

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: P05804-31172
905 Serenity

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: I77438569 thru I77438615

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

North Carolina COA: C-0844



October 30, 2025

Gilbert, Eric

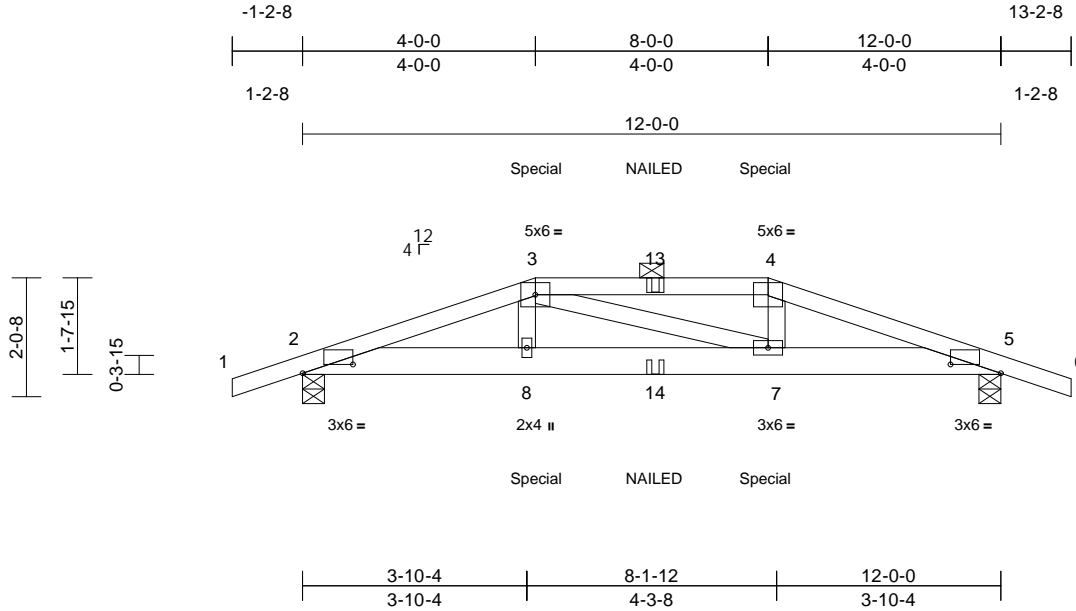
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438569 |
| P05804-31172 | PG03 | Hip Girder | 1 | 2 | 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. Thu Oct 30 10:37:02
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Page: 1



Scale = 1:39.6

Plate Offsets (X, Y): [2:0-10-6,0-1-13], [5:0-10-6,0-1-13]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|---------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.18 | Vert(LL) | 0.03 | 7-8 | >999 | 240 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | -0.05 | 7-8 | >999 | 180 | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.03 | Horz(CT) | 0.01 | 5 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | |
| Weight: 119 lb FT = 20% | | | | | | | | | | | |

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 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-4-8, 5=0-4-8
Max Horiz 2=22 (LC 27)
Max Uplift 2=-246 (LC 4), 5=-246 (LC 5)
Max Grav 2=746 (LC 1), 5=747 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-1681/541, 3-4=-1542/509, 4-5=-1665/534, 5-6=0/23
BOT CHORD 2-8=-490/1580, 7-8=-482/1557, 5-7=-476/1565
WEBS 3-8=-72/275, 3-7=-62/32, 4-7=-66/268

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; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 246 lb uplift at joint 2 and 246 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 134 lb down and 89 lb up at 4-0-0, and 134 lb down and 89 lb up at 8-0-0 on top chord, and 81 lb down and 56 lb up at 4-0-0, and 81 lb down and 56 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-4=-60, 4-6=-60, 2-5=-20

Concentrated Loads (lb)

Vert: 4=-87 (B), 8=-74 (B), 7=-74 (B), 3=-87 (B), 13=-36 (B), 14=-30 (B)



October 30, 2025

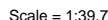
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

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Edenton, NC 27932

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. Thu Oct 30 10:37:02 Page: 1
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| | |
|--|--|
| LUMBER | |
| TOP CHORD | 2x4 SP No.2 |
| BOT CHORD | 2x4 SP No.2 |
| WEBS | 2x4 SP No.3 |
| BRACING | |
| TOP CHORD | Structural wood sheathing directly applied or 5-7-13 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 9-4-8 oc bracing. |
| REACTIONS | |
| (size) | 2=0-4-8, 4=0-4-8 |
| Max Horiz | 2=30 (LC 12) |
| Max Uplift | 2=-164 (LC 8), 4=-164 (LC 9) |
| Max Grav | 2=553 (LC 1), 4=552 (LC 1) |
| FORCES | |
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/23, 2-3=-879/459, 3-4=-879/459, 4-5=0/23 |
| BOT CHORD | 2-6=-368/801, 4-6=-368/801 |
| WEBS | 3-6=-121/275 |

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 2 and 164 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1

LOAD CASE(S) Standard

- ## NOTES
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCFL=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 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior (1) 9-0-0 to 13-2-8 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



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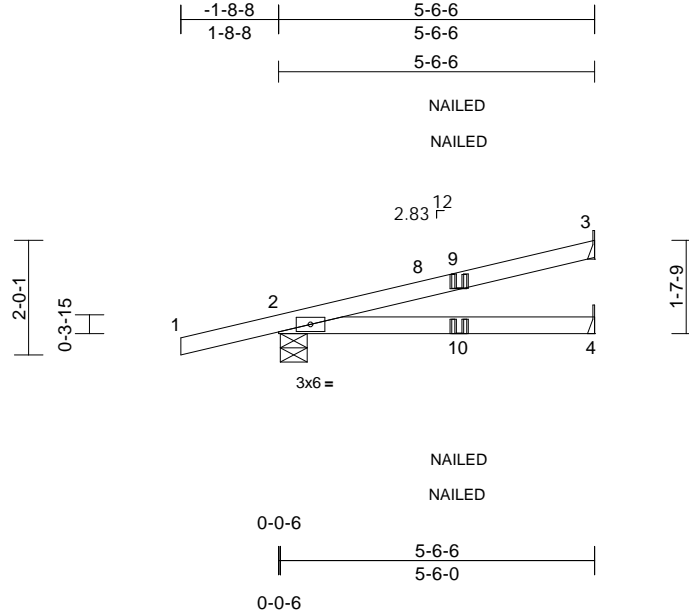
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|--------------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | PCJ02 | Jack-Partial | 2 | 1 | Job Reference (optional) | I77438571 |

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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Scale = 1:40.3

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.36 | Vert(LL) | 0.06 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.29 | Vert(CT) | -0.08 | 4-7 | >781 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 19 lb | FT = 20% |

LUMBER

TOP 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=0-5-10, 3= Mechanical, 4= Mechanical
Max Horiz 2=52 (LC 8)
Max Uplift 2=-116 (LC 8), 3=-41 (LC 8), 4=-24 (LC 8)
Max Grav 2=341 (LC 1), 3=135 (LC 1), 4=98 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/24, 2-3=-105/42

BOT CHORD 2-4=-68/92

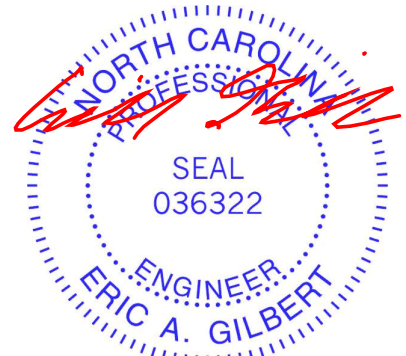
NOTES

- 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 Corner (3) -1-8-8 to 2-6-6, Exterior(2R) 2-6-6 to 5-5-10 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 3, 116 lb uplift at joint 2 and 24 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-5=-20
Concentrated Loads (lb)
Vert: 10=-8 (F=-4, B=-4)



October 30, 2025

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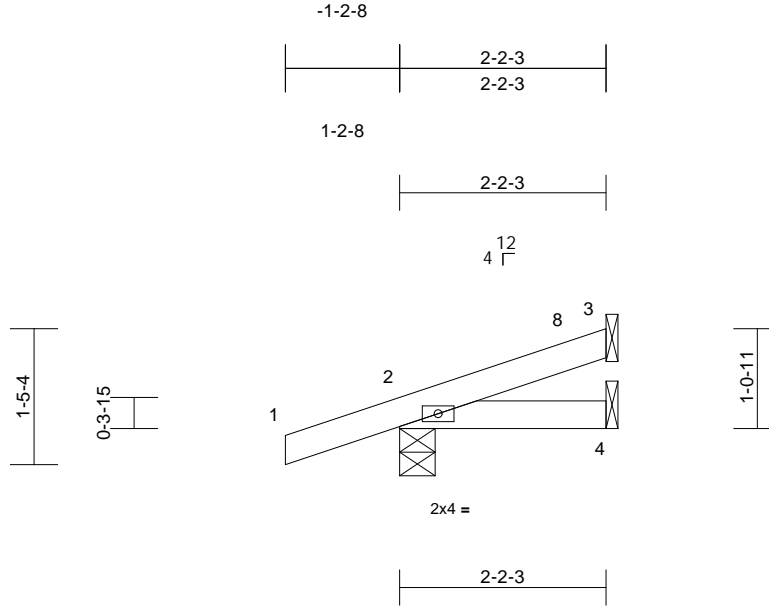
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|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438572 |
| P05804-31172 | PJ02 | Jack-Open | 2 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:37:03

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|----------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|---------------|-------------|
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.09 | Vert(LL) | 0.00 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.03 | Vert(CT) | 0.00 | 4-7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 9 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-3 oc purlins.

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

REACTIONS (size) 2=0-4-8, 3= Mechanical, 4= Mechanical
 Max Horiz 2=36 (LC 8)
 Max Uplift 2=-64 (LC 8), 3=-13 (LC 8), 4=-8 (LC 9)
 Max Grav 2=178 (LC 1), 3=42 (LC 1), 4=34 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-21/11

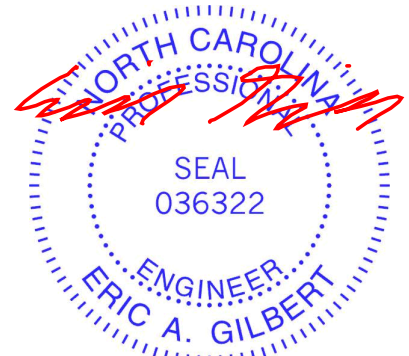
BOT CHORD 2-4=-8/22

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) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 2-1-7 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 3, 64 lb uplift at joint 2 and 8 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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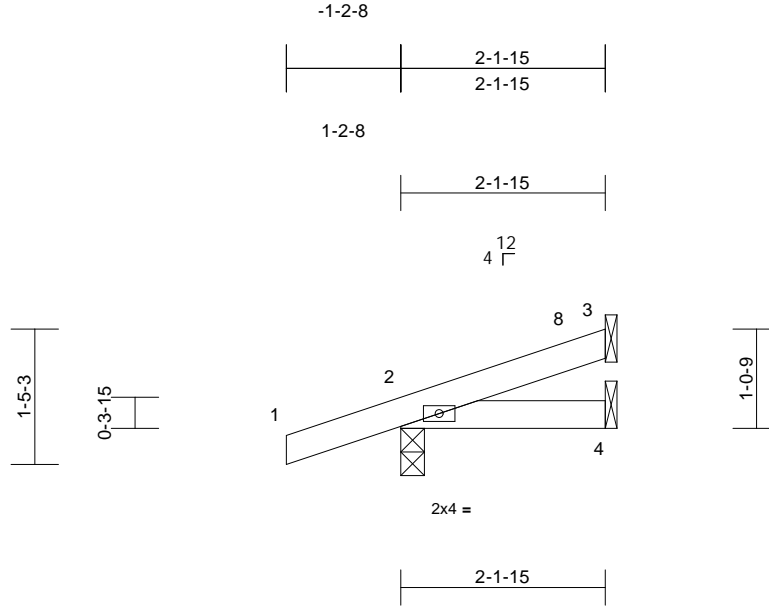
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|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438573 |
| P05804-31172 | PJ03 | Jack-Open | 2 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:37:03

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Scale = 1:24.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|-----------------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.09 | Vert(LL) | 0.00 | 4-7 | >999 | 240 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.03 | Vert(CT) | 0.00 | 4-7 | >999 | 180 | 244/190 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 9 lb FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-1-15 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=35 (LC 8)
Max Uplift 2=64 (LC 8), 3=13 (LC 8), 4=8 (LC 9)
Max Grav 2=177 (LC 1), 3=42 (LC 1), 4=33 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-21/11
BOT CHORD 2-4=-8/22

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) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 2-1-3 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
- 2) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 3, 64 lb uplift at joint 2 and 8 lb uplift at joint 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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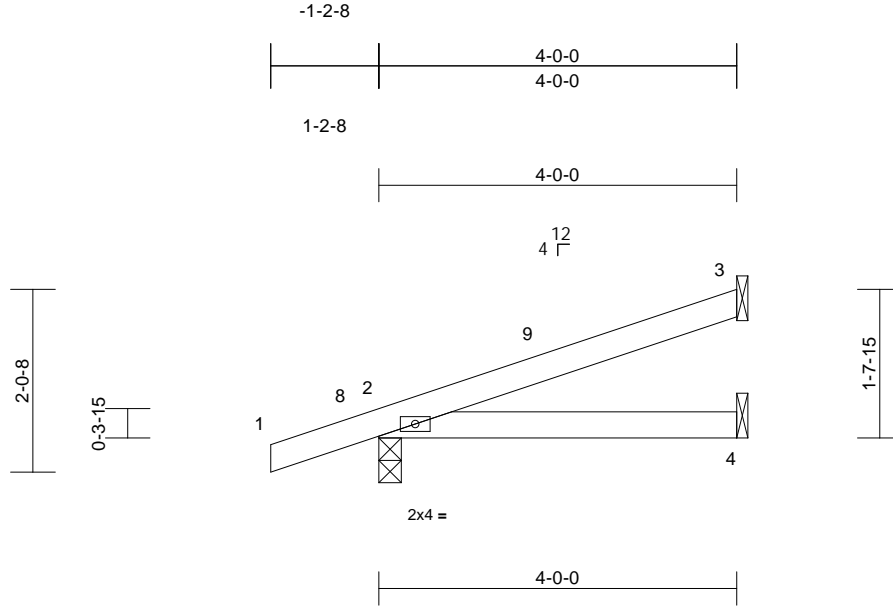
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438574 |
| P05804-31172 | PJ04 | Jack-Open | 3 | 1 | 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. Thu Oct 30 10:37:03
ID:_u8yT0e5p2kcuH?vHc2e5mzJYjh-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:25.8

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | 0.02 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.14 | Vert(CT) | -0.02 | 4-7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 14 lb | FT = 20% |

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=53 (LC 8)
Max Uplift 2=-79 (LC 8), 3=-32 (LC 8), 4=-17 (LC 8)
Max Grav 2=241 (LC 1), 3=96 (LC 1), 4=70 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-56/31
BOT CHORD 2-4=-62/50

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) -1-2-8 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; 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 3, 79 lb uplift at joint 2 and 17 lb uplift at joint 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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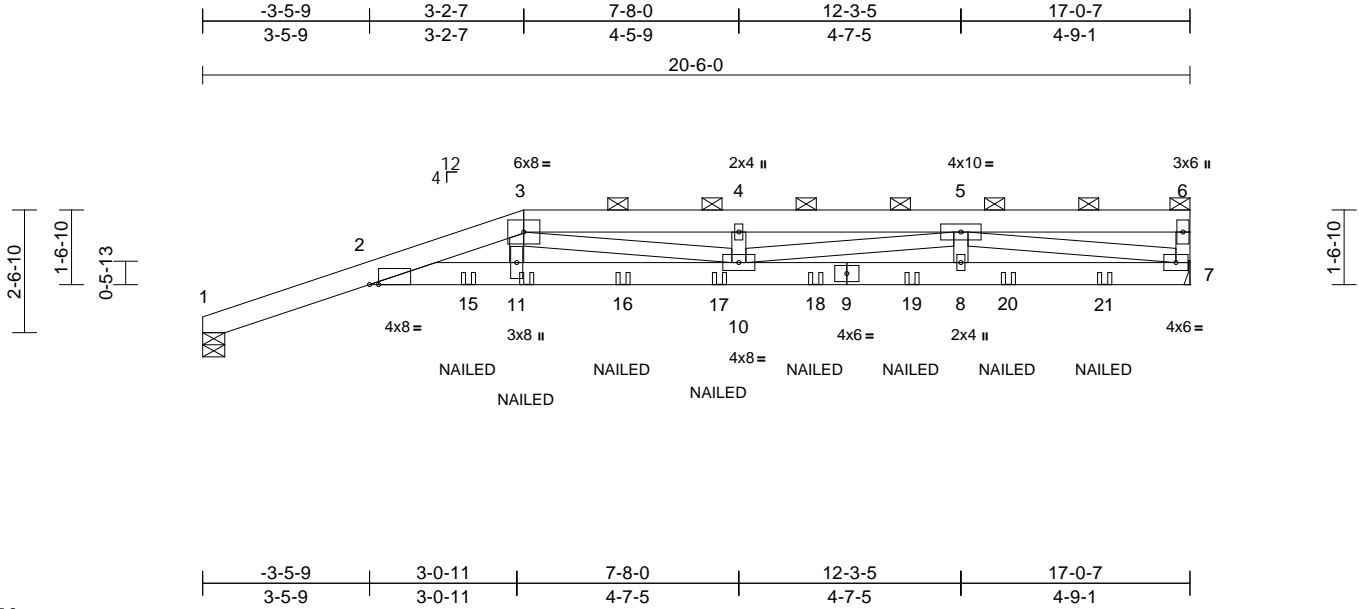
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|-----------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438575 |
| P05804-31172 | C6G | Half Hip Girder | 1 | 2 | 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. Thu Oct 30 10:36:59
ID:mcuE4fUoxmd_qJUdBWkQp0zIaJ5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?fi

Page: 1



Scale = 1:47.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.73 | Vert(LL) | -0.27 | 11-14 | >906 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.95 | Vert(CT) | -0.53 | 11-14 | >457 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.34 | Horz(CT) | 0.20 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 224 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP DSS *Except* 3-6:2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 7= Mechanical
Max Horiz 1=62 (LC 27)
Max Uplift 1=142 (LC 4), 7=171 (LC 4)
Max Grav 1=1148 (LC 1), 7=1239 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=355/8, 2-3=5511/750, 3-4=5464/756, 4-5=5464/756, 5-6=316/43, 6-7=200/44
BOT CHORD 2-11=738/5352, 10-11=723/5216, 8-10=542/3925, 7-8=542/3925
WEBS 3-11=111/1032, 3-10=87/467, 4-10=212/89, 5-10=220/1582, 5-8=1/264, 5-7=3708/512

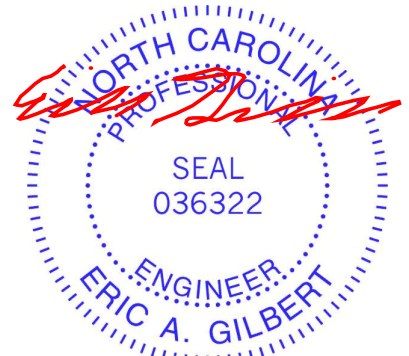
NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 171 lb uplift at joint 7 and 142 lb uplift at joint 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-13=-81, 3-13=-60, 3-6=-60, 7-12=-20
Concentrated Loads (lb)
Vert: 11=-93 (F), 15=-93 (F), 16=-93 (F), 17=-93 (F), 18=-93 (F), 19=-93 (F), 20=-93 (F), 21=-93 (F)



October 30, 2025

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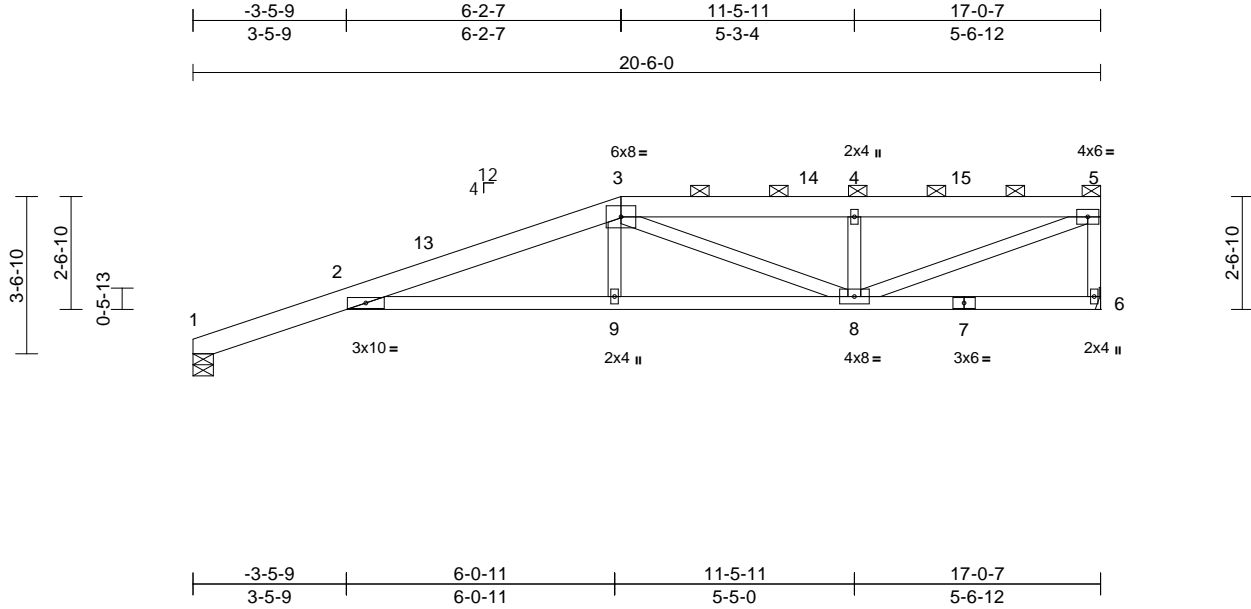
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438576 |
| P05804-31172 | C5 | Half Hip | 1 | 1 | 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. Thu Oct 30 10:36:59
ID:SvKSmCM4bV12oBSxoB5s4dzlaKX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:52

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.86 | Vert(LL) | -0.42 | 9-12 | >569 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.70 | Vert(CT) | -0.87 | 9-12 | >278 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.37 | Horz(CT) | 0.27 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 99 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP DSS *Except* 3-5:2x6 SP No.2
BOT CHORD 2x4 SP DSS *Except* 7-6:2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-8-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 9-10-14 oc bracing.

REACTIONS

(size) 1=0-5-8, 6= Mechanical
Max Horiz 1=87 (LC 9)
Max Uplift 1=-99 (LC 8), 6=-110 (LC 8)
Max Grav 1=823 (LC 1), 6=809 (LC 1)

FORCES

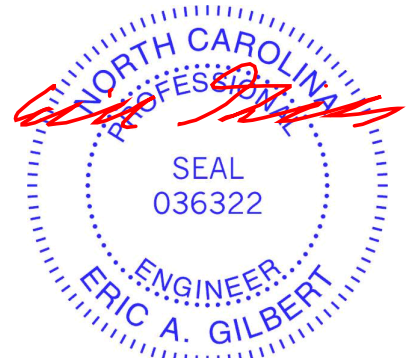
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-252/32, 2-3=-3622/674, 3-4=-1503/289, 4-5=-1503/289, 5-6=-746/157
BOT CHORD 2-9=-652/3094, 8-9=-444/2092, 6-8=-27/55
WEBS 3-9=-6/325, 3-8=-638/175, 4-8=-309/103, 5-8=-275/1567

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) -2-9-4 to 0-5-9, Interior (1) 0-5-9 to 6-8-0, Exterior(2R) 6-8-0 to 10-10-15, Interior (1) 10-10-15 to 17-4-4 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
- 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 1 and 110 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 30, 2025

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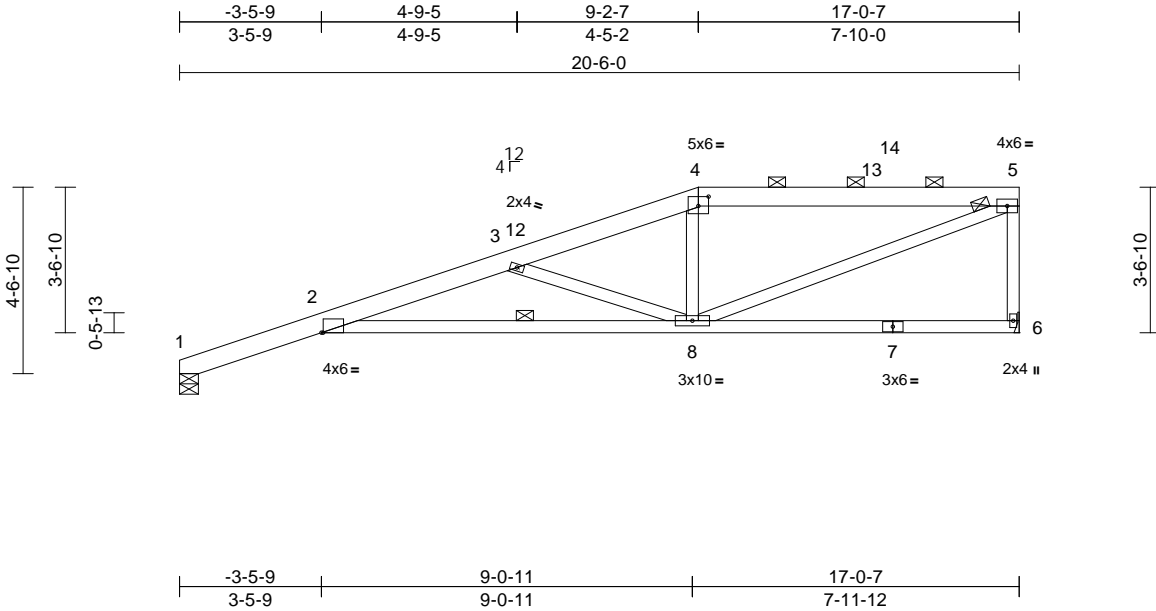
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438577 |
| P05804-31172 | C4 | Half Hip | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:59

Page: 1

ID:HF6RKpqsBgMQuGWigEnII7zlaLE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?i



Scale = 1:56.3

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.86 | Vert(LL) | -0.38 | 8-11 | >637 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.76 | Vert(CT) | -0.81 | 8-11 | >297 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.50 | Horz(CT) | 0.25 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 102 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP DSS *Except* 4-5:2x6 SP No.2
 BOT CHORD 2x4 SP No.1 *Except* 7-6:2x4 SP No.2
 WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-11 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 8-0-10 oc bracing.

REACTIONS

(size) 1=0-5-8, 6= Mechanical
 Max Horiz 1=119 (LC 9)
 Max Uplift 1=-96 (LC 8), 6=-113 (LC 8)
 Max Grav 1=823 (LC 1), 6=809 (LC 1)

FORCES

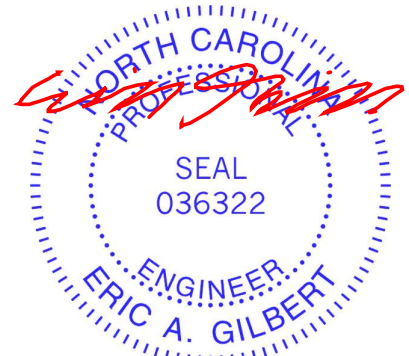
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-273/32, 2-3=-3667/658, 3-4=-1466/258, 4-5=-1325/261, 5-6=-746/184
 BOT CHORD 2-8=-613/2846, 6-8=-34/62
 WEBS 3-8=-1332/314, 4-8=0/278, 5-8=-296/1382

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) -2-9-4 to 0-5-9, Interior (1) 0-5-9 to 9-8-0, Exterior(2R) 9-8-0 to 13-10-15, Interior (1) 13-10-15 to 17-4-4 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
- 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 1 and 113 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 30, 2025

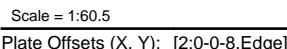
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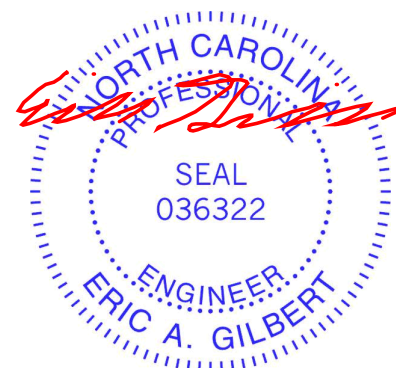


| | |
|------------------|---|
| LUMBER | |
| TOP CHORD | 2x6 SP No.2 *Except* 1-4:2x6 SP DSS |
| BOT CHORD | 2x4 SP No.1 *Except* 8-7:2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |
| BRACING | |
| TOP CHORD | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6. |
| BOT CHORD | Rigid ceiling directly applied or 2-2-0 oc bracing. |
| WEBS | 1 Row at midpt 3-9 |
| REACTIONS | (size) 1=0-5-8, 7= Mechanical |
| | Max Horiz 1=150 (LC 9) |
| | Max Uplift 1=-93 (LC 8), 7=-116 (LC 8) |
| | Max Grav 1=823 (LC 1), 7=809 (LC 1) |
| FORCES | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=-299/59, 2-3=-3614/593, 3-5=-855/168, 5-6=-67/66, 6-7=-141/63 |
| BOT CHORD | 2-10=-591/2849, 9-10=-503/2183, 7-9=-208/710 |
| WEBS | 3-10=0/310, 3-9=-1551/312, 5-9=-67/634, 5-7=-935/227 |

- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 116 lb uplift at joint 7 and 93 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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

- ## NOTES
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TC DL=6.0psf; BC DL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -2-9-4 to 0-5-9, Interior (1) 0-5-9 to 12-8-0, Exterior(2R) 12-8-0 to 16-10-15, Interior (1) 16-10-15 to 17-4-4 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.



October 30, 2025



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-7473 Rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
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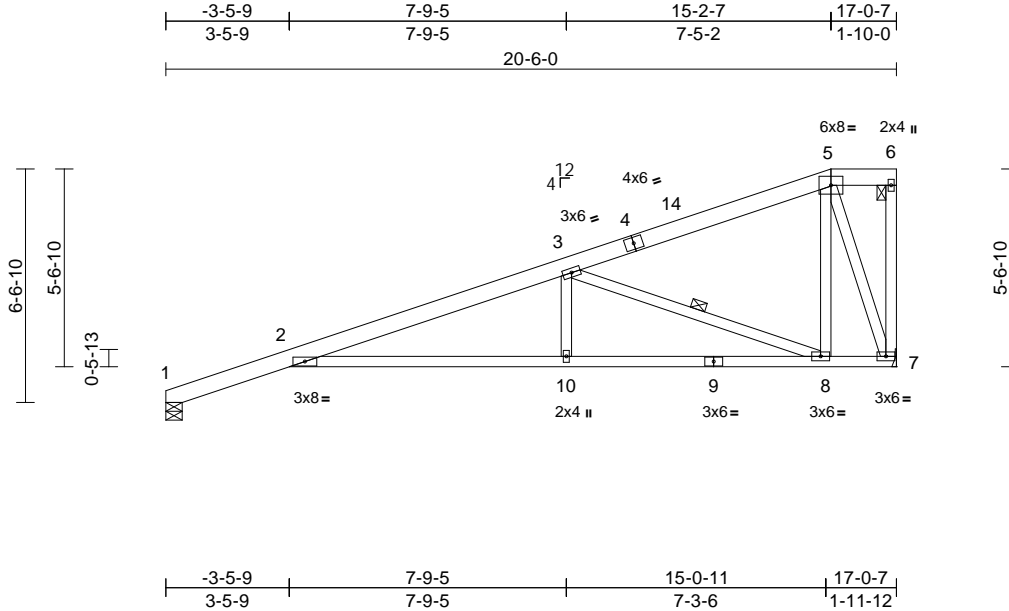
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438579 |
| P05804-31172 | C2 | Half Hip | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:58

Page: 1

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Scale = 1:64.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.86 | Vert(LL) | -0.52 | 10-13 | >463 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.98 | Vert(CT) | -1.08 | 10-13 | >223 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.48 | Horz(CT) | 0.32 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | | |
| | | | | | | | | | | | Weight: 112 lb | FT = 20% |

LUMBER

| | |
|-----------|--------------------------------------|
| TOP CHORD | 2x6 SP No.2 *Except* 1-4:2x6 SP DSS |
| BOT CHORD | 2x4 SP No.1 *Except* 9-7:2x4 SP No.2 |
| WEBS | 2x4 SP No.2 |

BRACING

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

WEBS 1 Row at midpt 3-8

REACTIONS

| | |
|------------|-----------------------------|
| (size) | 1=0-5-8, 7= Mechanical |
| Max Horiz | 1=181 (LC 9) |
| Max Uplift | 1=-89 (LC 8), 7=-120 (LC 8) |
| Max Grav | 1=823 (LC 1), 7=809 (LC 1) |

FORCES

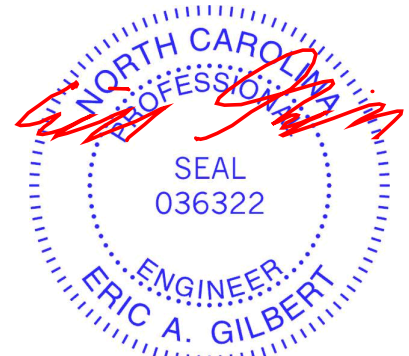
| | |
|--|---|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-324/93, 2-3=-3549/502, 3-5=-384/97, 5-6=-74/79, 6-7=-58/32 |
| BOT CHORD | 2-10=-546/2789, 8-10=-407/1865, 7-8=-112/249 |
| WEBS | 3-10=0/372, 3-8=-1702/313, 5-8=-62/660, 5-7=-794/205 |

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) -2-9-4 to 0-5-9, Interior (1) 0-5-9 to 15-8-0, Exterior(2E) 15-8-0 to 17-4-4 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
- 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 120 lb uplift at joint 7 and 89 lb uplift at joint 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 30,2025

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

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

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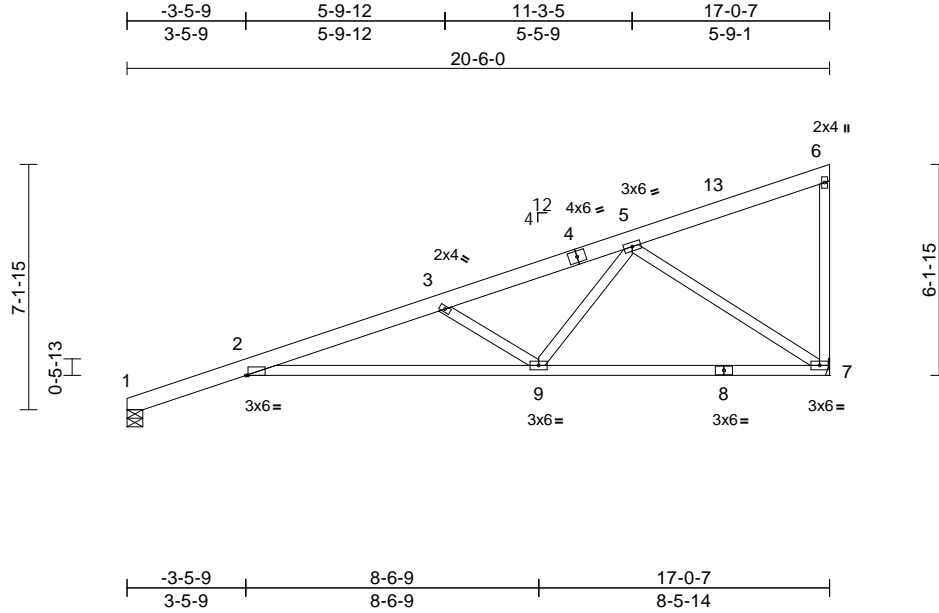
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438580 |
| P05804-31172 | C1 | Monopitch | 3 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:58

Page: 1

ID:JuB_fBXJibYFjDZz52u_bGzlaOB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f



Scale = 1:67.2

Plate Offsets (X, Y): [2:0-0-12,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|----------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------|---------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.86 | Vert(LL) | -0.41 | 9-12 | >588 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.72 | Vert(CT) | -0.87 | 9-12 | >278 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.84 | Horz(CT) | 0.27 | 7 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | | |
| Weight: 105 lb | | | | | | | | | | | FT = 20% | |

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 1-4:2x6 SP DSS
BOT CHORD 2x4 SP No.1 *Except* 8-7:2x4 SP No.2
WEBS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-5-5 oc bracing.

REACTIONS (size) 1=0-5-8, 7= Mechanical
Max Horiz 1=199 (LC 9)
Max Uplift 1=87 (LC 8), 7=123 (LC 12)
Max Grav 1=823 (LC 1), 7=809 (LC 1)

FORCES

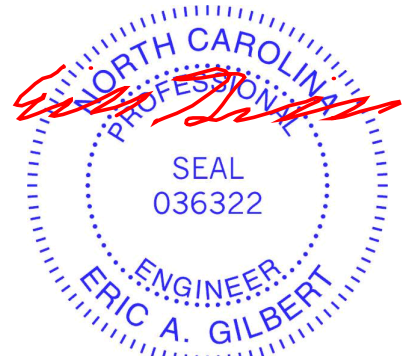
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-338/112, 2-3=-3617/483,
3-5=-1590/215, 5-6=-110/79, 6-7=-155/74
BOT CHORD 2-9=-508/2816, 7-9=-215/869
WEBS 3-9=-1037/214, 5-9=-88/975, 5-7=-1041/200

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) -1-9-7 to 1-5-6, Interior (1) 1-5-6 to 18-4-1 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 7 and 87 lb uplift at joint 1.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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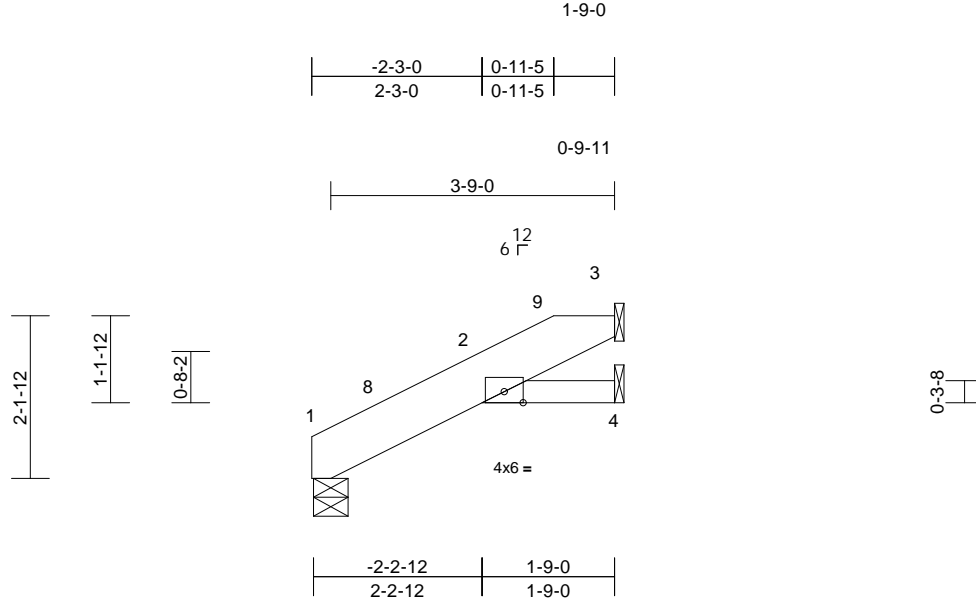
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438581 |
| P05804-31172 | CJ2 | Half Hip | 1 | 1 | 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. Thu Oct 30 10:37:00
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Page: 1



| | | | | | | | | | | | | |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|---------------|-------------|
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.05 | Vert(LL) | -0.01 | 7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.27 | Vert(CT) | -0.01 | 7 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.01 | 1 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 17 lb | FT = 20% |

LUMBER

TOP CHORD 2x8 SP DSS

BOT CHORD 2x4 SP No.2

BRACING

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

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

REACTIONS (size) 1=0-5-8, 3= Mechanical, 4= Mechanical

Max Horiz 3=-165 (LC 1), 4=165 (LC 1)

Max Uplift 1=-28 (LC 12), 4=-7 (LC 12)

Max Grav 1=206 (LC 1), 4=113 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-84/50, 2-3=-237/97

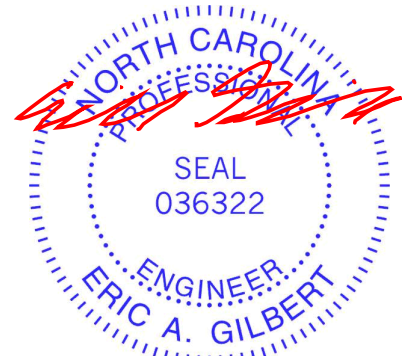
BOT CHORD 2-4=-61/231

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) -1-9-4 to 1-2-12, Interior (1) 1-2-12 to 1-11-14 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
- 2) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 7 lb uplift at joint 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



October 30, 2025

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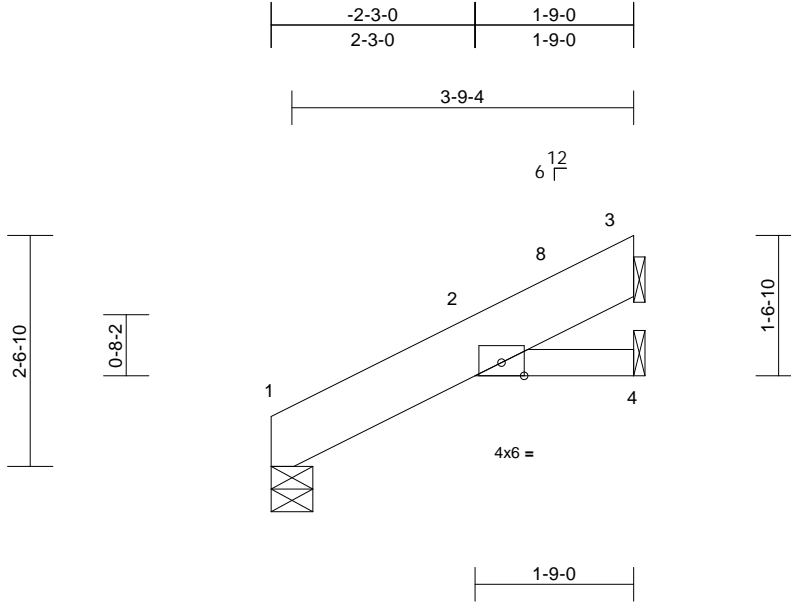
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | CJ1 | Jack-Open | 7 | 1 | Job Reference (optional) | I77438582 |

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. Thu Oct 30 10:37:00
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Page: 1



Scale = 1:25.4

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.05 | Vert(LL) | -0.01 | 7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.27 | Vert(CT) | -0.01 | 7 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.01 | 1 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 17 lb | FT = 20% |

LUMBER

TOP CHORD 2x8 SP DSS

BOT CHORD 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins.

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

REACTIONS (size) 1=0-5-8, 3= Mechanical, 4= Mechanical

Max Horiz 3=-165 (LC 1), 4=165 (LC 1)

Max Uplift 1=-28 (LC 12), 4=-7 (LC 12)

Max Grav 1=206 (LC 1), 4=113 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-84/53, 2-3=-237/98

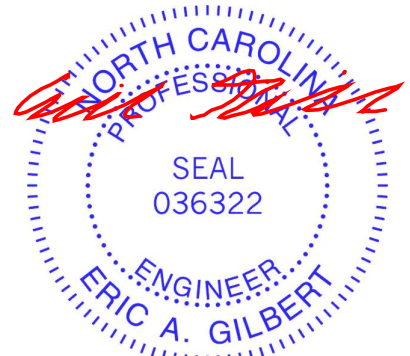
BOT CHORD 2-4=-59/231

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) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 3-1-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 7 lb uplift at joint 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

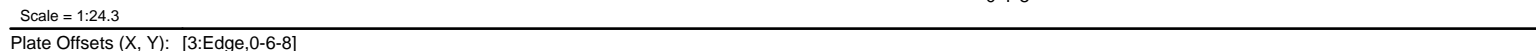
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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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. Thu Oct 30 10:37:02 Page: 1
ID:FrLL6AVqauUPQG8UOYkWDFzIYYI-RfC?PsB70Hg3NSaPqnL8w3ulTXbGKwRCdoi7J4zJC?f



LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25,
Plate Increase=1.25
Uniform Loads (lb/ft)
Vert: 1-3=-60, 4-6=-20
Concentrated Loads (lb)
Vert: 3=-336, 2=-303, 7=-393, 8=-307



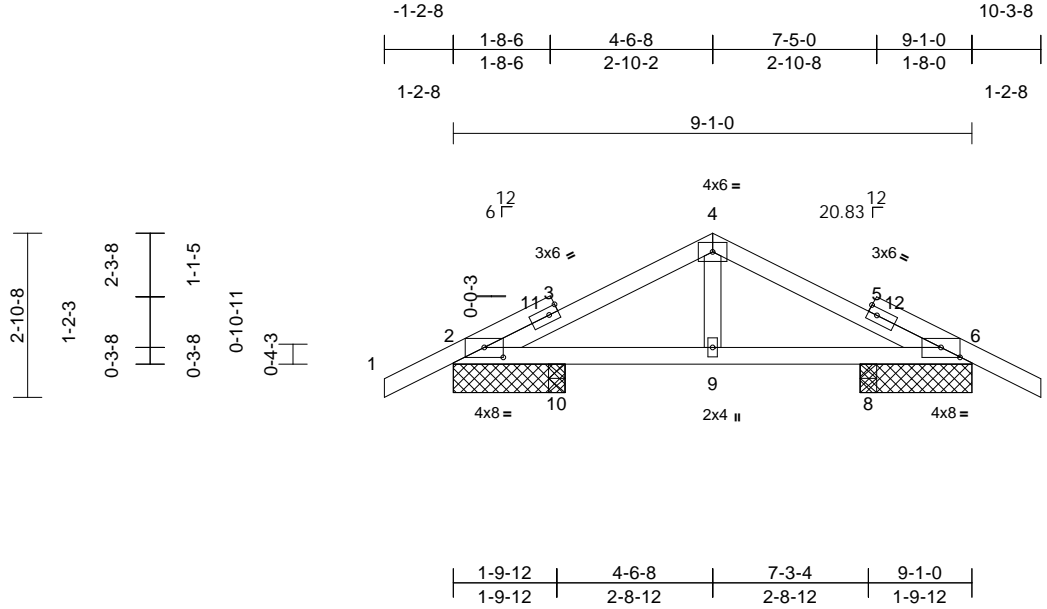
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Edenton, NC 27932

| | | | | | | |
|--------------|-------|-------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438584 |
| P05804-31172 | D1SE | Common Structural Gable | 1 | 1 | 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. Thu Oct 30 10:37:00
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Page: 1



Scale = 1:40.4

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | -0.01 | 9 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.32 | Vert(CT) | -0.02 | 9 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 39 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=1-11-8, 6=1-11-8, 8=0-3-8, 10=0-3-8
Max Horiz 2=32 (LC 16)
Max Uplift 2=-32 (LC 12), 6=-33 (LC 13), 8=-19 (LC 13), 10=-20 (LC 12)
Max Grav 2=237 (LC 1), 6=237 (LC 1), 8=201 (LC 1), 10=200 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

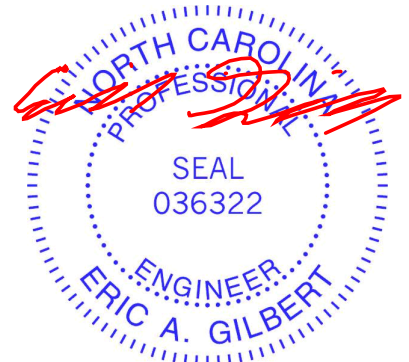
TOP CHORD 1-2=0/31, 2-4=-290/91, 4-6=-290/91, 6-7=0/31
BOT CHORD 2-10=-3/219, 9-10=-3/220, 8-9=-3/220, 6-8=-3/219
WEBS 4-9=-38/65

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 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior (1) 7-6-8 to 10-3-8 zone;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.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2, 33 lb uplift at joint 6, 20 lb uplift at joint 10 and 19 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30,2025

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

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

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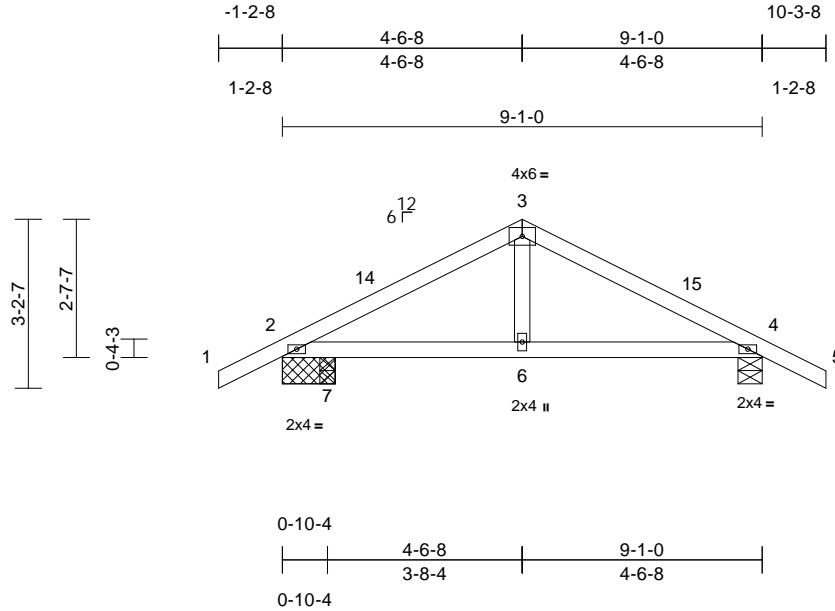
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438585 |
| P05804-31172 | D1 | Common | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:37:00

Page: 1

ID:Dc0EHQ1sjCnlywYHRi4gyDzIYbx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:43.6

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.21 | Vert(LL) | 0.02 | 6-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | -0.03 | 6-13 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 36 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS

| | |
|------------|---|
| (size) | 2=1-0-0, 4=0-5-8, 7=0-3-8 |
| Max Horiz | 2=-36 (LC 13) |
| Max Uplift | 2=-34 (LC 8), 4=-48 (LC 8), 7=-55 (LC 9) |
| Max Grav | 2=244 (LC 1), 4=416 (LC 1), 7=236 (LC 25) |

FORCES

(lb) - Maximum Compression/Maximum Tension

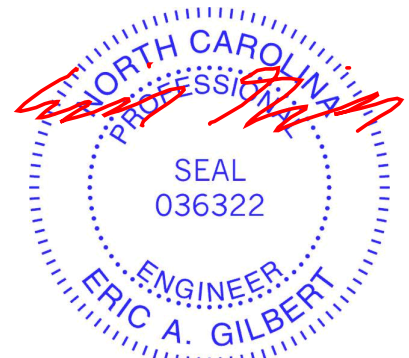
| | |
|-----------|--|
| TOP CHORD | 1-2=0/32, 2-3=-437/260, 3-4=-430/242, 4-5=0/32 |
| BOT CHORD | 2-7=-135/339, 6-7=-135/339, 4-6=-135/339 |
| WEBS | 3-6=-88/179 |

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 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior (1) 7-6-8 to 10-3-8 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 34 lb uplift at joint 2, 48 lb uplift at joint 4 and 55 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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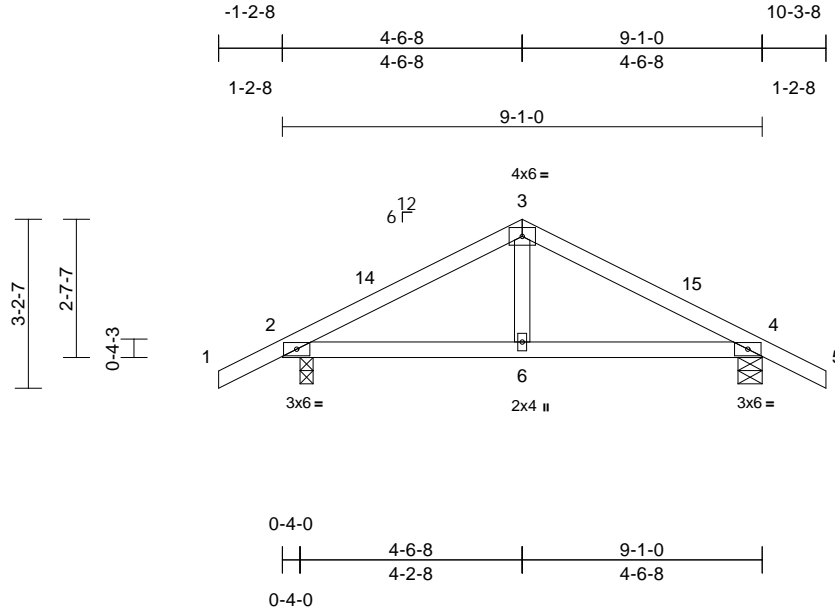
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438586 |
| P05804-31172 | D2 | Common | 1 | 1 | 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. Thu Oct 30 10:37:00
ID:pNzDVS0lPP77nWp1FwYvGWzIYaf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?fi

Page: 1



Scale = 1:43.6

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.26 | Vert(LL) | 0.02 | 6-13 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(CT) | -0.03 | 6-13 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 36 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-3-0, 4=0-5-8

Max Horiz 2=-36 (LC 13)
Max Uplift 2=-51 (LC 9), 4=-47 (LC 13)
Max Grav 2=459 (LC 1), 4=413 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-3=-433/248, 3-4=-418/245, 4-5=0/32
BOT CHORD 2-6=-128/328, 4-6=-128/328
WEBS 3-6=-81/181

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 and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior (1) 7-6-8 to 10-3-8 zone; cantilever left 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
- 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 51 lb uplift at joint 2 and 47 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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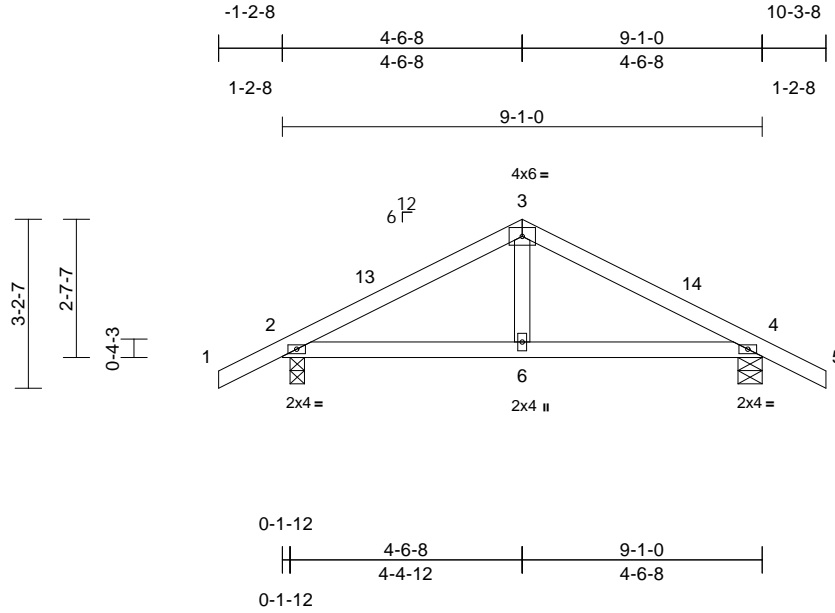
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438587 |
| P05804-31172 | D3 | Common | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:37:01

Page: 1

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Scale = 1:43.6

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.20 | Vert(LL) | 0.02 | 6-9 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.23 | Vert(CT) | -0.03 | 6-9 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 36 lb | FT = 20% |

LUMBER

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

BRACING

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

| | | |
|-----------|------------|----------------------------|
| REACTIONS | (size) | 2=0-3-4, 4=0-5-8 |
| | Max Horiz | 2=-36 (LC 13) |
| | Max Uplift | 2=-48 (LC 9), 4=-48 (LC 8) |
| | Max Grav | 2=436 (LC 1), 4=436 (LC 1) |

FORCES

| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=0/32, 2-3=-489/285, 3-4=-489/282, 4-5=0/32 |
| BOT CHORD | 2-6=-162/392, 4-6=-162/392 |
| WEBS | 3-6=-104/207 |

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 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior (1) 7-6-8 to 10-3-8 zone; cantilever left 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
- 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 48 lb uplift at joint 4 and 48 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30,2025

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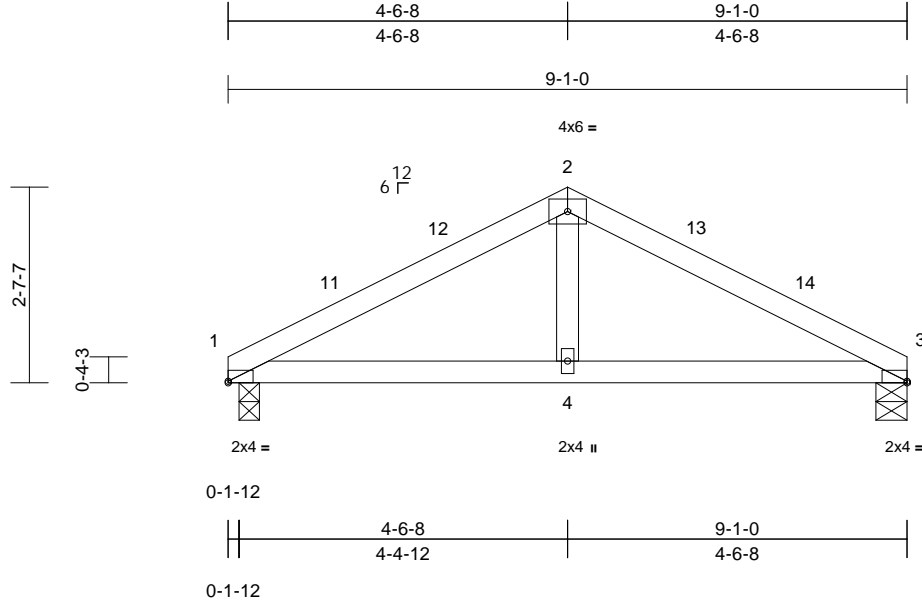
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|---------------------|-------------|----------------------|----------|----------|--|-----------|
| Job P05804-31172 | Truss D4 | Truss Type Common | Qty 3 | Ply 1 | 905 Serenity Job Reference (optional) | I77438588 |
|---------------------|-------------|----------------------|----------|----------|--|-----------|

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. Thu Oct 30 10:37:01
ID:Q9wDiV0k5bSud75o2807bpzLYZN-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:30.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.22 | Vert(LL) | 0.02 | 4-7 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.26 | Vert(CT) | -0.03 | 4-7 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 32 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS (size) 1=0-3-4, 3=0-5-0
Max Horiz 1=28 (LC 12)
Max Uplift 1=-47 (LC 9), 3=-47 (LC 8)
Max Grav 1=363 (LC 1), 3=363 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

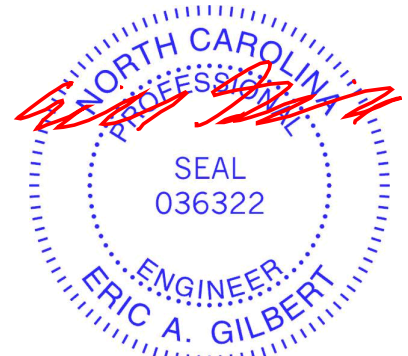
TOP CHORD 1-2=-506/307, 2-3=-506/307
BOT CHORD 1-4=-216/419, 3-4=-216/419
WEBS 2-4=-116/212

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-6-8, Exterior(2R) 4-6-8 to 7-6-8, Interior (1) 7-6-8 to 9-1-0 zone; cantilever left 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
- 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 47 lb uplift at joint 1 and 47 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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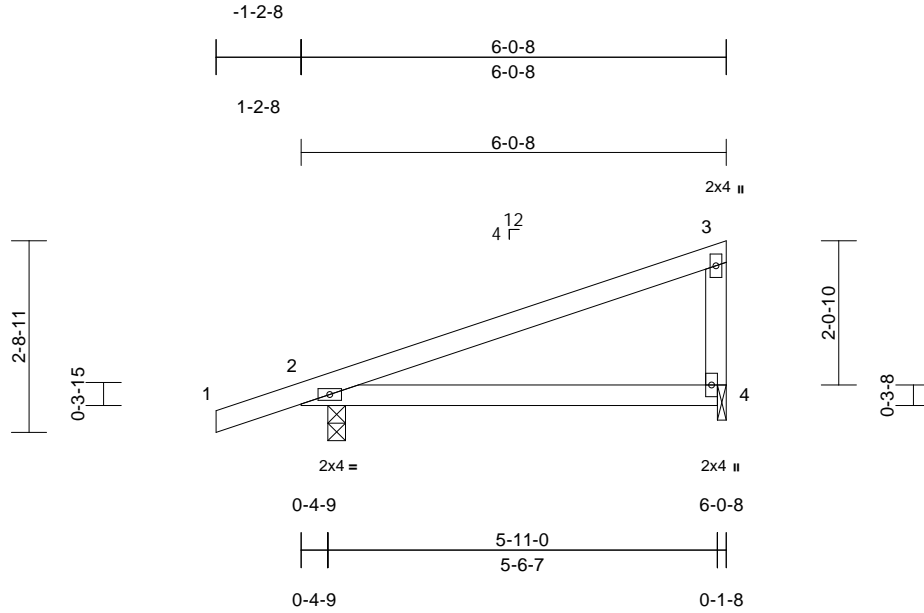
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438589 |
| P05804-31172 | M1E | Monopitch | 1 | 1 | 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. Thu Oct 30 10:37:02
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Page: 1



Scale = 1:32.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.40 | Vert(LL) | 0.06 | 4-9 | >999 | 240 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.31 | Vert(CT) | -0.09 | 4-9 | >817 | 180 | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 23 lb FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 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=72 (LC 8)
Max Uplift 2=-104 (LC 8), 4=-71 (LC 8)
Max Grav 2=338 (LC 1), 4=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

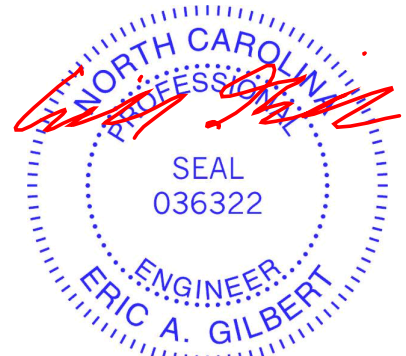
TOP CHORD 1-2=0/23, 2-3=-114/151, 3-4=-141/106
BOT CHORD 2-4=-158/150

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 5-10-12 zone; cantilever left 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
- 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.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 4 and 104 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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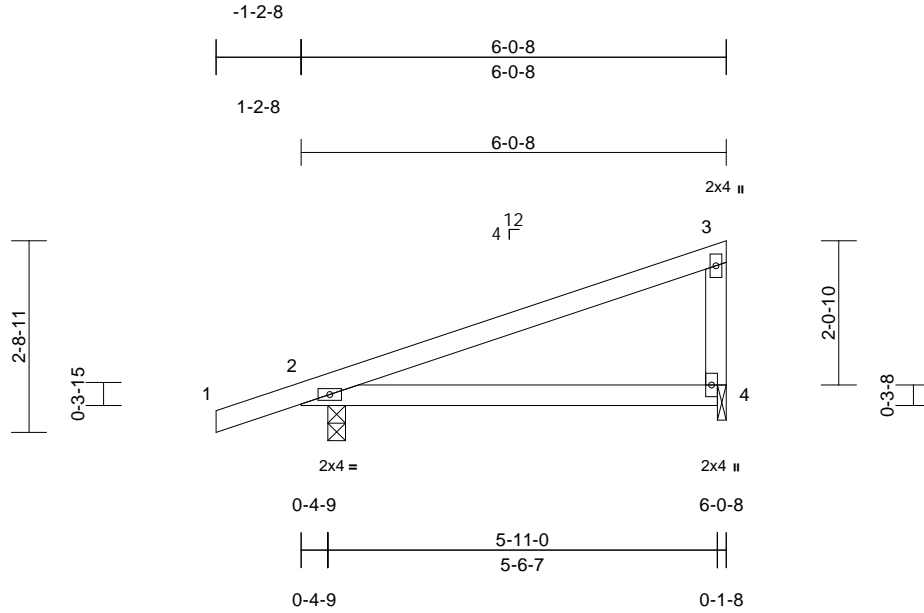
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | M1 | Monopitch | 5 | 1 | Job Reference (optional) | I77438590 |

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. Thu Oct 30 10:37:01
ID:XcBBBPWXQdAS?VKIFILUGbzIZDK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.40 | Vert(LL) | 0.06 | 4-9 | >999 | 240 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.31 | Vert(CT) | -0.09 | 4-9 | >817 | 180 | 244/190 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 23 lb FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 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=72 (LC 8)
Max Uplift 2=-104 (LC 8), 4=-71 (LC 8)
Max Grav 2=338 (LC 1), 4=207 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

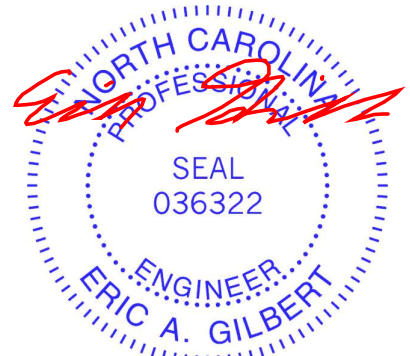
TOP CHORD 1-2=0/23, 2-3=-114/151, 3-4=-141/106
BOT CHORD 2-4=-158/150

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 5-10-12 zone; cantilever left 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
- 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.

- 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.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 4 and 104 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

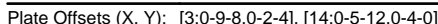
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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Page: 1

818 Soundside Road
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Page: 1LUMBER

BRACING

REACTIONS

FORCES

References

NOTES

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.

- 3) 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.
- 4) Unbalanced roof live loads have been considered for this design.
- 5) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BC DL=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
- 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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 438 lb uplift at joint 1 and 552 lb uplift at joint 10.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 281 lb down and 153 lb up at 7-0-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Filler applied to ply: 1(Front)
- LOAD CASE(S) Standard**
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (lb/ft)
- Vert: 1-19=-58, 3-19=-35, 3-9=-45, 14-18=-20, 10-13=-20
- Concentrated Loads (lb)
- Vert: 16=-235 (F), 12=-19 (F), 6=-15 (F), 8=-15 (F), 11=-19 (F), 21=-37 (F), 22=-37 (F), 23=-37 (F), 24=-37 (F), 25=-37 (F), 26=-15 (F), 27=-15 (F), 28=-15 (F), 34=-19 (F), 35=-19 (F), 36=-19 (F)



October 30, 2025



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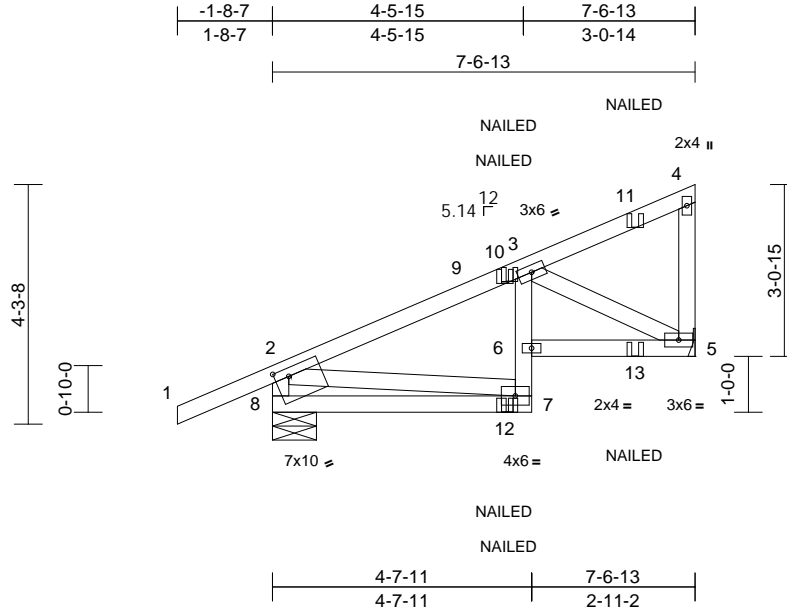
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|-------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438593 |
| P05804-31172 | ACJ01 | Jack-Closed | 1 | 1 | 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. Thu Oct 30 10:36:53
ID:nesLyo2nWFOmr1G6mU15G4zJY1H-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41.3

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|--------------|----------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.26 | Vert(LL) | 0.02 | 7 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf/Pg) | 7.7/10.0 | Lumber DOL | 1.15 | BC | 0.43 | Vert(CT) | -0.03 | 7-8 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.08 | Horz(CT) | 0.02 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 44 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 5= Mechanical, 8=0-9-7
Max Horiz 8=132 (LC 16)
Max Uplift 5=-141 (LC 16), 8=-88 (LC 16)
Max Grav 5=320 (LC 2), 8=425 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-8=-390/265, 1-2=0/44, 2-3=-324/80,
3-4=-70/25, 4-5=-93/73

BOT CHORD 7-8=-223/200, 6-7=-19/78, 3-6=0/125,
5-6=-278/372

WEBS 2-7=-115/188, 3-5=-401/302

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-8-7 to 2-6-8, Exterior(2R) 2-6-8 to 7-5-1 zone; end vertical left 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 88 lb uplift at joint 8 and 141 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "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: 1-2=-35, 2-4=-35, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-29 (F)



October 30, 2025

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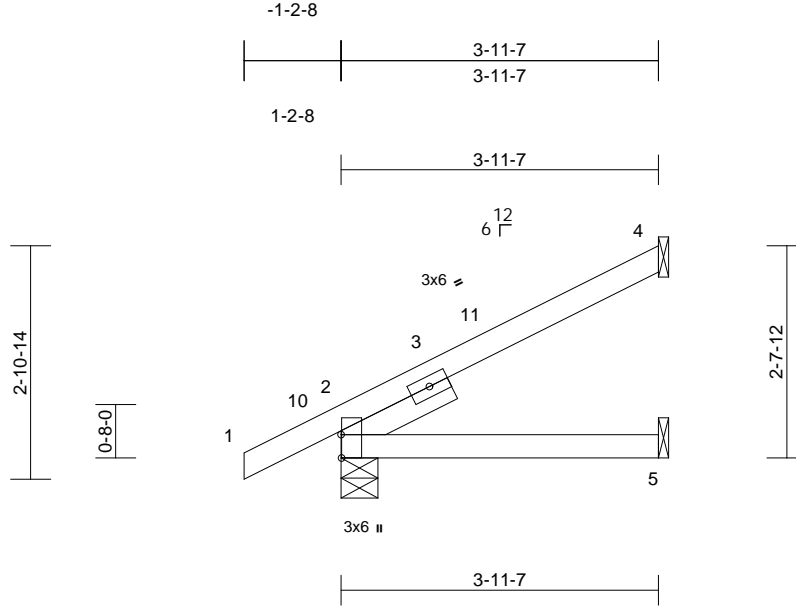
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | AJ01 | Jack-Open | 1 | 1 | Job Reference (optional) | I77438594 |

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. Thu Oct 30 10:36:55

Page: 1

ID:rFkbX60X_eXecj6kf3?dBfzJY1J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?i



Scale = 1:28.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.18 | Vert(LL) | 0.01 | 5-8 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.14 | Vert(CT) | -0.02 | 5-8 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.01 | 2 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 17 lb | FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins.
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=71 (LC 12)
Max Uplift 2=-19 (LC 12), 4=-38 (LC 12)
Max Grav 2=239 (LC 1), 4=97 (LC 1), 5=69 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/32, 2-4=-117/34
BOT CHORD 2-5=-116/84

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) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-10-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.

- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 4 and 19 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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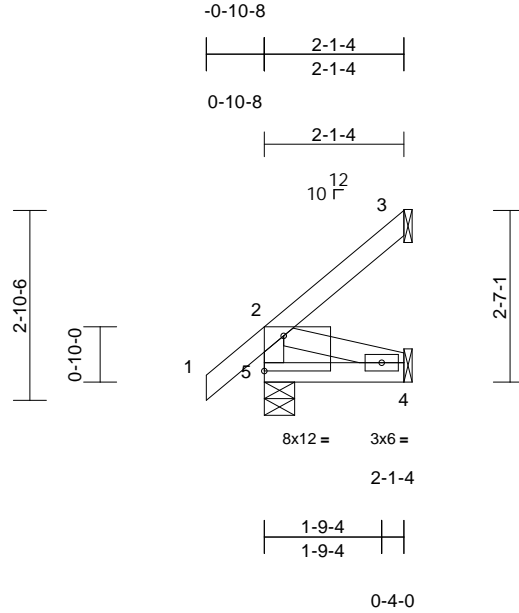
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438595 |
| P05804-31172 | AJ02 | Jack-Open | 1 | 1 | 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. Thu Oct 30 10:36:55
ID:rFkbX60X_eXecj6kf3?dBfzJY1J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?

Page: 1



Scale = 1:34.7

Plate Offsets (X, Y): [5:Edge,0-6-6]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.08 | Vert(LL) | 0.00 | 4-5 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.04 | Vert(CT) | 0.00 | 4-5 | >999 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 13 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 2-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=60 (LC 12)
Max Uplift 3=-27 (LC 12), 4=-14 (LC 12)
Max Grav 3=44 (LC 19), 4=39 (LC 3), 5=154 (LC 1)

FORCES

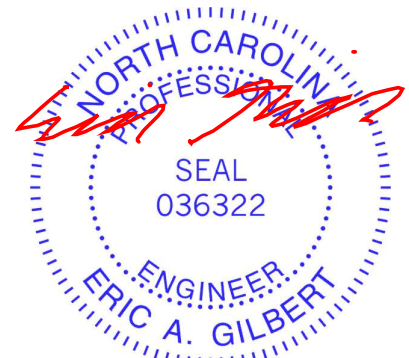
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-52/34, 2-5=-135/46
BOT CHORD 4-5=-142/44
WEBS 2-4=-46/149

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
- 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 27 lb uplift at joint 3 and 14 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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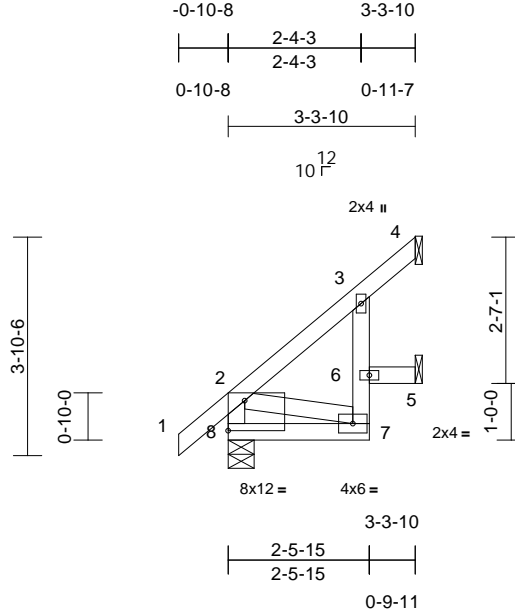
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438596 |
| P05804-31172 | AJ03 | Jack-Open | 1 | 1 | 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. Thu Oct 30 10:36:55
ID:rFkbX60X_eXecj6kf3?dBfzJY1J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDoi7J4zJC?f

Page: 1



Scale = 1:40.7

Plate Offsets (X, Y): [8:Edge,0-6-6]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|------------------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | 0.02 | 7 | >999 | 240 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.05 | Vert(CT) | -0.02 | 7 | >999 | 180 | 244/190 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | -0.01 | 5 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/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 3-3-10 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=89 (LC 12)
Max Uplift 4=64 (LC 12)
Max Grav 4=116 (LC 19), 5=18 (LC 3), 8=195 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-87/33, 3-4=-98/74, 2-8=-173/42
BOT CHORD 7-8=-189/61, 6-7=-47/45, 3-6=-44/63, 5-6=0/0
WEBS 2-7=-65/198

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) -0-10-8 to 2-3-1, Interior (1) 2-3-1 to 3-2-14 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
- 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 64 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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

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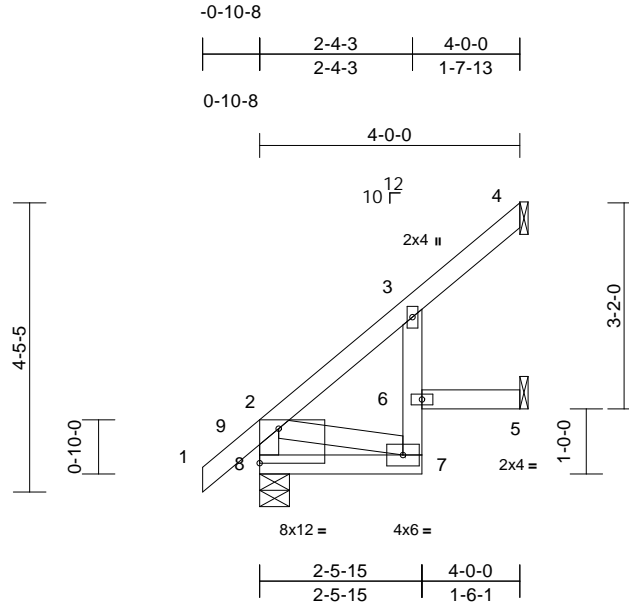
| | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity |
| P05804-31172 | AJ04 | Jack-Open | 5 | 1 | 177438597 |
| | | | | | Job Reference (optional) |

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. Thu Oct 30 10:36:55

Page: 1

ID:JSIzkS19IxfVDthwCmWsktzJY11-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.4

Plate Offsets (X, Y): [8:Edge,0-6-6]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.28 | Vert(LL) | 0.06 | 7 | >760 | 240 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.05 | Vert(CT) | -0.06 | 7 | >820 | 180 | 244/190 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | -0.03 | 5 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | |
| | | | | | | | | | | Weight: 23 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" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical,
8=0-5-8
Max Horiz 8=105 (LC 12)
Max Uplift 4=-77 (LC 12)
Max Grav 4=139 (LC 19), 5=32 (LC 3), 8=221 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-105/31, 3-4=-118/84, 2-8=-199/38
BOT CHORD 7-8=-206/70, 6-7=-52/45, 3-6=-47/77, 5-6=0/0
WEBS 2-7=-75/215

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) -0-10-8 to 2-3-1, Interior (1) 2-3-1 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
- 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 77 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



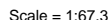
October 30, 2025

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

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

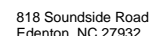
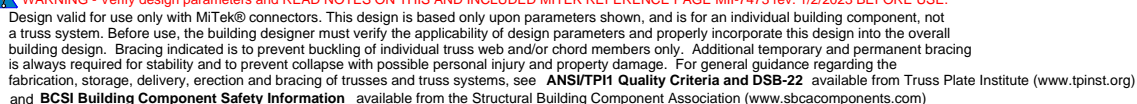
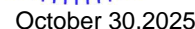
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Page: 1

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|----------------|-------|-----------------|-----------------|------------|------|-------------|-------|-------|--------|-----|----------------|-------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.47 | Vert(LL) | -0.14 | 13-21 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.73 | Vert(CT) | -0.33 | 13-21 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.52 | Horz(CT) | 0.17 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 176 lb | FT = 20% |

LOAD CASE(S) Standard



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. Thu Oct 30 10:36:53 Page: 1
ID:cdCcCr6Y55YWZvG7k8VWLzJY1B-RfC?PsB70Hg3NSaPanL8w3uITXbGKWRcDoi7J4zJC?f



Scale = 1:78.7

Plate Offsets (X, Y): [2:0-5-8,Edge], [4:0-3-0,0-2-0], [5:0-3-0,0-2-0], [9:0-4-1,Edge], [12:0-5-12,0-4-0]

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 1-3:2x10 SP DSS
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 16-1:2x10 SP DSS
SLIDER Right 2x4 SP No.2 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or
3-6-5 oc purlins, except
2-0-0 oc purlins (5-1-3 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.

REACTIONS (size) 1=0-5-8, 9= Mechanical
Max Horiz 1=89 (LC 12)
Max Uplift 1=-86 (LC 12), 9=-92 (LC 13)
Max Grav 1=1124 (LC 1), 9=1109 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=-495/102, 2-4=-2116/176,
4-5=-1265/169, 5-6=-1465/181,
6-7=-1796/175, 7-9=-1846/162

BOT CHORD 2-15=-174/1946, 14-15=-173/1951,
13-14=-24/1246, 12-13=-42/1546,
11-12=0/108, 6-12=-35/508, 10-11=0/109,
9-10=-88/1588

WEBS 3-15=0/230, 3-14=-788/163, 4-14=-22/380,
5-14=-71/243, 5-13=-112/576,
6-13=-717/125, 10-12=-94/1513,
7-12=-131/106, 7-10=-245/53

- ## 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) 0-2-12 to 2-11-11, Interior (1)
2-11-11 to 13-7-3, Exterior(2E) 13-7-3 to 14-3-13,
Exterior(2R) 14-3-13 to 18-6-12, Interior (1) 18-6-12 to
27-11-0 zone; cantilever left and right exposed ; end
vertical left and right exposed; C-C for members and
forces & MWFRS for reactions shown; Lumber
DOL=1.60 plate grip DOL=1.60
- 3) Building Designer/Project engineer responsible for
verifying Rain Load = 5.0 (psf) covers rain loading
requirements specific to the use of this truss component
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom
chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf
on the bottom chord in all areas where a rectangle
3-06-00 tall by 2-00-00 wide will fit between the bottom
chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 1 considers parallel to grain value
using ANSI/TPI 1 angle to grain formula. Building
designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 92 lb uplift at joint
9 and 86 lb uplift at joint 1.
- 10) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 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 30, 2025



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-141.5 Rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DS8-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacomponents.com)



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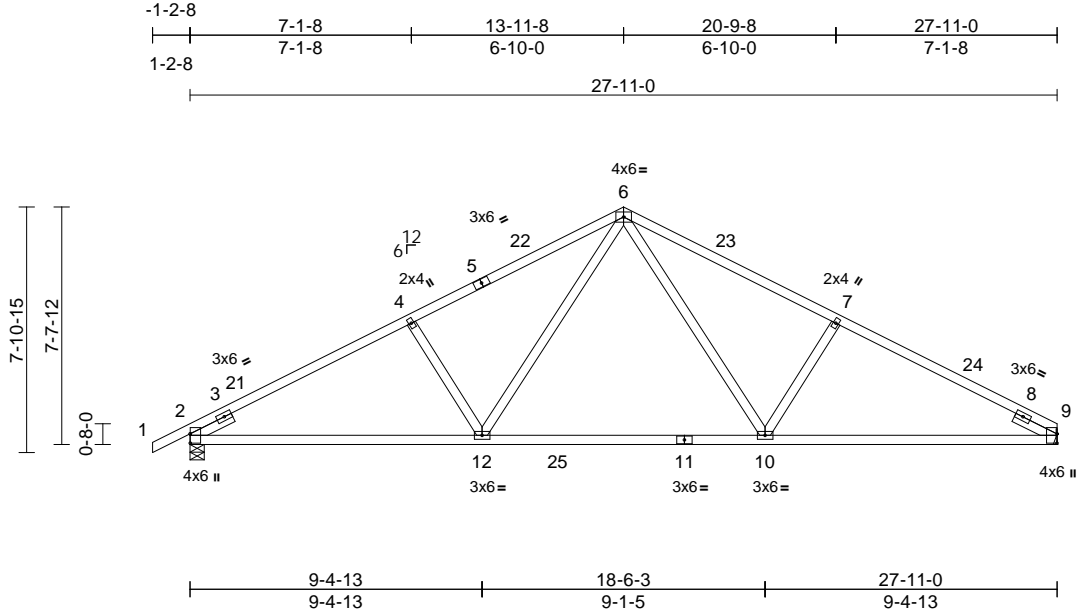
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438600 |
| P05804-31172 | A02 | Common | 4 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:52

Page: 1

ID:4_n?QB7AsPgNB6ISgSfk3YzJY1A-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:74.2

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.63 | Vert(LL) | -0.28 | 10-12 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.90 | Vert(CT) | -0.45 | 10-12 | >747 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.06 | 9 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 132 lb | FT = 20% |

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 3-4-2 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

| | |
|-----------|--|
| REACTIONS | (size) 2=0-5-8, 9= Mechanical |
| | Max Horiz 2=101 (LC 12) |
| | Max Uplift 2=-110 (LC 12), 9=-94 (LC 13) |
| | Max Grav 2=1279 (LC 2), 9=1216 (LC 2) |

FORCES

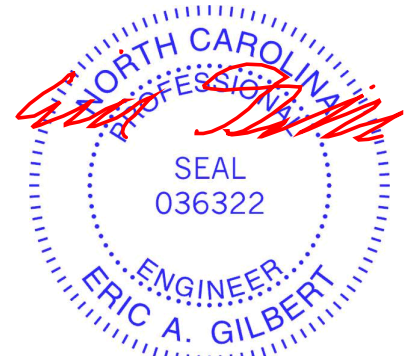
| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=0/32, 2-4=-1966/185, 4-6=-1809/214, 6-7=-1813/221, 7-9=-1970/193 |
| BOT CHORD | 2-12=-173/1701, 10-12=-36/1169, 9-10=-114/1706 |
| WEBS | 6-10=-102/740, 7-10=-389/161, 6-12=-100/734, 4-12=-384/160 |

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 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 27-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 9 and 110 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30,2025

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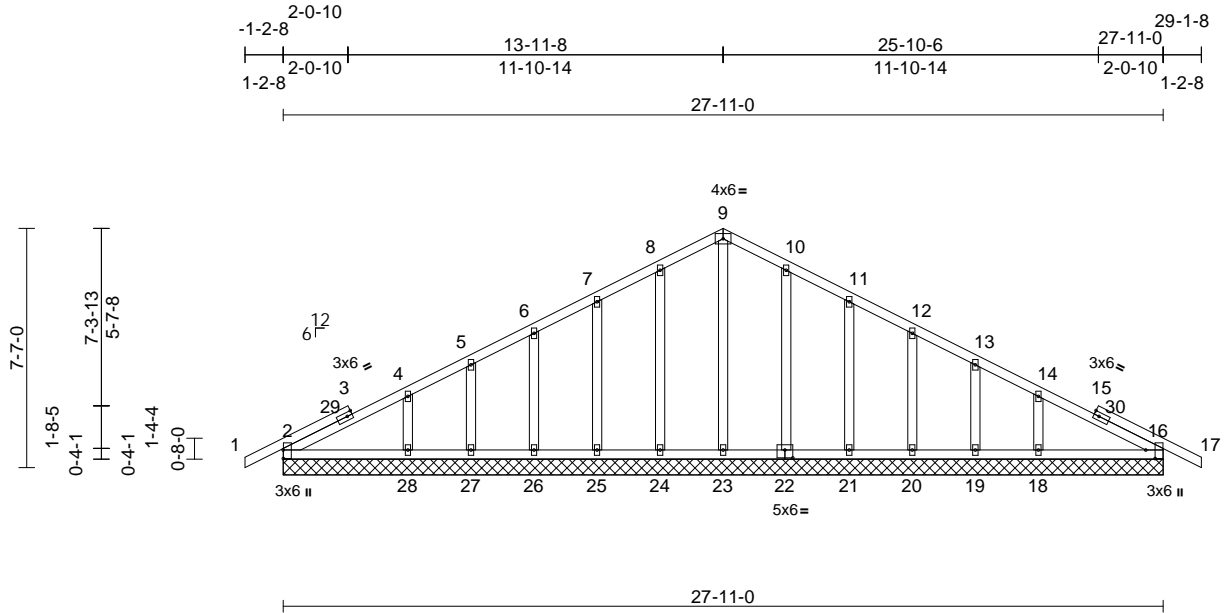
| | | | | | | |
|--------------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438601 |
| P05804-31172 | AE01 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:54

Page: 1

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Scale = 1:73.1

Plate Offsets (X, Y): [2:0-3-4,0-0-1], [16:0-3-4,0-3-9], [22:0-3-0,0-3-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.13 | Vert(LL) | n/a | - | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.08 | Vert(CT) | n/a | - | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.00 | 16 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | Weight: 165 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS

| | |
|------------|---|
| (size) | 2=27-11-0, 16=27-11-0, 18=27-11-0, 19=27-11-0, 20=27-11-0, 21=27-11-0, 22=27-11-0, 23=27-11-0, 24=27-11-0, 25=27-11-0, 26=27-11-0, 27=27-11-0, 28=27-11-0 |
| Max Horiz | 2=90 (LC 17) |
| Max Uplift | 2=-1 (LC 13), 16=-9 (LC 13), 18=-59 (LC 13), 19=-30 (LC 13), 20=-37 (LC 13), 21=-37 (LC 13), 22=-35 (LC 13), 24=-36 (LC 12), 25=-36 (LC 12), 26=-37 (LC 12), 27=-31 (LC 12), 28=-53 (LC 12) |
| Max Grav | 2=227 (LC 25), 16=228 (LC 26), 18=269 (LC 26), 19=121 (LC 1), 20=170 (LC 26), 21=157 (LC 1), 22=169 (LC 26), 23=167 (LC 22), 24=170 (LC 25), 25=156 (LC 1), 26=170 (LC 25), 27=121 (LC 1), 28=269 (LC 25) |

FORCES

| | |
|--|--|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/29, 2-4=-103/75, 4-5=-63/61, 5-6=-39/74, 6-7=-40/92, 7-8=-58/122, 8-9=-77/156, 9-10=-77/156, 10-11=-59/122, 11-12=-41/86, 12-13=-23/50, 13-14=-34/27, 14-16=-65/53, 16-17=0/29 |

| | |
|-----------|--|
| BOT CHORD | 2-28=-48/101, 27-28=-47/99, 26-27=-47/99, 25-26=-47/99, 24-25=-47/99, 23-24=-47/99, 21-23=-47/99, 20-21=-46/99, 19-20=-46/99, 18-19=-46/99, 16-18=-47/100 |
| WEBS | 9-23=-128/9, 8-24=-129/53, 7-25=-117/57, 6-26=-126/57, 5-27=-95/47, 4-28=-195/81, 10-22=-129/53, 11-21=-117/57, 12-20=-126/57, 13-19=-95/47, 14-18=-195/81 |

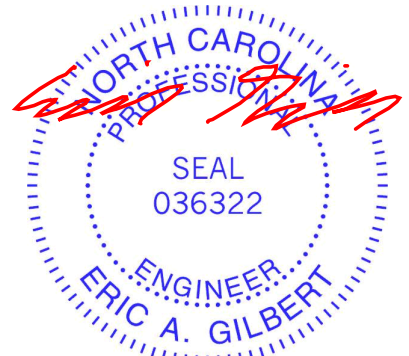
NOTES

- 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 Corner(3E) -1-2-8 to 1-9-8, Exterior(2N) 1-9-8 to 13-11-8, Corner(3R) 13-11-8 to 16-11-8, Exterior(2N) 16-11-8 to 29-1-8 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.
- 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.
- Gable studs spaced at 2'-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 2, 9 lb uplift at joint 16, 36 lb uplift at joint 24, 36 lb uplift at joint 25, 37 lb uplift at joint 26, 31 lb uplift at joint 27, 53 lb uplift at joint 28, 35 lb uplift at joint 22, 37 lb uplift at joint 21, 37 lb uplift at joint 20, 30 lb uplift at joint 19 and 59 lb uplift at joint 18.

- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30,2025

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

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

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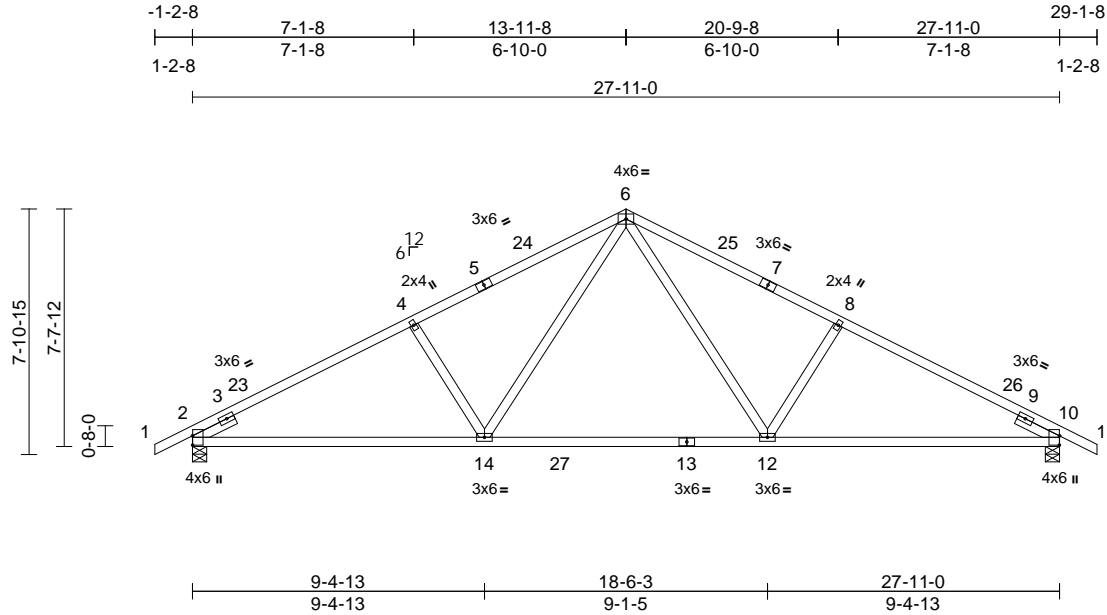
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438602 |
| P05804-31172 | A01 | Common | 4 | 1 | 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. Thu Oct 30 10:36:50
ID:pr4A4?lavojbgrPBjiG1vuzJXsd-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:74.2

Plate Offsets (X, Y): [2:0-3-9,0-0-1], [10:0-3-9,0-0-1]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.63 | Vert(LL) | -0.29 | 12-14 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.90 | Vert(CT) | -0.45 | 12-14 | >739 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.06 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 134 lb | FT = 20% |

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 3-4-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

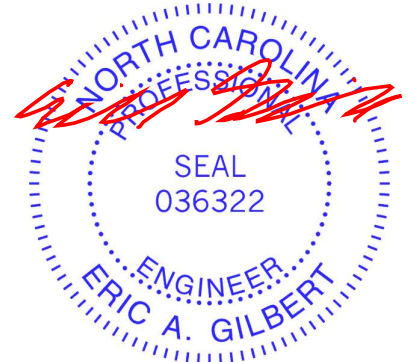
REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-94 (LC 17)
Max Uplift 2=-110 (LC 12), 10=-110 (LC 13)
Max Grav 2=1278 (LC 2), 10=1277 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-4=-1963/185, 4-6=-1806/213, 6-8=-1805/213, 8-10=-1962/185, 10-11=0/32
BOT CHORD 2-14=-167/1699, 12-14=-28/1166, 10-12=-94/1698
WEBS 6-14=-100/735, 4-14=-384/160, 8-12=-384/160, 6-12=-100/733

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 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 29-1-8 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) 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 110 lb uplift at joint 2 and 110 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



October 30, 2025

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

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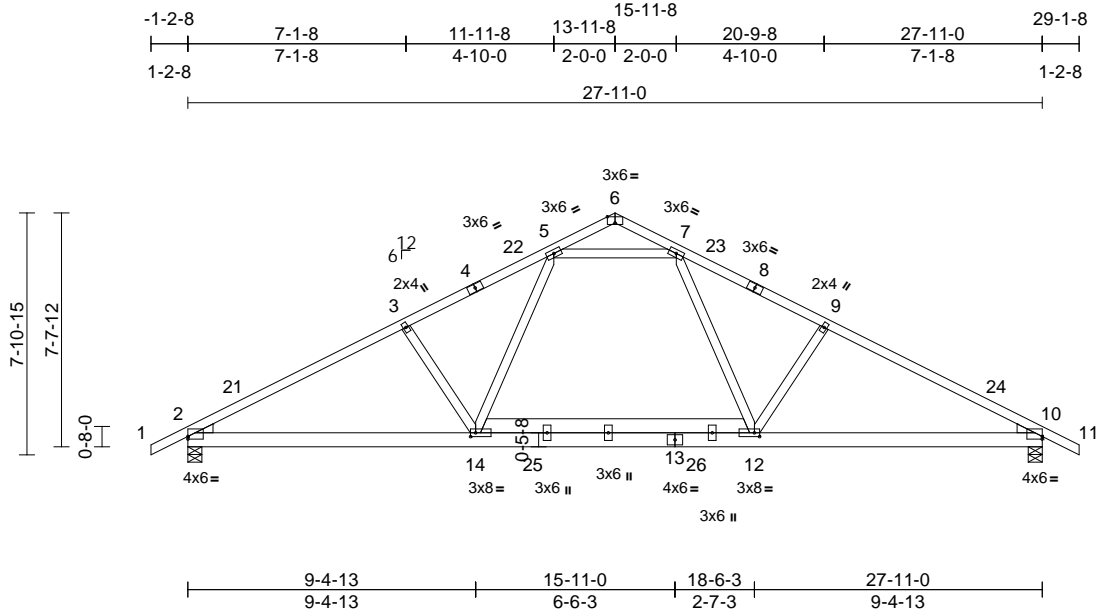
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | A01H | Common | 3 | 1 | Job Reference (optional) | I77438603 |

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. Thu Oct 30 10:36:51
ID:pr4A4?lavojbgrPBjiG1vuzJXsd-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:75.3

Plate Offsets (X, Y): [2:Edge,0-1-1], [6:0-3-0,Edge], [10:Edge,0-1-1], [12:0-2-0,0-1-8], [14:0-2-0,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.51 | Vert(LL) | -0.17 | 12-20 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.53 | Vert(CT) | -0.24 | 12-20 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.42 | Horz(CT) | 0.03 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 176 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-94 (LC 17)
Max Uplift 2=-110 (LC 12), 10=-110 (LC 13)
Max Grav 2=1287 (LC 2), 10=1287 (LC 2)

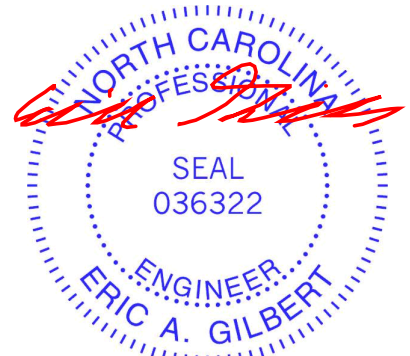
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/32, 2-3=-2016/185, 3-5=-1839/203, 5-6=-109/30, 6-7=-109/30, 7-9=-1839/203, 9-10=-2016/185, 10-11=0/32
BOT CHORD 2-14=-148/1731, 12-14=-44/1348, 10-12=-85/1731
WEBS 5-14=-58/637, 3-14=-384/155, 9-12=-384/155, 7-12=-58/637, 5-7=-1291/184

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 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 29-1-8 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

- 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 110 lb uplift at joint 2 and 110 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



October 30, 2025

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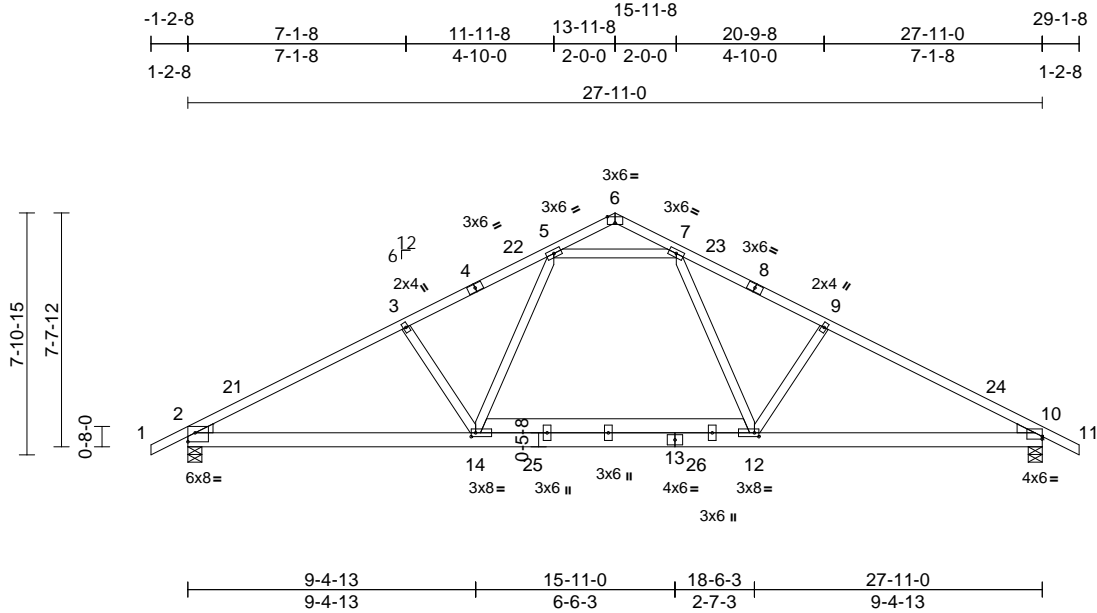
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | A01HA | Common | 2 | 1 | Job Reference (optional) | I77438604 |

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. Thu Oct 30 10:36:52
ID:pr4A4?lavojbgrPBjiG1vuzJXsd-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?i

Page: 1



Scale = 1:75.3

Plate Offsets (X, Y): [2:Edge,0-3-8], [6:0-3-0,Edge], [10:Edge,0-1-1], [12:0-1-12,0-1-8], [14:0-1-12,0-1-8]

| Loading | (psf) | Spacing | 2-3-8 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.69 | Vert(LL) | -0.20 | 14-17 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.68 | Vert(CT) | -0.28 | 14-17 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | NO | WB | 0.48 | Horz(CT) | 0.04 | 10 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 176 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2
WEDGE Left: 2x4 SP No.2
Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-5-8, 10=0-5-8
Max Horiz 2=-108 (LC 17)
Max Uplift 2=-126 (LC 12), 10=-126 (LC 13)
Max Grav 2=1475 (LC 2), 10=1475 (LC 2)

FORCES

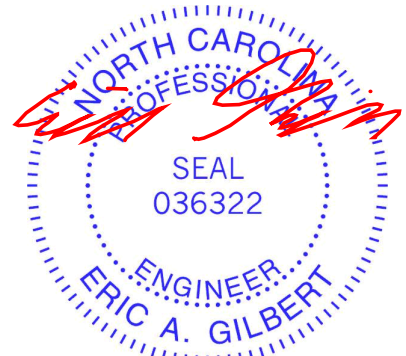
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/37, 2-3=-2297/212, 3-5=-2109/233, 5-6=-121/33, 6-7=-123/33, 7-9=-2108/233, 9-10=-2311/212, 10-11=0/37
BOT CHORD 2-14=-167/1983, 12-14=-51/1546, 10-12=-98/1984
WEBS 7-12=-66/727, 9-12=-438/178, 5-14=-66/731, 3-14=-432/174, 5-7=-1483/213

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 13-11-8, Exterior(2R) 13-11-8 to 16-11-8, Interior (1) 16-11-8 to 29-1-8 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

- 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 126 lb uplift at joint 2 and 126 lb uplift at joint 10.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



October 30, 2025

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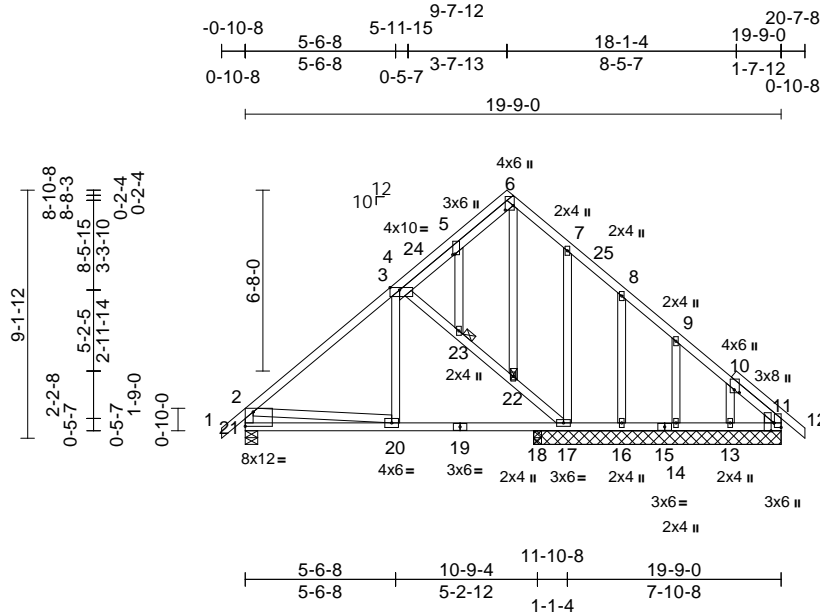
| | | | | | | |
|--------------|-------|-------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438605 |
| P05804-31172 | BSE01 | Common Structural Gable | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:57

Page: 1

ID:pYTKr_yu0P7mCb73hMxmplzJY3z-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f



Scale = 1:84.9

Plate Offsets (X, Y): [3:0-4-3,Edge], [5:0-0-5,0-1-0], [6:0-2-0,0-3-8], [10:0-1-5,0-2-4], [11:Edge,0-3-2], [11:0-3-8,Edge], [21:Edge,0-6-6]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.27 | Vert(LL) | -0.02 | 20-21 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.26 | Vert(CT) | -0.04 | 20-21 | >999 | 180 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.11 | Horz(CT) | 0.01 | 11 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 148 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 |
| WEDGE | Right: 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.

JOINTS 1 Brace at Jt(s): 22, 23

| REACTIONS | (size) | 11=9-1-8, 13=9-1-8, 14=9-1-8, 16=9-1-8, 17=9-1-8, 18=0-3-8, 21=0-5-8 |
|------------|--|--|
| Max Horiz | 21=171 (LC 10) | |
| Max Uplift | 13=99 (LC 13), 14=47 (LC 13), 16=64 (LC 13), 17=115 (LC 12), 21=18 (LC 12) | |
| Max Grav | 11=227 (LC 22), 13=163 (LC 20), 14=168 (LC 1), 16=167 (LC 20), 17=342 (LC 1), 18=191 (LC 3), 21=568 (LC 1) | |

FORCES (lb) - Maximum Compression/Maximum Tension

| | |
|-----------|--|
| TOP CHORD | 1-2=0/39, 2-3=-542/13, 3-4=-337/56, 4-5=-207/27, 5-6=-117/44, 6-7=-155/51, 7-8=-141/21, 8-9=-169/34, 9-10=-189/53, 10-11=-227/85, 11-12=0/26, 2-21=-518/35 |
| BOT CHORD | 20-21=-175/325, 18-20=-58/398, 17-18=-58/398, 16-17=-81/202, 14-16=-81/202, 13-14=-81/202, 11-13=-83/205 |
| WEBS | 9-14=-130/59, 10-13=-122/80, 3-20=0/220, 6-22=-10/5, 5-23=0/9, 7-17=-144/66, 8-16=-120/78, 2-20=-56/184, 4-23=-360/145, 22-23=-356/146, 17-22=-357/141 |

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-9-5, Exterior(2R) 9-9-5 to 12-9-5, Interior (1) 12-9-5 to 20-7-8 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.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 21, 47 lb uplift at joint 14, 99 lb uplift at joint 13, 115 lb uplift at joint 17 and 64 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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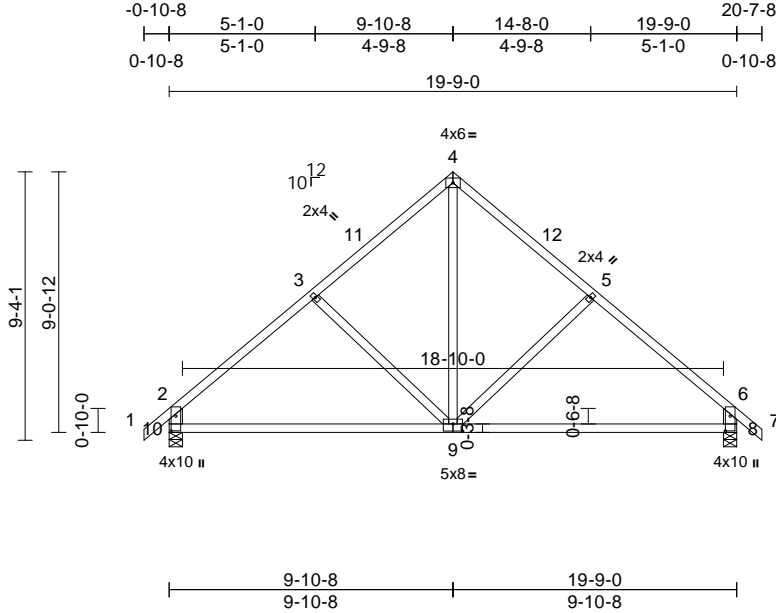
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | B01 | Common | 5 | 1 | Job Reference (optional) | I77438606 |

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. Thu Oct 30 10:36:57

Page: 1

ID:X5EgMHJ8epEtephaFty0rQzJY2D-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f



Scale = 1:80.2

Plate Offsets (X, Y): [8:0-6-2,0-2-0], [9:0-4-0,0-3-0], [10:0-6-2,0-2-0]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.56 | Vert(LL) | -0.17 | 8-9 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.85 | Vert(CT) | -0.33 | 8-9 | >698 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.02 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 106 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2 *Except* 10-2,8-6:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 8=0-5-8, 10=0-5-8
 Max Horiz 10=183 (LC 11)
 Max Uplift 8=63 (LC 13), 10=63 (LC 12)
 Max Grav 8=838 (LC 1), 10=838 (LC 1)

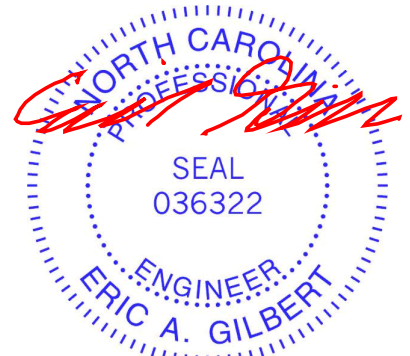
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/42, 2-3=-879/105, 3-4=-676/131, 4-5=-676/131, 5-6=-879/105, 6-7=0/42, 2-10=-742/107, 6-8=-742/107
 BOT CHORD 8-10=-79/619
 WEBS 4-9=-83/502, 5-9=-213/156, 3-9=-213/156

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 9-10-8, Exterior(2R) 9-10-8 to 12-10-8, Interior (1) 12-10-8 to 20-7-8 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
- 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 63 lb uplift at joint 10 and 63 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

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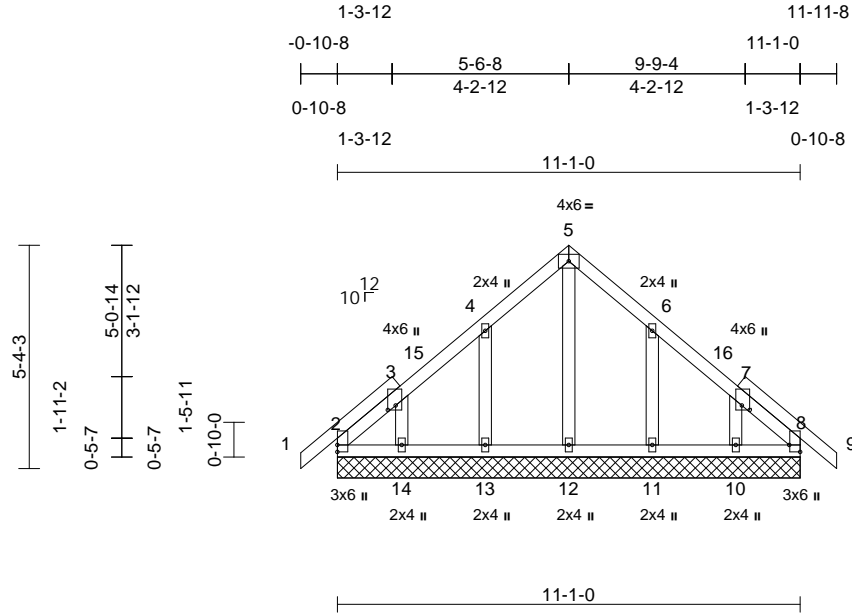
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438607 |
| P05804-31172 | BSE02 | Common Supported Gable | 1 | 1 | 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. Thu Oct 30 10:36:58
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Page: 1



Scale = 1:55.2

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.05 | Vert(LL) | n/a | - | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.03 | Vert(CT) | n/a | - | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.03 | Horz(CT) | 0.00 | 8 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | Weight: 66 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS

(size) 2=11-1-0, 8=11-1-0, 10=11-1-0, 11=11-1-0, 12=11-1-0, 13=11-1-0, 14=11-1-0
Max Horiz 2=91 (LC 11)
Max Uplift 2=-3 (LC 8), 10=-66 (LC 13), 11=-62 (LC 13), 13=-61 (LC 12), 14=-59 (LC 12)
Max Grav 2=130 (LC 1), 8=130 (LC 1), 10=148 (LC 20), 11=177 (LC 20), 12=129 (LC 22), 13=176 (LC 19), 14=141 (LC 19)

FORCES

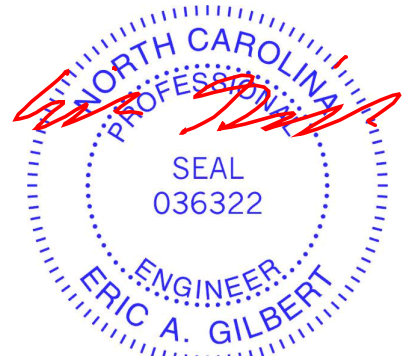
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-89/66, 3-4=-79/48, 4-5=-73/108, 5-6=-69/108, 6-7=-57/24, 7-8=-74/42, 8-9=0/26
BOT CHORD 2-14=-40/114, 13-14=-36/112, 12-13=-36/112, 11-12=-36/112, 10-11=-36/112, 8-10=-40/114
WEBS 5-12=-89/5, 4-13=-135/111, 3-14=-111/104, 6-11=-136/111, 7-10=-110/104

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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 5-6-8, Corner(3R) 5-6-8 to 8-6-8, Exterior(2N) 8-6-8 to 11-11-8 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.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2, 61 lb uplift at joint 13, 59 lb uplift at joint 14, 62 lb uplift at joint 11 and 66 lb uplift at joint 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



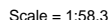
October 30, 2025

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Page: 1

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust)
 Vasd=91mph; TCFL=6.0psf; BCFL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 12-5-11 zone; 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.

- LOAD CASE(S) Standard



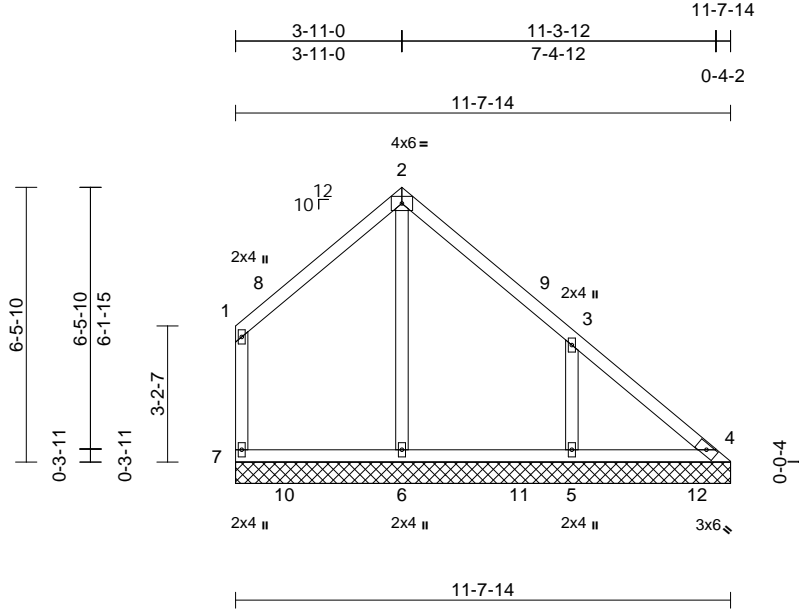
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438609 |
| P05804-31172 | AV2 | Valley | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:56

Page: 1

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Scale = 1:54.2

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.19 | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.18 | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.13 | Horiz(TL) | 0.00 | 4 | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | Weight: 56 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) | 4=11-7-14, 5=11-7-14, 6=11-7-14, 7=11-7-14 |
| Max Horiz | 7=-125 (LC 13) |
| Max Uplift | 4=-29 (LC 9), 5=-137 (LC 13), 7=-64 (LC 12) |
| Max Grav | 4=153 (LC 19), 5=430 (LC 20), 6=407 (LC 20), 7=199 (LC 19) |

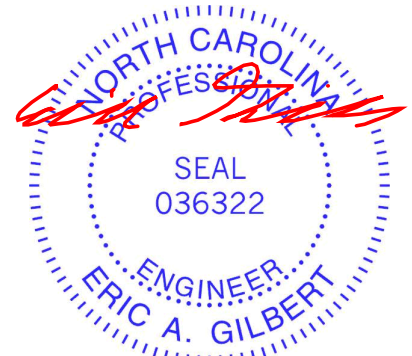
FORCES

| | |
|-----------|---|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-7=-132/87, 1-2=-98/90, 2-3=-134/104, 3-4=-130/125 |
| BOT CHORD | 6-7=-84/122, 5-6=-84/122, 4-5=-84/122 |
| WEBS | 2-6=-203/13, 3-5=-273/176 |

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 11-3-5 zone; 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.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 7, 29 lb uplift at joint 4 and 137 lb uplift at joint 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 30, 2025

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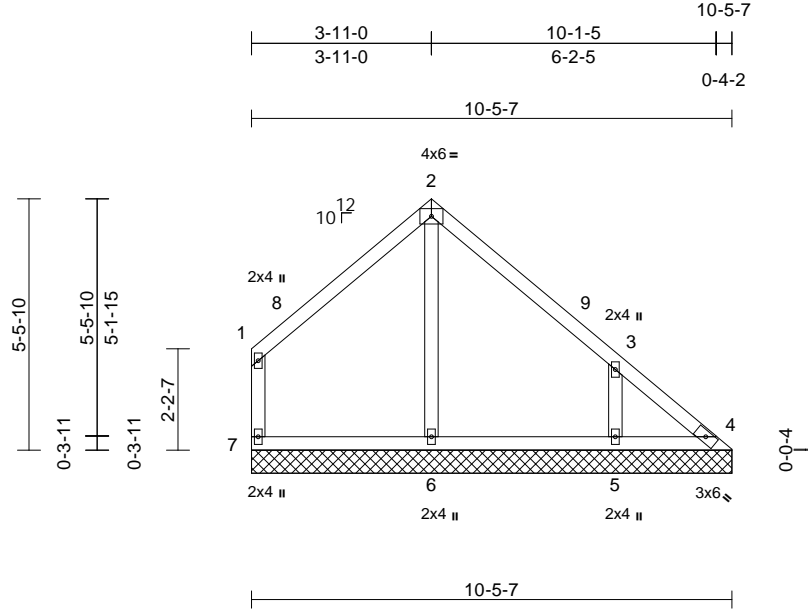
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438610 |
| P05804-31172 | AV3 | Valley | 1 | 1 | 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. Thu Oct 30 10:36:56
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Page: 1



| | | | | | | | | | | | | |
|----------------|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|---------------|-------------|
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.13 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.09 | Horiz(TL) | 0.00 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 48 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) | 4=10-5-7, 5=10-5-7, 6=10-5-7, 7=10-5-7 |
| | Max Horiz | 7=-96 (LC 13) |
| | Max Uplift | 4=-44 (LC 9), 5=-121 (LC 13), 7=-66 (LC 12) |
| | Max Grav | 4=100 (LC 19), 5=311 (LC 20), 6=282 (LC 20), 7=170 (LC 19) |

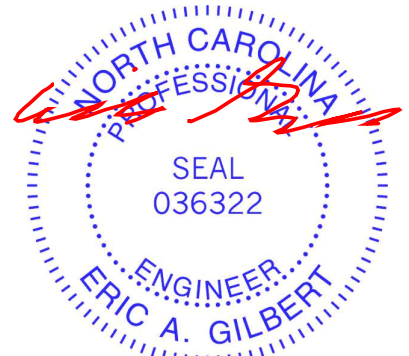
FORCES

| | |
|-----------|---|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-7=-137/98, 1-2=-106/102, 2-3=-140/111, 3-4=-119/109 |
| BOT CHORD | 6-7=-71/95, 5-6=-71/95, 4-5=-71/95 |
| WEBS | 2-6=-197/18, 3-5=-243/174 |

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 10-0-15 zone; 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.

- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 7, 44 lb uplift at joint 4 and 121 lb uplift at joint 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 30, 2025

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

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

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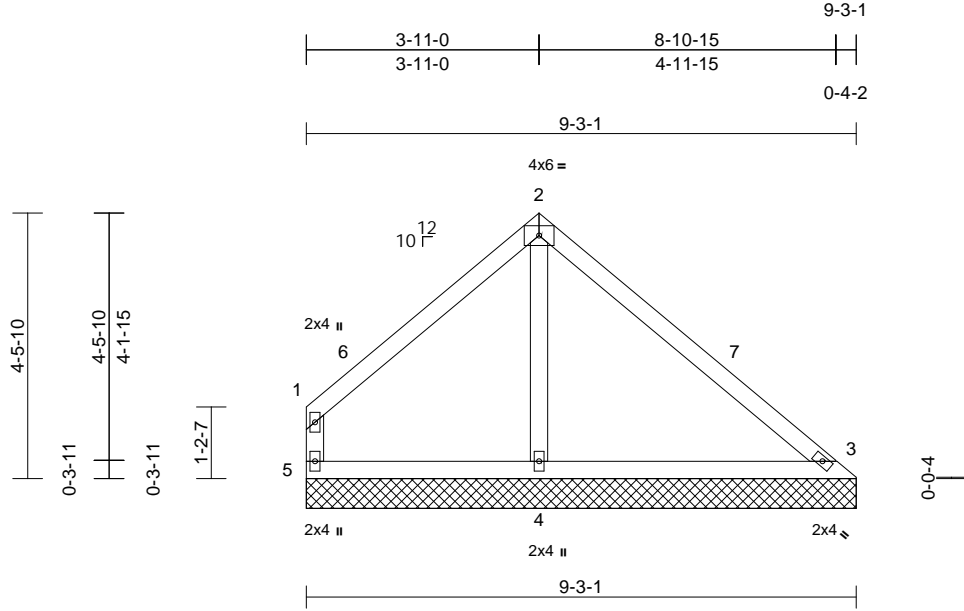
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | |
| P05804-31172 | AV4 | Valley | 1 | 1 | Job Reference (optional) | I77438611 |

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. Thu Oct 30 10:36:56
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Page: 1



Scale = 1:38.8

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|----------|------|-----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.33 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.21 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.07 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-S | | | | | | | Weight: 38 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" oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10'-0" oc bracing. |

REACTIONS

| | |
|------------|---|
| (size) | 3=9'-3-1, 4=9'-3-1, 5=9'-3-1 |
| Max Horiz | 5=-74 (LC 8) |
| Max Uplift | 3=-50 (LC 12), 4=-16 (LC 13), 5=-67 (LC 12) |
| Max Grav | 3=204 (LC 1), 4=355 (LC 20), 5=177 (LC 25) |

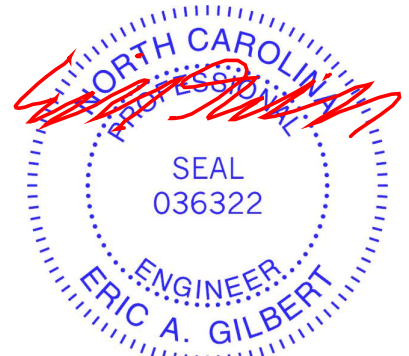
FORCES

| | |
|-----------|--|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-5=-151/106, 1-2=-132/113, 2-3=-174/108 |
| BOT CHORD | 4-5=-64/90, 3-4=-64/90 |
| WEBS | 2-4=-232/40 |

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 8-10-8 zone; 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.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.

- Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 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 67 lb uplift at joint 5, 50 lb uplift at joint 3 and 16 lb uplift at joint 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



October 30, 2025

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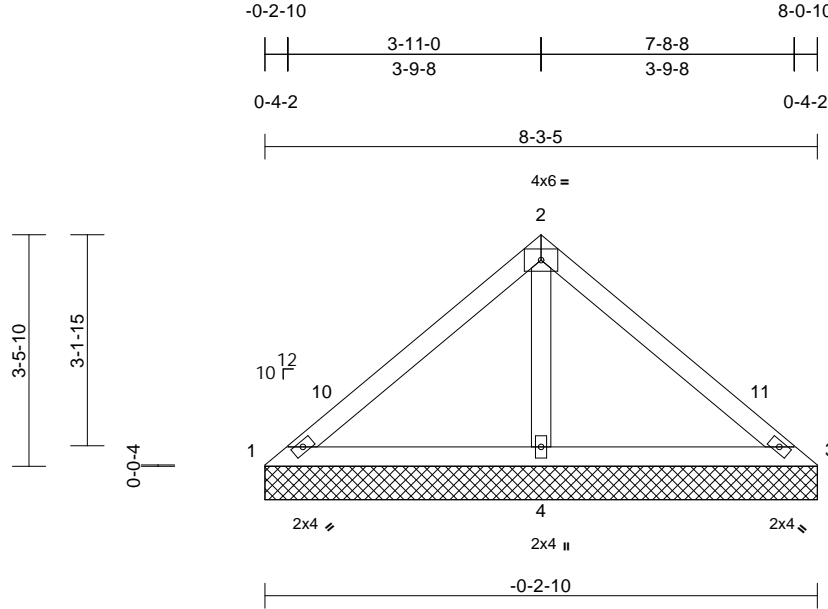
| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | I77438612 |
| P05804-31172 | AV5 | Valley | 1 | 1 | Job Reference (optional) | |

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. Thu Oct 30 10:36:56

Page: 1

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Scale = 1:34.5

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|------------------------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.20 | Vert(TL) | n/a | - | n/a | 999 | 244/190 |
| BCLL | 0.0* | Rep Stress Incr | YES | WB | 0.09 | Horiz(TL) | 0.00 | 3 | n/a | n/a | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 31 lb FT = 20% |

LUMBER

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

BRACING

| | |
|-----------|--|
| TOP CHORD | Structural wood sheathing directly applied or 8-0-15 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

REACTIONS

| | |
|------------|--|
| (size) | 1=8-3-5, 3=8-3-5, 4=8-3-5 |
| Max Horiz | 1=-60 (LC 8) |
| Max Uplift | 1=-85 (LC 26), 3=-1 (LC 13), 4=-47 (LC 13) |
| Max Grav | 1=82 (LC 25), 3=3 (LC 20), 4=662 (LC 1) |

FORCES

(lb) - Maximum Compression/Maximum Tension

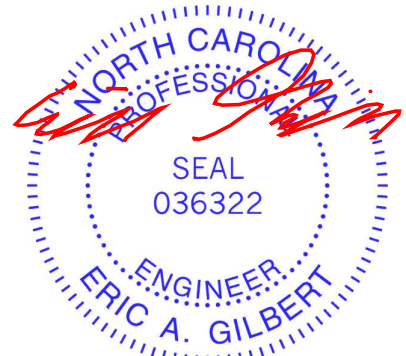
| | |
|-----------|----------------------------|
| TOP CHORD | 1-2=-69/303, 2-3=-161/312 |
| BOT CHORD | 1-4=-208/122, 3-4=-230/141 |
| WEBS | 2-4=-512/144 |

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) 0-2-10 to 2-9-6, Interior (1) 2-9-6 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior (1) 6-11-0 to 8-0-10 zone; 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.
- Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 1, 1 lb uplift at joint 3, 47 lb uplift at joint 4 and 1 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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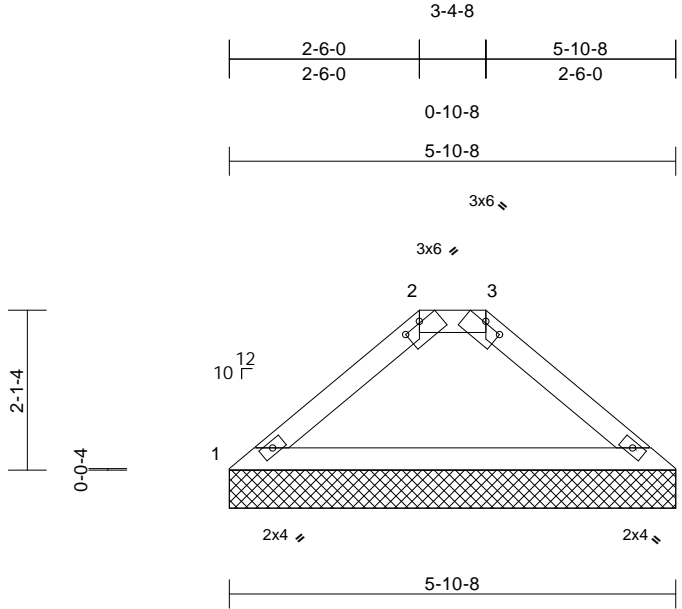
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|--------------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438613 |
| P05804-31172 | AV6 | Valley | 1 | 1 | 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. Thu Oct 30 10:36:57
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Page: 1



Scale = 1:30.3

Plate Offsets (X, Y): [2:0-3-0,0-0-4], [3:0-3-0,0-0-4]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.22 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.18 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.01 | 4 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 18 lb | FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins, except 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=5-10-8, 4=5-10-8
Max Horiz 1=-36 (LC 8)
Max Uplift 1=-15 (LC 12), 4=-15 (LC 13)
Max Grav 1=235 (LC 1), 4=235 (LC 1)

FORCES

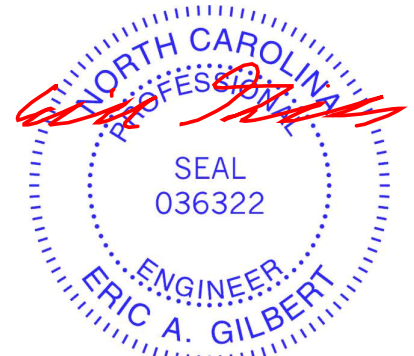
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-343/113, 2-3=-191/117, 3-4=-343/110
BOT CHORD 1-4=-85/249

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;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.
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1 and 15 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



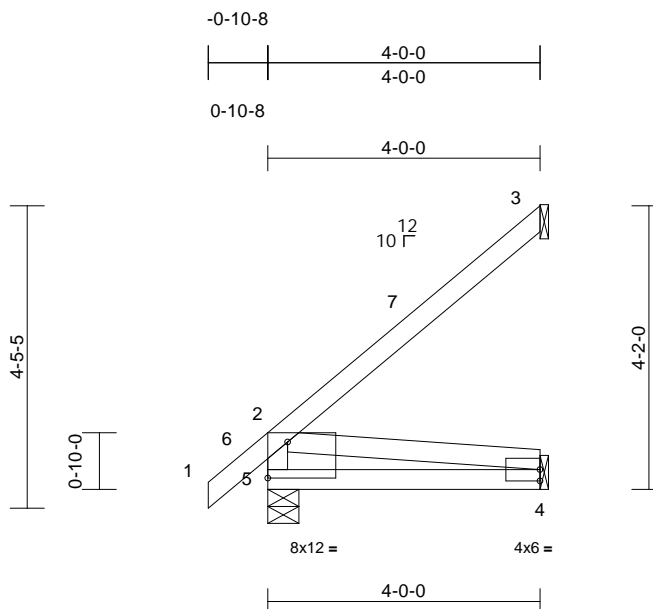
October 30,2025

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Scale = 1:33.9

Plate Offsets (X, Y): [5:Edge,0-6-6]

[illegible]

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) 3= Mechanical, 4= Mechanical,
5=0-5-8
Max Horiz 5=105 (LC 12)
Max Uplift 3=65 (LC 12), 4=6 (LC 12)
Max Grav 3=112 (LC 19), 4=77 (LC 3), 5=222
(LC 1)

FORCES

| | |
|---------------|--|
| FORCES | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=0/39, 2-3=-114/61, 2-5=-183/43 |
| BOT CHORD | 4-5=-206/70 |
| WEBS | 2-4=-71/208 |

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 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) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 3 and 6 lb uplift at joint 4.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025



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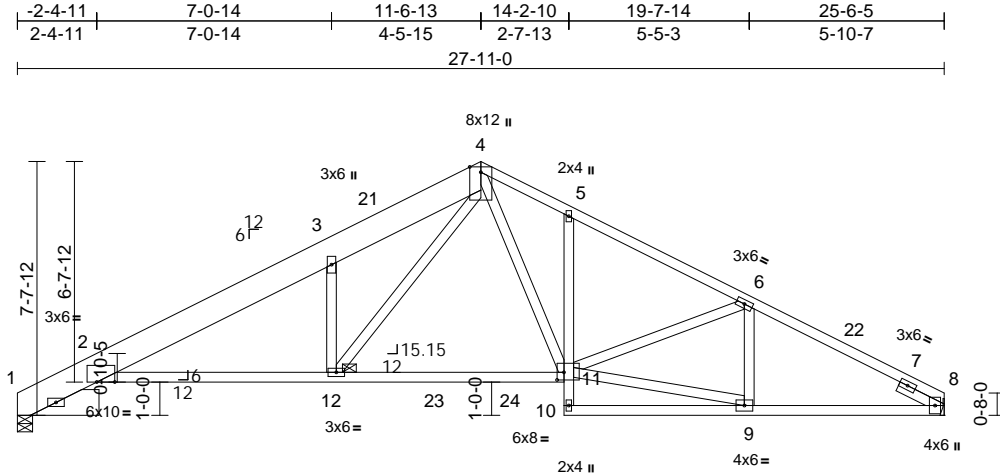
| | | | | | | |
|--------------|-------|--------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 905 Serenity | 177438615 |
| P05804-31172 | A02A | Roof Special | 2 | 1 | Job Reference (optional) | |

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

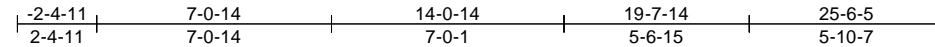
Run: 8.83 S Sep 3 2025 Print: 8.830 S Sep 3 2025 MiTek Industries, Inc. Thu Oct 30 10:36:52

Page: 1

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VERTICAL SUPPORT OF FREE END
OF CHORD IS REQUIRED.



Scale = 1:69.4

Plate Offsets (X, Y): [2:0-6-8,Edge], [8:0-3-9,0-1-5], [11:0-2-8,0-2-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.25 | TC | 0.53 | Vert(LL) | -0.19 | 11-12 | >999 | 240 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.25 | BC | 0.91 | Vert(CT) | -0.36 | 11-12 | >927 | 180 | | |
| BCLL | 0.0 * | Rep Stress Incr | YES | WB | 0.38 | Horz(CT) | 0.15 | 8 | n/a | n/a | | |
| BCDL | 10.0 | Code | IRC2018/TPI2014 | Matrix-MS | | | | | | | Weight: 188 lb | FT = 20% |

LUMBER

TOP CHORD 2x10 SP DSS *Except* 4-8:2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.2 *Except* 13-1:2x10 SP DSS

SLIDER Right 2x4 SP No.2 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins.

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

JOINTS 1 Brace at Jt(s): 12

REACTIONS (size) 1=0-5-8, 8= Mechanical

Max Horiz 1=91 (LC 12)

Max Uplift 1=88 (LC 12), 8=94 (LC 13)

Max Grav 1=1180 (LC 2), 8=1193 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-534/105, 2-3=-2263/214,

3-4=-2482/318, 4-5=-1871/262,

5-6=-1884/215, 6-8=-1980/200

BOT CHORD 2-12=-157/2091, 11-12=-32/1303,

10-11=0/108, 5-11=-273/100, 9-10=-7/68,

8-9=-124/1714

WEBS 4-12=-212/1352, 4-11=-133/867,

9-11=-119/1690, 6-11=-170/107, 6-9=-207/55,

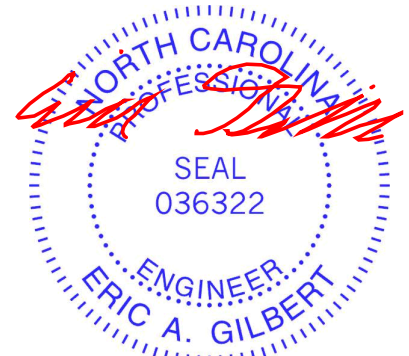
3-12=-838/214

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) 0-2-12 to 2-11-11, Interior (1) 2-11-11 to 13-11-8, Exterior(2R) 13-11-8 to 16-8-2, Interior (1) 16-8-2 to 27-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 88 lb uplift at joint 1 and 94 lb uplift at joint 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



October 30, 2025

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

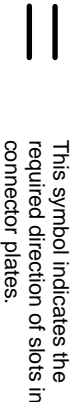
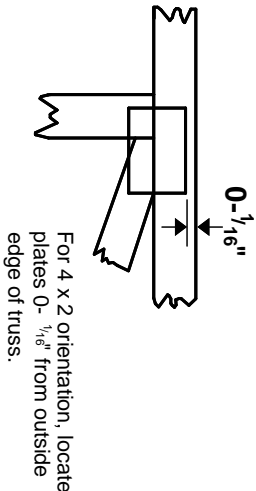
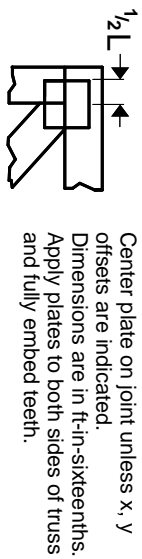
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



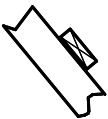
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

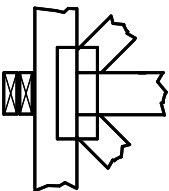
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

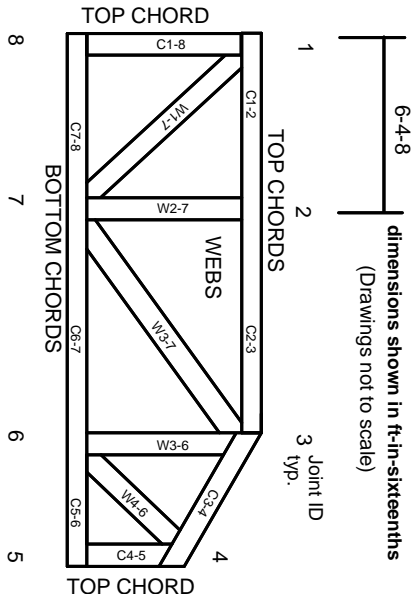
BEARING



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

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

Numbering System



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

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

Product Code Approvals

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

Design General Notes

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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