

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: P04249-28231
1059 Serenity ** REVISED 10/10

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I77054244 thru I77054276

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

North Carolina COA: C-0844



October 15, 2025

Garcia, Juan

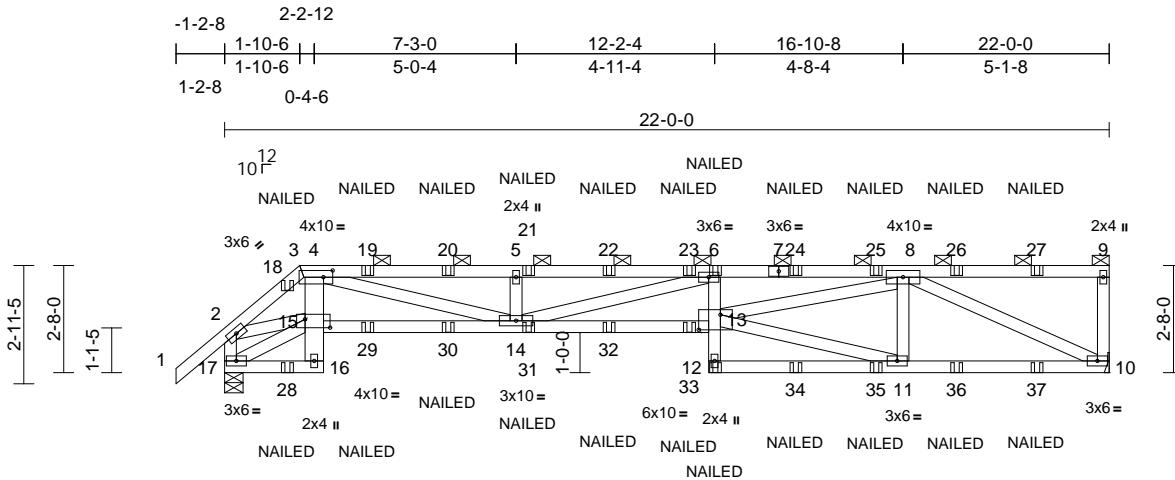
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job P04249-28231	Truss A01G	Truss Type Half Hip Girder	Qty 1	Ply 2	1059 Serenity ** REVISED 10/10	I77054244
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:34:43
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Page: 1



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Plate Offsets (X, Y): [3:0-2-12,0-2-0], [13:0-6-8,0-4-8], [15:0-7-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.19	13-14	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.40	13-14	>658	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.14	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS							
BCDL	10.0										
Weight: 253 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 16-4:2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-0 max.); 3-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10= Mechanical, 17=0-5-8

Max Horiz 17=79 (LC 9)

Max Uplift 10=235 (LC 7), 17=-258 (LC 7)

Max Grav 10=1190 (LC 2), 17=1320 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-1772/423, 3-4=-1339/334, 4-5=-4339/948, 5-6=-4339/948, 6-8=-5133/1098, 8-9=-52/25, 9-10=-148/51, 2-17=-1089/234

BOT CHORD 16-17=-97/328, 15-16=-39/101, 4-15=-63/218, 14-15=-537/2029, 13-14=-1209/5536, 12-13=0/107, 6-13=-59/93, 11-12=-87/426, 10-11=-424/2016

WEBS 4-14=-493/2404, 5-14=-450/149, 6-14=-1241/255, 11-13=-337/1620, 8-13=-733/3229, 8-11=-256/137, 8-10=-2203/450, 15-17=-368/122, 2-15=-289/1343

NOTES

- 1) 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: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL; Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) Provide adequate drainage to prevent water ponding.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) Refer to girder(s) for truss to truss connections.



October 15, 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)

ENGINEERING BY
TRENCO
A MiTek Affiliate

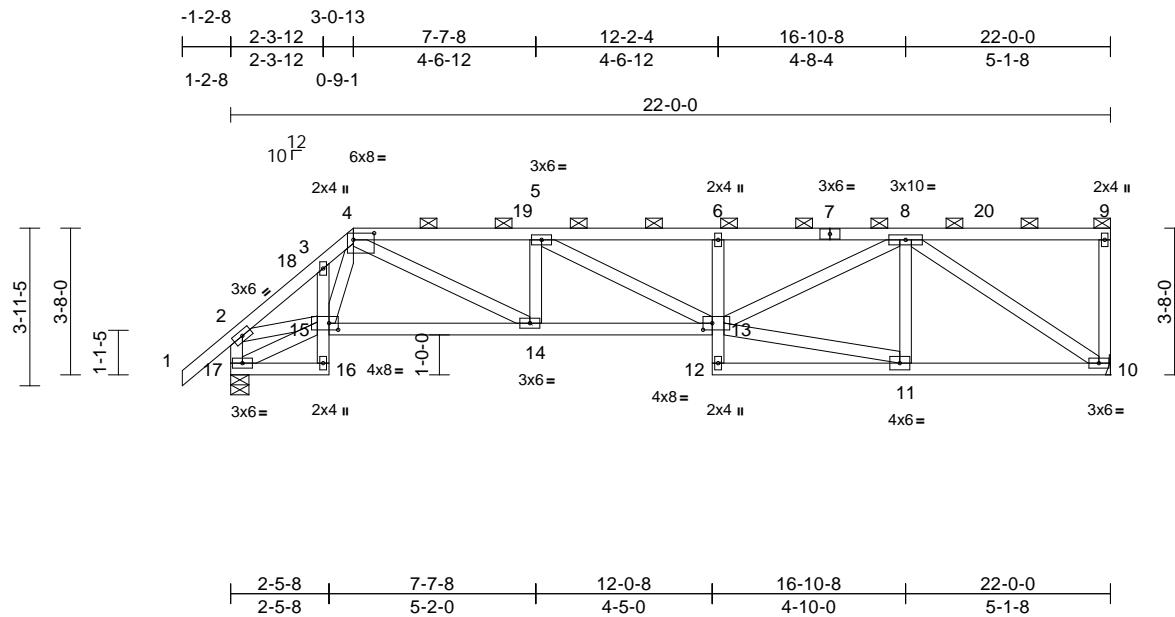
818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss A02	Truss Type Half Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054245
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Page: 1



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Plate Offsets (X, Y): [4:0-6-4,0-2-0], [13:0-2-12,0-2-0], [15:0-2-12,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.09	13-14	>999	240	MT20	244/190
Snow (PfPg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.18	13-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.08	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 137 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins, except end verticals, and 2-0-0 oc purlins (4-0-4 max.); 4-9.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10= Mechanical, 17=0-5-8

Max Horiz 17=107 (LC 11)

Max Uplift 10=121 (LC 11), 17=-75 (LC 11)

Max Grav 10=866 (LC 2), 17=952 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=1285/194, 3-4=1225/204, 4-5=1836/265, 5-6=1981/279, 6-8=1941/274, 8-9=59/50, 9-10=130/37, 2-17=923/123

BOT CHORD 16-17=13/24, 15-16=0/39, 3-15=-46/44, 14-15=-198/923, 13-14=-304/1836, 12-13=0/82, 6-13=-259/72, 11-12=-16/117, 10-11=-166/1036

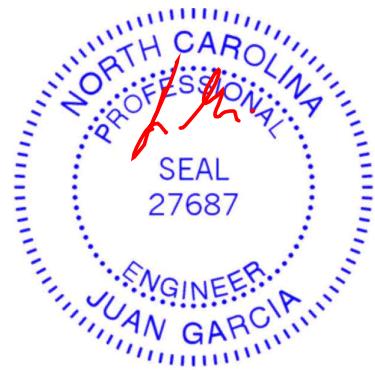
WEBS 8-10=-1227/173, 5-13=-49/177, 4-15=-90/187, 4-14=-153/1044, 5-14=-368/105, 15-17=-159/126, 2-15=-109/919, 8-11=-95/73, 11-13=-153/940, 8-13=-165/1015

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-0-13, Exterior(2R) 3-0-13 to 7-3-11, Interior (1) 7-3-11 to 21-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 10 and 75 lb uplift at joint 17.
- 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



October 15, 2025

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

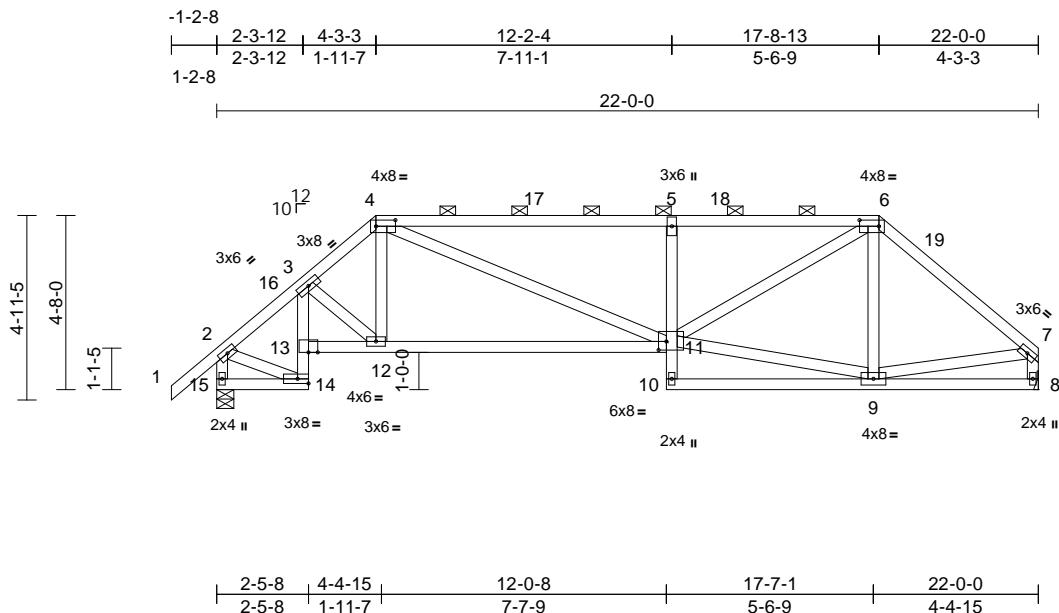
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job P04249-28231	Truss A03	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054246
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:61.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.11	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.25	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.10	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 136 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 14-3:2x4 SP No.1
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.); 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8= Mechanical, 15=0-5-8

Max Horiz 15=102 (LC 13)

Max Uplift 8=50 (LC 10), 15=50 (LC 11)

Max Grav 8=866 (LC 2), 15=952 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-899/85, 3-4=-1185/132, 4-5=-1483/174, 5-6=-1433/167, 6-7=-977/92, 2-15=-996/89, 7-8=-829/65

BOT CHORD 14-15=-95/92, 13-14=-154/20, 3-13=-260/4, 12-13=-158/851, 11-12=-137/925, 10-11=0/99, 5-11=-470/135, 9-10=-19/79, 8-9=-38/82

WEBS 3-12=-65/138, 4-12=-3/323, 4-11=-139/644, 9-11=-33/613, 6-11=-155/896, 6-9=-134/55, 2-14=-17/630, 7-9=-70/618

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-2-8 to 1-9-8, Interior (1) 1-9-8 to 4-3-3, Exterior(2R) 4-3-3 to 8-6-2, Interior (1) 8-6-2 to 17-8-13, Exterior(2E) 17-8-13 to 21-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 15 and 50 lb uplift at joint 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



October 15, 2025

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

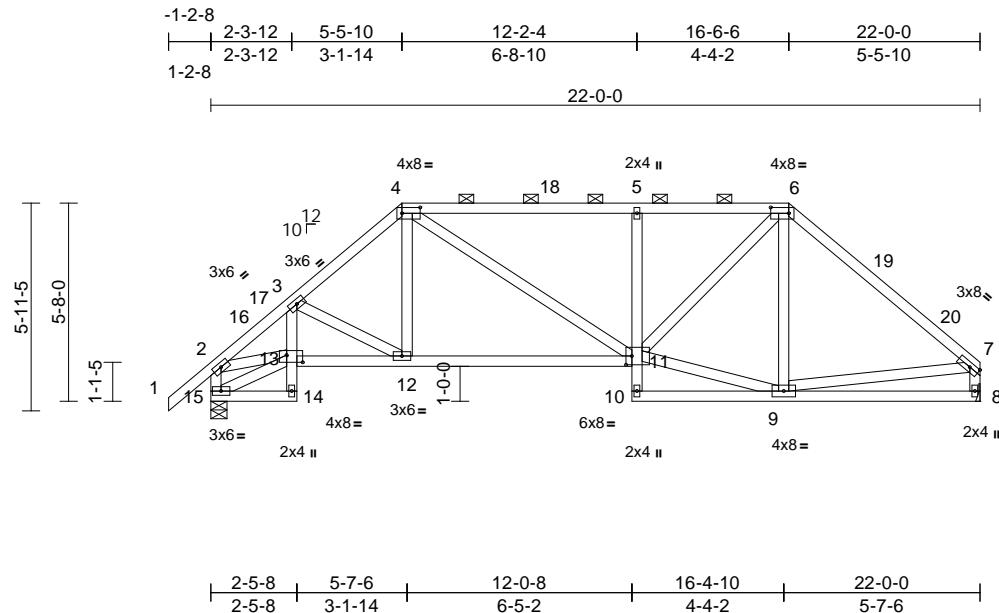
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job P04249-28231	Truss A04	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054247
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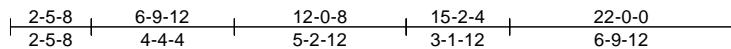
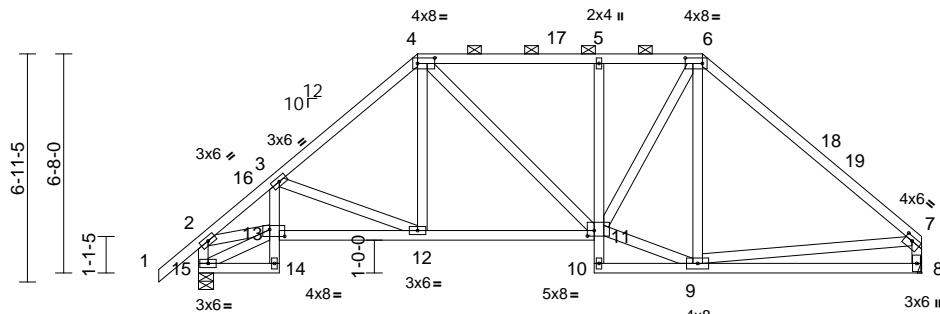
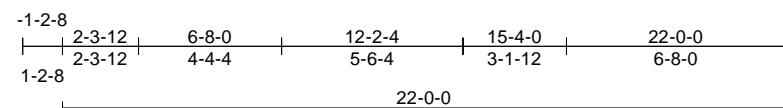
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Page: 1



Job P04249-28231	Truss A05	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
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Scale = 1:70.1

Plate Offsets (X, Y): [4:0-6-4,0-2-0], [6:0-6-4,0-2-0], [7:0-2-12,0-1-8], [11:0-2-8,0-2-0], [13:0-5-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.13	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 152 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-13 max.): 4-6.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS (size) 8= Mechanical, 15=0-5-8

Max Horiz 15=138 (LC 11)

Max Uplift 8=40 (LC 15), 15=-57 (LC 14)

Max Grav 8=866 (LC 2), 15=952 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-1344/143, 3-4=-1065/121, 4-5=-890/129, 5-6=-876/128, 6-7=-973/104, 2-15=-900/86, 7-8=-800/78

BOT CHORD 14-15=-15/54, 13-14=0/40, 3-13=-47/179, 12-13=-187/1056, 11-12=-95/756, 10-11=-1/3, 5-11=-297/100, 9-10=-30/18, 8-9=-82/212

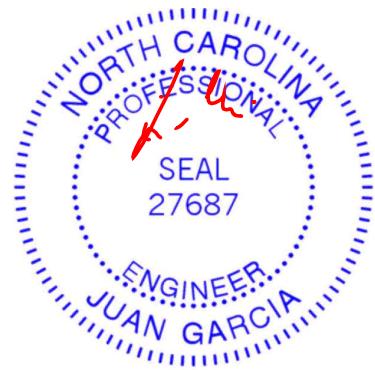
WEBS 3-12=-377/152, 4-12=-18/299, 4-11=-87/247, 9-11=-10/658, 6-11=-117/510, 6-9=-155/52, 7-9=-73/438, 13-15=-140/109, 2-13=-76/1002

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-2-8 to 1-9-8, Interior (1) 1-9-8 to 6-8-0, Exterior(2R) 6-8-0 to 10-10-15, Interior (1) 10-10-15 to 15-4-0, Exterior(2R) 15-4-0 to 19-6-15, Interior (1) 19-6-15 to 21-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 8 and 57 lb uplift at joint 15.
- 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

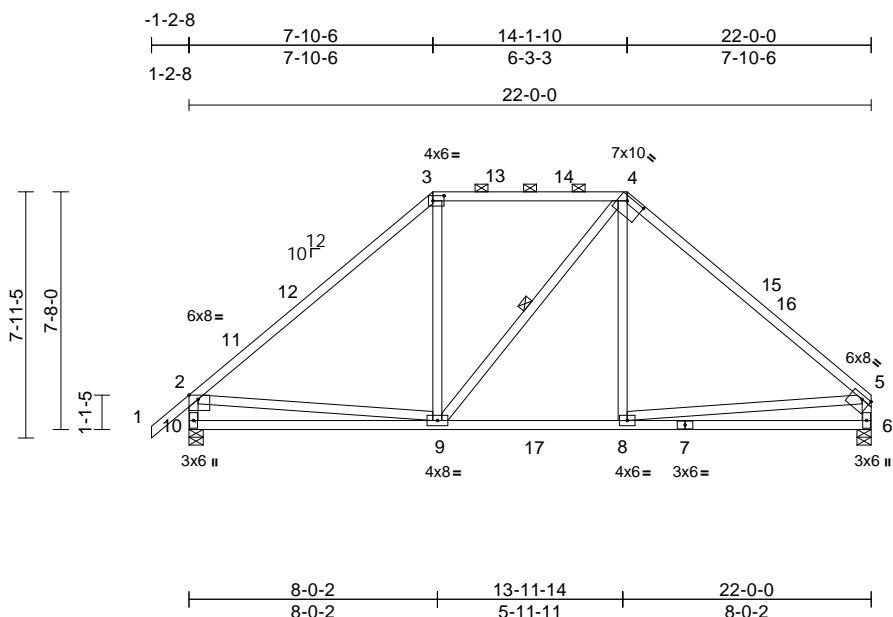


October 15, 2025

 **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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job P04249-28231	Truss A06	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,	Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:46 ID:e1LU6aXlwHvontlZ5tu9yHzx3re-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f	Page: 1			



Scale = 1:74.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.11	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.22	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 135 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 4-5:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 4-9

REACTIONS (size) 6=0-5-8, 10=0-5-8

Max Horiz 10=157 (LC 11)

Max Uplift 6=46 (LC 15), 10=-63 (LC 14)

Max Grav 6=945 (LC 3), 10=1011 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-1015/111, 3-4=-680/134, 4-5=-1020/109, 2-10=-879/113, 5-6=-815/82

BOT CHORD 9-10=-268/557, 8-9=-15/690, 6-8=-119/336

WEBS 3-9=-11/283, 4-8=0/294, 2-9=-121/427,

5-8=-90/465, 4-9=-90/82

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 7-10-6, Exterior(2R) 7-10-6 to 12-1-5, Interior (1) 12-1-5 to 14-1-10, Exterior(2R) 14-1-10 to 18-4-8, Interior (1) 18-4-8 to 21-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 10 and 46 lb uplift at joint 6.
- 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



October 15, 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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

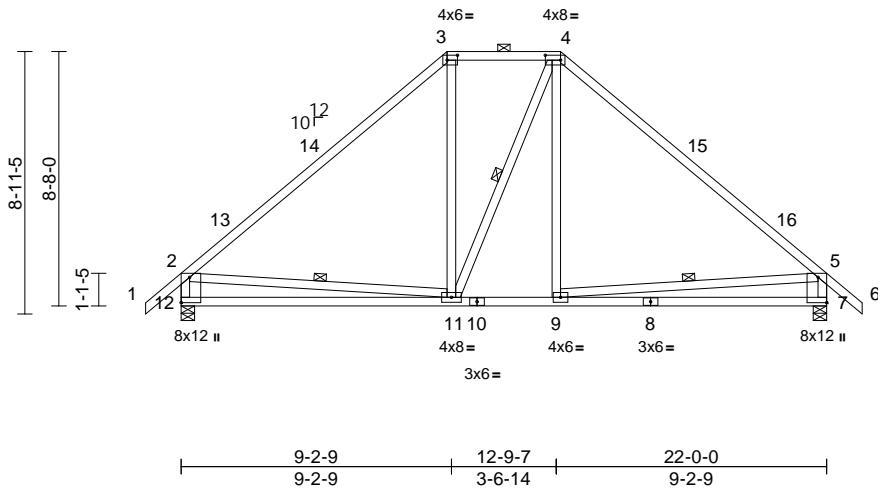
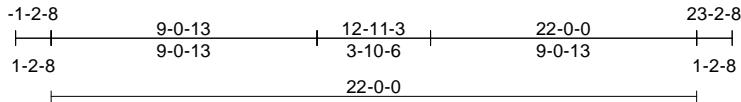
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss A07	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054250
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:47
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Page: 1



Scale = 1:78.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.19	11-12	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.38	11-12	>683	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 144 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 3-4:2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 2-11, 5-9, 4-11

REACTIONS (size) 7=0-5-8, 12=0-5-8

Max Horiz 12=182 (LC 13)

Max Uplift 7=67 (LC 15), 12=67 (LC 14)

Max Grav 7=950 (LC 2), 12=950 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-934/106, 3-4=-572/142, 4-5=-935/117, 5-6=0/52, 2-12=-861/108, 5-7=-862/117

BOT CHORD 11-12=-328/681, 9-11=0/571, 7-9=-246/548

WEBS 3-11=-34/248, 4-9=0/245, 2-11=-179/349, 5-9=-184/353, 4-11=-107/112

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCCL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-2-8 to 1-9-8, Interior (1) 1-9-8 to 9-0-13, Exterior(2E) 9-0-13 to 12-11-3, Exterior(2R) 12-11-3 to 17-2-2, Interior (1) 17-2-2 to 23-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- The Fabrication Tolerance at joint 2 = 16%, joint 5 = 16%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 12 and 67 lb uplift at joint 7.
- 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



October 15, 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)

TRENCO
Engineering by
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss A08	Truss Type Hip	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054251
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:47
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Page: 1

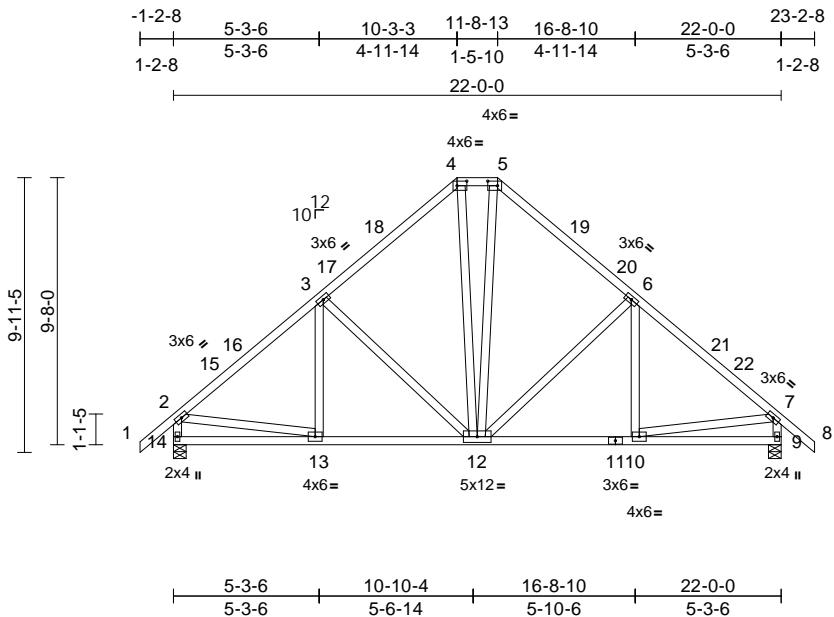


Plate Offsets (X, Y): [4:0-4-4,0-2-0], [5:0-4-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.02	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.06	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 160 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-13 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.); 4-5.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 9=0-5-8, 14=0-5-8

Max Horiz 14=201 (LC 15)

Max Uplift 9=71 (LC 17), 14=71 (LC 16)

Max Grav 9=950 (LC 2), 14=950 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/52, 2-3=-1020/86, 3-4=-802/138, 4-5=-536/135, 5-6=-802/139, 6-7=-1020/90, 7-8=0/52, 2-14=-901/95, 7-9=-901/98

BOT CHORD 13-14=-183/260, 12-13=-68/748, 10-12=0/733, 9-10=-39/105

WEBS 3-13=-2/151, 6-10=-4/151, 2-13=0/646, 7-10=0/646, 4-12=-78/272, 5-12=-78/272, 3-12=-317/141, 6-12=-317/141

NOTES

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 10-3-3, Exterior(2E) 10-3-3 to 11-8-13, Exterior(2R) 11-8-13 to 15-11-11, Interior (1) 15-11-11 to 23-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) Provide adequate drainage to prevent water ponding.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 14 and 71 lb uplift at joint 9.
- 11) 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



October 15, 2025



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

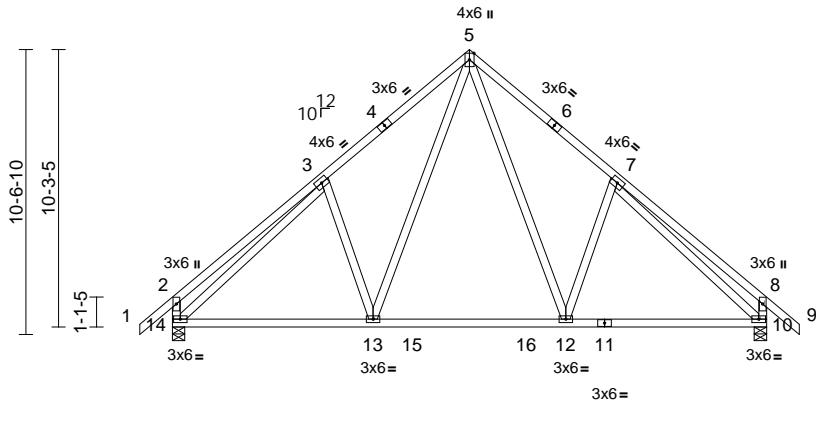
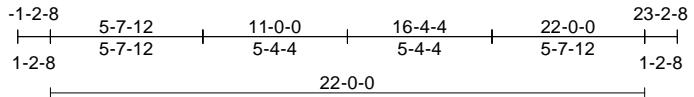
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 DS-B-22** available from the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

Job P04249-28231	Truss A10	Truss Type Common	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054253
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:47
ID:WjTlgil9?dru51sGLRk8Mnx3se-Rfc?PsB70Hq3NsPqnL8w3uITxbGKWrCDo7J4zJC?f

Page: 1



7-5-3 14-6-13 22-0-0
7-5-3 7-1-11 7-5-3

Scale = 1:85.3

Loading	(psf)	Spacing	2-3-8	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.11	12-13	>999	240		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.16	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 151 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10=0-5-8, 14=0-5-8
Max Horiz 14=242 (LC 13)
Max Uplift 10=83 (LC 15), 14=83 (LC 14)
Max Grav 10=1196 (LC 28), 14=1196 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/60, 2-3=-417/175, 3-5=-1161/220, 5-7=-1161/220, 7-8=-417/174, 8-9=0/60, 2-14=-462/161, 8-10=-462/161

BOT CHORD 13-14=-92/993, 12-13=0/694, 10-12=-2/891

WEBS 5-12=-160/622, 7-12=-263/215,

5-13=-159/622, 3-13=-263/215, 3-14=-972/3, 7-10=-972/3

NOTES

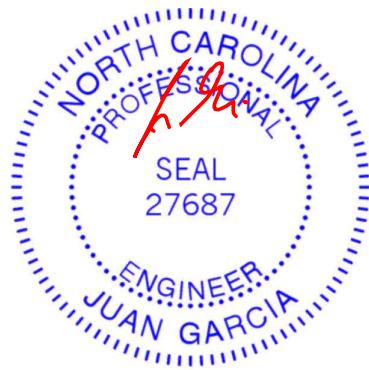
1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; V_{ll}=115mph (3-second gust)
V_{sd}=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-2-8 to 1-9-8, Interior (1) 1-9-8 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior (1) 14-0-0 to 23-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; P_r=20.0 psf (roof LL: Lum DOL=1.5
Plate DOL=1.15); P_g=10.0 psf; P_f=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); I_s=1.0; Rough Cat B; Partially Exp.; C_e=1.0; C_s=1.00; C_t=1.00

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 10 and 83 lb uplift at joint 14.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



October 15, 2025



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

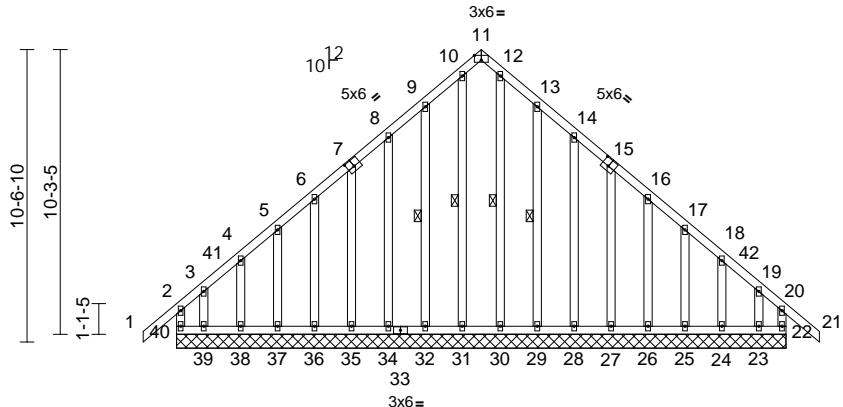
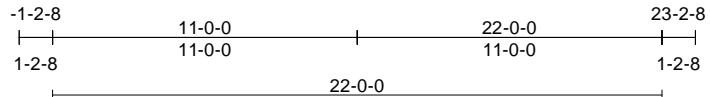
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

Job P04249-28231	Truss A13	Truss Type Common Supported Gable	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054256
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:48
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Page: 1



Scale = 1:83.2

Plate Offsets (X, Y): [7:0-3-0,0-3-0], [11:0-3-0,Edge], [15:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 208 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2	TOP CHORD	2-40=203/102, 20-22=-179/72, 1-2=0/52, 2-3=-184/156, 3-4=-116/118, 4-5=-102/104, 5-6=-90/98, 6-8=-78/137, 8-9=-93/181, 9-10=-125/238, 10-11=-85/152, 11-12=-85/152, 12-13=-125/238, 13-14=-93/181, 14-16=-69/137, 16-17=-61/75, 17-18=-73/76, 18-19=-92/90, 19-20=-160/118, 20-21=0/52
BOT CHORD	2x4 SP No.2	BOT CHORD	39-40=101/123, 38-39=-101/123, 37-38=-101/123, 36-37=101/123, 35-36=-101/123, 34-35=101/123, 32-34=-101/123, 31-32=-101/123, 30-31=101/123, 29-30=-101/123, 28-29=-101/123, 27-28=-101/123, 26-27=-101/123, 25-26=-101/123, 24-25=-101/123, 23-24=-101/123, 22-23=-101/123
WEBS	2x4 SP No.2	WEBS	10-31=143/47, 12-30=-143/47, 9-32=-84/74, 8-34=-84/51, 7-35=-84/48, 6-36=-84/49, 5-37=-84/49, 4-38=-88/52, 3-39=-87/104, 13-29=-86/74, 14-28=-84/51, 15-27=-84/48, 16-26=-84/49, 17-25=-84/49, 18-24=-88/52, 19-23=-81/97
OTHERS	2x4 SP No.2		

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	TOP CHORD	2-40=203/102, 20-22=-179/72, 1-2=0/52, 2-3=-184/156, 3-4=-116/118, 4-5=-102/104, 5-6=-90/98, 6-8=-78/137, 8-9=-93/181, 9-10=-125/238, 10-11=-85/152, 11-12=-85/152, 12-13=-125/238, 13-14=-93/181, 14-16=-69/137, 16-17=-61/75, 17-18=-73/76, 18-19=-92/90, 19-20=-160/118, 20-21=0/52
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	BOT CHORD	39-40=101/123, 38-39=-101/123, 37-38=-101/123, 36-37=101/123, 35-36=-101/123, 34-35=101/123, 32-34=-101/123, 31-32=-101/123, 30-31=101/123, 29-30=-101/123, 28-29=-101/123, 27-28=-101/123, 26-27=-101/123, 25-26=-101/123, 24-25=-101/123, 23-24=-101/123, 22-23=-101/123
WEBS	1 Row at midpt	WEBS	10-31=143/47, 12-30=-143/47, 9-32=-84/74, 8-34=-84/51, 7-35=-84/48, 6-36=-84/49, 5-37=-84/49, 4-38=-88/52, 3-39=-87/104, 13-29=-86/74, 14-28=-84/51, 15-27=-84/48, 16-26=-84/49, 17-25=-84/49, 18-24=-88/52, 19-23=-81/97
REACTIONS (size)	22=22-0-0, 23=22-0-0, 24=22-0-0, 25=22-0-0, 26=22-0-0, 27=22-0-0, 28=22-0-0, 29=22-0-0, 30=22-0-0, 31=22-0-0, 32=22-0-0, 34=22-0-0, 35=22-0-0, 36=22-0-0, 37=22-0-0, 38=22-0-0, 39=22-0-0, 40=22-0-0		

Max Horiz 40=-211 (LC 12)
Max Uplift 22=-106 (LC 11), 23=-177 (LC 15), 24=-28 (LC 15), 25=-48 (LC 15), 26=-43 (LC 15), 27=-43 (LC 15), 28=-45 (LC 15), 29=-64 (LC 15), 32=-62 (LC 14), 34=-44 (LC 14), 35=-41 (LC 14), 36=-41 (LC 14), 37=-46 (LC 14), 38=-23 (LC 14), 39=-189 (LC 14), 40=-149 (LC 10)
Max Grav 22=236 (LC 26), 23=171 (LC 13), 24=143 (LC 33), 25=135 (LC 27), 26=133 (LC 27), 27=131 (LC 27), 28=129 (LC 27), 29=129 (LC 27), 30=163 (LC 28), 31=168 (LC 29), 32=122 (LC 26), 34=120 (LC 26), 35=119 (LC 26), 36=117 (LC 26), 37=117 (LC 26), 38=120 (LC 32), 39=187 (LC 12), 40=265 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



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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 DS-B-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)

Job P04249-28231	Truss A13	Truss Type Common Supported Gable	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054256
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:48
ID:I4uusMapPmfQ3CsBXR2?ymzw3a6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

12) * 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.

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 22, 149 lb uplift at joint 40, 62 lb uplift at joint 32, 44 lb uplift at joint 34, 41 lb uplift at joint 35, 41 lb uplift at joint 36, 46 lb uplift at joint 37, 23 lb uplift at joint 38, 189 lb uplift at joint 39, 64 lb uplift at joint 29, 45 lb uplift at joint 28, 43 lb uplift at joint 27, 43 lb uplift at joint 26, 48 lb uplift at joint 25, 28 lb uplift at joint 24 and 177 lb uplift at joint 23.

14) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-2=-35, 2-11=-35, 11-20=-35, 20-21=-35

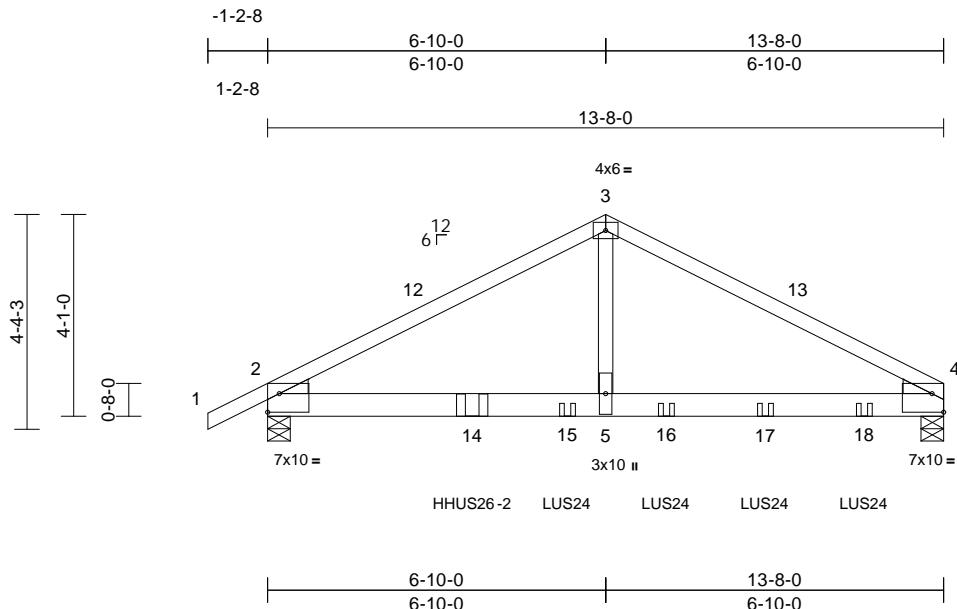
Trapezoidal Loads (lb/ft)

Vert: 40=-20-to-39=-21 (F=-1), 39=-21 (F=-1)-to-38=-21 (F=-1), 38=-21 (F=-1)-to-37=-22 (F=-2), 37=-22 (F=-2)-to-36=-23 (F=-3), 36=-23 (F=-3)-to-35=-24 (F=-4), 35=-24 (F=-4)-to-34=-25 (F=-5), 34=-25 (F=-5)-to-33=-25 (F=-5), 33=-25 (F=-5)-to-32=-26 (F=-6), 32=-26 (F=-6)-to-31=-27 (F=-7), 31=-27 (F=-7)-to-30=-28 (F=-8), 30=-28 (F=-8)-to-29=-29 (F=-9), 29=-29 (F=-9)-to-28=-30 (F=-10), 28=-30 (F=-10)-to-27=-31 (F=-11), 27=-31 (F=-11)-to-26=-32 (F=-12), 26=-32 (F=-12)-to-25=-33 (F=-13), 25=-33 (F=-13)-to-24=-34 (F=-14), 24=-34 (F=-14)-to-23=-34 (F=-14), 23=-34 (F=-14)-to-22=-35 (F=-15)

 **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 **ANS/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job P04249-28231	Truss B01G	Truss Type Common Girder	Qty 1	Ply 2	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:49 ID:B6JspZmcez7SFWRJQcTtaXzx4hZ-Rfc?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i I77054257 Page: 1



Scale = 1:46.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.08	5-11	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.14	5-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 127 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.2
WEDGE Left: 2x4 SP No.2
Right: 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4=0-5-8
Max Horiz 2=57 (LC 12)
Max Uplift 2=339 (LC 12), 4=277 (LC 13)
Max Grav 2=2578 (LC 2), 4=3141 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-4133/483, 3-4=-4106/483
BOT CHORD 2-5=-386/3624, 4-5=-386/3624

WEBS 3-5=-350/3241

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 0-9-0 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 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 339 lb uplift at joint 2 and 277 lb uplift at joint 4.
- Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 4-1-10 from the left end to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 12-0-12 to connect truss(es) to front 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=-35, 3-4=-35, 6-9=-20

Concentrated Loads (lb)

Vert: 14=-1072 (F), 15=-686 (F), 16=-647 (F), 17=-635 (F), 18=-623 (F)



October 15, 2025

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

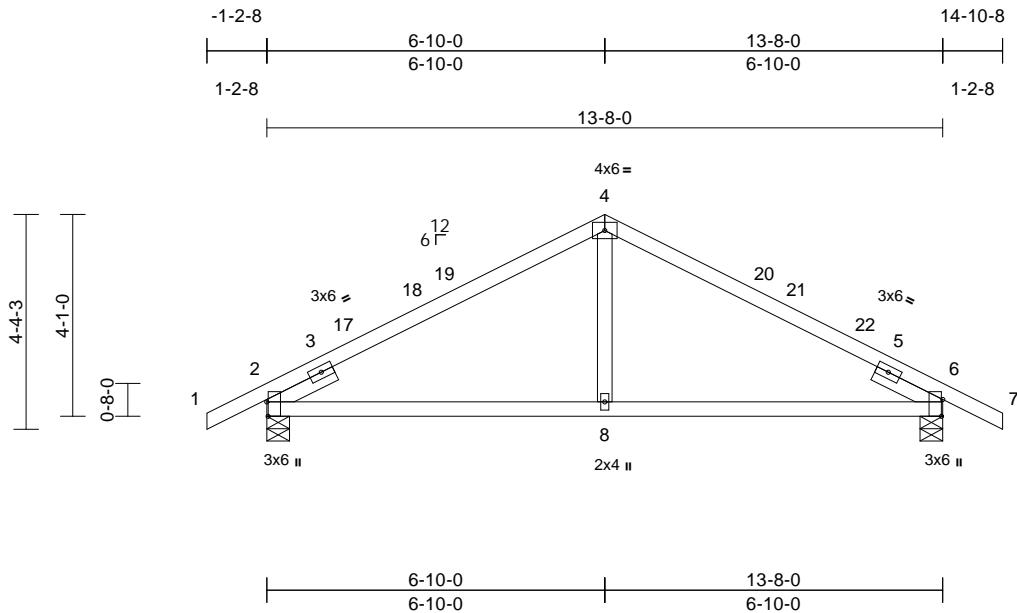
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job P04249-28231	Truss B02	Truss Type Common	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054258
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:49
ID:typxek3El8phlc?91QRHEIzx4iT-Rfc?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:46.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.06	8-15	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.10	8-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 57 lb	FT = 20%
BCDL	10.0										

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-6-0, Right 2x4 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.

REACTIONS (size) 2=0-5-8, 6=0-5-8

Max Horiz 2=50 (LC 16)

Max Uplift 2=-61 (LC 16), 6=-61 (LC 17)

Max Grav 2=619 (LC 2), 6=619 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-4=-690/174, 4-6=-690/174, 6-7=0/32

BOT CHORD 2-8=-130/553, 6-8=-133/553

WEBS 4-8=0/293

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 6-10-0, Exterior(2R) 6-10-0 to 9-10-0, Interior (1) 9-10-0 to 14-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL; Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 2 and 61 lb uplift at joint 6.

LOAD CASE(S) Standard



October 15, 2025



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-743 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 or 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.sbcaccomponents.com)

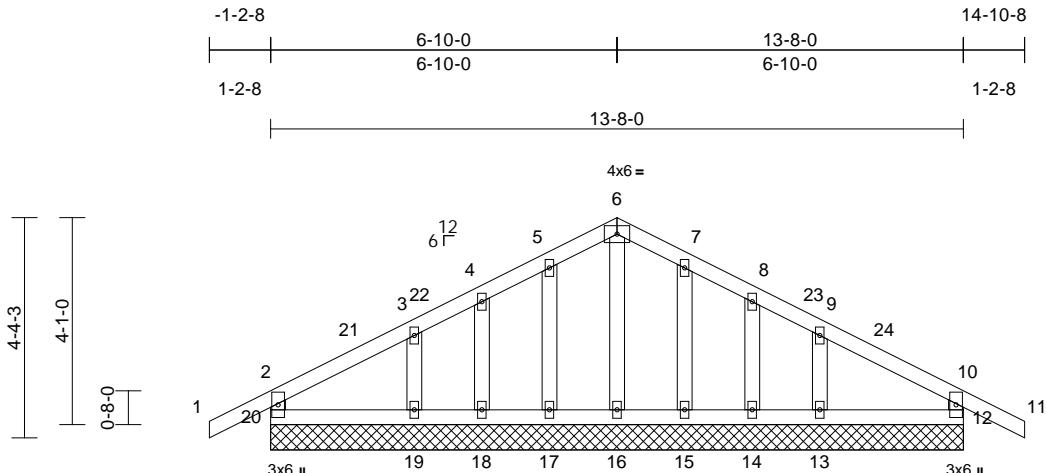
TRENCO
Engineering by
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss B03E	Truss Type Common Supported Gable	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					I77054259

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:49
ID:6tG3qNYtBEWfG9o5acgQXSzx4j7-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:45.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 73 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.2

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

REACTIONS (size) 12=13-8-0, 13=13-8-0, 14=13-8-0, 15=13-8-0, 16=13-8-0, 17=13-8-0, 18=13-8-0, 19=13-8-0, 20=13-8-0
Max Horiz 20=-48 (LC 14)
Max Uplift 12=-30 (LC 17), 13=-54 (LC 17), 14=-18 (LC 17), 15=-25 (LC 17), 17=-25 (LC 16), 18=-16 (LC 16), 19=-51 (LC 16), 20=-21 (LC 16)
Max Grav 12=222 (LC 37), 13=224 (LC 2), 14=90 (LC 37), 15=137 (LC 37), 16=109 (LC 2), 17=129 (LC 36), 18=90 (LC 36), 19=182 (LC 2), 20=201 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-20=174/114, 1-2=0/36, 2-3=-54/43, 3-4=-47/73, 4-5=52/100, 5-6=-65/130, 6-7=-65/130, 7-8=-53/100, 8-9=-48/74, 9-10=-46/36, 10-11=0/36, 10-12=-172/112
BOT CHORD 19-20=-7/52, 18-19=-7/52, 17-18=-7/52, 16-17=-7/52, 15-16=-7/52, 14-15=-7/52, 13-14=-7/52, 12-13=-7/52
WEBS 6-16=-71/16, 5-17=-88/50, 4-18=-66/44, 3-19=-124/91, 7-15=-88/50, 8-14=-66/44, 9-13=-127/92

NOTES

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

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-2-8 to 1-9-8, Exterior(2N) 1-9-8 to 6-10-0, Corner(3R) 6-10-0 to 9-10-0, Exterior(2N) 9-10-0 to 14-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 20, 30 lb uplift at joint 12, 25 lb uplift at joint 17, 16 lb uplift at joint 18, 51 lb uplift at joint 19, 25 lb uplift at joint 15, 18 lb uplift at joint 14 and 54 lb uplift at joint 13.

- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-35, 2-6=-35, 6-10=-35, 10-11=-35
Trapezoidal Loads (lb/ft)
Vert: 20=20-to-19=-23 (F=-3), 19=-23 (F=-3)-to-18=-25 (F=-5), 18=-25 (F=-5)-to-17=-26 (F=-6), 17=-26 (F=-6)-to-16=-27 (F=-7), 16=-27 (F=-7)-to-15=-29 (F=-9), 15=-29 (F=-9)-to-14=-30 (F=-10), 14=-30 (F=-10)-to-13=-32 (F=-12), 13=-32 (F=-12)-to-12=-35 (F=-15)



October 15, 2025

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

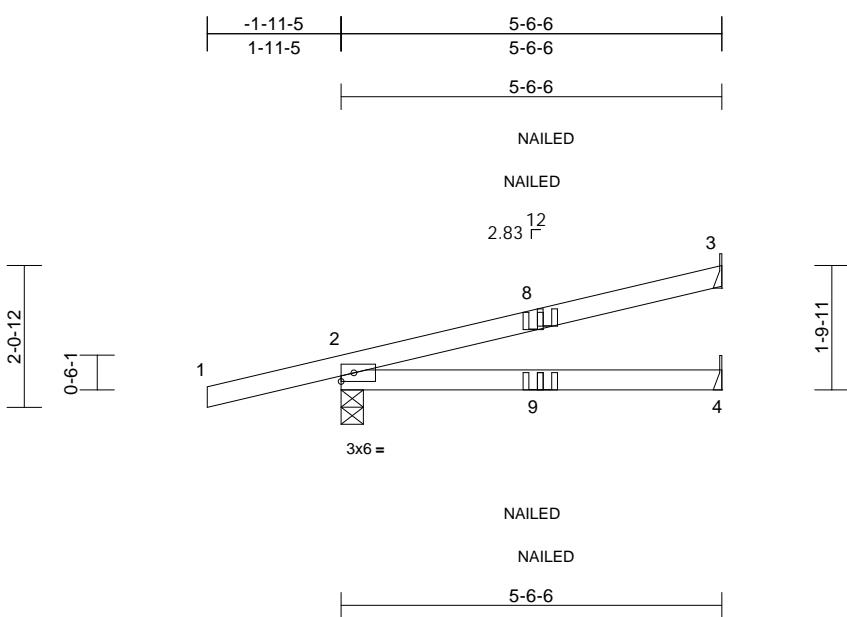
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 the 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 P04249-28231	Truss CJ01	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:50 ID:MRjkpIYt1Nk9p?I_EH?AhyvXno-RfC?PsB70Hq3NSgPqnL8w3ulTxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.04	4-7	>999	240		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.08	4-7	>791	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 20 lb	FT = 20%
BCDL	10.0										

LUMBERTOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-14, 3= Mechanical, 4= Mechanical
 Max Horiz 2=55 (LC 8)
 Max Uplift 2=122 (LC 8), 3=42 (LC 8), 4=22 (LC 8)
 Max Grav 2=353 (LC 2), 3=137 (LC 2), 4=99 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-116/202

BOT CHORD 2-4=-72/29

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 3, 122 lb uplift at joint 2 and 22 lb uplift at joint 4.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-35, 4-5=-20
Concentrated Loads (lb)
Vert: 9=1 (F=0, B=0)



October 15, 2025

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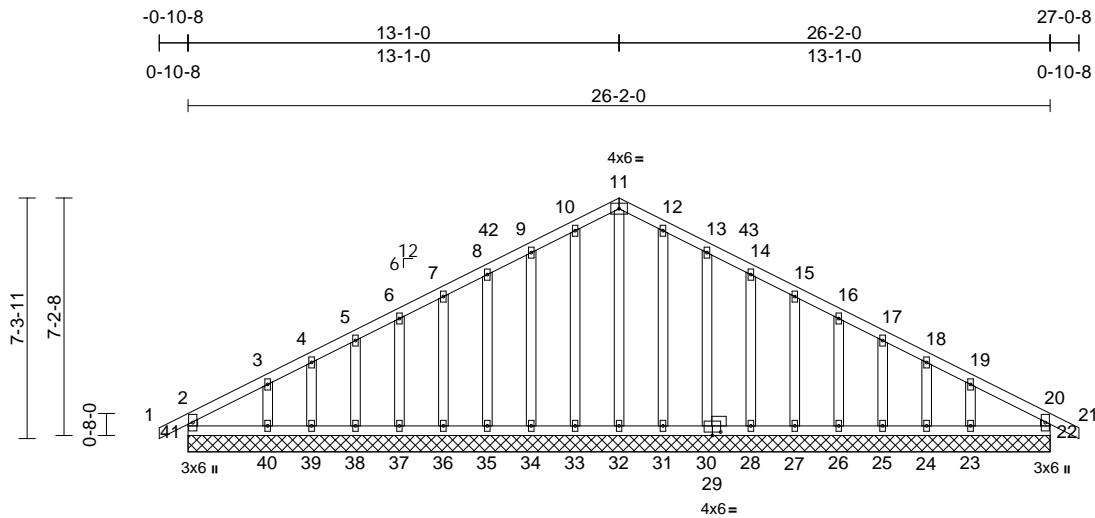
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job P04249-28231	Truss G01E	Truss Type Common Supported Gable	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054261
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:50
ID:gJoEyPFIxsacTyGaRiGtqNzx4m5-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:69.9

Plate Offsets (X, Y): [29:0-3-0,0-1-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	22	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 184 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.2

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) 22=26-2-0, 23=26-2-0, 24=26-2-0, 25=26-2-0, 26=26-2-0, 27=26-2-0, 28=26-2-0, 30=26-2-0, 31=26-2-0, 32=26-2-0, 33=26-2-0, 34=26-2-0, 35=26-2-0, 36=26-2-0, 37=26-2-0, 38=26-2-0, 39=26-2-0, 40=26-2-0, 41=26-2-0

Max Horiz 41=76 (LC 16)

Max Uplift 22=5 (LC 16), 23=65 (LC 17), 24=13 (LC 17), 25=30 (LC 17), 26=26 (LC 17), 27=27 (LC 17), 28=26 (LC 17), 30=31 (LC 17), 31=15 (LC 17), 33=17 (LC 16), 34=29 (LC 16), 35=25 (LC 16), 36=25 (LC 16), 37=24 (LC 16), 38=28 (LC 16), 39=8 (LC 16), 40=66 (LC 16), 41=17 (LC 17)

Max Grav 22=180 (LC 2), 23=201 (LC 37), 24=107 (LC 2), 25=136 (LC 37), 26=127 (LC 2), 27=127 (LC 37), 28=125 (LC 2), 30=125 (LC 37), 31=126 (LC 37), 32=132 (LC 33), 33=123 (LC 36), 34=119 (LC 36), 35=117 (LC 2), 36=115 (LC 36), 37=113 (LC 2), 38=116 (LC 36), 39=94 (LC 2), 40=157 (LC 36), 41=161 (LC 2)

FORCES

TOP CHORD (lb) - Maximum Compression/Maximum Tension
2-41=-139/65, 1-2=0/27, 2-3=-87/47, 3-4=-57/55, 4-5=-46/67, 5-6=-41/79, 6-7=-48/91, 7-8=-61/115, 8-9=-73/138, 9-10=-86/164, 10-11=-95/181, 11-12=-95/181, 12-13=-86/164, 13-14=-73/138, 14-15=-61/115, 15-16=-48/91, 16-17=-36/68, 17-18=-29/44, 18-19=-40/33, 19-20=-68/29, 20-21=0/27, 20-22=-138/65

BOT CHORD 40-41=-18/67, 39-40=-18/67, 38-39=-18/67, 37-38=-18/67, 36-37=-18/67, 35-36=-18/67, 34-35=-18/67, 33-34=-18/67, 32-33=-18/67, 31-32=-18/67, 30-31=-18/67, 28-30=-18/67, 27-28=-18/67, 26-27=-18/67, 25-26=-18/67, 24-25=-18/67, 23-24=-18/67, 22-23=-18/67, 11-32=-117/38, 10-33=-83/23, 9-34=-81/43, 8-35=-80/36, 7-36=-80/37, 6-37=-80/37, 5-38=-82/39, 4-39=-70/27, 3-40=-111/84, 12-31=-83/22, 13-30=-81/43, 14-28=-80/36, 15-27=-80/37, 16-26=-80/37, 17-25=-82/39, 18-24=-69/27, 19-23=-113/84

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-5-0, Exterior(2N) 2-5-0 to 13-1-0, Corner(3R) 13-1-0 to 16-1-0, Exterior(2N) 16-1-0 to 27-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) All plates are 2x4 (||) MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 1-4-0 oc.



October 15, 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)

Job P04249-28231	Truss G01E	Truss Type Common Supported Gable	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054261
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:50
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Page: 2

- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 41, 5 lb uplift at joint 22, 17 lb uplift at joint 33, 29 lb uplift at joint 34, 25 lb uplift at joint 35, 25 lb uplift at joint 36, 24 lb uplift at joint 37, 28 lb uplift at joint 38, 8 lb uplift at joint 39, 66 lb uplift at joint 40, 15 lb uplift at joint 31, 31 lb uplift at joint 30, 26 lb uplift at joint 28, 27 lb uplift at joint 27, 26 lb uplift at joint 26, 30 lb uplift at joint 25, 13 lb uplift at joint 24 and 65 lb uplift at joint 23.
- 15) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-2=-35, 2-11=-35, 11-20=-35, 20-21=-35

Trapezoidal Loads (lb/ft)

Vert: 41=-20-to-40=-21 (F=-1), 40=-21 (F=-1)-to-39=-22 (F=-2), 39=-22 (F=-2)-to-38=-23 (F=-3), 38=-23 (F=-3)-to-37=-24 (F=-4), 37=-24 (F=-4)-to-36=-24 (F=-4), 36=-24 (F=-4)-to-35=-25 (F=-5), 35=-25 (F=-5)-to-34=-26 (F=-6), 34=-26 (F=-6)-to-33=-27 (F=-7), 33=-27 (F=-7)-to-32=-27 (F=-7), 32=-27 (F=-7)-to-31=-28 (F=-8), 31=-28 (F=-8)-to-30=-29 (F=-9), 30=-29 (F=-9)-to-29=-29 (F=-9), 29=-29 (F=-9)-to-28=-30 (F=-10), 28=-30 (F=-10)-to-27=-31 (F=-11), 27=-31 (F=-11)-to-26=-31 (F=-11), 26=-31 (F=-11)-to-25=-32 (F=-12), 25=-32 (F=-12)-to-24=-33 (F=-13), 24=-33 (F=-13)-to-23=-34 (F=-14), 23=-34 (F=-14)-to-22=-35 (F=-15)

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

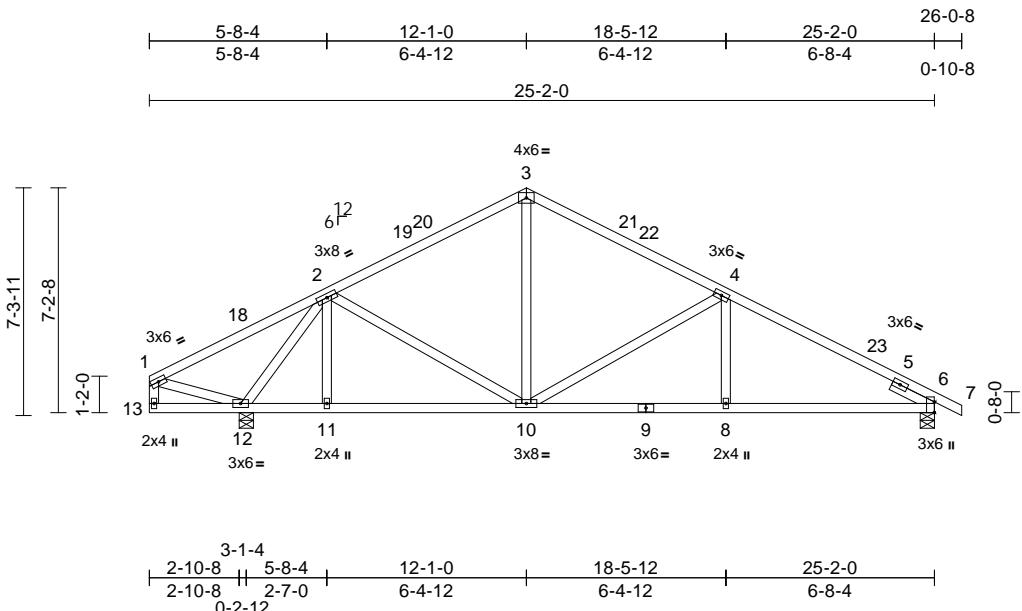
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Job P04249-28231	Truss G03	Truss Type Common	Qty 2	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054263
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Page: 1



Scale = 1:73.9

Plate Offsets (X, Y): [6:0-4-1.Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.04	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.09	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.03	6	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 136 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Right 2x4 SP No.2 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 6=0-5-8, 12=0-5-8

Max Horiz 12=-91 (LC 21)

Max Uplift 6=-94 (LC 17), 12=-91 (LC 16)

Max Grav 6=926 (LC 2), 12=1129 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=66/269, 2-3=-863/143, 3-4=-861/147,

4-6=1359/152, 6-7=0/23, 1-13=-22/51

BOT CHORD 12-13=-37/70, 11-12=-71/559, 10-11=-71/559,

8-10=-65/1155, 6-8=-82/1155

WEBS 1-12=-244/104, 2-12=-1225/153, 2-11=0/196,

2-10=-6/197, 3-10=-31/403, 4-10=-560/149,

4-8=0/244

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCCL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 1-1-12 to 4-1-12, Interior (1) 4-1-12 to 13-1-0, Exterior(2R) 13-1-0 to 16-1-0, Interior (1) 16-1-0 to 27-0-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 12 and 94 lb uplift at joint 6.

LOAD CASE(S) Standard



October 15, 2025



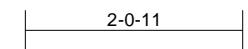
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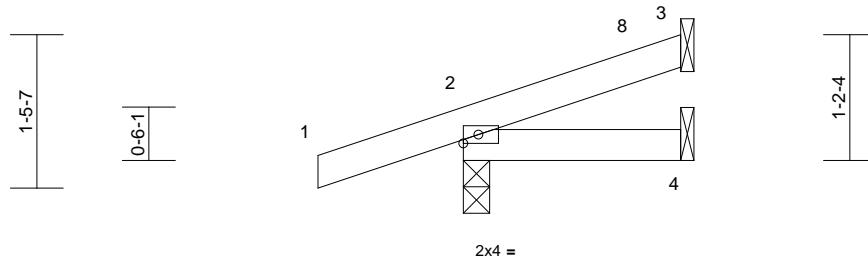
ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

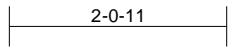
Job P04249-28231	Truss J01	Truss Type Jack-Open	Qty 2	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,	Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51 ID:UgTq_wB2qotJgBiXIOD30ryvXns-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f	Page: 1			



4'-12"



2x4 =



Scale = 1:21.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	4-7	>999	240		
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 9 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-0-11 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=37 (LC 12)
Max Uplift 2=68 (LC 12), 3=13 (LC 16), 4=8 (LC 13)
Max Grav 2=191 (LC 2), 3=39 (LC 2), 4=32 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-76/96

BOT CHORD 2-4=-49/20

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior (1) 1-7-8 to 1-11-15 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- 5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * 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.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 3, 68 lb uplift at joint 2 and 8 lb uplift at joint 4.

LOAD CASE(S)

Standard



October 15, 2025

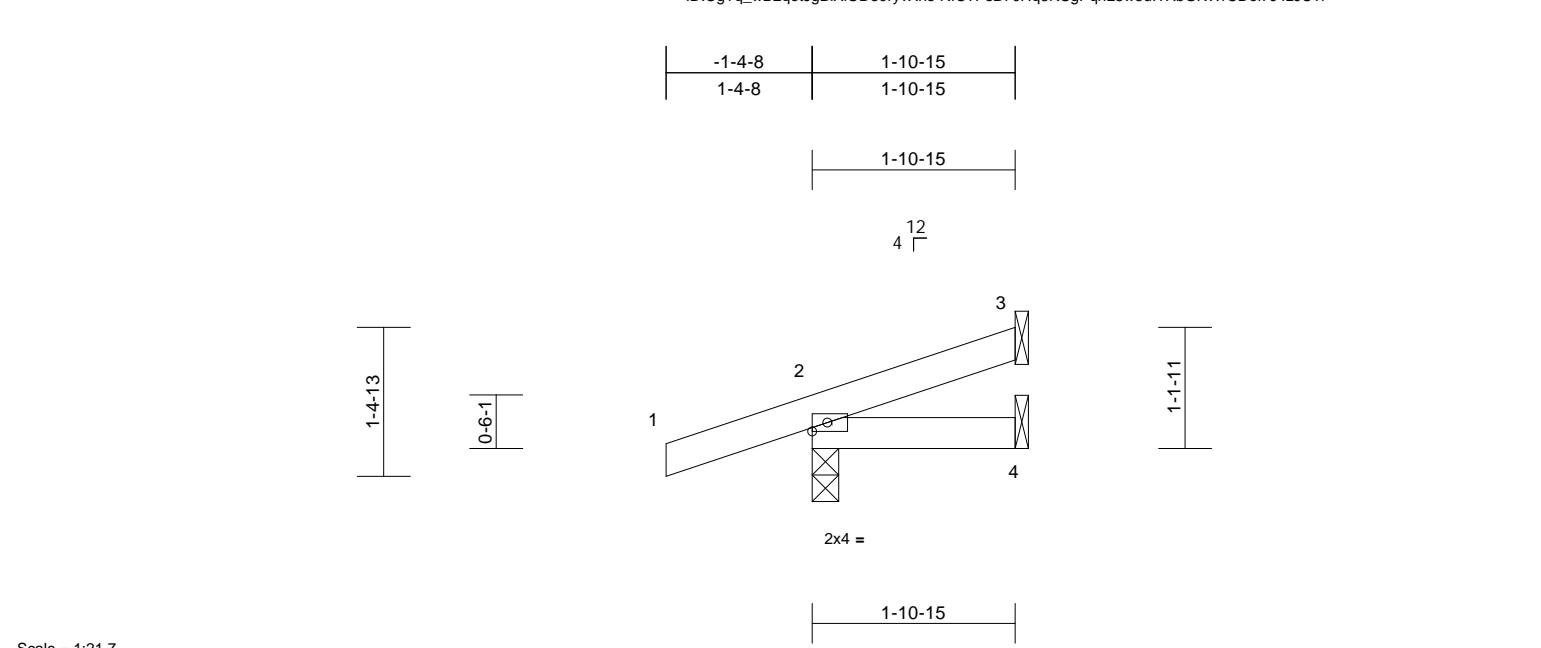


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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 the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

Job P04249-28231	Truss J02	Truss Type Jack-Open	Qty 2	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,			Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51 ID:UgTq_wB2qotJgBiXIOD30ryvXns-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f		Page: 1 I77054265

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51
ID:UgTq_wB2qotJgBiXIOD30ryvXns-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	4-7	>999	240		
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 8 lb	FT = 20%
BCDL	10.0										

Scale = 1:21.7

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
BRACING
TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=36 (LC 12)
Max Uplift 2=68 (LC 12), 3=12 (LC 16), 4=7 (LC 13)
Max Grav 2=188 (LC 2), 3=36 (LC 2), 4=30 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-76/96

BOT CHORD 2-4=-50/19

NOTES

- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL); Lum DOL=1.15 Plate DOL=1.15; Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 2, 7 lb uplift at joint 4 and 12 lb uplift at joint 3.

LOAD CASE(S) Standard



October 15, 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.sbcaccomponents.com](#))

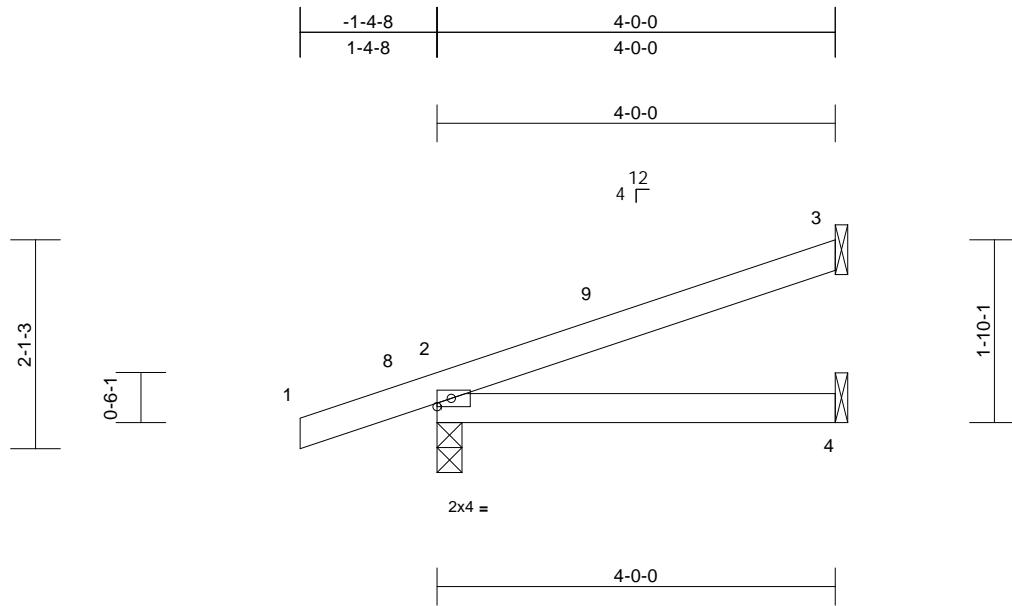
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss J03	Truss Type Jack-Open	Qty 3	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054266
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51
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Page: 1



Scale = 1:23.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.02	4-7	>999	240		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.02	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 15 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=55 (LC 12)
Max Uplift 2=82 (LC 12), 3=33 (LC 12), 4=17 (LC 12)
Max Grav 2=254 (LC 2), 3=99 (LC 2), 4=71 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-82/108

BOT CHORD 2-4=-67/50

NOTES

1) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-4-8 to 1-7-8, Interior (1) 1-7-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 3, 82 lb uplift at joint 2 and 17 lb uplift at joint 4.

LOAD CASE(S)

Standard



October 15, 2025



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

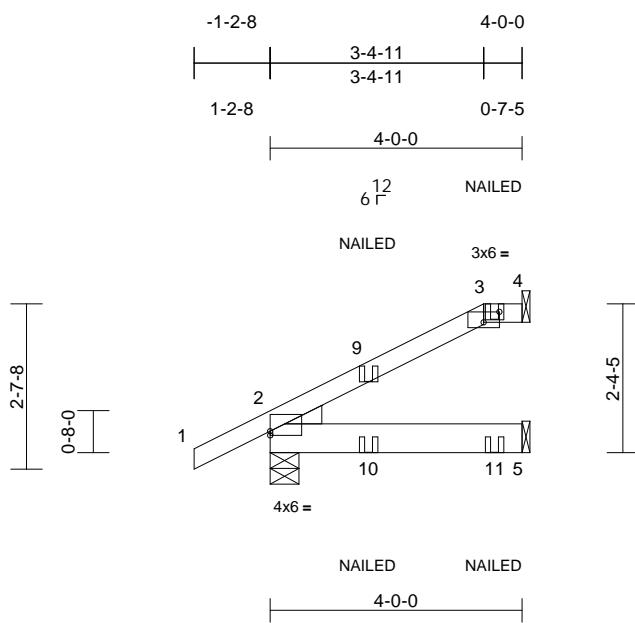
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/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 P04249-28231	Truss J04	Truss Type Jack-Open Girder	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51 ID:Qaqr8qgbWV6bllqnzwk?Grzx4hh-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [2:Edge,0-0-13], [3:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.01	5-8	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.02	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.16	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 19 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x6 SP No.2

WEDGE Left: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 5= Mechanical

Max Horiz 2=64 (LC 12)

Max Uplift 2=30 (LC 12), 4=-5 (LC 8), 5=-5 (LC 12)

Max Grav 2=251 (LC 34), 4=17 (LC 33), 5=130 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-3=-192/481, 3-4=0/0

BOT CHORD 2-5=-113/181

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- 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 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 4, 30 lb uplift at joint 2 and 57 lb uplift at joint 5.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-35, 3-4=-45, 5-6=-20
Concentrated Loads (lb)
Vert: 3=14 (F), 9=-14 (F), 10=-1 (F)



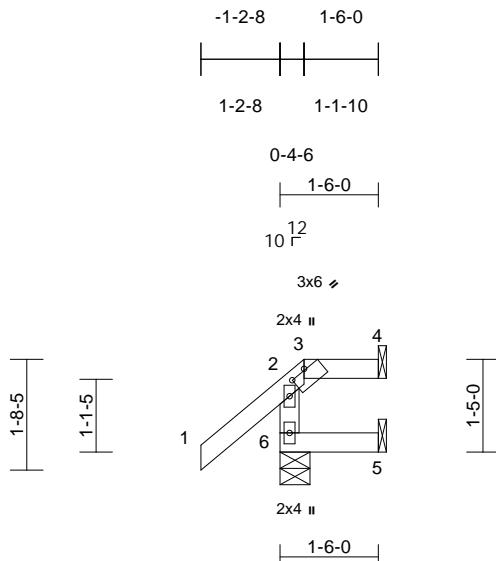
October 15, 2025

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Job P04249-28231	Truss J05	Truss Type Jack-Open	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,			Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:51 ID:f1LpS5ZaP26kL3DEVFB7x9zx4hp-RIC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f		I77054268 Page: 1

0-4-6



Scale = 1:35.2

Plate Offsets (X, Y): [3:0-3-0,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-6-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 6=0-5-8
Max Horiz 6=30 (LC 13)
Max Uplift 4=-22 (LC 42), 5=-4 (LC 13), 6=-18 (LC 16)
Max Grav 4=33 (LC 37), 5=22 (LC 7), 6=186 (LC 38)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-6=-159/136, 1-2=0/62, 2-3=-45/34, 3-4=0/0
BOT CHORD 5-6=0/0

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-2-8 to 1-5-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) Provide adequate drainage to prevent water ponding.
- 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) Refer to girder(s) for truss to truss connections.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 6, 22 lb uplift at joint 4 and 4 lb uplift at joint 5.
- 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

October 15, 2025



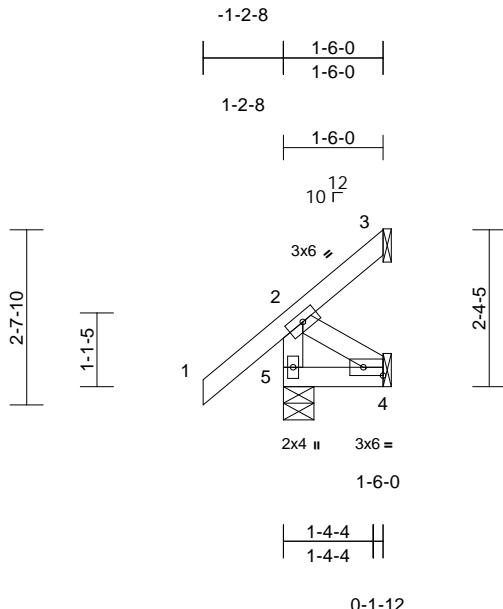
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Job P04249-28231	Truss J06	Truss Type Jack-Open	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					I77054269

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:52
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Page: 1



0-1-12

Scale = 1:34.7

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 11 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 1-6'-0" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0'-0" oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=5-8
Max Horiz 5=47 (LC 14)
Max Uplift 3=28 (LC 32), 4=31 (LC 14)
Max Grav 3=11 (LC 10), 4=28 (LC 12), 5=176 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=163/71, 1-2=0/52, 2-3=-52/29
BOT CHORD 4-5=-130/36
WEBS 2-4=-43/156

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 4 and 28 lb uplift at joint 3.

LOAD CASE(S)

Standard

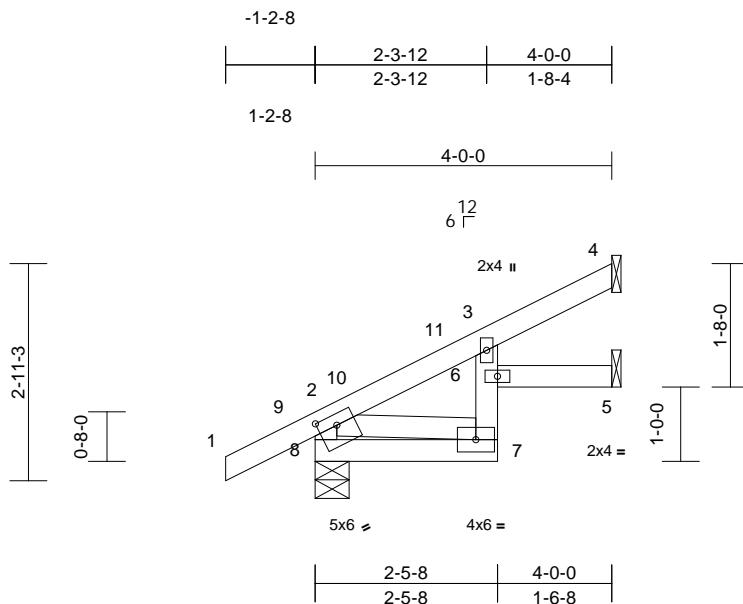


October 15, 2025

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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss J07	Truss Type Jack-Open	Qty 5	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,	Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:52 ID:f1LpS5ZaP26kL3DEVFB7x9zx4hp-RIC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f	Page: 1			



Scale = 1:31.1

Plate Offsets (X, Y): [8:0-3-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.03	7	>999	240	MT20	244/190
Snow (Pf/Pg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.04	7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.02	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 20 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 8=0-5-8
Max Horiz 8=67 (LC 16)
Max Uplift 4=42 (LC 16), 8=20 (LC 16)
Max Grav 4=121 (LC 2), 5=32 (LC 7), 8=247 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-8=226/103, 1-2=0/36, 2-3=66/17, 3-4=52/50
BOT CHORD 7-8=126/45, 6-7=19/44, 3-6=14/76, 5-6=0/0
WEBS 2-7=-48/129

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 8 and 42 lb uplift at joint 4.

LOAD CASE(S) Standard



October 15, 2025



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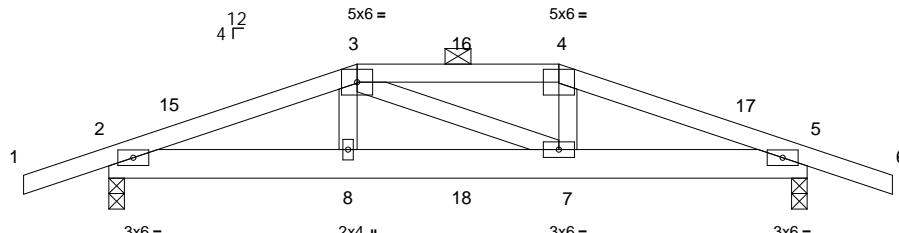
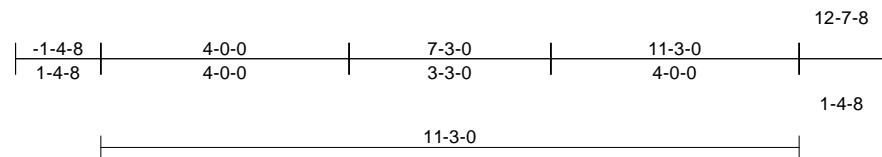
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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job P04249-28231	Truss J08	Truss Type Jack-Open	Qty 5	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,	Run: 8.83 E Sep 17 2025 Print: 8.830 E Sep 17 2025 MiTek Industries, Inc. Wed Oct 15 10:59:29 ID:f1LpS5ZaP26kL3DEVFB7x9zx4hp-f4N7EjxuqBqQTlsboeY00Q6?E1MpwCICzidKAlyTBSS	Page: 1			

Job P04249-28231	Truss P01G	Truss Type Hip Girder	Qty 1	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,			Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:52 ID: Hpw5JUnLt3IAoqvceG2iYTyvXjD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f		I77054272 Page: 1



Scale = 1:37.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.03	7-8	>999	240		
Snow (PfPg)	12.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.06	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS						Weight: 57 lb	FT = 20%
BCDL	10.0										

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except 2-0-0 oc purlins (5-0-7 max.); 3-4.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 5=0-3-0
Max Horiz 2=23 (LC 9)

Max Uplift 2=242 (LC 8), 5=242 (LC 9)

Max Grav 2=708 (LC 2), 5=709 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-1332/445, 3-4=-1213/425, 4-5=-1324/443, 5-6=0/26

BOT CHORD 2-8=-398/1231, 7-8=-393/1219, 5-7=-389/1224

WEBS 3-8=-46/214, 3-7=-47/33, 4-7=-44/211

NOTES

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust)

Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat.

II; Exp B; Enclosed; MWFRS (envelope) exterior zone;

cantilever left and right exposed; end vertical left and

right exposed; porch left and right exposed; Lumber

DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15

Plate DOL=1.15); Pg=10.0 psf; Pf=12.7 psf (Lum DOL =

1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially

Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

4) Unbalanced snow loads have been considered for this design.

5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

7) Provide adequate drainage to prevent water ponding.

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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 242 lb uplift at joint 2 and 242 lb uplift at joint 5.

11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 146 lb down and 91 lb up at 4-0-0, and 63 lb down and 39 lb up at 5-8-4, and 146 lb down and 91 lb up at 7-3-0 on top chord, and 78 lb down and 53 lb up at 4-0-0, and 33 lb down and 23 lb up at 5-8-4, and 78 lb down and 53 lb up at 7-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-3=-35, 3-4=-45, 4-6=-35, 9-12=-20

Concentrated Loads (lb)

Vert: 4=108 (F), 8=-57 (F), 7=-57 (F), 3=-108 (F),

16=-43 (F), 18=-25 (F)



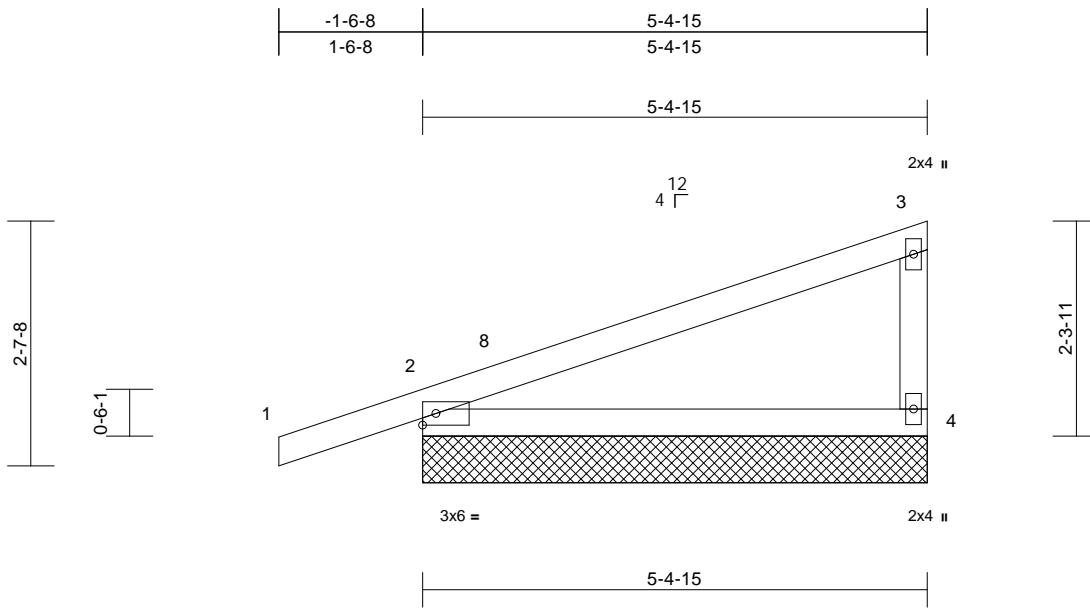
October 15, 2025

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Job P04249-28231	Truss P03E	Truss Type Monopitch Supported Gable	Qty 2	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,					I77054274

Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:53
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Page: 1



Scale = 1:24.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 22 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)

2=5-4-15, 4=5-4-15
Max Horiz 2=67 (LC 15)
Max Uplift 2=72 (LC 12), 4=36 (LC 16)
Max Grav 2=336 (LC 2), 4=235 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 3-4=139/156, 1-2=0/29, 2-3=271/132
BOT CHORD 2-4=111/95

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -1-6-8 to 1-5-8, Exterior(2N) 1-5-8 to 5-3-3 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.
- 7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 1-4-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 2, 36 lb uplift at joint 4 and 72 lb uplift at joint 2.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=35
Trapezoidal Loads (lb/ft)
Vert: 5=20-to-7=21 (F=-1), 7=21 (F=-1)-to-4=35 (F=-15)

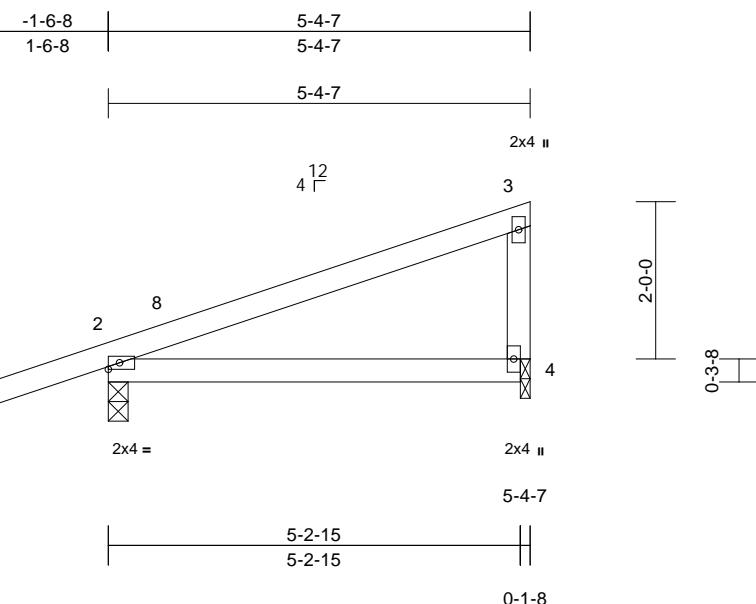


October 15, 2025

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Job P04249-28231	Truss P04	Truss Type Monopitch	Qty 6	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,	Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Tue Oct 14 13:33:53 ID:7QguQz1b0y_p9lwXPUIsGzw3ap-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f	I77054275 Page: 1			



Scale = 1:29.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.05	4-7	>999	240		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.07	4-7	>886	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 21 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-1-8
Max Horiz 2=67 (LC 15)
Max Uplift 2=105 (LC 12), 4=62 (LC 12)
Max Grav 2=315 (LC 2), 4=195 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-124/153, 3-4=-134/108
BOT CHORD 2-4=-76/101

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior (1) 1-5-8 to 5-2-11 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLI: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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.
- 9) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2, 4.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 2 and 62 lb uplift at joint 4.

LOAD CASE(S) Standard



October 15, 2025

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

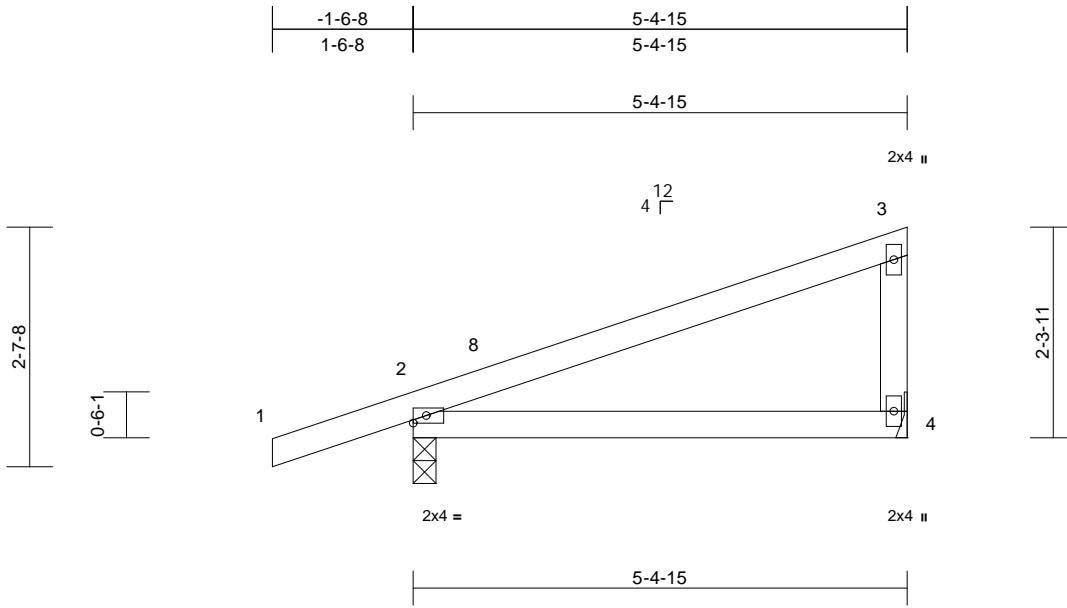
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job P04249-28231	Truss P05	Truss Type Monopitch	Qty 4	Ply 1	1059 Serenity ** REVISED 10/10 Job Reference (optional)	I77054276
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.05	4-7	>999	240		
Snow (PfPg)	7.7/10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.07	4-7	>864	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 22 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4= Mechanical
Max Horiz 2=67 (LC 15)
Max Uplift 2=106 (LC 12), 4=63 (LC 12)
Max Grav 2=317 (LC 2), 4=197 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-124/153, 3-4=-136/109
BOT CHORD 2-4=-78/102

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-6-8 to 1-5-8, Interior (1) 1-5-8 to 5-3-3 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=10.0 psf; Pf=7.7 psf (Lum DOL = 1.15 Plate DOL = 1.15); ls=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 7.7 psf on overhangs non-concurrent with other live loads.

- 6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * 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.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 4 and 106 lb uplift at joint 2.

LOAD CASE(S) Standard



October 15, 2025

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Edenton, NC 27932

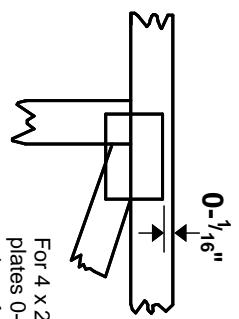
Symbols

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

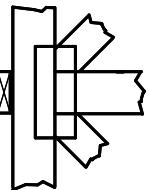
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section or 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.

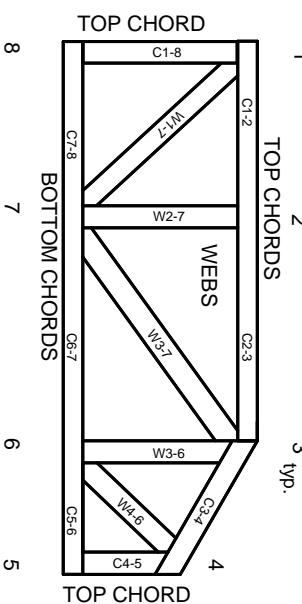
DSB-22: Design Standard for Bracing.

BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal

Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths
(Drawings not to scale)



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.

2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, individual lateral braces themselves may require bracing, or alternative Tor! 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.

7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.

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 Quality Criteria.

21. The design does not take into account any dynamic or other loads other than those expressly stated.

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