

RE: 4619338
JSJ, Smith Prime

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: JSJ Builders Project Name: 4619338
Lot/Block: 3 Model: Smith Prime
Address: Subdivision: ILAS WAY
City: Dunn State: NC

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.8
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I71906808	A01	3/10/2025
2	I71906809	A02	3/10/2025
3	I71906810	A03	3/10/2025
4	I71906811	A04	3/10/2025
5	I71906812	A05	3/10/2025
6	I71906813	A06	3/10/2025
7	I71906814	A07	3/10/2025
8	I71906815	A08	3/10/2025
9	I71906816	A09	3/10/2025
10	I71906817	B01	3/10/2025
11	I71906818	B02	3/10/2025
12	I71906819	B03	3/10/2025
13	I71906820	B04	3/10/2025
14	I71906821	B05	3/10/2025
15	I71906822	PB01	3/10/2025
16	I71906823	PB02	3/10/2025

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-Sumter, SC.
Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2025.
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.



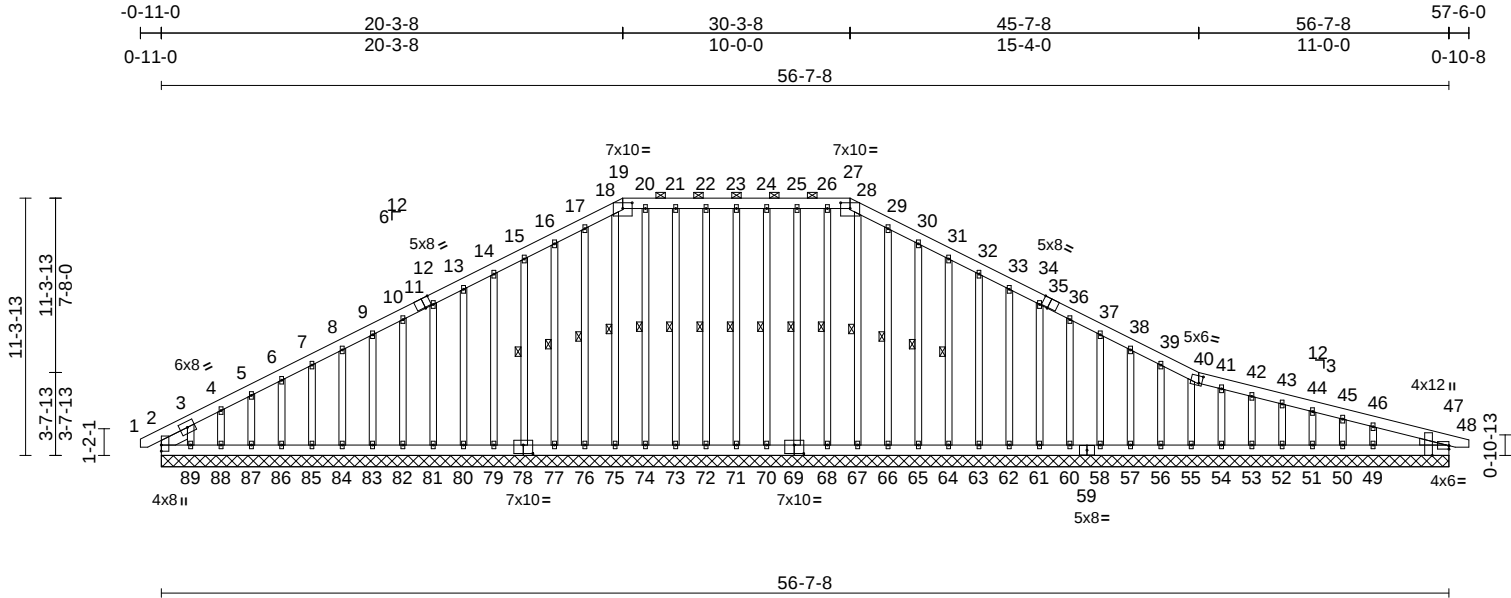
Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906808
4619338	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:36

Page: 1

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Scale = 1:101.3

[2:Edge,0-0-0], [11:0-3-10,Edge], [19:0-5-0,0-3-0], [27:0-5-0,0-3-0], [35:0-3-10,Edge], [40:0-1-9,0-3-12], [47:Edge,0-1-13], [47:0-5-2,Edge], [69:0-5-0,0-4-8],

Plate Offsets (X, Y): [78:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	47	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							
Weight: 651 lb FT = 20%											

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
OTHERS 2x4 SP No.3
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-4-7

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 19-27.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 23-71, 24-70, 25-69, 26-68, 28-67, 29-66, 30-65, 31-64, 22-72, 21-73, 20-74, 18-75, 17-76, 16-77, 15-78

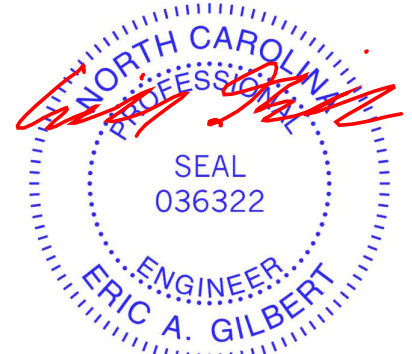
REACTIONS (size)

2=56-7-8, 47=56-7-8, 49=56-7-8, 50=56-7-8, 51=56-7-8, 52=56-7-8, 53=56-7-8, 54=56-7-8, 55=56-7-8, 56=56-7-8, 57=56-7-8, 58=56-7-8, 60=56-7-8, 61=56-7-8, 62=56-7-8, 63=56-7-8, 64=56-7-8, 65=56-7-8, 66=56-7-8, 67=56-7-8, 68=56-7-8, 69=56-7-8, 70=56-7-8, 71=56-7-8, 72=56-7-8, 73=56-7-8, 74=56-7-8, 75=56-7-8, 76=56-7-8, 77=56-7-8, 78=56-7-8, 79=56-7-8, 80=56-7-8, 81=56-7-8, 82=56-7-8, 83=56-7-8, 84=56-7-8, 85=56-7-8, 86=56-7-8, 87=56-7-8, 88=56-7-8, 89=56-7-8

Max Horiz 2=240 (LC 13)

Max Uplift 2=-74 (LC 17), 47=-48 (LC 9), 49=-154 (LC 13), 50=-9 (LC 9), 51=-50 (LC 13), 52=-41 (LC 9), 53=-46 (LC 13), 54=-32 (LC 9), 55=-50 (LC 13), 56=-57 (LC 13), 57=-57 (LC 13), 58=-55 (LC 13), 60=-55 (LC 13), 61=-55 (LC 13), 62=-55 (LC 13), 63=-55 (LC 13), 64=-58 (LC 13), 65=-62 (LC 13), 66=-35 (LC 13), 69=-36 (LC 9), 70=-42 (LC 9), 71=-39 (LC 8), 72=-41 (LC 8), 73=-36 (LC 8), 74=-2 (LC 9), 76=-41 (LC 12), 77=-60 (LC 12), 78=-57 (LC 12), 79=-56 (LC 12), 80=-55 (LC 12), 81=-55 (LC 12), 82=-55 (LC 12), 83=-55 (LC 12), 84=-55 (LC 12), 85=-55 (LC 12), 86=-54 (LC 12), 87=-56 (LC 12), 88=-53 (LC 12), 89=-217 (LC 12)

Max Grav 2=256 (LC 12), 47=157 (LC 1), 49=256 (LC 24), 50=44 (LC 1), 51=118 (LC 24), 52=105 (LC 1), 53=107 (LC 24), 54=97 (LC 1), 55=104 (LC 1), 56=120 (LC 1), 57=106 (LC 24), 58=106 (LC 24), 60=107 (LC 1), 61=107 (LC 1), 62=107 (LC 24), 63=107 (LC 1), 64=107 (LC 1), 65=107 (LC 1), 66=106 (LC 24), 67=106 (LC 22), 68=107 (LC 22), 69=108 (LC 23), 70=106 (LC 23), 71=107 (LC 24), 72=108 (LC 24), 73=108 (LC 24), 74=109 (LC 22), 75=125 (LC 22), 76=106 (LC 23), 77=108 (LC 1), 78=107 (LC 1), 79=106 (LC 23), 80=107 (LC 23), 81=107 (LC 1), 82=107 (LC 1), 83=107 (LC 23), 84=107 (LC 1), 85=107 (LC 23), 86=106 (LC 1), 87=108 (LC 1), 88=103 (LC 23), 89=126 (LC 19)



March 10,2025

Continued on page 2

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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906808
4619338	A01	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 2

ID: rXx7qFxcR9Qpgha4WwwB0Uylhb0-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/20, 2-3=-141/54, 3-4=-276/117, 4-5=-232/127, 5-6=-195/138, 6-7=-160/149, 7-8=-132/170, 8-9=-104/192, 9-10=-77/214, 10-12=-70/236, 12-13=-85/258, 13-14=-100/280, 14-15=-115/303, 15-16=-131/348, 16-17=-147/394, 17-18=-157/426, 18-19=-150/400, 19-20=-148/414, 20-21=-148/414, 21-22=-148/414, 22-23=-148/414, 23-24=-148/414, 24-25=-148/414, 25-26=-149/414, 26-27=-149/414, 27-28=-150/401, 28-29=-157/427, 29-30=-147/394, 30-31=-131/349, 31-32=-116/304, 32-33=-101/261, 33-34=-86/219, 34-36=-71/176, 36-37=-56/133, 37-38=-41/108, 38-39=-33/96, 39-40=-52/85, 40-41=-63/70, 41-42=-76/60, 42-43=-94/47, 43-44=-113/34, 44-45=-131/33, 45-46=-144/34, 46-47=-178/57, 47-48=0/8

BOT CHORD 2-89=-63/208, 88-89=-63/208, 87-88=-63/208, 86-87=-63/208, 85-86=-63/208, 84-85=-63/208, 83-84=-63/208, 82-83=-63/208, 81-82=-63/208, 80-81=-63/208, 79-80=-63/208, 77-79=-63/208, 76-77=-62/208, 75-76=-62/208, 74-75=-62/208, 73-74=-62/208, 72-73=-62/208, 71-72=-62/208, 70-71=-62/208, 68-70=-62/208, 67-68=-62/207, 66-67=-62/207, 65-66=-62/207, 64-65=-62/207, 63-64=-62/207, 62-63=-62/207, 61-62=-62/207, 60-61=-62/207, 58-60=-62/207, 57-58=-62/207, 56-57=-62/207, 55-56=-62/207, 54-55=-56/201, 53-54=-56/201, 52-53=-56/201, 51-52=-56/201, 50-51=-56/201, 49-50=-56/201, 47-49=-56/201

WEBS 23-71=-80/59, 24-70=-81/60, 25-69=-81/52, 26-68=-78/15, 28-67=-80/0, 29-66=-80/56, 30-65=-80/87, 31-64=-80/84, 32-63=-80/80, 33-62=-80/80, 34-61=-80/80, 36-60=-80/80, 37-58=-79/80, 38-57=-79/81, 39-56=-94/86, 40-55=-78/79, 41-54=-71/48, 42-53=-80/68, 43-52=-81/67, 44-51=-81/67, 45-50=-55/44, 46-49=-155/132, 22-72=-81/61, 21-73=-81/52, 20-74=-82/18, 18-75=-98/0, 17-76=-80/57, 16-77=-80/87, 15-78=-80/83, 14-79=-80/80, 13-80=-80/80, 12-81=-80/80, 10-82=-80/80, 9-83=-80/80, 8-84=-80/80, 7-85=-80/80, 6-86=-80/80, 5-87=-80/78, 4-88=-80/87, 3-89=-77/174

- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2 .
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2, 48 lb uplift at joint 47, 39 lb uplift at joint 71, 42 lb uplift at joint 70, 36 lb uplift at joint 69, 35 lb uplift at joint 66, 62 lb uplift at joint 65, 58 lb uplift at joint 64, 55 lb uplift at joint 63, 55 lb uplift at joint 62, 55 lb uplift at joint 61, 55 lb uplift at joint 60, 55 lb uplift at joint 58, 57 lb uplift at joint 57, 57 lb uplift at joint 56, 50 lb uplift at joint 55, 32 lb uplift at joint 54, 46 lb uplift at joint 53, 41 lb uplift at joint 52, 50 lb uplift at joint 51, 9 lb uplift at joint 50, 154 lb uplift at joint 49, 41 lb uplift at joint 72, 36 lb uplift at joint 73, 2 lb uplift at joint 74, 41 lb uplift at joint 76, 60 lb uplift at joint 77, 57 lb uplift at joint 78, 56 lb uplift at joint 79, 55 lb uplift at joint 80, 55 lb uplift at joint 81, 55 lb uplift at joint 82, 55 lb uplift at joint 83, 55 lb uplift at joint 84, 55 lb uplift at joint 85, 54 lb uplift at joint 86, 56 lb uplift at joint 87, 53 lb uplift at joint 88, 217 lb uplift at joint 89, 74 lb uplift at joint 2 and 48 lb uplift at joint 47.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	A02	Piggyback Base	6	1	Job Reference (optional)	I71906809

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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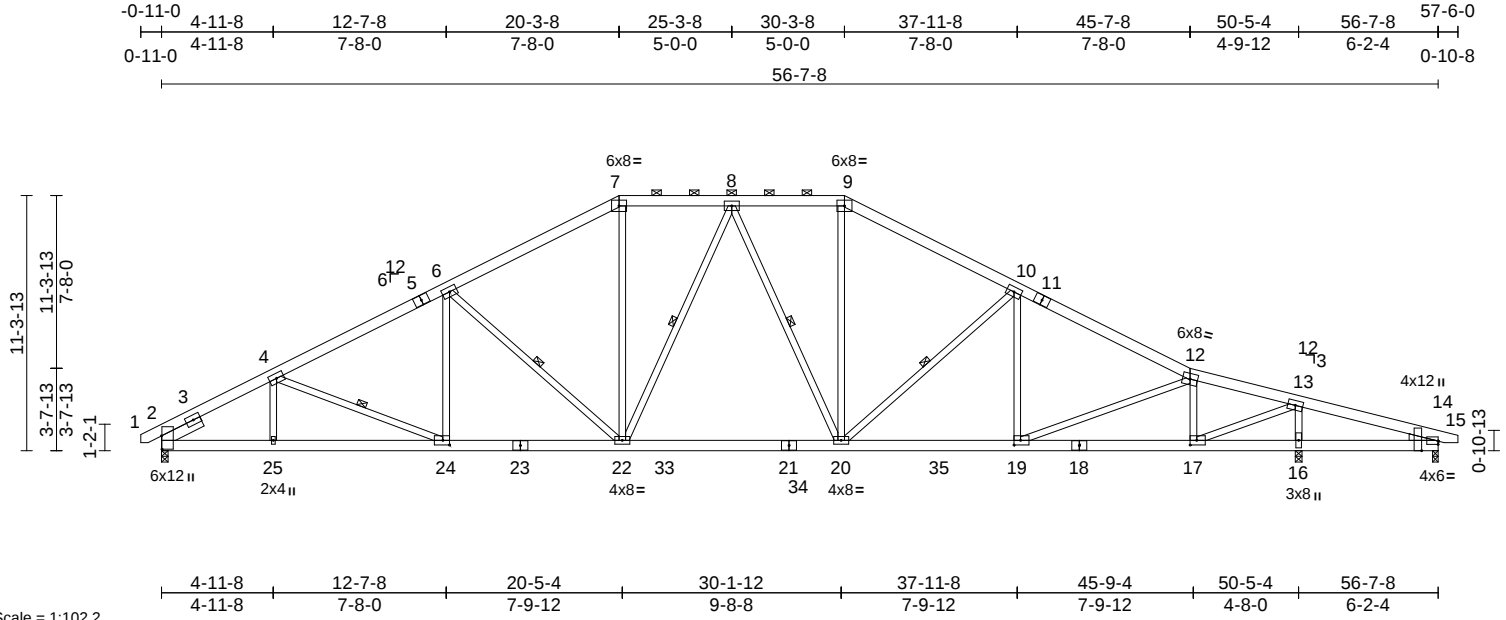


Plate Offsets (X, Y): [2:0-7-3,0-0-4], [14:Edge,0-1-13], [14:0-5-2,Edge], [17:0-3-8,0-2-8], [19:0-3-8,0-2-8], [24:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.21	20-22	>999	360	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.40	20-22	>999	240	
BCLL	0.0*	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.10	16	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.15	22	>999	240	Weight: 442 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS *Except*
21-18,23-21:2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 13-17:2x4 SP No.2
WEDGE Right: 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-11-12

WEBS
4-25=-133/180, 4-24=-85/192, 6-24=0/337,
6-22=-731/482, 7-22=-277/801,
9-20=-268/769, 10-20=-516/392,
10-19=-53/154, 12-19=-130/638,
12-17=-1257/618, 8-22=-289/213,
8-20=-400/209, 13-16=-2457/1059,
13-17=-1171/3234

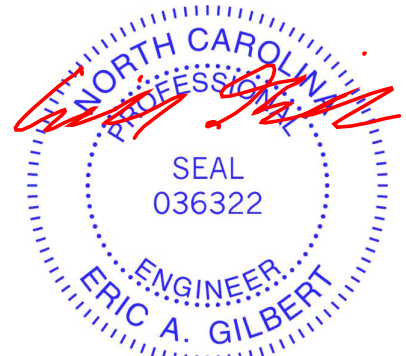
BRACING
TOP CHORD Structural wood sheathing directly applied or
2-11-6 oc purlins, except
2-0-0 oc purlins (4-11-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
bracing.
WEBS 1 Row at midpt 4-24, 6-22, 10-20, 8-22,
8-20

REACTIONS (size) 2=0-3-8, 14=0-3-0, 16=0-3-8
Max Horiz 2=-240 (LC 13)
Max Uplift 2=-496 (LC 12), 14=-328 (LC 20),
16=-677 (LC 13)
Max Grav 2=2005 (LC 1), 14=55 (LC 12),
16=2798 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/20, 2-4=-3116/1307, 4-6=-3070/1349,
6-7=-2548/1227, 7-8=-2198/1179,
8-9=-2144/1157, 9-10=-2486/1203,
10-12=-2806/1247, 12-13=-1967/861,
13-14=-359/1213, 14-15=0/8
BOT CHORD 2-25=-1036/2678, 24-25=-1036/2678,
22-24=-926/2694, 20-22=-601/2222,
19-20=-838/2454, 17-19=-718/1919,
16-17=-1126/393, 14-16=-1126/393

- NOTES**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are 5x8 (=) MT20 unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) All bearings are assumed to be SP 2400F 2.0E or DSS .
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 496 lb uplift at joint 2, 328 lb uplift at joint 14 and 677 lb uplift at joint 16.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



March 10,2025

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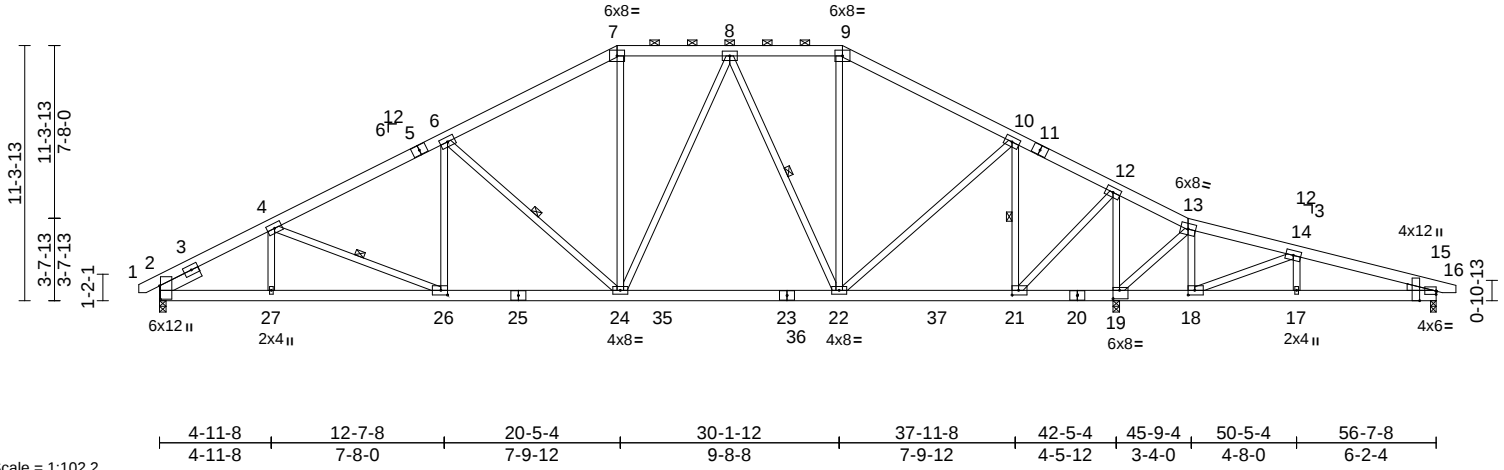
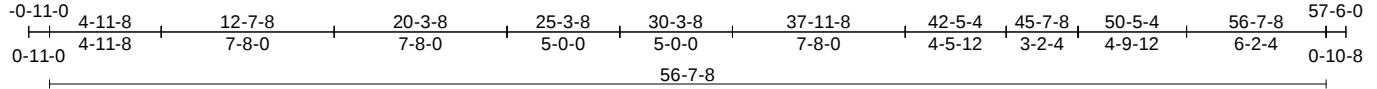
Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906810
4619338	A03	Piggyback Base	2	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1

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Scale = 1:102.2

Plate Offsets (X, Y): [2:0-7-3,0-0-8], [15:Edge,0-1-13], [15:0-5-2,Edge], [18:0-3-8,0-2-8], [19:0-3-8,0-4-8], [21:0-3-8,0-2-8], [26:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.15	22-24	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.27	22-24	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.06	19	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.12	26-27	>999	240	Weight: 452 lb	FT = 20%

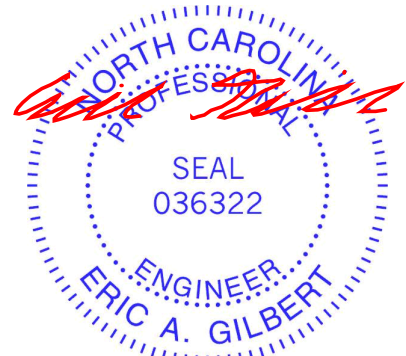
LUMBER		
TOP CHORD	2x6 SP No.2	
BOT CHORD	2x6 SP No.2	
WEBS	2x4 SP No.3	
WEDGE	Right: 2x4 SP No.3	
SLIDER	Left 2x6 SP No.2 -- 1-11-12	
BRACING		
TOP CHORD	Structural wood sheathing directly applied or 3-6-10 oc purlins, except 2-0-0 oc purlins (5-9-12 max.): 7-9.	
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	
WEBS	1 Row at midpt 4-26, 6-24, 10-21, 8-22	
REACTIONS	(size) 2=0-3-8, 15=0-3-0, 19=0-3-8	
	Max Horiz 2=-240 (LC 13)	
	Max Uplift 2=-448 (LC 12), 15=-315 (LC 9), 19=-595 (LC 13)	
	Max Grav 2=1670 (LC 1), 15=418 (LC 24), 19=2556 (LC 1)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/20, 2-4=-2554/1034, 4-6=-2395/1024, 6-7=-1862/888, 7-8=-1581/874, 8-9=-1238/709, 9-10=-1472/698, 10-12=-771/287, 12-13=-420/725, 13-14=-78/343, 14-15=-547/614, 15-16=0/8	
BOT CHORD	2-27=-797/2184, 26-27=-797/2184, 24-26=-634/2097, 22-24=-224/1462, 21-22=-5/708, 19-21=-611/583, 18-19=-332/176, 17-18=-533/509, 15-17=-533/509	

WEBS	4-27=-55/146, 4-26=-128/196, 6-26=0/363, 6-24=-754/497, 7-24=-127/499, 9-22=-47/366, 13-19=-478/574, 13-18=-413/344, 14-18=-749/746, 14-17=-189/226, 10-22=-212/775, 10-21=-1215/653, 12-21=-762/1802, 12-19=-2104/996, 8-24=-162/372, 8-22=-662/302
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NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 5x8 (=) MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) All bearings are assumed to be SP No.2.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 448 lb uplift at joint 2, 595 lb uplift at joint 19 and 315 lb uplift at joint 15.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



March 10, 2025

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

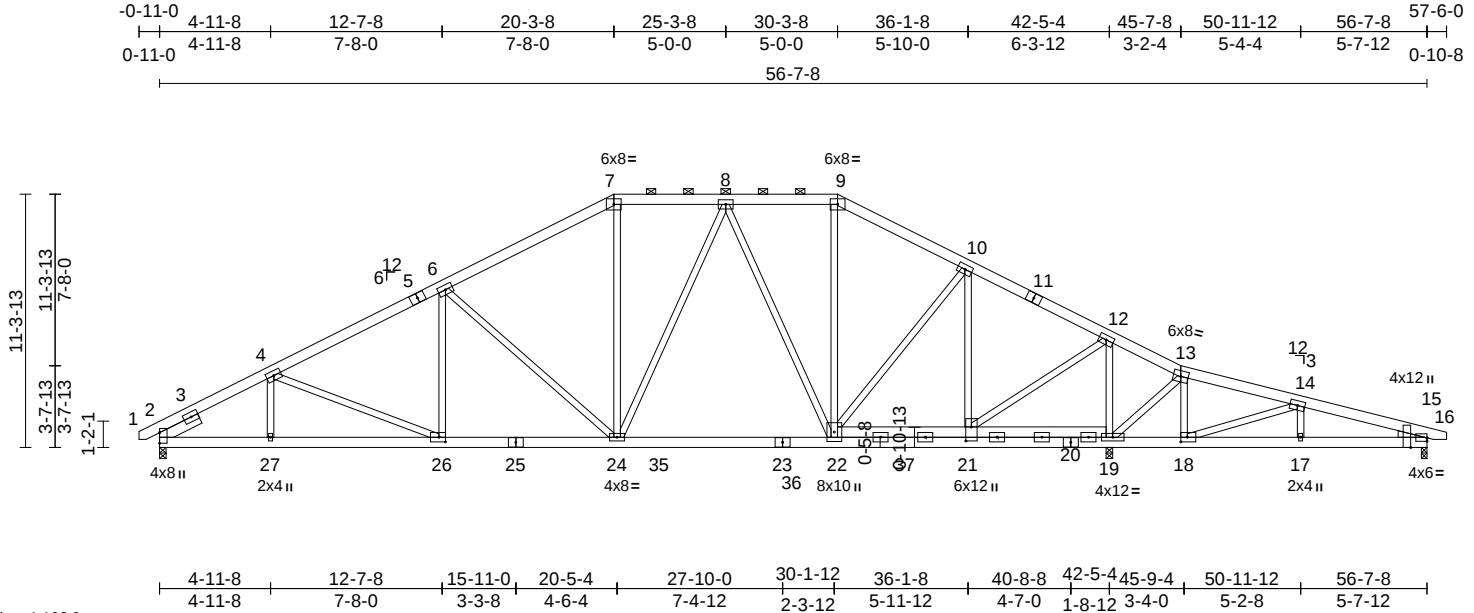
Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906811
4619338	A04	Piggyback Base Girder	1	2	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:38

Page: 1

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Scale = 1:102.9

Plate Offsets (X, Y): [2:Edge,0-0-0], [15:Edge,0-1-13], [15:0-5-2,Edge], [18:0-3-8,0-2-8], [21:0-7-8,0-3-0], [26:0-3-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	22-24	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.14	26-27	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.05	19	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.06	26-27	>999	240	Weight: 963 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS	(size)	2=0-3-8, 15=0-3-0, 19=0-3-8
	Max Horiz	2=-240 (LC 9)
	Max Uplift	2=-263 (LC 8), 15=-352 (LC 5)
	Max Grav	2=2028 (LC 1), 15=269 (LC 20), 19=5104 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/20, 2-4=-3159/354, 4-6=-3118/265, 6-7=-2576/135, 7-8=-2204/189, 8-9=-2195/0, 9-10=-2540/0, 10-12=-2864/0, 12-13=-100/1171, 13-14=0/873, 14-15=-163/591, 15-16=0/8
BOT CHORD	2-27=-459/2703, 26-27=-459/2703, 24-26=-216/2740, 22-24=0/2268, 21-22=0/2483, 19-21=-1020/249, 18-19=-824/0, 17-18=-515/144, 15-17=-515/144
WEBS	4-27=-111/98, 4-26=-44/263, 6-26=-10/350, 6-24=-736/453, 7-24=0/788, 9-22=0/828, 13-19=-280/416, 13-18=-271/307, 14-18=-897/485, 14-17=-45/241, 8-24=-390/68, 8-22=-226/487, 10-22=-696/0, 10-21=-69/817, 12-21=0/4286, 12-19=-4558/0

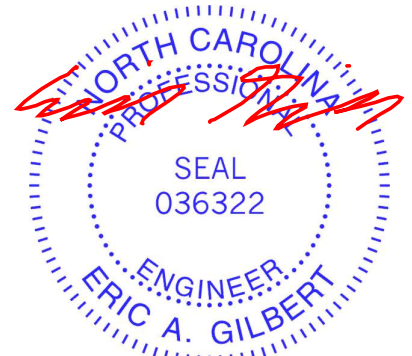
NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 263 lb uplift at joint 2 and 352 lb uplift at joint 15.
- Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2750 lb down at 36-1-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S)

- Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-7=-60, 7-9=-60, 9-13=-60, 13-16=-60, 28-32=-20
Concentrated Loads (lb)
Vert: 21=-2750 (B)



March 10, 2025

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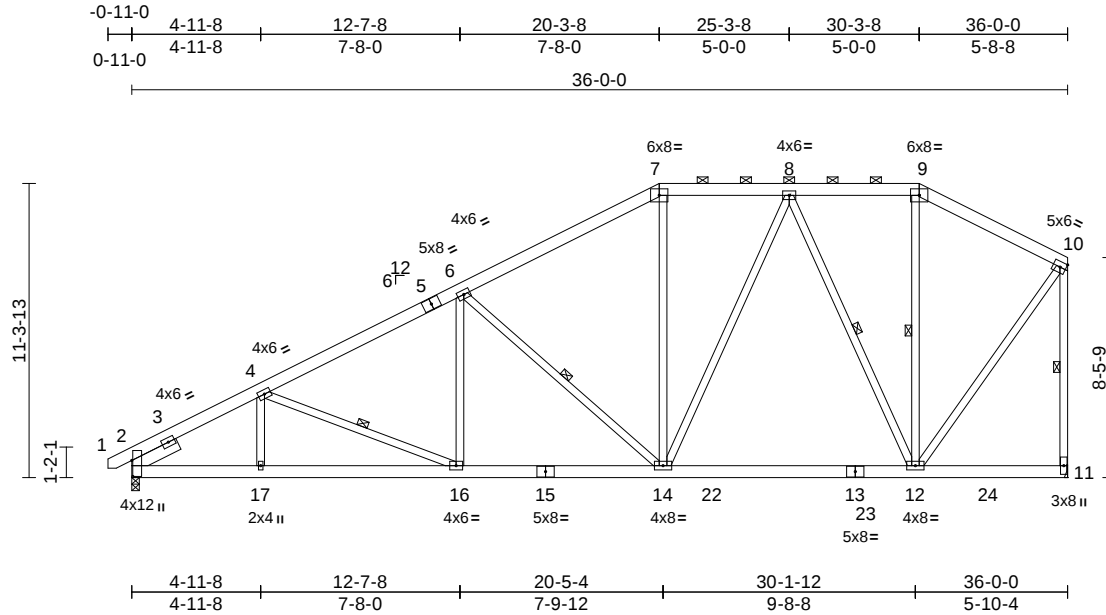
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906812
4619338	A05	Piggyback Base	3	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:39
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Page: 1



Scale = 1:88.6

Plate Offsets (X, Y): [2:0-7-7,0-0-8]

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	0.49	Vert(LL)	-0.12	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.21	12-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.10	16-17	>999	240	Weight: 314 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 11-10:2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 1-11-12

BRACING

TOP CHORD	Structural wood sheathing directly applied or 4-0-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 6-11-9 oc bracing.
WEBS	1 Row at midpt 4-16, 6-14, 9-12, 10-11, 8-12

REACTIONS

(size)	2=0-3-8, 11= Mechanical
Max Horiz	2=464 (LC 12)
Max Uplift	2=-390 (LC 12), 11=-293 (LC 12)
Max Grav	2=1480 (LC 1), 11=1503 (LC 2)

FORCES

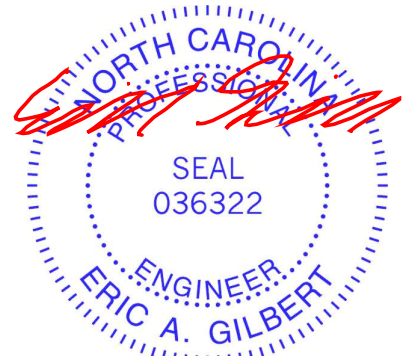
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/20, 2-4=-2229/852, 4-6=-2013/815, 6-7=-1448/671, 7-8=-1208/679, 8-9=-682/418, 9-10=-808/388, 10-11=-1426/642
BOT CHORD	2-17=-1088/1904, 16-17=-1088/1904, 14-16=-893/1746, 12-14=-430/1001, 11-12=-3/5
WEBS	4-17=-28/146, 4-16=-184/214, 6-16=0/377, 6-14=-766/506, 7-14=-33/335, 9-12=-55/145, 10-12=-439/1171, 8-14=-223/548, 8-12=-843/426

NOTES

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Bearings are assumed to be: Joint 2 SP No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 390 lb uplift at joint 2 and 293 lb uplift at joint 11.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



March 10,2025

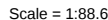
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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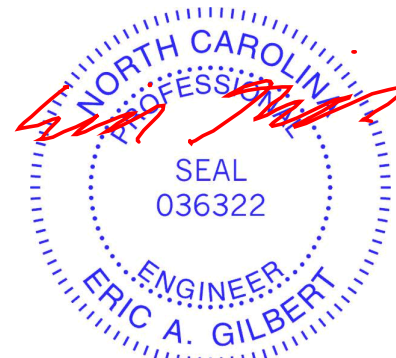
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.12	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.21	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.05	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.10	16-17	>999	240	Weight: 315 lb	FT = 20%

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No. 2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 393 lb uplift at joint 2 and 292 lb uplift at joint 11.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



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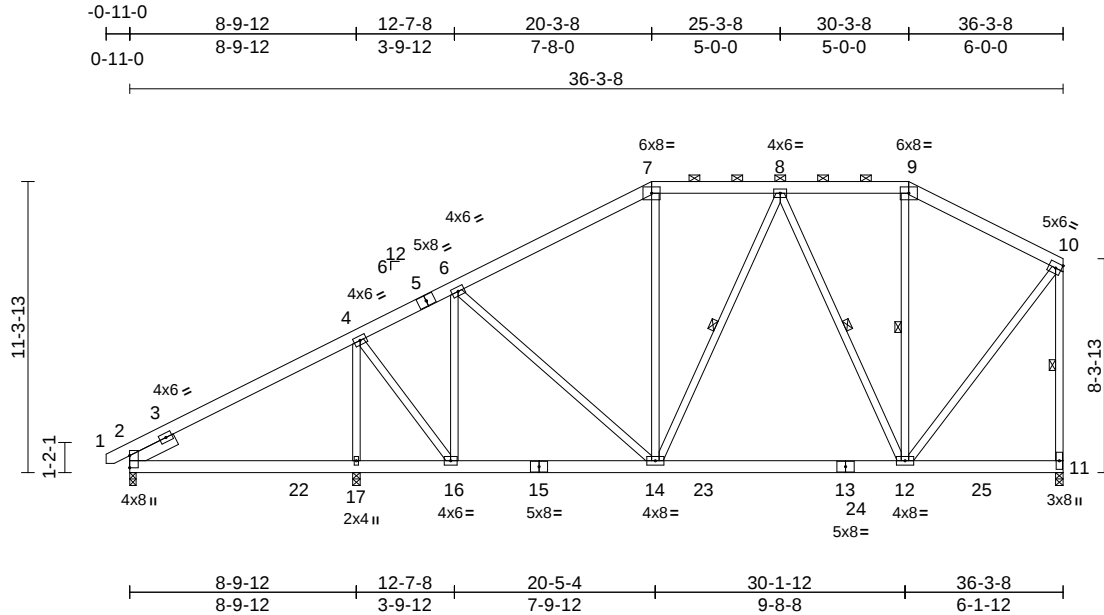
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	A07	Piggyback Base	2	1	Job Reference (optional)	I71906814

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Scale = 1:89.6

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

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)	-0.10	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.16	12-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	-0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.09	17-20	>999	240	Weight: 315 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 11-10:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-11-12

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 8-1-14 oc bracing.

WEBS 1 Row at midpt 9-12, 10-11, 8-14, 8-12

REACTIONS (size) 2=0-3-0, 11=0-3-8, 17=0-3-8
Max Horiz 2=460 (LC 12)
Max Uplift 2=-208 (LC 9), 11=-229 (LC 12), 17=-258 (LC 12)
Max Grav 2=598 (LC 23), 11=1223 (LC 2), 17=1254 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/20, 2-4=-576/491, 4-6=-907/595, 6-7=-998/559, 7-8=-813/587, 8-9=-554/396, 9-10=-668/360, 10-11=-1138/572
BOT CHORD 2-17=-711/438, 16-17=-711/438, 14-16=-619/758, 12-14=-363/738, 11-12=-4/5
WEBS 4-17=-993/271, 4-16=0/603, 6-16=-381/50, 6-14=-42/271, 7-14=0/167, 9-12=-105/119, 10-12=-370/909, 8-14=-156/246, 8-12=-526/335

NOTES

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

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) All bearings are assumed to be SP No.2 .
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 2, 258 lb uplift at joint 17 and 229 lb uplift at joint 11.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



March 10, 2025

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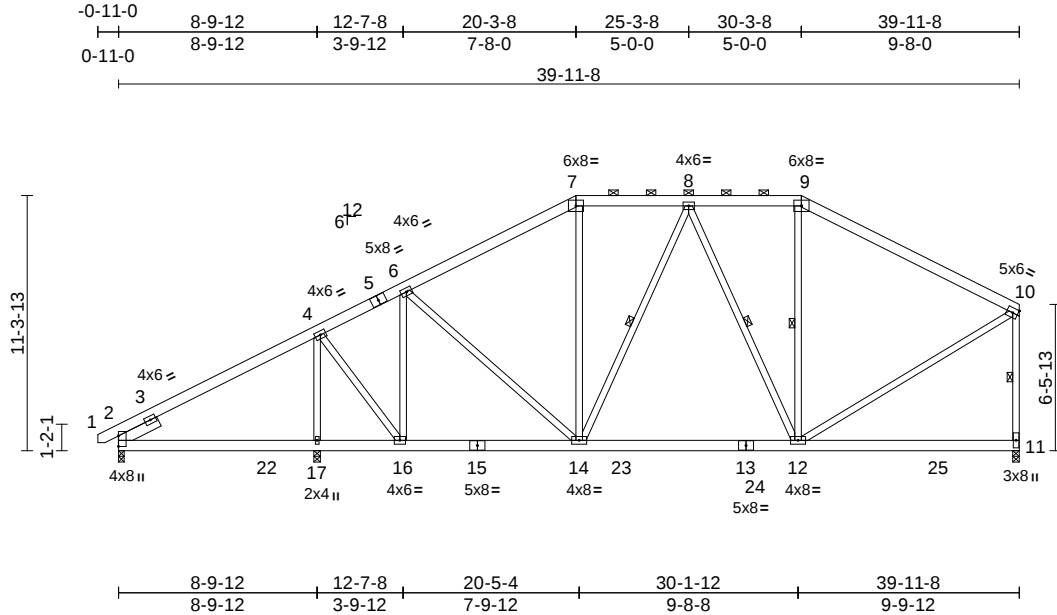
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	A08	Piggyback Base	4	1	Job Reference (optional)	I71906815

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1

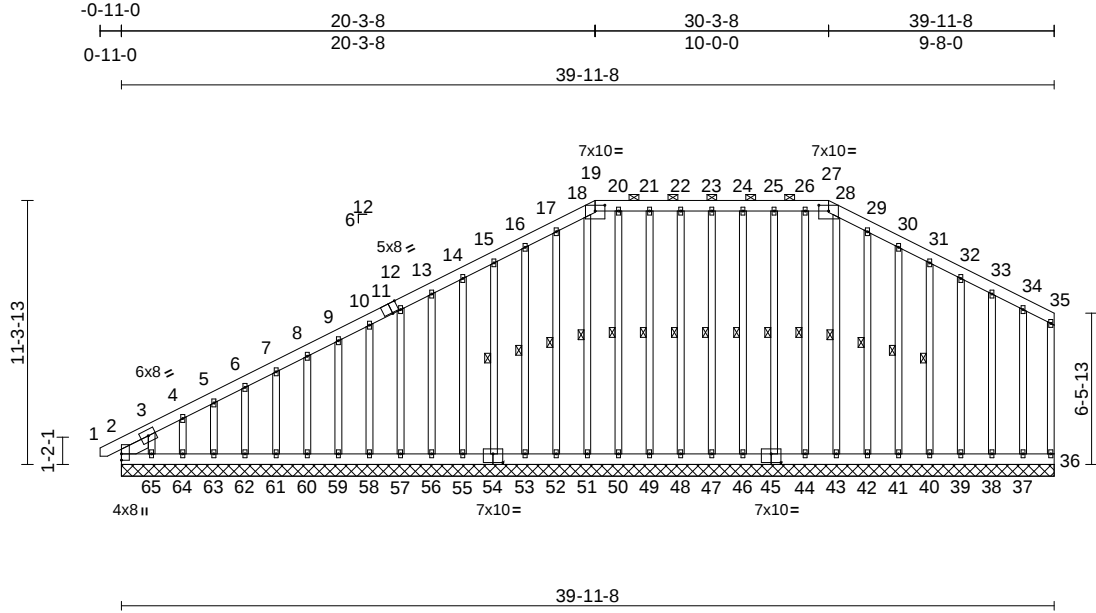


Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906816
4619338	A09	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:40
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Page: 1



Scale = 1:98.7

Plate Offsets (X, Y): [2:Edge,0-0-0], [11:0-3-10,Edge], [19:0-5-0,0-3-0], [27:0-5-0,0-3-0], [45:0-5-0,0-4-8], [54:0-5-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Ver(LL)	n/a	-	n/a	999	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Ver(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							
Weight: 529 lb FT = 20%											

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 1-4-7

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 19-27.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 44-45,43-44,42-43,41-42,40-41,39-40,38-39, 37-38,36-37.
WEBS	1 Row at midpt 23-47, 24-46, 25-45, 26-44, 28-43, 29-42, 30-41, 31-40, 22-48, 21-49, 20-50, 18-51, 17-52, 16-53, 15-54

REACTIONS (size)

2=39-11-8, 36=39-11-8,
37=39-11-8, 38=39-11-8,
39=39-11-8, 40=39-11-8,
41=39-11-8, 42=39-11-8,
43=39-11-8, 44=39-11-8,
45=39-11-8, 46=39-11-8,
47=39-11-8, 48=39-11-8,
49=39-11-8, 50=39-11-8,
51=39-11-8, 52=39-11-8,
53=39-11-8, 54=39-11-8,
55=39-11-8, 56=39-11-8,
57=39-11-8, 58=39-11-8,
59=39-11-8, 60=39-11-8,
61=39-11-8, 62=39-11-8,
63=39-11-8, 64=39-11-8,
65=39-11-8

Max Horiz 2=406 (LC 12)

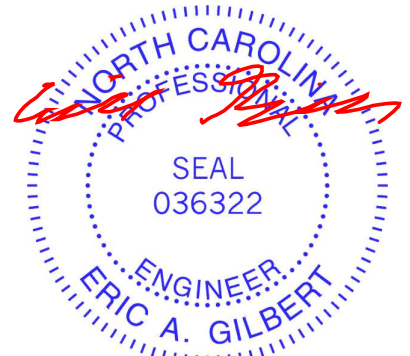
FORCES

Max Uplift 2=-45 (LC 10), 36=-20 (LC 13),
37=-53 (LC 13), 38=-57 (LC 13),
39=-56 (LC 13), 40=-57 (LC 13),
41=-60 (LC 13), 42=-40 (LC 13),
44=-18 (LC 9), 45=-37 (LC 9),
46=-41 (LC 9), 47=-39 (LC 8),
48=-41 (LC 8), 49=-37 (LC 9),
50=-22 (LC 9), 51=-6 (LC 9),
52=-47 (LC 12), 53=-59 (LC 12),
54=-56 (LC 12), 55=-56 (LC 12),
56=-55 (LC 12), 57=-55 (LC 12),
58=-55 (LC 12), 59=-55 (LC 12),
60=-55 (LC 12), 61=-55 (LC 12),
62=-54 (LC 12), 63=-55 (LC 12),
64=-54 (LC 12), 65=-268 (LC 12)

Max Grav 2=356 (LC 12), 36=43 (LC 1),
37=102 (LC 24), 38=109 (LC 1),
39=107 (LC 24), 40=107 (LC 1),
41=107 (LC 24), 42=107 (LC 24),
43=106 (LC 24), 44=109 (LC 1),
45=108 (LC 23), 46=106 (LC 23),
47=107 (LC 24), 48=108 (LC 24),
49=108 (LC 24), 50=107 (LC 23),
51=115 (LC 22), 52=107 (LC 23),
53=107 (LC 1), 54=107 (LC 1),
55=106 (LC 23), 56=107 (LC 23),
57=107 (LC 1), 58=107 (LC 1),
59=107 (LC 1), 60=107 (LC 1),
61=107 (LC 23), 62=106 (LC 1),
63=108 (LC 1), 64=103 (LC 23),
65=122 (LC 19)

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/20, 2-3=-190/55, 3-4=-386/107,
4-5=-341/91, 5-6=-304/92, 6-7=-265/92,
7-8=-226/98, 8-9=-187/109, 9-10=-148/119,
10-12=-116/132, 12-13=-88/154,
13-14=-64/176, 14-15=-56/198,
15-16=-71/221, 16-17=-87/244,
17-18=-100/273, 18-19=-99/268,
19-20=-95/275, 20-21=-95/275,
21-22=-95/275, 22-23=-95/275,
23-24=-95/275, 24-25=-95/275,
25-26=-96/275, 26-27=-96/275,
27-28=-100/268, 28-29=-100/274,
29-30=-88/237, 30-31=-72/193,
31-32=-57/149, 32-33=-42/106,
33-34=-26/61, 34-35=-12/22, 35-36=-34/32



March 10,2025

Continued on page 2

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.sbcacomponents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906816
4619338	A09	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

BOT CHORD 2-65=-1/1, 64-65=-1/1, 63-64=-1/1,
62-63=-1/1, 61-62=-1/1, 60-61=-1/1,
59-60=-1/1, 58-59=-1/1, 57-58=-1/1,
56-57=-1/1, 55-56=-1/1, 53-55=-1/1,
52-53=-1/1, 51-52=-1/1, 50-51=-1/1,
49-50=-1/1, 48-49=-1/1, 47-48=-1/1,
46-47=-1/1, 44-46=-1/1, 43-44=0/1,
42-43=0/1, 41-42=0/1, 40-41=0/1, 39-40=0/1,
38-39=0/1, 37-38=0/1, 36-37=0/1

WEBS 23-47=-80/58, 24-46=-81/58, 25-45=-81/53,
26-44=-80/35, 28-43=-80/4, 29-42=-80/64,
30-41=-80/85, 31-40=-80/82, 32-39=-81/81,
33-38=-83/83, 34-37=-75/75, 22-48=-81/59,
21-49=-82/53, 20-50=-80/38, 18-51=-88/22,
17-52=-80/64, 16-53=-80/85, 15-54=-80/82,
14-55=-80/80, 13-56=-80/80, 12-57=-80/80,
10-58=-80/80, 9-59=-80/80, 8-60=-80/80,
7-61=-80/80, 6-62=-80/80, 5-63=-80/77,
4-64=-81/92, 3-65=-94/213

- NOTES
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) 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.
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) All plates are 2x4 (I) MT20 unless otherwise indicated.
 - 6) Gable requires continuous bottom chord bearing.
 - 7) Gable studs spaced at 1-4-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 10) All bearings are assumed to be SP No.2 .
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 36, 45 lb uplift at joint 2, 39 lb uplift at joint 47, 41 lb uplift at joint 46, 37 lb uplift at joint 45, 18 lb uplift at joint 44, 40 lb uplift at joint 42, 60 lb uplift at joint 41, 57 lb uplift at joint 40, 56 lb uplift at joint 39, 57 lb uplift at joint 38, 53 lb uplift at joint 37, 41 lb uplift at joint 48, 37 lb uplift at joint 49, 22 lb uplift at joint 50, 6 lb uplift at joint 51, 47 lb uplift at joint 52, 59 lb uplift at joint 53, 56 lb uplift at joint 54, 56 lb uplift at joint 55, 55 lb uplift at joint 56, 55 lb uplift at joint 57, 55 lb uplift at joint 58, 55 lb uplift at joint 59, 55 lb uplift at joint 60, 55 lb uplift at joint 61, 54 lb uplift at joint 62, 55 lb uplift at joint 63, 54 lb uplift at joint 64, 268 lb uplift at joint 65 and 45 lb uplift at joint 2.
 - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

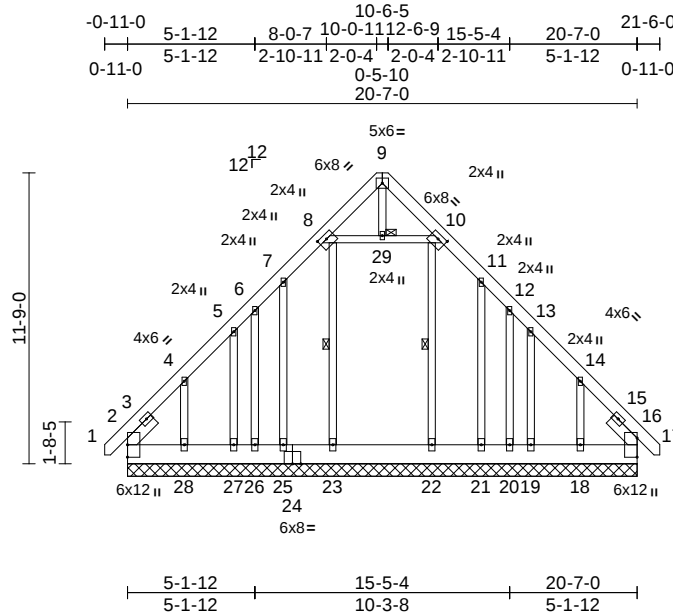
Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	B01	Attic Supported Gable	1	1	Job Reference (optional)	I71906817

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:41

Page: 1

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Scale = 1:93.1

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

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 256 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
WEBS 2x4 SP No.2 *Except* 9-29:2x4 SP No.3
OTHERS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

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.
WEBS 1 Row at midpt 8-23, 10-22
JOINTS 1 Brace at Jt(s): 29

REACTIONS (size) 2=20-7-0, 16=20-7-0, 18=20-7-0, 19=20-7-0, 20=20-7-0, 21=20-7-0, 22=20-7-0, 23=20-7-0, 25=20-7-0, 26=20-7-0, 27=20-7-0, 28=20-7-0
Max Horiz 2=-366 (LC 10)
Max Uplift 2=-183 (LC 8), 16=-143 (LC 9), 18=-355 (LC 13), 19=-41 (LC 12), 20=-124 (LC 13), 21=-64 (LC 13), 23=-2 (LC 9), 25=-66 (LC 12), 26=-125 (LC 12), 27=-46 (LC 13), 28=-368 (LC 12)
Max Grav 2=353 (LC 21), 16=322 (LC 20), 18=291 (LC 11), 19=114 (LC 1), 20=129 (LC 21), 21=98 (LC 1), 22=318 (LC 22), 23=333 (LC 20), 25=98 (LC 1), 26=131 (LC 20), 27=114 (LC 1), 28=310 (LC 10)

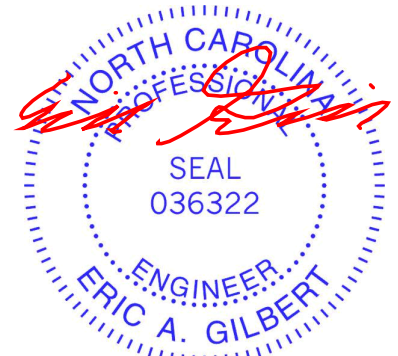
FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-4=-291/237, 4-5=-224/183, 5-6=-193/228, 6-7=-239/276, 7-8=-287/307, 8-9=-147/100, 9-10=-147/100, 10-11=-287/302, 11-12=-239/249, 12-13=-173/201, 13-14=-196/147, 14-16=-251/195, 16-17=0/34
BOT CHORD 2-28=-155/248, 27-28=-155/248, 26-27=-155/248, 25-26=-155/249, 23-25=-155/249, 22-23=-153/244, 21-22=-149/245, 20-21=-149/244, 19-20=-149/244, 18-19=-148/244, 16-18=-148/243
WEBS 12-20=-110/102, 6-26=-110/101, 8-29=-209/268, 10-29=-209/268, 9-29=-50/39, 8-23=-181/45, 7-25=-102/83, 5-27=-140/121, 4-28=-229/242, 10-22=-166/21, 11-21=-99/80, 13-19=-140/122, 14-18=-230/238

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 3x6 (I) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - All bearings are assumed to be SP DSS or 2400F 2.0E .
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 183 lb uplift at joint 2, 143 lb uplift at joint 16, 124 lb uplift at joint 20, 125 lb uplift at joint 26, 2 lb uplift at joint 23, 66 lb uplift at joint 25, 46 lb uplift at joint 27, 368 lb uplift at joint 28, 64 lb uplift at joint 21, 41 lb uplift at joint 19 and 355 lb uplift at joint 18.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16.
 - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard



March 10, 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.sbcacomponents.com)

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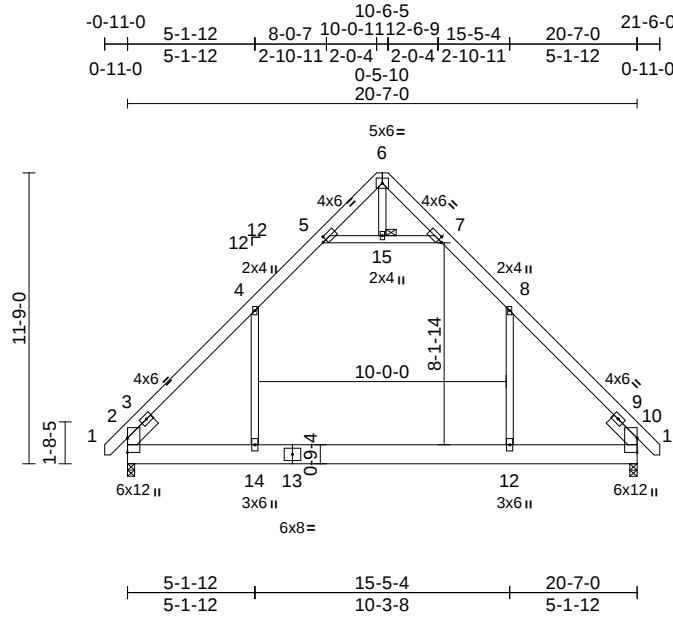
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906818
4619338	B02	Attic	1	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:41
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Page: 1



Scale = 1:93.1

Plate Offsets (X, Y): [5:0-1-13,0-2-0], [7:0-1-13,0-2-0]

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	0.86	Vert(LL)	-0.18	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.30	12-14	>815	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.12	12-14	>999	240	Weight: 189 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
WEBS 2x4 SP No.2 *Except* 6-15:2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-366 (LC 10)
Max Uplift 2=-69 (LC 13), 10=-69 (LC 12)
Max Grav 2=1247 (LC 21), 10=1247 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-4=-1452/262, 4-5=-806/265, 5-6=-50/204, 6-7=-50/204, 7-8=-805/265, 8-10=-1452/262, 10-11=0/34

BOT CHORD 2-14=-150/896, 12-14=0/897, 10-12=-23/895

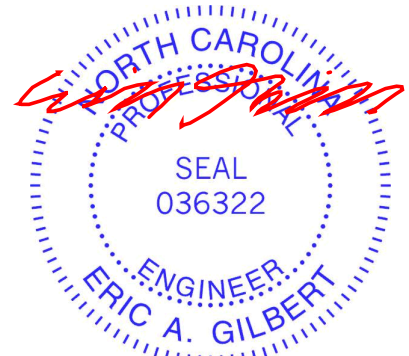
WEBS 8-12=-70/684, 4-14=-71/684, 5-15=-1038/412, 7-15=-1038/412, 6-15=0/69

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 7-8, 5-15, 7-15; Wall dead load (5.0psf) on member(s). 8-12, 4-14
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-14
- All bearings are assumed to be SP DSS or 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 69 lb uplift at joint 2 and 69 lb uplift at joint 10.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 10, 2025

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

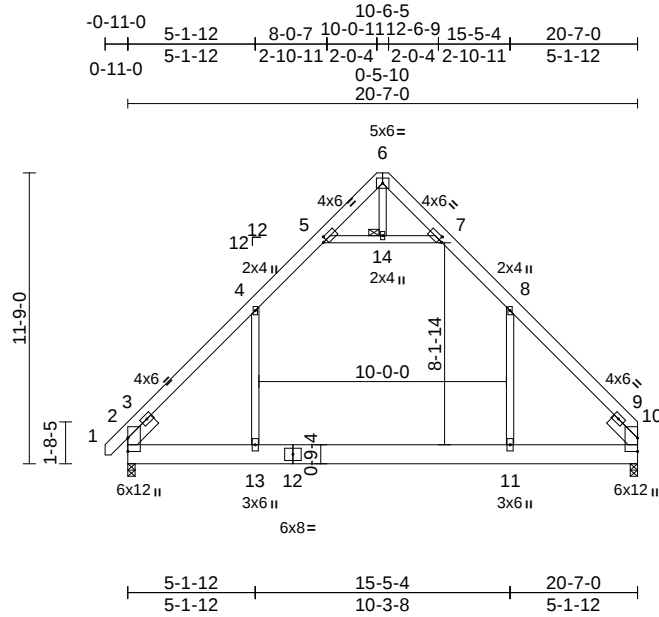
Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	B03	Attic	4	1	Job Reference (optional)	I71906819

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:41

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Scale = 1:93.1

Plate Offsets (X, Y): [5:0-1-13,0-2-0], [7:0-1-13,0-2-0]

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	0.86	Vert(LL)	-0.18	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.30	11-13	>814	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.19	Horz(CT)	-0.03	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.12	11-13	>999	240	Weight: 187 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
 WEBS 2x4 SP No.2 *Except* 6-14:2x4 SP No.3
 SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

JOINTS 1 Brace at Jt(s): 14

REACTIONS (size) 2=0-3-8, 10=0-3-8
 Max Horiz 2=357 (LC 9)
 Max Uplift 2=-68 (LC 13), 10=-61 (LC 12)
 Max Grav 2=1248 (LC 21), 10=1219 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-4=-1454/262, 4-5=-806/264, 5-6=-49/205, 6-7=-49/205, 7-8=-806/264, 8-10=-1453/249

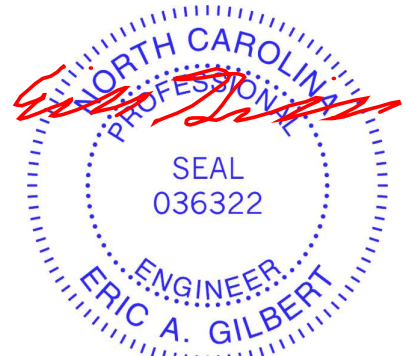
BOT CHORD 2-13=-166/884, 11-13=-4/885, 10-11=-33/883
 WEBS 8-11=-70/685, 4-13=-70/685, 5-14=-1039/411, 7-14=-1039/411, 6-14=0/69

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 7-8, 5-14, 7-14; Wall dead load (5.0psf) on member(s). 8-11, 4-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 11-13
- All bearings are assumed to be SP DSS or 2400F 2.0E .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 10 and 68 lb uplift at joint 2.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 10, 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.sbcacomponents.com)

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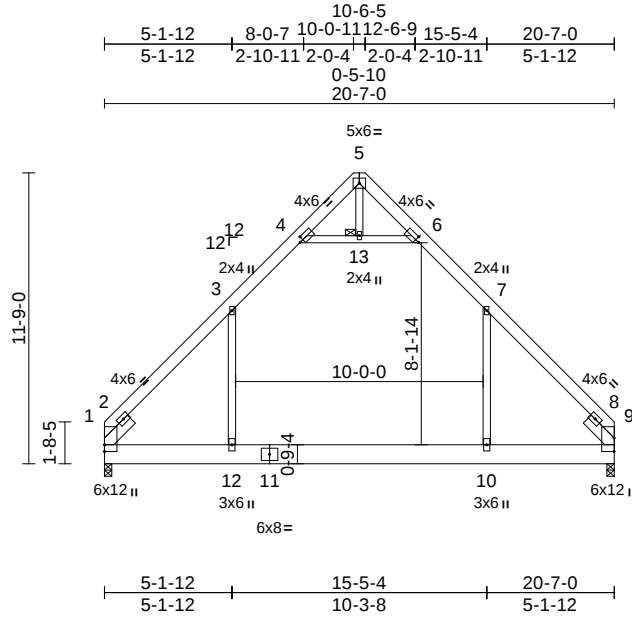
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	B04	Attic	3	1	Job Reference (optional)	I71906820

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:42
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Page: 1

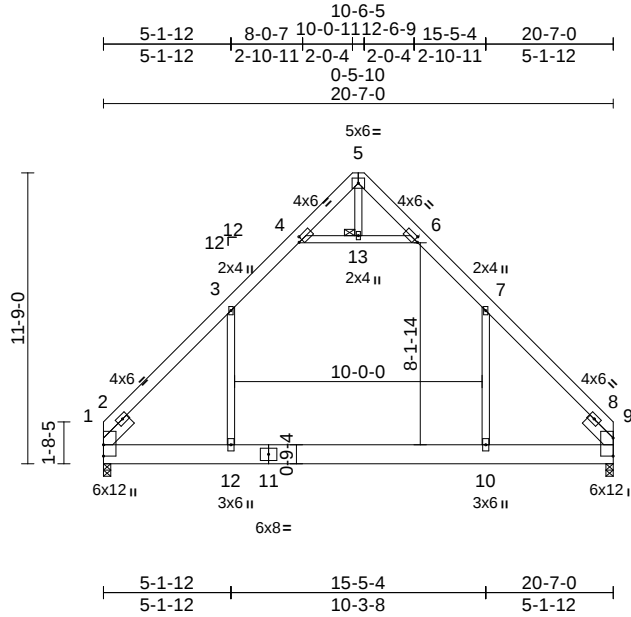


Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	
4619338	B05	Attic	1	2	Job Reference (optional)	I71906821

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Scale = 1:93.1

Plate Offsets (X, Y): [4:0-1-13,0-2-0], [6:0-1-13,0-2-0]

Loading	(psf)	Spacing	2-6-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.11	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.19	10-12	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.12	Horz(CT)	-0.02	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Wind(LL)	0.07	10-12	>999	240	Weight: 368 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP 2400F 2.0E or 2x10 SP DSS
WEBS 2x4 SP No.2 *Except* 5-13:2x4 SP No.3
SLIDER Left 2x6 SP No.2 -- 1-6-0, Right 2x6 SP No.2
-- 1-6-0

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.

JOINTS 1 Brace at Jt(s): 13

REACTIONS (size) 1=0-3-8, 9=0-3-8

Max Horiz 1=424 (LC 9)

Max Uplift 1=-75 (LC 13), 9=-75 (LC 12)

Max Grav 1=1525 (LC 21), 9=1525 (LC 20)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-3=-1818/237, 3-4=-1007/330, 4-5=-63/255,
5-6=-63/255, 6-7=-1007/330, 7-9=-1818/237

BOT CHORD 1-12=-181/1104, 10-12=-5/1105,
9-10=-36/1103

WEBS 7-10=-90/858, 3-12=-91/859,

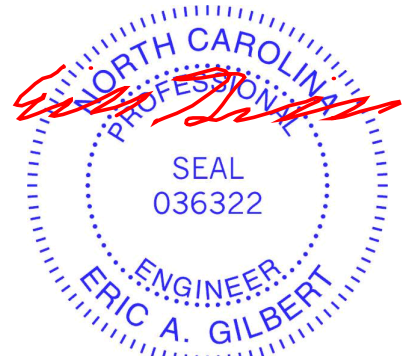
4-13=-1300/516, 6-13=-1300/516, 5-13=0/87

NOTES

- 2-ply truss to be connected together with 10d
(0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows
staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows
staggered at 0-9-0 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=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp C; Enclosed; MWFRS (envelope) exterior zone
and C-C Exterior (2) zone; cantilever left and right
exposed; end vertical left and right exposed; C-C for
members and forces & MWFRS for reactions shown;
Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 3-4, 6-7, 4-13,
6-13; Wall dead load (5.0psf) on member(s). 7-10, 3-12
- Bottom chord live load (40.0 psf) and additional bottom
chord dead load (5.0 psf) applied only to room. 10-12
- All bearings are assumed to be SP DSS or 2400F 2.0E .
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 75 lb uplift at joint
1 and 75 lb uplift at joint 9.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 10, 2025

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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.sbcacomponents.com)

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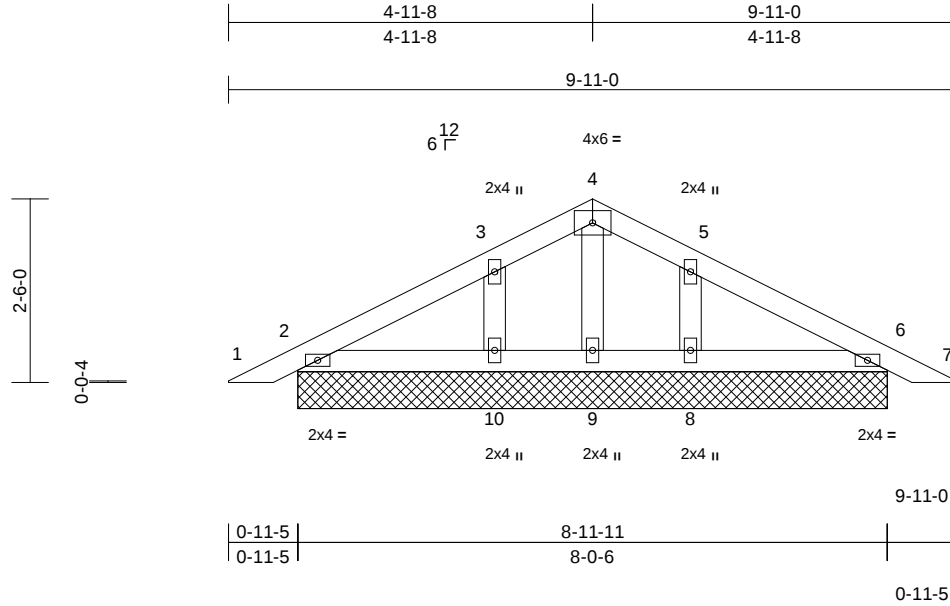
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906822
4619338	PB01	Piggyback	2	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

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Page: 1



Scale = 1:31.4

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	0.06	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 34 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=8-0-6, 6=8-0-6, 8=8-0-6, 9=8-0-6, 10=8-0-6
Max Horiz	2=52 (LC 12)
Max Uplift	2=-42 (LC 12), 6=-52 (LC 13), 8=-108 (LC 13), 10=-109 (LC 12)
Max Grav	2=137 (LC 1), 6=137 (LC 1), 8=215 (LC 1), 9=58 (LC 13), 10=215 (LC 1)

FORCES

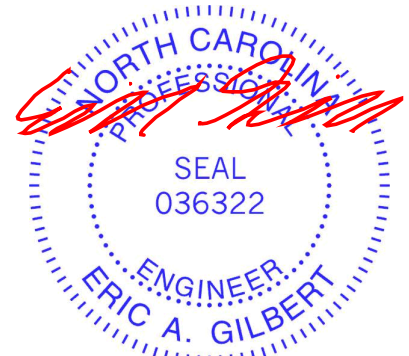
(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/17, 2-3=-37/47, 3-4=-50/103, 4-5=-50/103, 5-6=-29/30, 6-7=0/17
BOT CHORD	2-10=-13/61, 9-10=-13/61, 8-9=-13/61, 6-8=-13/61
WEBS	4-9=-44/10, 3-10=-141/153, 5-8=-141/154

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be SP No.2.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 2, 52 lb uplift at joint 6, 109 lb uplift at joint 10, 108 lb uplift at joint 8, 42 lb uplift at joint 2 and 52 lb uplift at joint 6.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- LOAD CASE(S)** Standard



March 10, 2025

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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.sbcacomponents.com)

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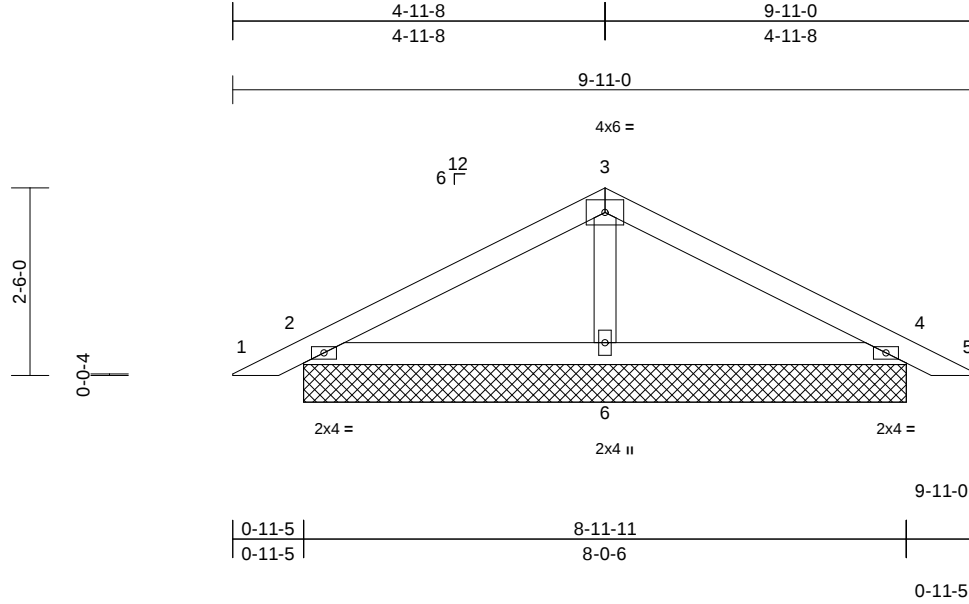
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	JSJ, Smith Prime	I71906823
4619338	PB02	Piggyback	19	1	Job Reference (optional)	

Builders FirstSource (Sumter, SC), Sumter, SC - 29153,

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Sun Mar 09 16:02:42
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Page: 1



Scale = 1:30.7

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 31 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=8-0-6, 4=8-0-6, 6=8-0-6
Max Horiz 2=-52 (LC 17)
Max Uplift 2=-80 (LC 12), 4=-90 (LC 13), 6=-52 (LC 12)
Max Grav 2=201 (LC 1), 4=201 (LC 1), 6=318 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-95/104, 3-4=-95/105, 4-5=0/17

BOT CHORD 2-6=-26/62, 4-6=-19/62

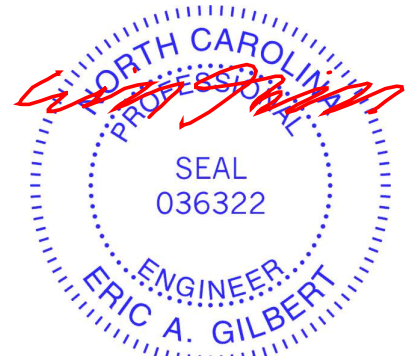
WEBS 3-6=-175/118

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 2, 90 lb uplift at joint 4, 52 lb uplift at joint 6, 80 lb uplift at joint 2 and 90 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



March 10, 2025

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

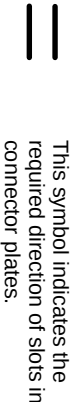
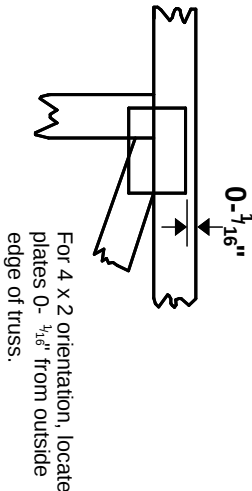
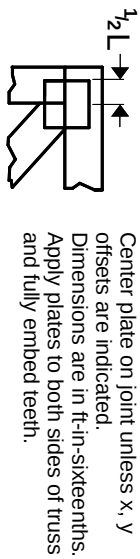
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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.sbcacomponents.com)

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Symbols

PLATE LOCATION AND ORIENTATION



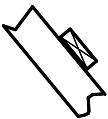
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

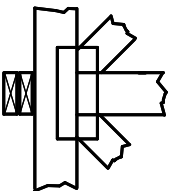
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

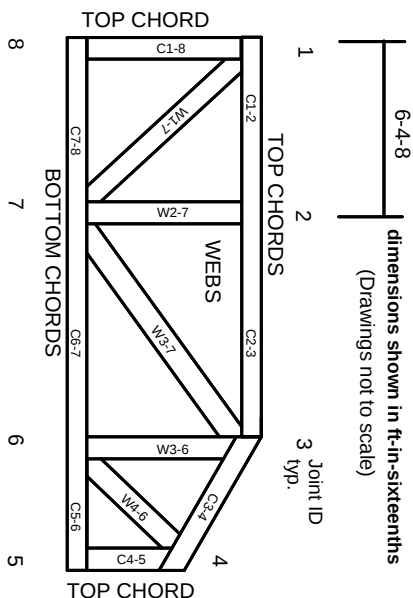


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: 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 1 section 6.3. These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: MII-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.