

RE: 3769907
 Bonnet B - Lot 8 - Fairground Farms

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: 3769907
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: Wind Speed: 120 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 10 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I62262406	A01	11/29/2023
2	I62262407	A02	11/29/2023
3	I62262408	A03	11/29/2023
4	I62262409	A04	11/29/2023
5	I62262410	A05	11/29/2023
6	I62262411	B01G	11/29/2023
7	I62262412	B02	11/29/2023
8	I62262413	B03	11/29/2023
9	I62262414	M01	11/29/2023
10	I62262415	M02	11/29/2023

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2023.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

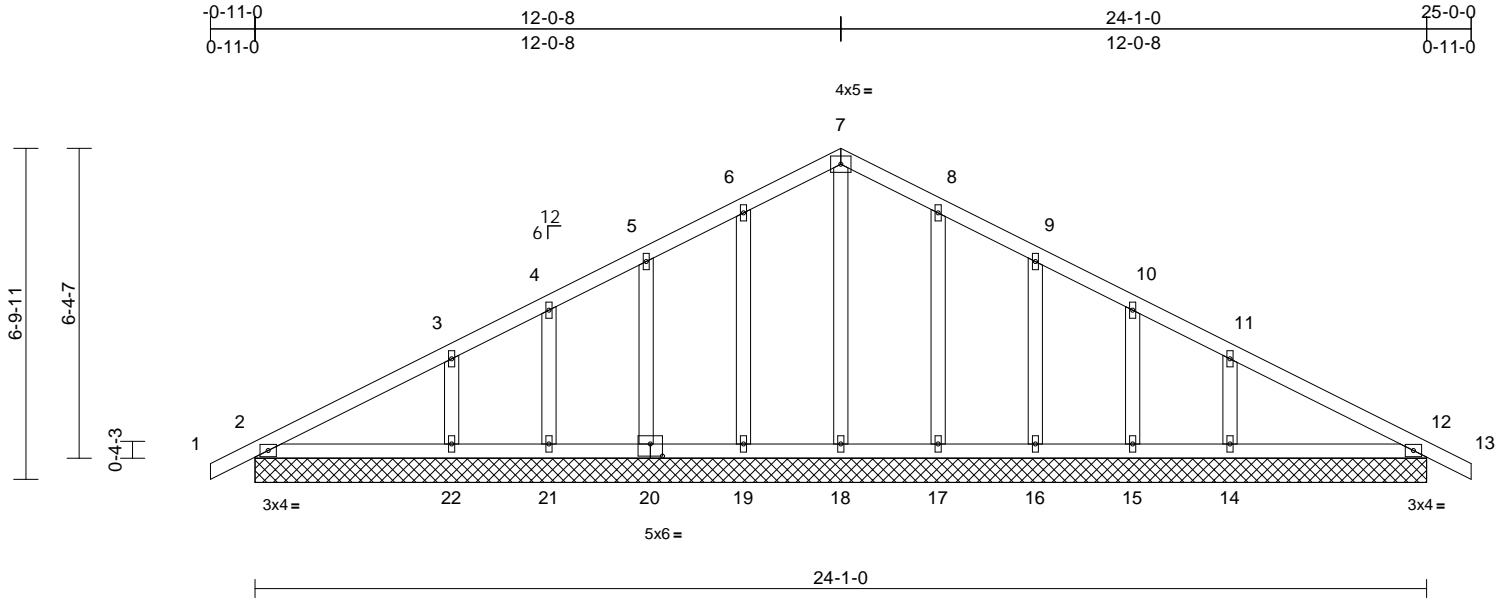


Job 3769907	Truss A01	Truss Type Common Supported Gable	Qty 1	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262406
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:47.4
Plate Offsets (X, Y): [20:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 127 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 (size)

2=24-1-0, 12=24-1-0, 14=24-1-0,
15=24-1-0, 16=24-1-0, 17=24-1-0,
18=24-1-0, 19=24-1-0, 20=24-1-0,
21=24-1-0, 22=24-1-0

Max Horiz 2=-92 (LC 13)
Max Uplift 2=-7 (LC 13), 12=-8 (LC 13),
14=-67 (LC 13), 15=-21 (LC 13),
16=-38 (LC 13), 17=-34 (LC 13),
19=-36 (LC 12), 20=-37 (LC 12),
21=-20 (LC 12), 22=-67 (LC 12)

Max Grav 2=219 (LC 1), 12=217 (LC 1),
14=341 (LC 20), 15=101 (LC 1),
16=214 (LC 20), 17=262 (LC 6),
18=225 (LC 25), 19=259 (LC 5),
20=212 (LC 19), 21=103 (LC 1),
22=341 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

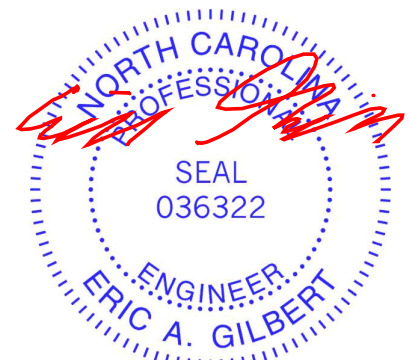
TOP CHORD 1-2=0/43, 2-3=-114/76, 3-4=-71/74,
4-5=-47/92, 5-6=-52/113, 6-7=-58/132,
7-8=-59/126, 8-9=-53/90, 9-10=-38/52,
10-11=-59/34, 11-12=-83/53, 12-13=0/43

BOT CHORD 2-22=-4/87, 21-22=-4/87, 19-21=-4/87,
18-19=-4/87, 17-18=-4/87, 16-17=-4/87,
15-16=-4/87, 14-15=-4/87, 12-14=-4/87

WEBS 7-18=-126/0, 6-19=-199/58, 5-20=-166/63,
4-21=-85/39, 3-22=-248/106, 8-17=-199/57,
9-16=-168/64, 10-15=-85/39, 11-14=-248/105

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; 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.
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
 - All plates are 1.5x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 36 lb uplift at joint 19, 37 lb uplift at joint 20, 20 lb uplift at joint 21, 67 lb uplift at joint 22, 34 lb uplift at joint 17, 38 lb uplift at joint 16, 21 lb uplift at joint 15, 67 lb uplift at joint 14 and 8 lb uplift at joint 12.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



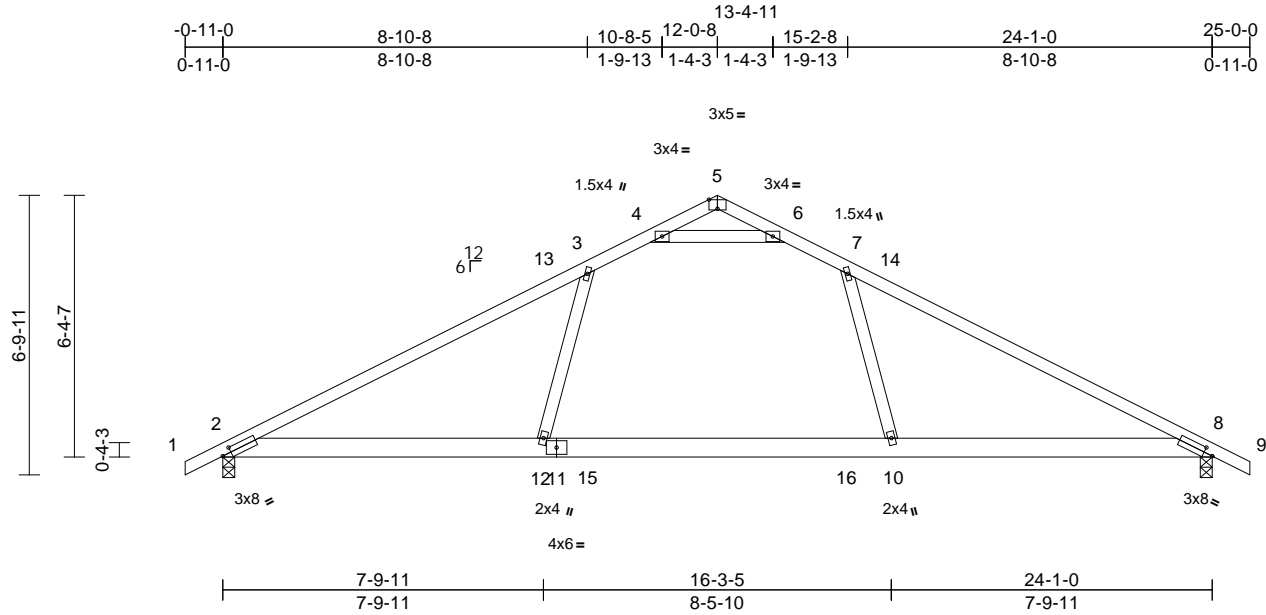
November 29, 2023

Job 3769907	Truss A02	Truss Type Common	Qty 6	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262407
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Page: 1



Scale = 1:56.1

Plate Offsets (X, Y): [2:0-2-10,0-1-8], [5:0-2-8,Edge], [8:0-2-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.34	8-10	>843	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.46	8-10	>627	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 8=0-3-8
Max Horiz 2=-92 (LC 17)
Max Uplift 2=-71 (LC 12), 8=-71 (LC 13)
Max Grav 2=1096 (LC 1), 8=1096 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-3=-1673/81, 3-4=-1245/122, 4-5=-113/854, 5-6=-114/854, 6-7=-1245/122, 7-8=-1673/81, 8-9=0/51
BOT CHORD 2-12=0/1381, 10-12=-17/1293, 8-10=-4/1381
WEBS 3-12=0/408, 7-10=0/408, 4-6=-2248/242

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 2 and 71 lb uplift at joint 8.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2023

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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



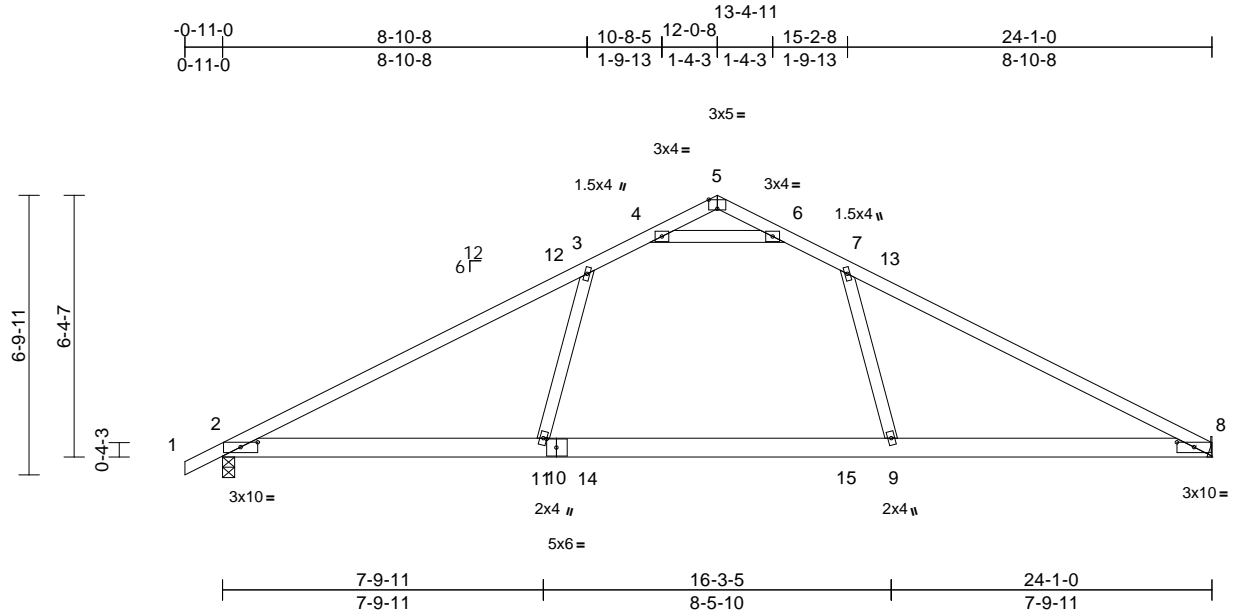
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss A03	Truss Type Common	Qty 1	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262408
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:56.1

Plate Offsets (X, Y): [2:0-5-0,0-1-7], [5:0-2-8,Edge], [8:0-5-0,0-1-7], [10:0-2-14,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.36	8-9	>800	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.49	8-9	>590	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 116 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 2=0-3-8, 8= Mechanical
Max Horiz 2=99 (LC 16)
Max Uplift 2=-71 (LC 12), 8=-54 (LC 13)
Max Grav 2=1101 (LC 1), 8=1027 (LC 1)

FORCES

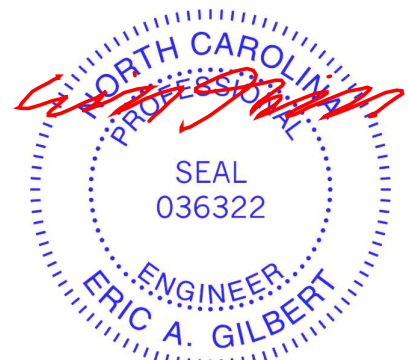
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-3=-1694/86, 3-4=-1256/123, 4-5=-119/902, 5-6=-128/896, 6-7=-1262/123, 7-8=-1668/78
BOT CHORD 2-11=0/1399, 9-11=-24/1309, 8-9=-10/1387
WEBS 3-11=0/424, 7-9=0/386, 4-6=-2314/263

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 8 and 71 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2023

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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



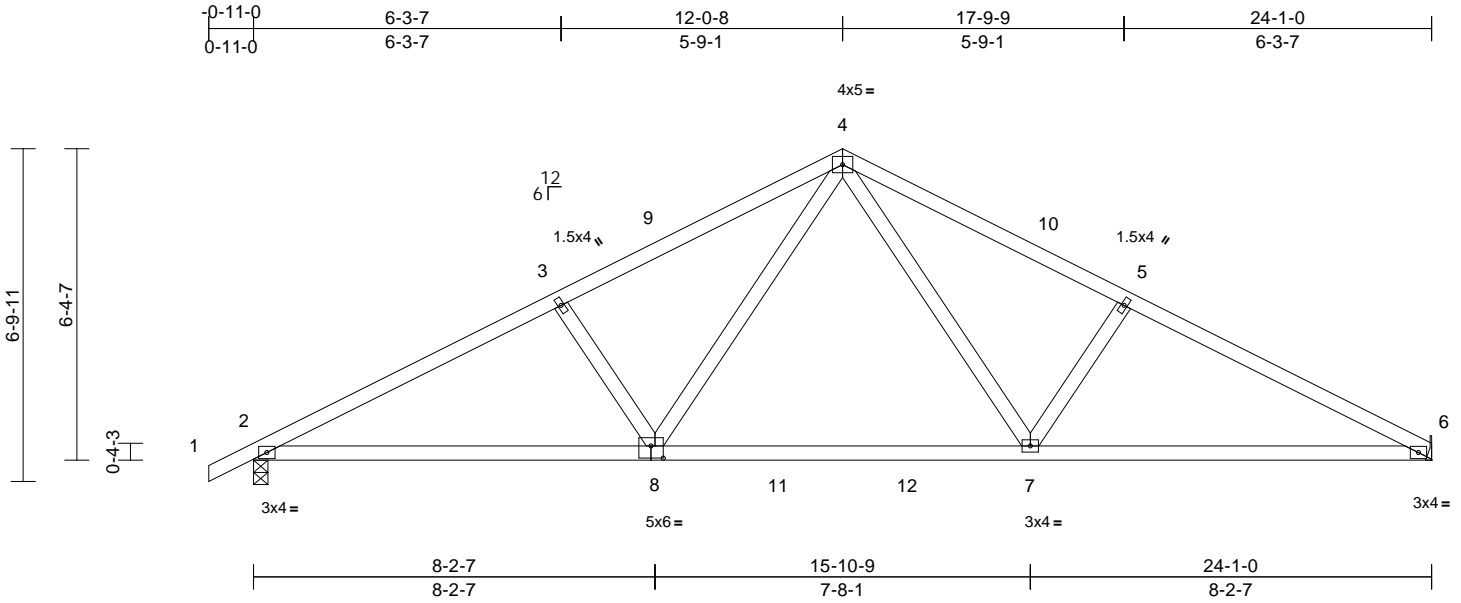
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss A04	Truss Type Common	Qty 8	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262409
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:47.1

Plate Offsets (X, Y): [8:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.15	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.30	6-7	>954	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.05	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 109 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 3-2-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6= Mechanical
Max Horiz 2=98 (LC 16)
Max Uplift 2=-71 (LC 12), 6=-53 (LC 13)
Max Grav 2=1101 (LC 1), 6=1027 (LC 1)

FORCES

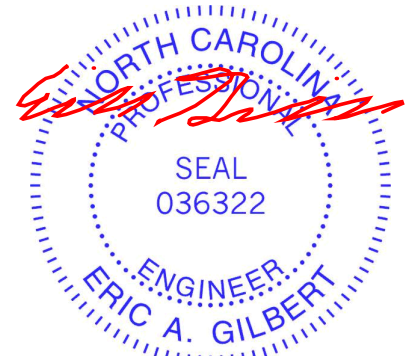
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-1809/109, 3-4=-1588/123, 4-5=-1603/127, 5-6=-1809/113, 6-7=-119/1537, 6-7=-39/1560
BOT CHORD 2-7=-119/1537, 6-7=-39/1560
WEBS 4-8=-61/622, 3-8=-420/174, 4-7=-64/651, 5-7=-445/180

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearings are assumed to be: Joint 2 SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 6 and 71 lb uplift at joint 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2023

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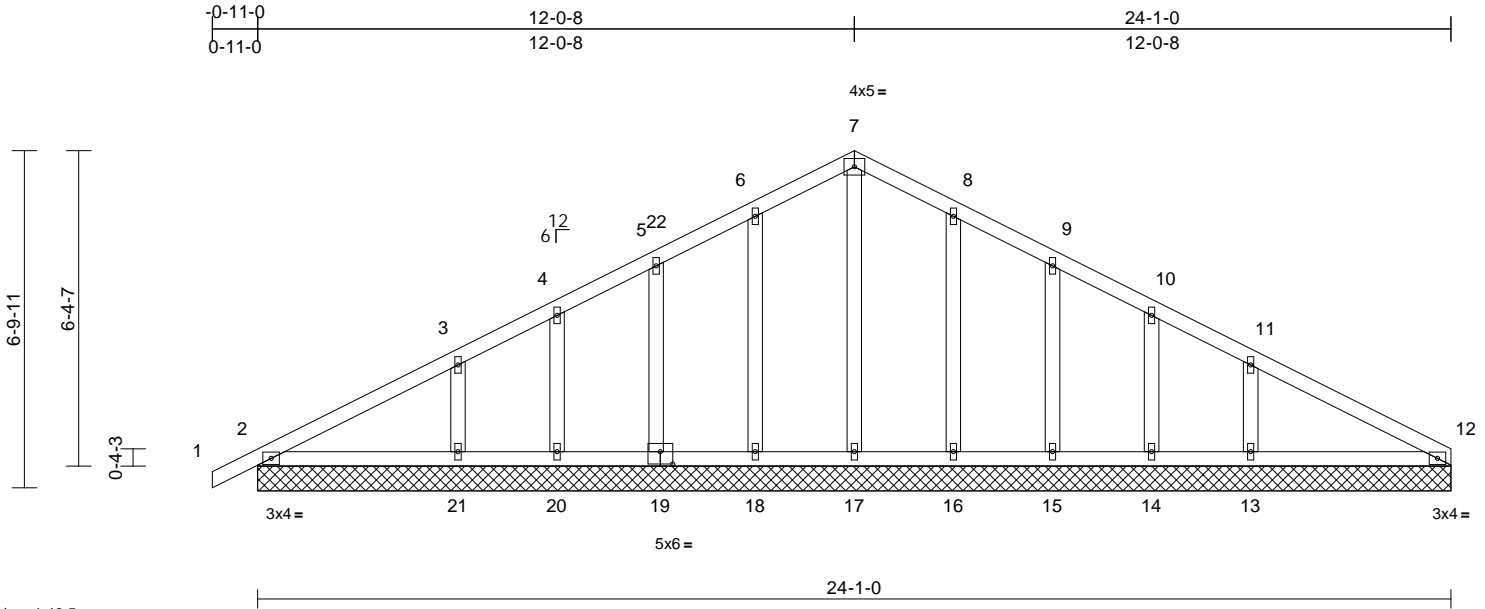
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss A05	Truss Type Common Supported Gable	Qty 1	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262410
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

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Scale = 1:46.5

Plate Offsets (X, Y): [19:0-3-0,0-3-0]

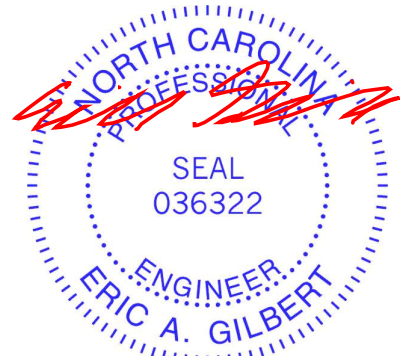
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 126 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 (size)	
	2=24-1-0, 12=24-1-0, 13=24-1-0, 14=24-1-0, 15=24-1-0, 16=24-1-0, 17=24-1-0, 18=24-1-0, 19=24-1-0, 20=24-1-0, 21=24-1-0
Max Horiz	2=98 (LC 12)
Max Uplift	2=-5 (LC 13), 13=-72 (LC 13), 14=-19 (LC 13), 15=-39 (LC 13), 16=-34 (LC 13), 18=-36 (LC 12), 19=-37 (LC 12), 20=-20 (LC 12), 21=-67 (LC 12)
Max Grav	2=219 (LC 1), 12=148 (LC 1), 13=357 (LC 20), 14=94 (LC 1), 15=216 (LC 20), 16=262 (LC 6), 17=222 (LC 25), 18=256 (LC 5), 19=204 (LC 19), 20=103 (LC 1), 21=341 (LC 19)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/43, 2-3=-116/72, 3-4=-72/69, 4-5=-48/87, 5-6=-48/109, 6-7=-57/127, 7-8=-59/121, 8-9=-53/85, 9-10=-38/50, 10-11=-62/32, 11-12=-75/56
BOT CHORD	2-21=-5/79, 20-21=-5/79, 18-20=-5/80, 17-18=-5/80, 16-17=-5/80, 15-16=-5/80, 14-15=-5/80, 13-14=-5/80, 12-13=-5/80
WEBS	7-17=-122/0, 6-18=-195/58, 5-19=-157/63, 4-20=-85/39, 3-21=-248/106, 8-16=-199/57, 9-15=-169/64, 10-14=-79/36, 11-13=-262/112

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof live load of 23.1 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 2, 36 lb uplift at joint 18, 37 lb uplift at joint 19, 20 lb uplift at joint 20, 67 lb uplift at joint 21, 34 lb uplift at joint 16, 39 lb uplift at joint 15, 19 lb uplift at joint 14 and 72 lb uplift at joint 13.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



November 29, 2023

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

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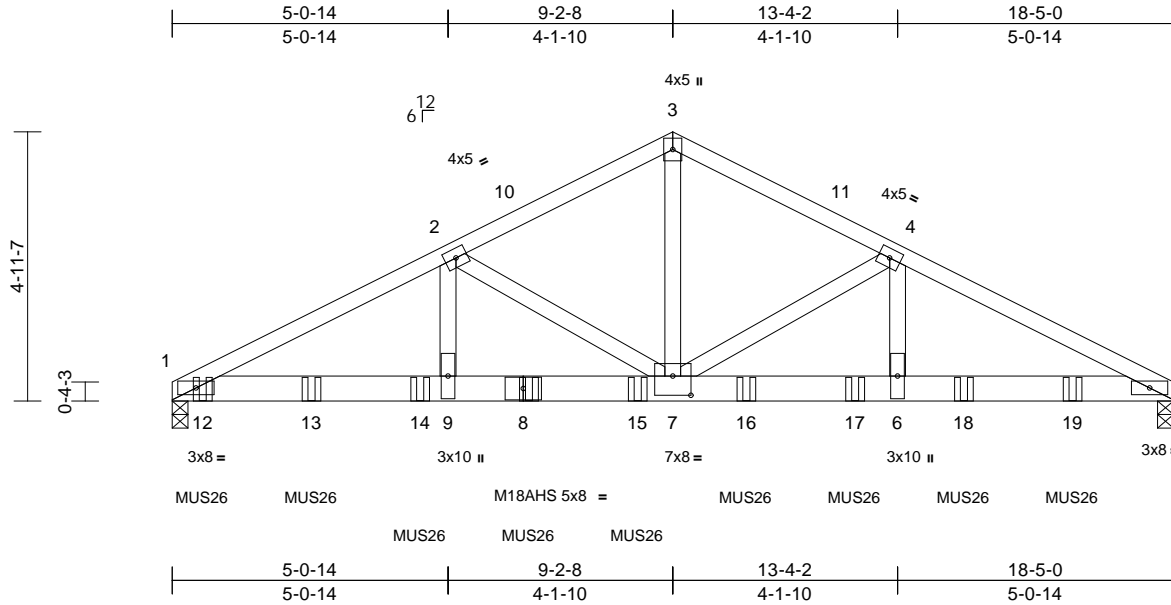
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss B01G	Truss Type Common Girder	Qty 1	Ply 2	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262411
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:07:27
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Page: 1



Scale = 1:42.4

Plate Offsets (X, Y): [7:0-4-0,0-4-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.12	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.22	6-7	>985	180	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.06	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 200 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 7-3:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-65 (LC 17)
Max Uplift 1=-353 (LC 12), 5=-313 (LC 13)
Max Grav 1=5649 (LC 1), 5=4986 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9001/564, 2-3=-6167/412, 3-4=-6167/412, 4-5=-8966/563
BOT CHORD 1-9=-518/7988, 7-9=-518/7988, 6-7=-452/7957, 5-6=-452/7957
WEBS 2-9=-101/2511, 2-7=-2981/264, 3-7=-306/5187, 4-7=-2944/263, 4-6=-100/2478

NOTES

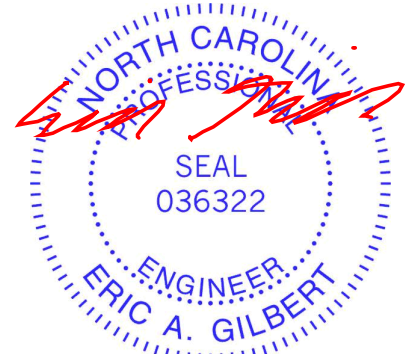
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP DSS crushing capacity of 660 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 353 lb uplift at joint 1 and 313 lb uplift at joint 5.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Use Simpson Strong-Tie MUS26 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-6-12 from the left end to 16-6-12 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-66, 3-5=-66, 1-5=-22
Concentrated Loads (lb)

Vert: 8=-1007 (B), 12=-1013 (B), 13=-1007 (B), 14=-1007 (B), 15=-1007 (B), 16=-1007 (B), 17=-1007 (B), 18=-1007 (B), 19=-1007 (B)



November 29, 2023

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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.sbccomponents.com)



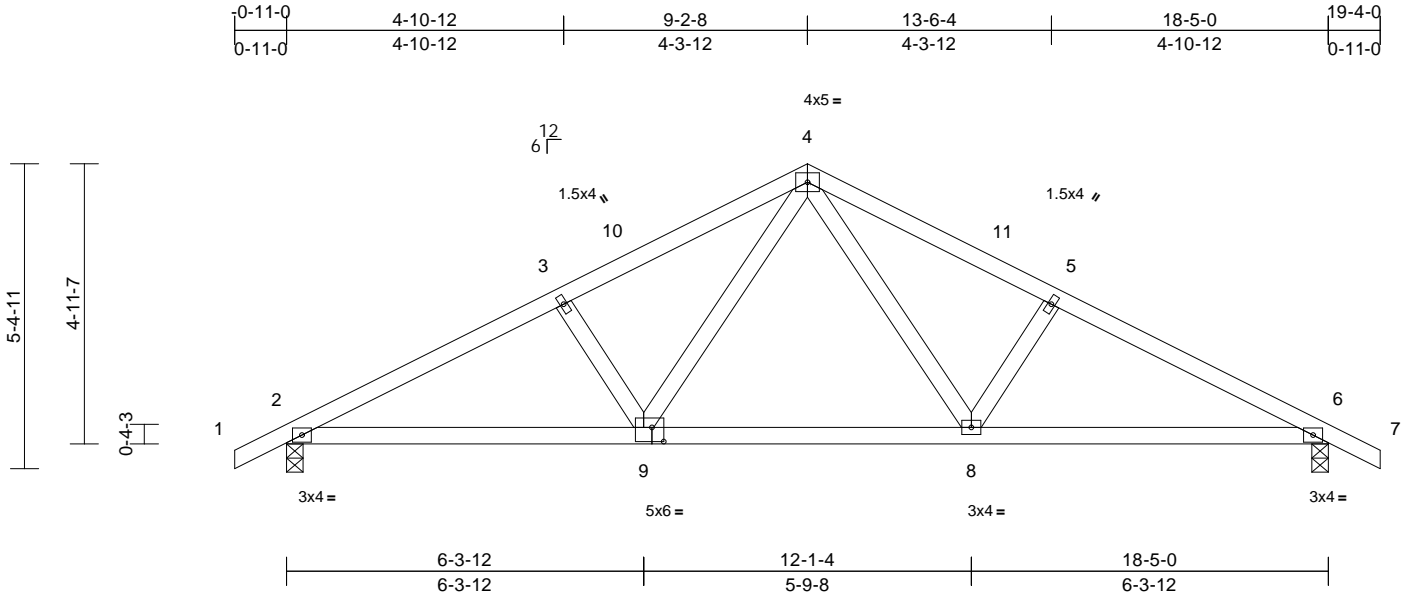
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss B02	Truss Type Common	Qty 8	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	I62262412
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:07:27
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Page: 1



Scale = 1:40.7
Plate Offsets (X, Y): [9:0-2-8,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.05	6-8	>999	240	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.11	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 85 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 4-8-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8
Max Horiz 2=72 (LC 16)
Max Uplift 2=-58 (LC 12), 6=-58 (LC 13)
Max Grav 2=852 (LC 1), 6=852 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-1344/79, 3-4=-1180/93, 4-5=-1180/93, 5-6=-1344/79, 6-7=0/44
BOT CHORD 2-8=-80/1135, 6-8=-9/1135
WEBS 4-9=-46/464, 3-9=-310/131, 4-8=-46/464, 5-8=-310/131

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
 - 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 1-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2 and 58 lb uplift at joint 6.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
 - Unbalanced snow loads have been considered for this design.



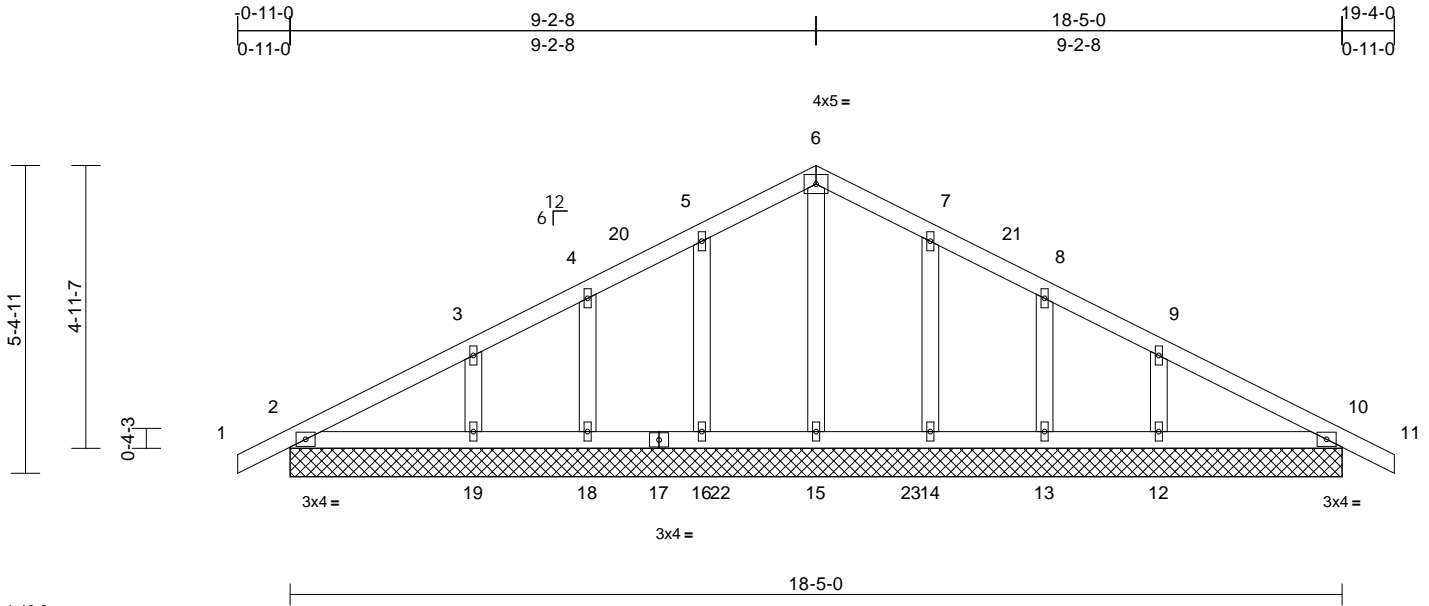
November 29, 2023

Job 3769907	Truss B03	Truss Type Common Supported Gable	Qty 1	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262413
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Builders FirstSource (Albermarle), Albemarle, NC - 28001,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Nov 29 10:07:28
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Page: 1



Scale = 1:40.3

Loading (psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg) 23.1/30.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	999		
TCDL 10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	10	n/a		
BCLL 0.0*	Code	IRC2015/TPI2014	Matrix-S							
BCDL 10.0									Weight: 89 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 (size)
 2=18-5-0, 10=18-5-0, 12=18-5-0, 13=18-5-0, 14=18-5-0, 15=18-5-0, 16=18-5-0, 18=18-5-0, 19=18-5-0
 Max Horiz 2=72 (LC 12)
 Max Uplift 2=-7 (LC 13), 10=-13 (LC 13), 12=-51 (LC 13), 13=-29 (LC 13), 14=-37 (LC 13), 16=-38 (LC 12), 18=-29 (LC 12), 19=-52 (LC 12)
 Max Grav 2=191 (LC 1), 10=191 (LC 1), 12=266 (LC 1), 13=141 (LC 20), 14=235 (LC 20), 15=215 (LC 25), 16=235 (LC 19), 18=141 (LC 19), 19=266 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/43, 2-3=-89/59, 3-4=-56/62, 4-5=-41/82, 5-6=-56/102, 6-7=-56/96, 7-8=-41/58, 8-9=-51/32, 9-10=66/38, 10-11=0/43
 BOT CHORD 2-19=-2/68, 18-19=-2/68, 16-18=-2/68, 15-16=-2/68, 14-15=-2/68, 13-14=-2/68, 12-13=-2/68, 10-12=-2/68
 WEBS 6-15=-110/0, 5-16=-191/63, 4-18=-113/50, 3-19=-195/84, 7-14=-191/62, 8-13=-113/50, 9-12=-195/84

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

- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2, 38 lb uplift at joint 16, 29 lb uplift at joint 18, 52 lb uplift at joint 19, 37 lb uplift at joint 14, 29 lb uplift at joint 13, 51 lb uplift at joint 12 and 13 lb uplift at joint 10.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2023

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ENGINEERING BY
TRENCO
 A MiTek Affiliate

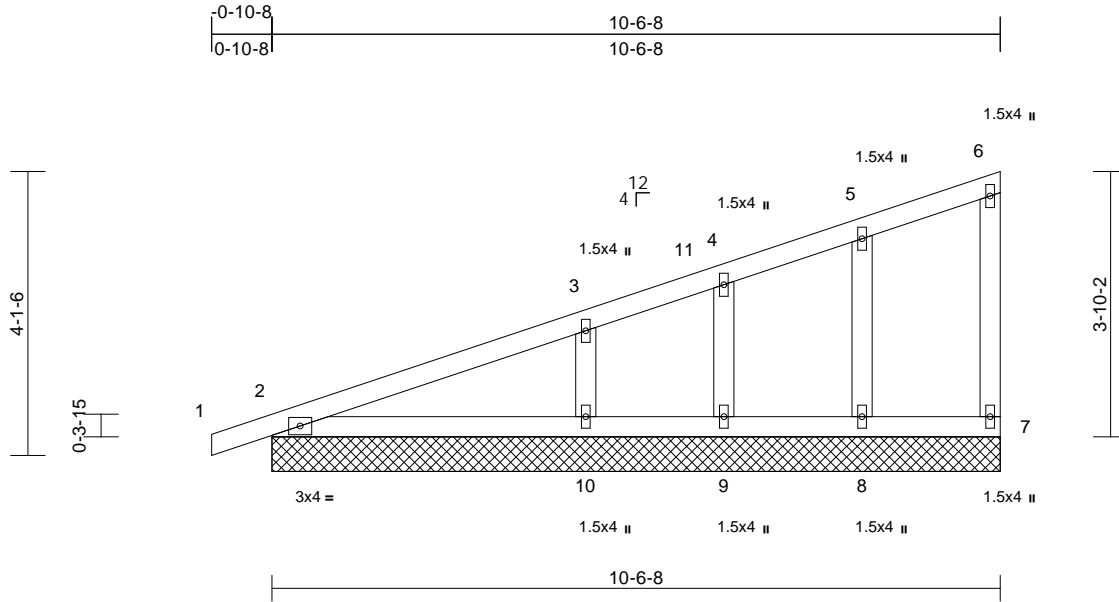
818 Soundside Road
 Edenton, NC 27932

Job 3769907	Truss M01	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262414
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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Page: 1



Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 47 lb	FT = 20%

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

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

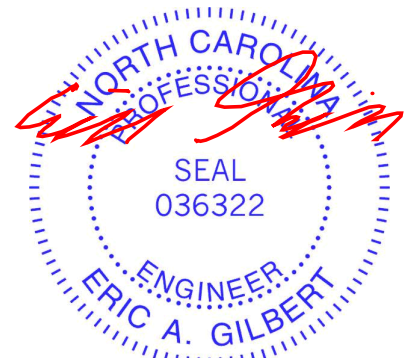
REACTIONS (size) 2=10-6-8, 7=10-6-8, 8=10-6-8, 9=10-6-8, 10=10-6-8
Max Horiz 2=127 (LC 8)
Max Uplift 2=-17 (LC 8), 7=-10 (LC 8), 8=-28 (LC 12), 9=-14 (LC 8), 10=-56 (LC 12)
Max Grav 2=225 (LC 19), 7=76 (LC 19), 8=247 (LC 19), 9=96 (LC 19), 10=393 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-103/51, 3-4=-58/4, 4-5=-37/30, 5-6=-32/13, 6-7=-62/18
BOT CHORD 2-10=-1/2, 9-10=-1/2, 8-9=-1/2, 7-8=-1/2
WEBS 5-8=-197/56, 4-9=-89/28, 3-10=-285/101

NOTES
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 1-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 7, 17 lb uplift at joint 2, 28 lb uplift at joint 8, 14 lb uplift at joint 9 and 56 lb uplift at joint 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2023

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

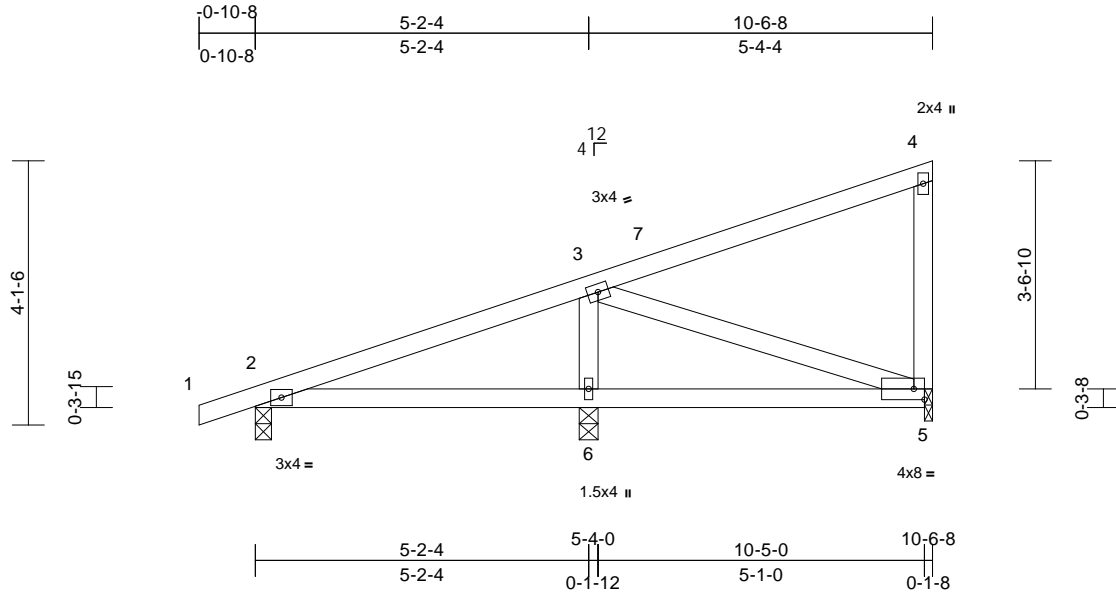
818 Soundside Road
Edenton, NC 27932

Job 3769907	Truss M02	Truss Type Monopitch	Qty 6	Ply 1	Bonnet B - Lot 8 - Fairground Farms Job Reference (optional)	162262415
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Builders FirstSource (Albermarle), Albermarle, NC - 28001,

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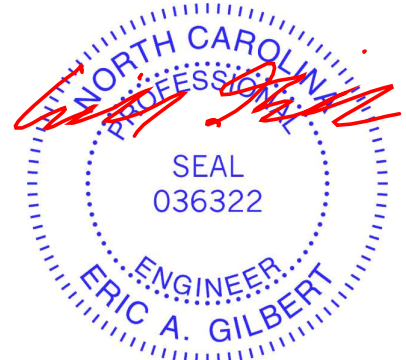


Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.02	5-6	>999	240	244/190	
Snow (Pf/Pg)	23.1/30.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-S								
BCDL	10.0											
											Weight: 48 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.2
- 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, 5=0-1-8, 6=0-3-8
- Max Horiz 2=127 (LC 8)
 - Max Uplift 2=-32 (LC 8), 5=-37 (LC 8), 6=-58 (LC 12)
 - Max Grav 2=250 (LC 1), 5=230 (LC 19), 6=557 (LC 19)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/29, 2-3=-94/33, 3-4=-99/35, 4-5=-183/53
 - BOT CHORD 2-6=-31/34, 5-6=-31/34
 - WEBS 3-6=-430/126, 3-5=-12/30

- 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 1-00-00 wide will fit between the bottom chord and any other members.
 - 7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
 - 8) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2, 58 lb uplift at joint 6 and 37 lb uplift at joint 5.
 - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

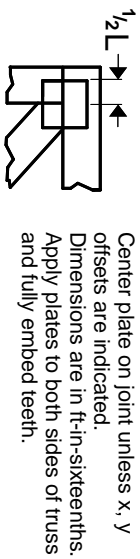
- NOTES**
- 1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=30.0 psf (ground snow); Pf=23.1 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.



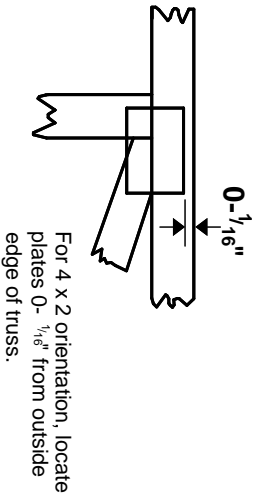
November 29, 2023

Symbols

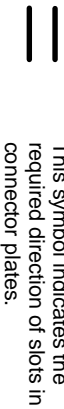
PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16\" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

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

PLATE SIZE

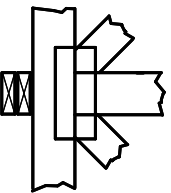
4 X 4
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

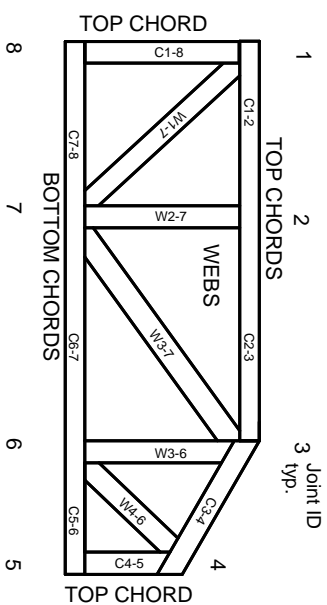


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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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MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 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.