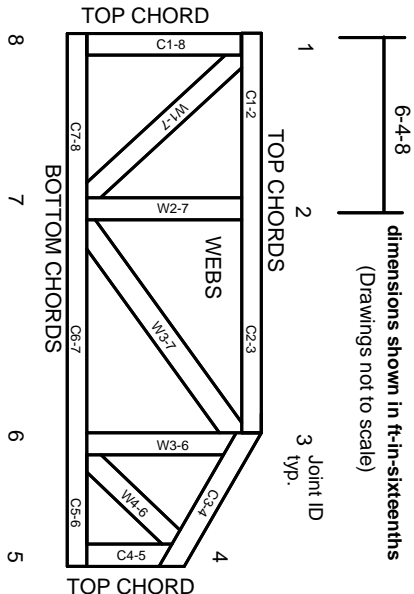


BEARING



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

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:
ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.
Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

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