

THE GABLES
COLLECTION

AMERICA'S BEST
HOUSE PLANS

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FRONT & REAR
ELEVATIONS

FITZGERALD

HOUSE PLANS

AMERICA'S BEST

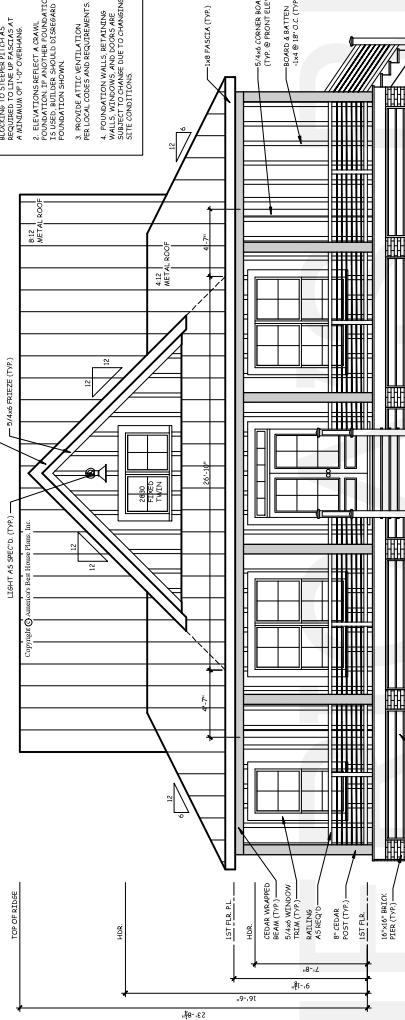
HOUSE PLANS

www.JeffersonPlans.com
3000 Jefferson Hwy • Suite 206
Markham, CA 94036 888-501-7536

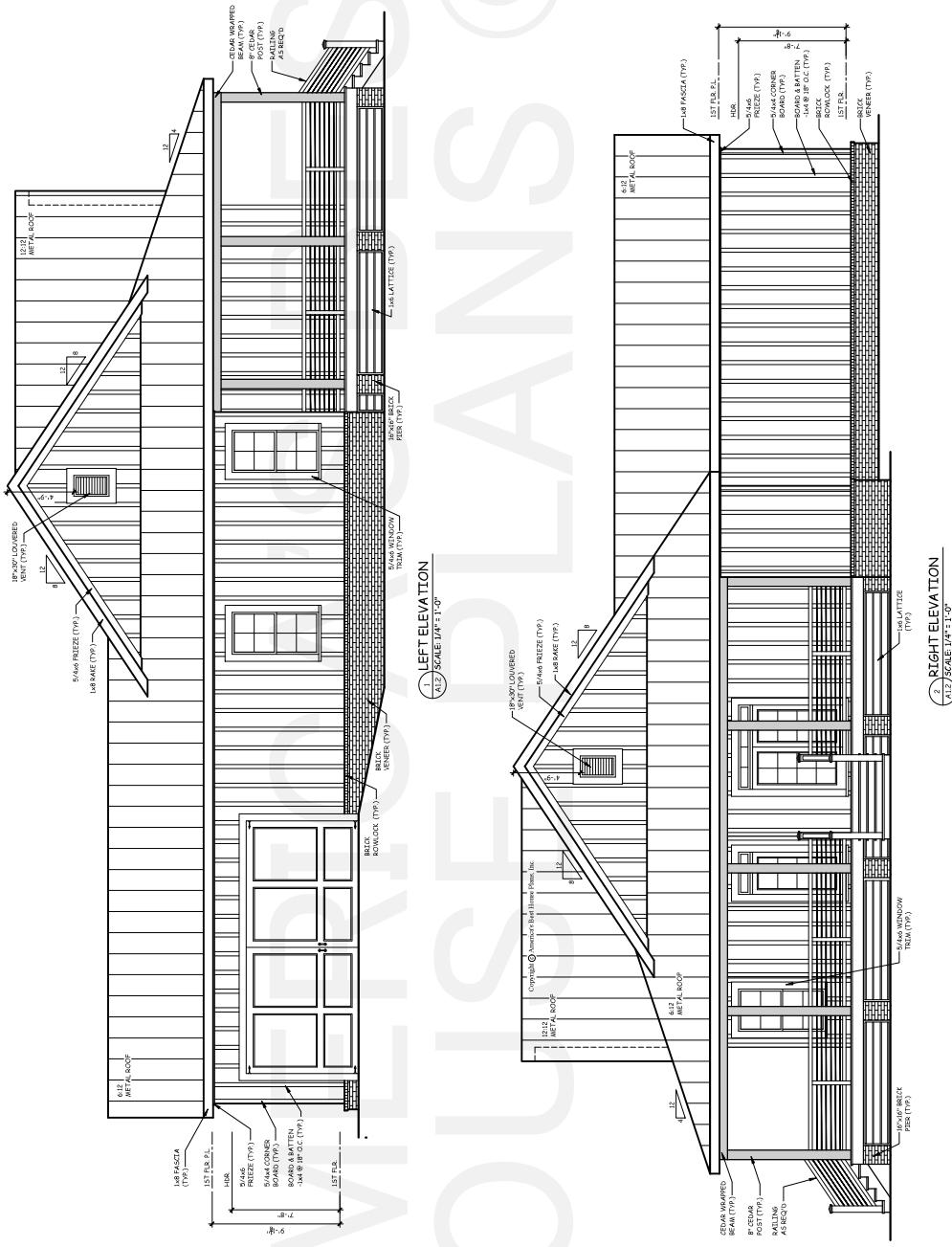
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DATE: 05/23/23
CROSSOVER
A1.1

NOTE:

1. HAVING TWO ZONES AND SELECTING WITH
DIFFERENT ROOF PITCHES ALSO
IS ALLOWED TO LINE UP PAVING
AND DRIVeway TO THE GATE.
2. ELEVATIONS REFLECT A GABLE
ROOF. AN ALTERNATIVE SLOPED ROOF
IS ALSO POSSIBLE. SEE THE DESIGNER'S
NOTES FOR DETAILS.
3. PROVIDE ATTIC VENTILATION.
4. FOUNDATION WALLS, RETAINING
WALLS, AND OTHER CONCRETE
STRUCTURES TO BE MADE IN CONFORMING
SITE CONDITIONS.



FITZGERALD



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ROOF PLANS
RAFTER FRAMING DETAILS

HOUSE PLANS
AMERICA'S BEST

www.jeffersonplans.com

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- Footing Details and Piers Details
 - 1. Will be 20" wide and 10" deep footings
 - 2. Will have 2 #4 rebar.
- Porch Details
 - 1. Will have same footings and foundation.
 - 2. Will have compacted fill with 4" concrete slab.
 - 3. Will have brick steps.

NOTE:

1. ALL DIMENSIONS ASSUME AN 8' FOUNDATION WALL.
2. 1st FLOOR TRUSSES ARE TO BE PLACED AS PER DRAFT.
3. FOUNDATION WALLS AND RETAINING WALLS ARE SUBJECT TO CHANGE DUE TO CHANGING SITE CONDITIONS.
4. PROVIDE CRAWL SPACE AND LOCAL CODES AND REQUIREMENTS.

THE GABLES
COLLECTION

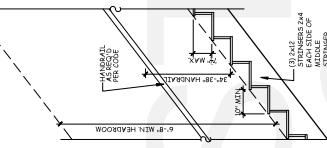
AMERICA'S BEST
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DETAIL SHEET

TYPIICAL CRAWL DETAILS

AMERICA'S BEST
HOMES PLANS
3000 Johnson Ferry Road • Suite 206
Marietta, GA 30062-888-726-5726
www.HomePlans.net

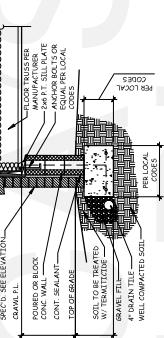
5 TYPICAL STAIR SECTION
D1.1 SCALE: 1/2" = 1'-0"



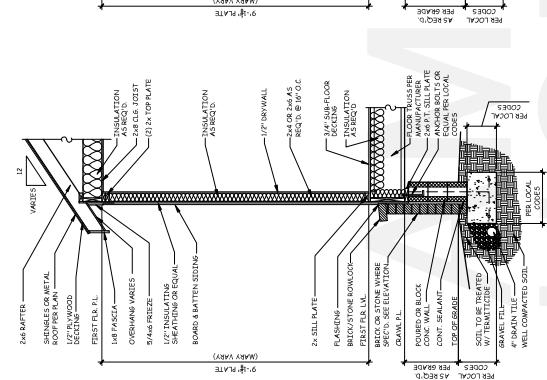
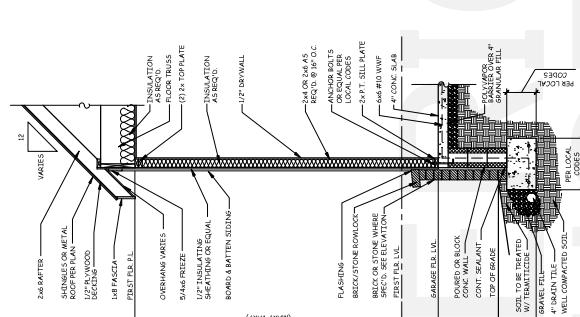
4 TYP. DECK STAIR DETAIL
D1.1 SCALE: 3/4" = 1'-0"



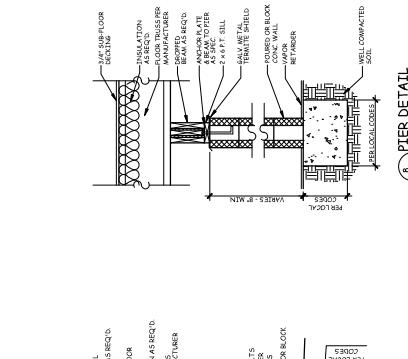
3 TYP. 2-STORY WALL SECTION



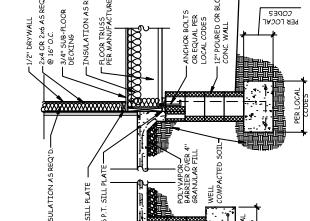
2 TYP. WALL SECTION W/ BONUS



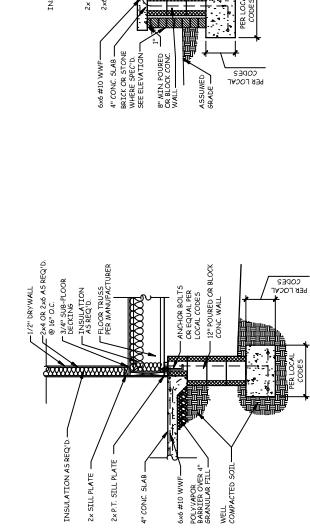
SECTION W/ BONUS



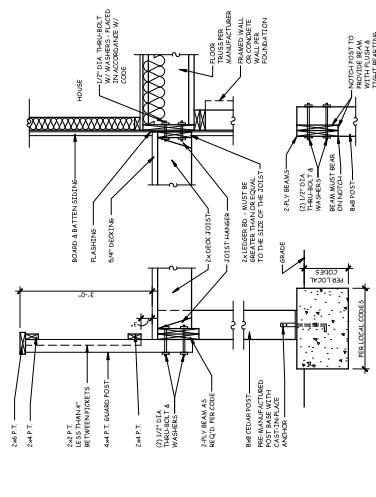
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POST-TO-BEAM CON-



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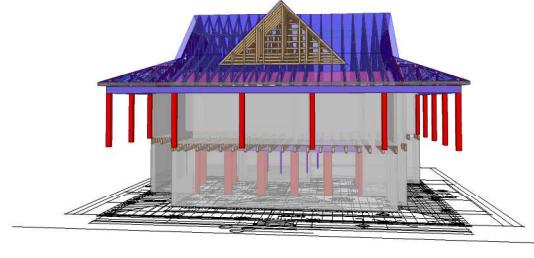


Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #: 919-775-1450

Builder: Tim Johnson Construction

Model: 93 Dewey



THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TPI 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____

Date: _____

Revisions	Name	Name
00/00/00	Name	Name

CARTER *Lumber*

1ST FLOOR PLACEMENT PLAN

93 Dewey

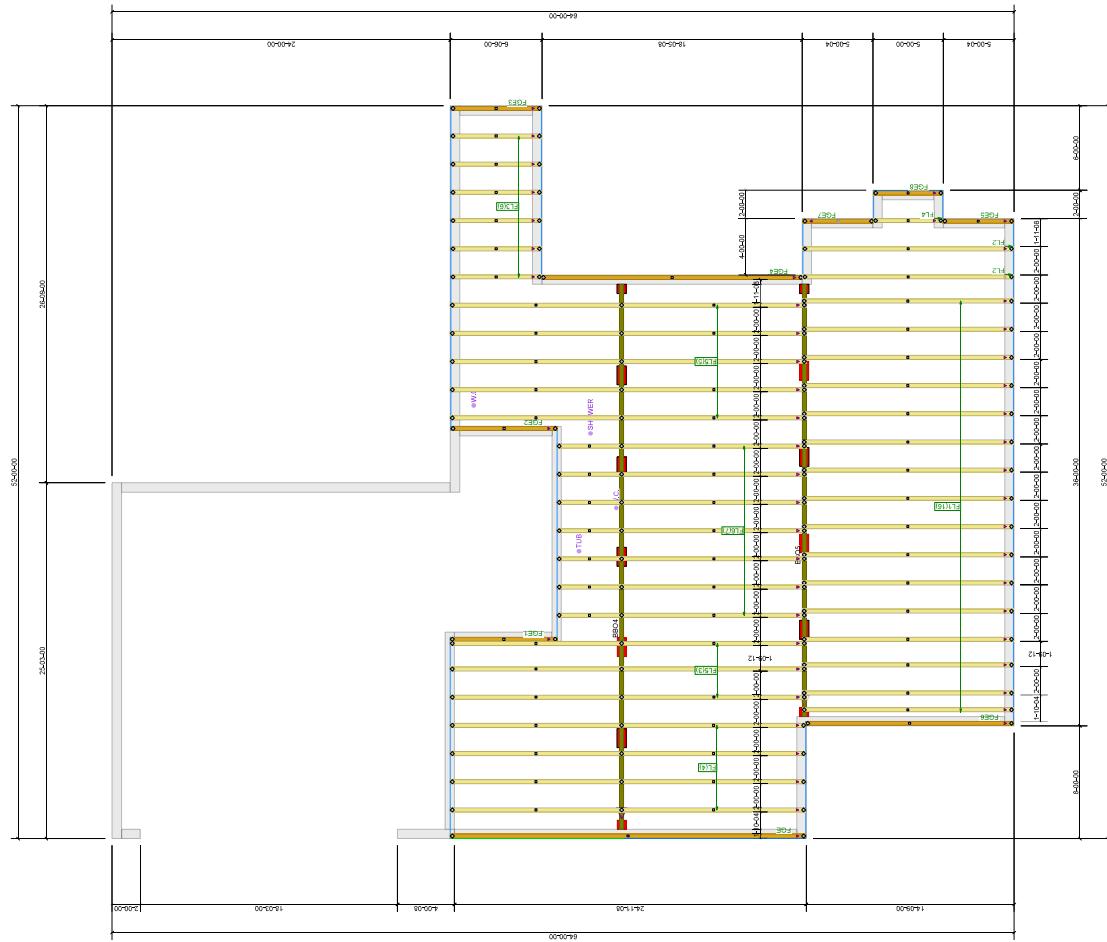
Johnson Const.

Scale:	NTS
Date:	10/24/2025
Designer:	Mike Finch
Project Number:	24120007-B
Sheet Number:	

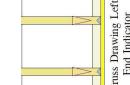
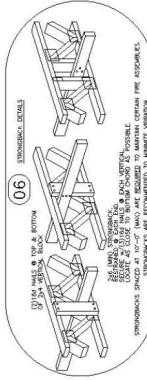
1/2

* CIRCUITS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS. ** DIMENSIONS ARE READ AS FOOT-INCHES/STRETCHIN.

General Notes: CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST, CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION. ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.



PRELIMINARY – NOT FOR CONSTRUCTION



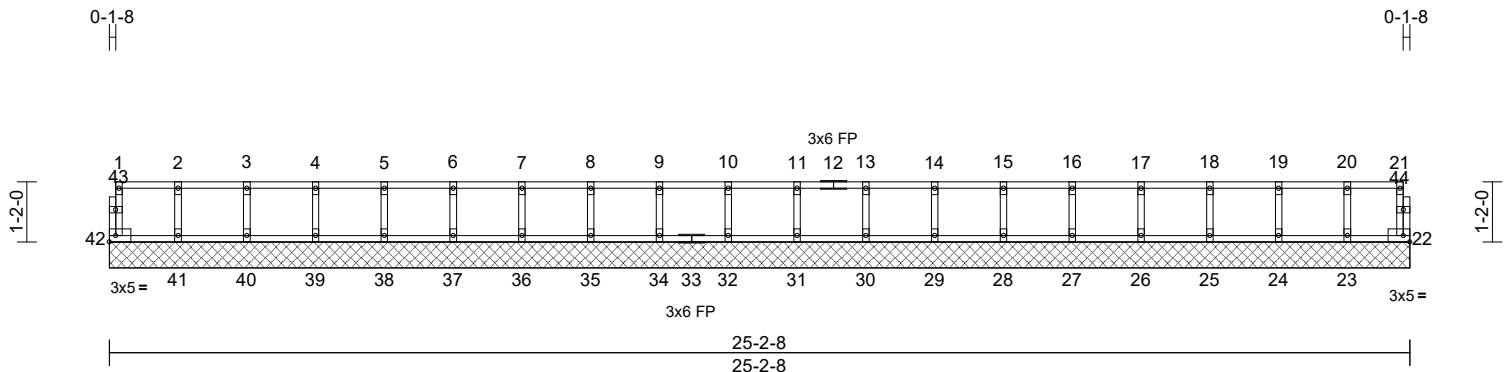
THE JOURNAL OF CLIMATE, VOL. 17, 2004

Job 24120007-B	Truss FGE	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311147 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:44.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	22	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 104 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 22=25-2-8, 23=25-2-8, 24=25-2-8, 25=25-2-8, 26=25-2-8, 27=25-2-8, 28=25-2-8, 29=25-2-8, 30=25-2-8, 31=25-2-8, 32=25-2-8, 34=25-2-8, 35=25-2-8, 36=25-2-8, 37=25-2-8, 38=25-2-8, 39=25-2-8, 40=25-2-8, 41=25-2-8, 42=25-2-8

Max Grav 22=49 (LC 1), 23=135 (LC 1), 24=150 (LC 1), 25=146 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 28=147 (LC 1), 29=147 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 34=147 (LC 1), 35=147 (LC 1), 36=147 (LC 1), 37=147 (LC 1), 38=147 (LC 1), 39=147 (LC 1), 40=147 (LC 1), 41=145 (LC 1), 42=54 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-42=-50/0, 21-22=-44/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-13=-8/0, 13-14=-8/0, 14-15=-8/0, 15-16=-8/0, 16-17=-8/0, 17-18=-8/0, 18-19=-8/0, 19-20=-8/0, 20-21=-8/0
BOT CHORD 41-42=0/8, 40-41=0/8, 39-40=0/8, 38-39=0/8, 37-38=0/8, 36-37=0/8, 35-36=0/8, 34-35=0/8, 32-34=0/8, 31-32=0/8, 30-31=0/8, 29-30=0/8, 28-29=0/8, 27-28=0/8, 26-27=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/8, 22-23=0/8

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) All bearings are assumed to be SP No.2 .
- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S)

Standard



October 27, 2025

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

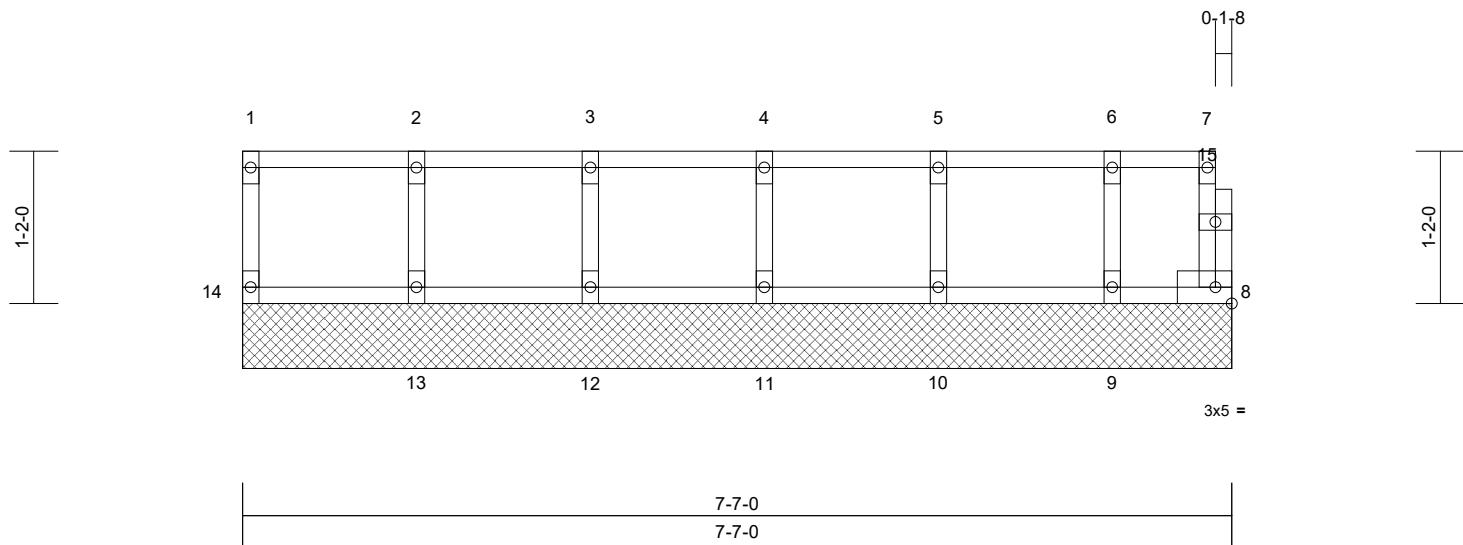
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job 24120007-B	Truss FGE1	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311148 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:17.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 33 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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) 8=7-7-0, 9=7-7-0, 10=7-7-0,
11=7-7-0, 12=7-7-0, 13=7-7-0,
14=7-7-0
Max Grav 8=32 (LC 1), 9=118 (LC 1), 10=152
(LC 1), 11=146 (LC 1), 12=146 (LC 1), 13=152 (LC 1), 14=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-56/0, 7-8=-26/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0
BOT CHORD 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7,
9-10=0/7, 8-9=0/7
WEBS 2-13=-139/0, 3-12=-132/0, 4-11=-132/0,
5-10=-138/0, 6-9=-110/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



October 27, 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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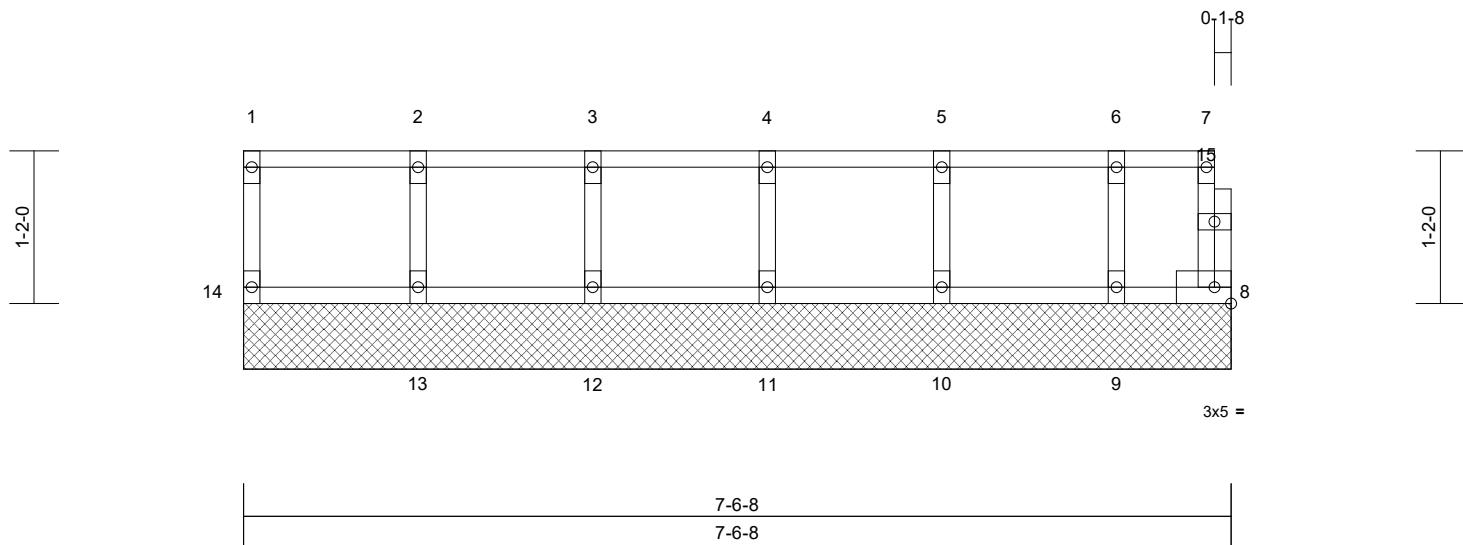
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE2	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311149
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Scale = 1:17.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 33 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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) 8=7-6-8, 9=7-6-8, 10=7-6-8,
11=7-6-8, 12=7-6-8, 13=7-6-8,
14=7-6-8
Max Grav 8=29 (LC 1), 9=115 (LC 1), 10=153
(LC 1), 11=145 (LC 1), 12=146 (LC 1), 13=152 (LC 1), 14=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-14=-56/0, 7-8=-23/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0
BOT CHORD 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7,
9-10=0/7, 8-9=0/7
WEBS 2-13=-139/0, 3-12=-132/0, 4-11=-132/0,
5-10=-138/0, 6-9=-109/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



October 27, 2025



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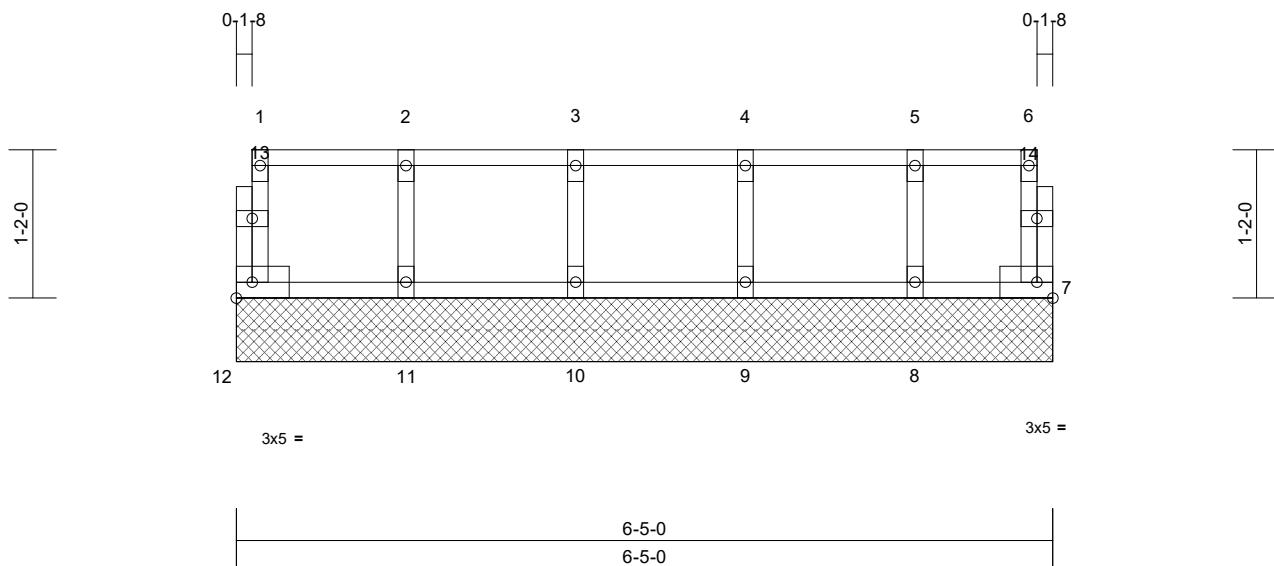
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE3	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311150 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:08
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Page: 1



Scale = 1:18.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	7	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 29 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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) 7=6-5-0, 8=6-5-0, 9=6-5-0,
10=6-5-0, 11=6-5-0, 12=6-5-0
Max Grav 7=42 (LC 1), 8=126 (LC 1), 9=151
(LC 1), 10=146 (LC 1), 11=146 (LC
1), 12=54 (LC 1)

FORCES (lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-12=-50/0, 6-7=-37/0, 1-2=-8/0, 2-3=-8/0,
3-4=-8/0, 4-5=-8/0, 5-6=-8/0
BOT CHORD 11-12=0/8, 10-11=0/8, 9-10=0/8, 8-9=0/8,
7-8=0/8
WEBS 2-11=-131/0, 3-10=-133/0, 4-9=-137/0,
5-8=-117/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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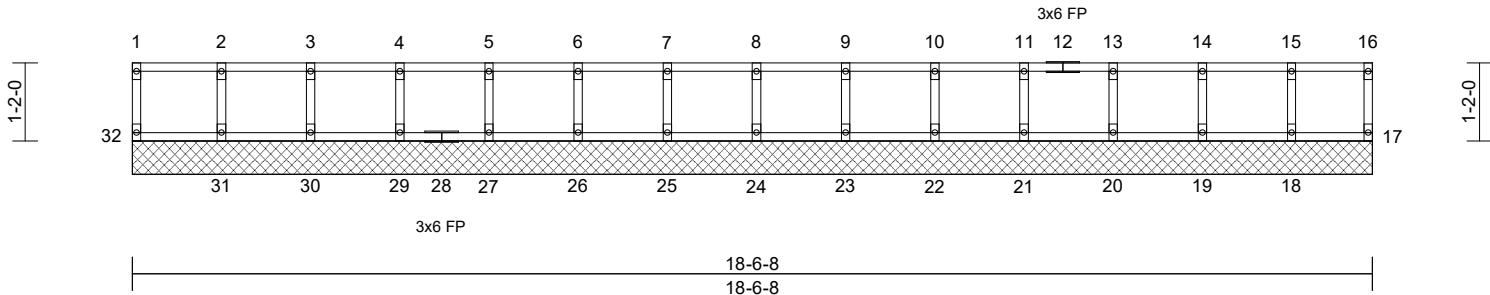
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE4	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311151 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:08
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Page: 1



Scale = 1:34.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	17	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 76 lb FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.

BOT CHORD 2x4 SP No.2(flat)

- 2) Gable requires continuous bottom chord bearing.

WEBS 2x4 SP No.3(flat)

- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

OTHERS 2x4 SP No.3(flat)

- 4) Gable studs spaced at 1-4-0 oc.

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

- 5) All bearings are assumed to be SP No.2 .

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

- 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

REACTIONS (size) 17=18-6-8, 18=18-6-8, 19=18-6-8, 20=18-6-8, 21=18-6-8, 22=18-6-8, 23=18-6-8, 24=18-6-8, 25=18-6-8, 26=18-6-8, 27=18-6-8, 29=18-6-8, 30=18-6-8, 31=18-6-8, 32=18-6-8

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Max Grav 17=57 (LC 1), 18=142 (LC 1), 19=148 (LC 1), 20=146 (LC 1), 21=147 (LC 1), 22=147 (LC 1), 23=147 (LC 1), 24=147 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=147 (LC 1), 29=147 (LC 1), 30=146 (LC 1), 31=151 (LC 1), 32=63 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-32=-56/0, 16-17=-50/0, 1-2=-8/0, 2-3=-8/0, 3-4=-8/0, 4-5=-8/0, 5-6=-8/0, 6-7=-8/0, 7-8=-8/0, 8-9=-8/0, 9-10=-8/0, 10-11=-8/0, 11-12=-8/0, 13-14=-8/0, 14-15=-8/0, 15-16=-8/0

BOT CHORD 31-32=0/8, 30-31=0/8, 29-30=0/8, 27-29=0/8, 26-27=0/8, 25-26=0/8, 24-25=0/8, 23-24=0/8, 22-23=0/8, 21-22=0/8, 20-21=0/8, 19-20=0/8, 18-19=0/8, 17-18=0/8

WEBS 2-31=-139/0, 3-30=-132/0, 4-29=-134/0, 5-27=-133/0, 6-26=-133/0, 7-25=-133/0, 8-24=-133/0, 9-23=-133/0, 10-22=-133/0, 11-21=-133/0, 13-20=-133/0, 14-19=-134/0, 15-18=-131/0

NOTES



October 27, 2025

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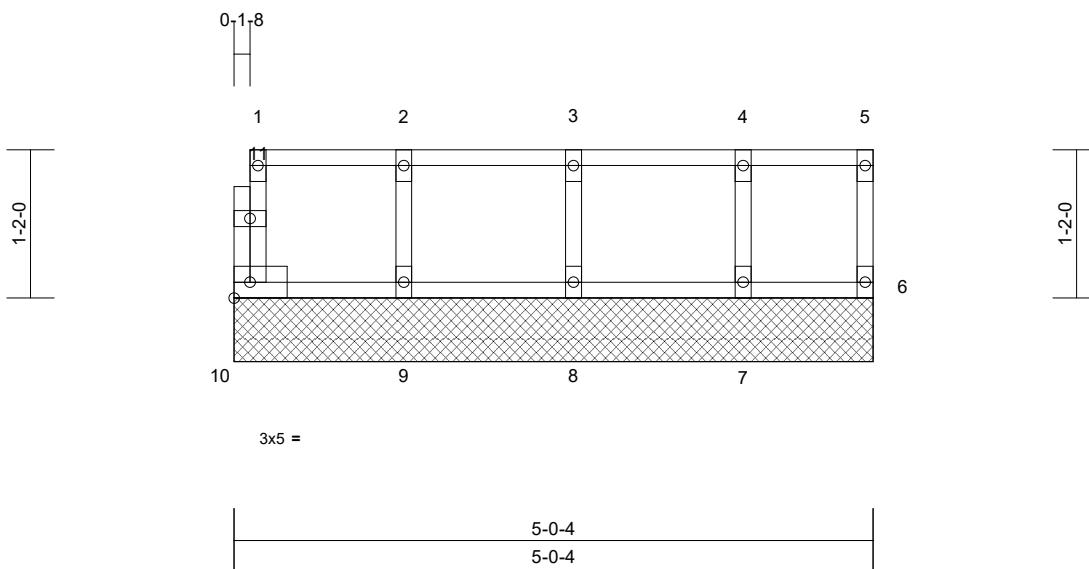
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE5	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311152
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:08
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Page: 1



Scale = 1:18.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 23 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 6=5-0-4, 7=5-0-4, 8=5-0-4, 9=5-0-4,
10=5-0-4
Max Grav 6=47 (LC 1), 7=129 (LC 1), 8=151
(LC 1), 9=146 (LC 1), 10=53 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-49/0, 5-6=-40/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0

BOT CHORD 9-10=0/7, 8-9=0/7, 7-8=0/7, 6-7=0/7

WEBS 2-9=-131/0, 3-8=-137/0, 4-7=-120/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



October 27, 2025

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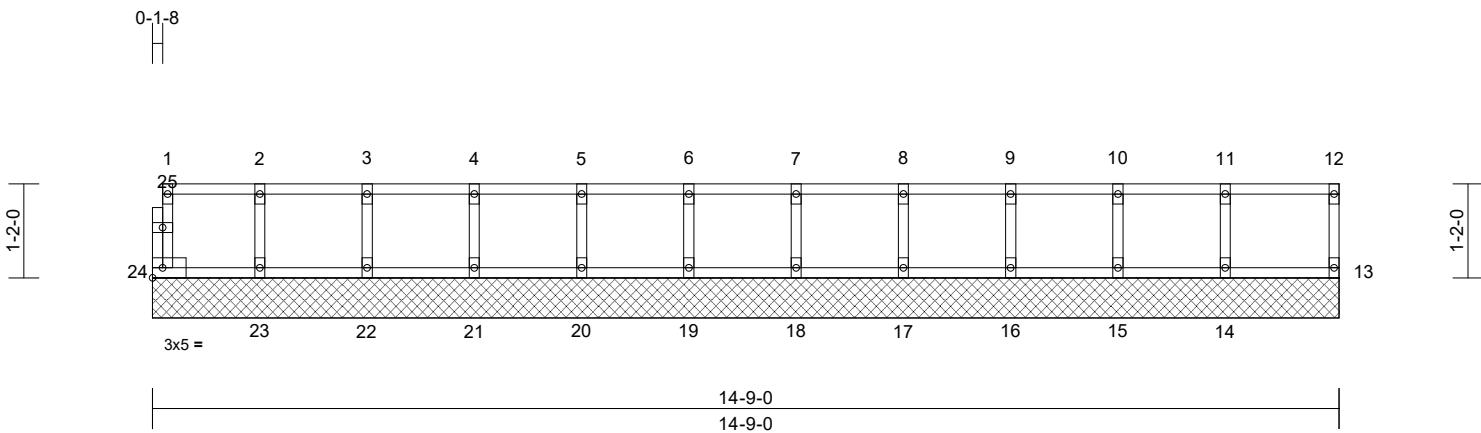
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE6	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311153 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:28.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 61 lb	FT = 20%F, 11%E

LUMBER	5) All bearings are assumed to be SP No.2 .
TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)
BRACING	6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131"X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
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)	7) CAUTION, Do not erect truss backwards.
	13=14-9-0, 14=14-9-0, 15=14-9-0, 16=14-9-0, 17=14-9-0, 18=14-9-0, 19=14-9-0, 20=14-9-0, 21=14-9-0, 22=14-9-0, 23=14-9-0, 24=14-9-0
Max Grav	13=69 (LC 1), 14=155 (LC 1), 15=145 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=147 (LC 1), 20=147 (LC 1), 21=146 (LC 1), 22=148 (LC 1), 23=142 (LC 1), 24=57 (LC 1)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-24=-51/0, 12-13=-61/0, 1-2=-10/0, 2-3=-10/0, 3-4=-10/0, 4-5=-10/0, 5-6=-10/0, 6-7=-10/0, 7-8=-10/0, 8-9=-10/0, 9-10=-10/0, 10-11=-10/0, 11-12=-10/0
BOT CHORD	23-24=0/10, 22-23=0/10, 21-22=0/10, 20-21=0/10, 19-20=0/10, 18-19=0/10, 17-18=0/10, 16-17=0/10, 15-16=0/10, 14-15=0/10, 13-14=0/10
WEBS	2-23=-130/0, 3-22=-134/0, 4-21=-133/0, 5-20=-133/0, 6-19=-133/0, 7-18=-133/0, 8-17=-133/0, 9-16=-134/0, 10-15=-131/0, 11-14=-143/0

NOTES

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.



October 27, 2025

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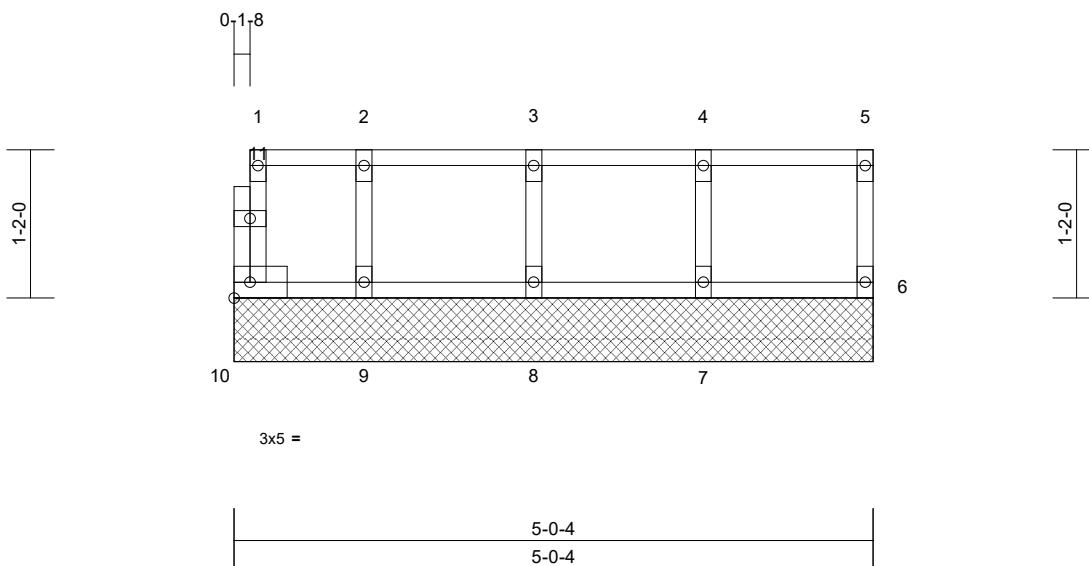
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FGE7	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311154
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:18.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 23 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 6=5-0-4, 7=5-0-4, 8=5-0-4, 9=5-0-4,
10=5-0-4
Max Grav 6=63 (LC 1), 7=150 (LC 1), 8=151
(LC 1), 9=124 (LC 1), 10=38 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-33/0, 5-6=-56/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0

BOT CHORD 9-10=0/7, 8-9=0/7, 7-8=0/7, 6-7=0/7

WEBS 4-7=-138/0, 3-8=-136/0, 2-9=-115/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



October 27, 2025

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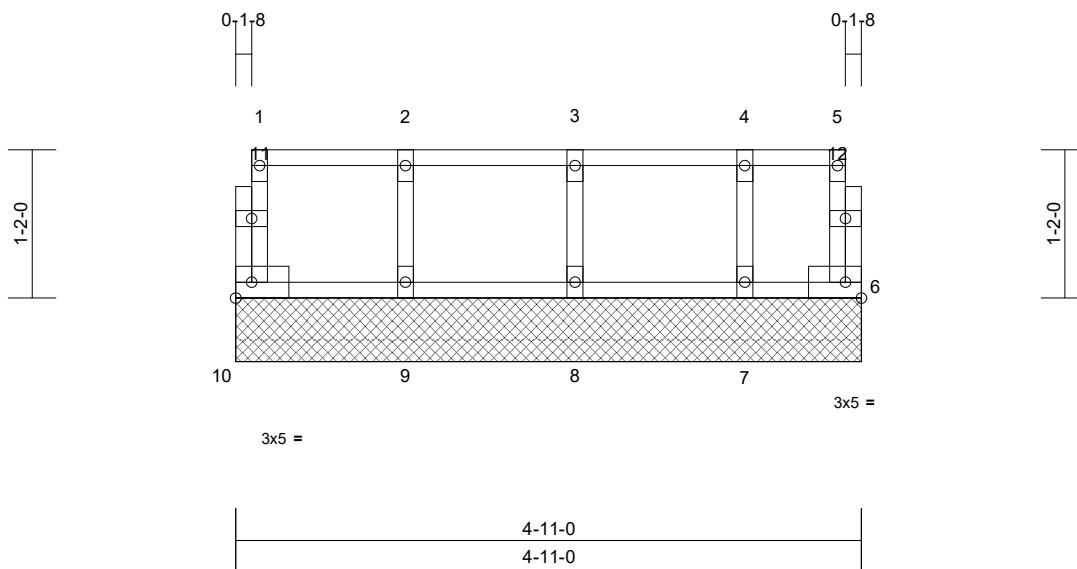
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Job 24120007-B	Truss FGE8	Truss Type Floor Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311155
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:09
ID:il6rJZkbytaa1Q7tByNfs7yBtOD-Rfc?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-R						Weight: 23 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 6=4-11-0, 7=4-11-0, 8=4-11-0,
9=4-11-0, 10=4-11-0
Max Grav 6=33 (LC 1), 7=117 (LC 1), 8=153 (LC 1), 9=145 (LC 1), 10=54 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-10=-50/0, 5-6=-27/0, 1-2=-7/0, 2-3=-7/0,
3-4=-7/0, 4-5=-7/0

BOT CHORD 9-10=0/7, 8-9=0/7, 7-8=0/7, 6-7=0/7

WEBS 2-9=-130/0, 3-8=-139/0, 4-7=-109/0

NOTES

- All plates are 1.5x3 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



October 27, 2025

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

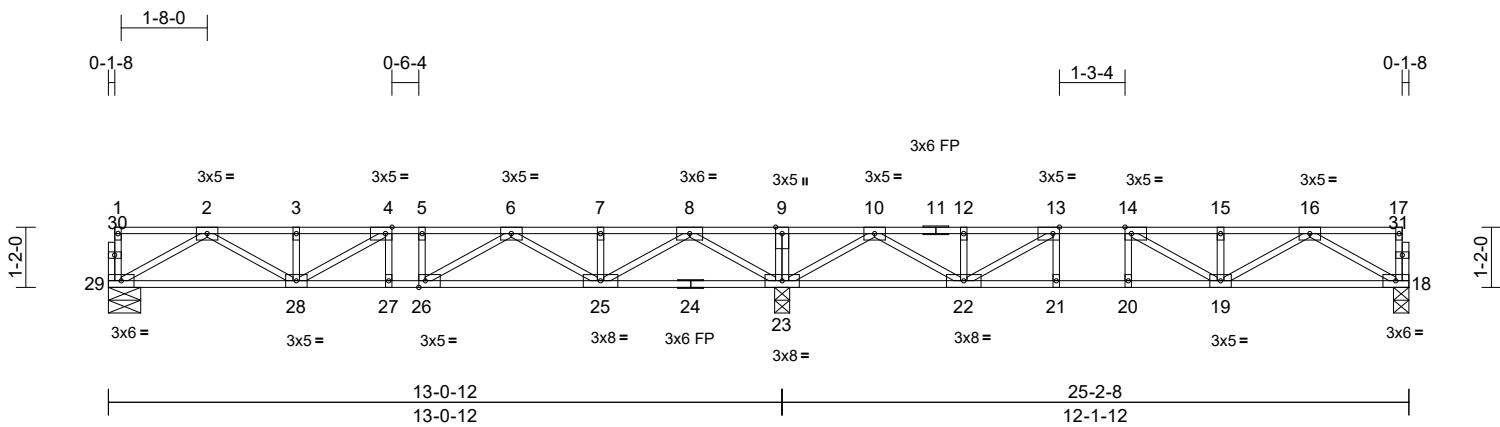
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job 24120007-B	Truss FL	Truss Type Floor	Qty 4	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311156
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:09
ID: l?_OzKifcdmoo5?2EWpFyBtNT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:44.7

Plate Offsets (X, Y): [4:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge], [26:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.64	Vert(LL)	-0.08	25-26	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.11	25-26	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.02	18	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 130 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)

3) All bearings are assumed to be SP No.2.

BOT CHORD 2x4 SP No.2(flat)

4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

WEBS 2x4 SP No.3(flat)

OTHERS 2x4 SP No.3(flat)

5) CAUTION, Do not erect truss backwards.

LOAD CASE(S)

Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 18=0-3-8, 23=0-3-8, 29=0-7-8

FORCES

Max Grav 18=566 (LC 4), 23=1660 (LC 1),

29=611 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-29=-71/0, 17-18=-73/0, 1-2=-4/0,

2-3=-1458/0, 3-4=-1458/0, 4-5=-1667/0,

5-6=-1667/0, 6-7=-922/252, 7-8=-922/252,

8-9=0/1659, 9-10=0/1659, 10-12=-870/399,

12-13=-870/399, 13-14=-1384/68,

14-15=-1320/0, 15-16=-1320/0, 16-17=-4/0

BOT CHORD 28-29=0/907, 27-28=0/1667, 26-27=0/1667,

25-26=-27/1447, 23-25=-606/66,

22-23=-735/117, 21-22=-68/1384,

20-21=-68/1384, 19-20=-68/1384,

18-19=0/831

WEBS 9-23=-199/0, 8-23=-1448/0, 2-29=-1044/0,

8-25=0/1088, 2-28=0/644, 7-25=-173/0,

3-28=-202/0, 6-25=-698/0, 4-28=-258/151,

6-26=0/497, 4-27=-105/37, 5-26=-138/0,

10-23=-1366/0, 16-18=-956/0, 10-22=0/990,

16-19=0/571, 12-22=-168/32, 15-19=-241/0,

13-22=-822/0, 14-19=-73/283, 13-21=0/170,

14-20=-147/0

NOTES

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

2) All plates are 1.5x3 MT20 unless otherwise indicated.



October 27, 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 is indicated to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria** and **DSB-22** available from the Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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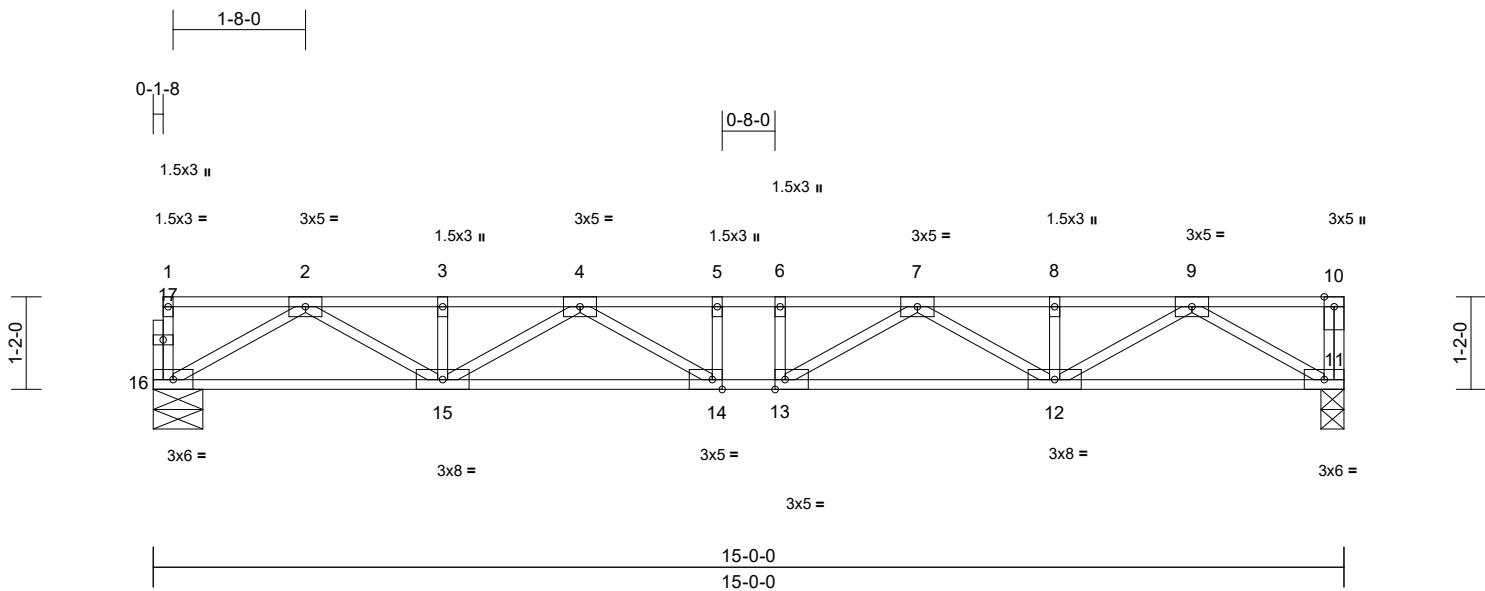
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FL1	Truss Type Floor	Qty 16	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311157
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:09
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Page: 1



Scale = 1:29

Plate Offsets (X, Y): [13:0-1-8,Edge], [14:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.17	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.23	13-14	>768	360		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.05	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH						Weight: 78 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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) 11=0-3-8, 16=0-7-8
Max Grav 11=811 (LC 1), 16=805 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-71/0, 10-11=-73/0, 1-2=-4/0,
2-3=-2110/0, 3-4=-2110/0, 4-5=-2869/0,
5-6=-2869/0, 6-7=-2869/0, 7-8=-2109/0,
8-9=-2109/0, 9-10=0/0

BOT CHORD 15-16=0/1241, 14-15=0/2641, 13-14=0/2869,
12-13=0/2641, 11-12=0/1242

WEBS 9-11=-1437/0, 2-16=-1430/0, 9-12=0/1012,
2-15=0/1015, 8-12=-162/0, 3-15=-164/0,
7-12=-621/0, 4-15=-621/0, 7-13=-54/466,
4-14=-54/466, 5-14=-159/0, 6-13=-159/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



October 27, 2025

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

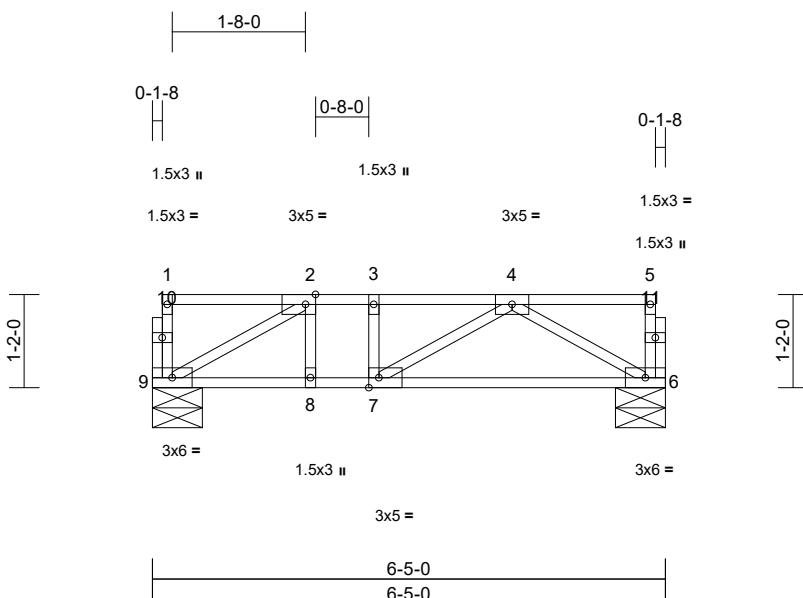
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job 24120007-B	Truss FL3	Truss Type Floor	Qty 6	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311159
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:09
ID: _OwnWi?KK7uED2y86enyuGyBtPA-Rfc?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:28.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.03	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.04	6-7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH						Weight: 35 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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) 6=0-7-8, 9=0-7-8

Max Grav 6=333 (LC 1), 9=333 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-9=-75/2, 5-6=-65/0, 1-2=-5/0, 2-3=-480/0, 3-4=-480/0, 4-5=-4/0

BOT CHORD 8-9=0/480, 7-8=0/480, 6-7=0/434

WEBS 4-6=-498/0, 2-9=-546/0, 4-7=-6/132, 2-8=-8/73, 3-7=-28/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



October 27, 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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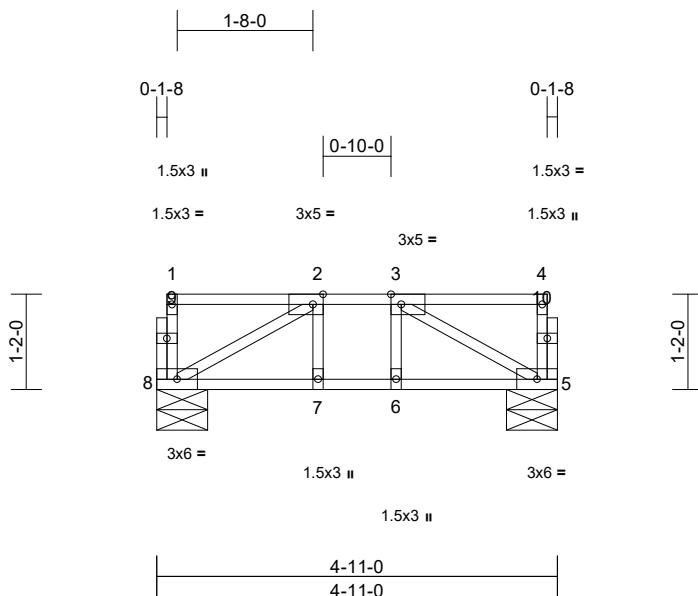
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FL4	Truss Type Floor	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311160
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:28.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.01	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(CT)	-0.01	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH						Weight: 28 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING

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

REACTIONS (size) 5=0-7-8, 8=0-7-8
Max Grav 5=250 (LC 1), 8=250 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-8=-82/0, 4-5=-82/0, 1-2=-5/0, 2-3=-299/0, 3-4=-5/0

BOT CHORD 7-8=0/299, 6-7=0/299, 5-6=0/299
WEBS 3-5=-337/0, 2-8=-337/0, 2-7=-20/49, 3-6=-20/49

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



October 27, 2025

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

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

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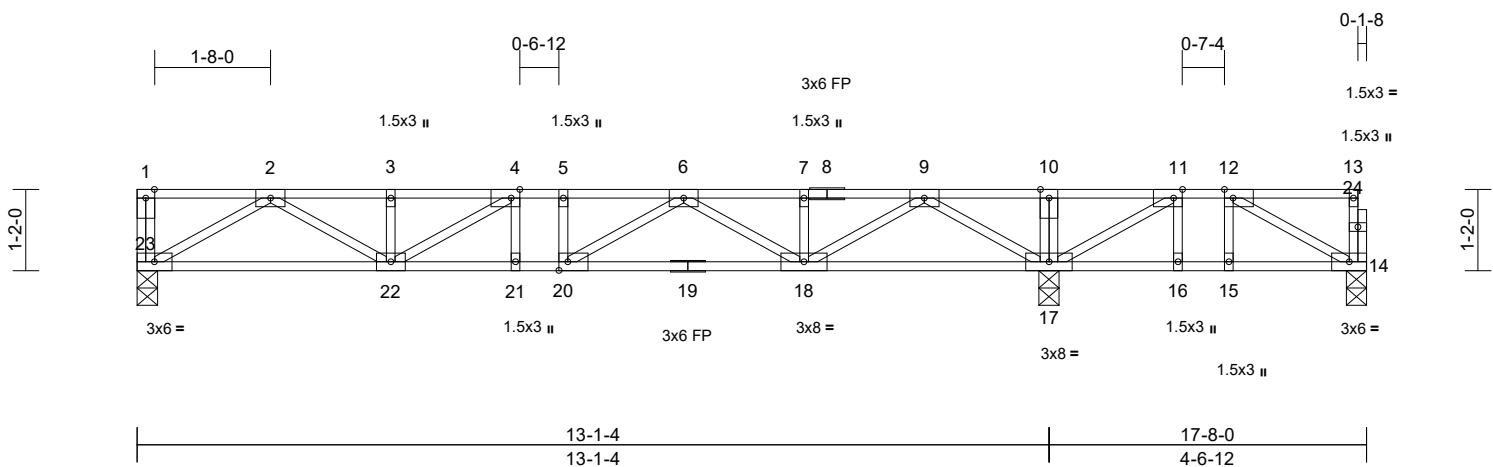
818 Soundside Road
Edenton, NC 27932

Job 24120007-B	Truss FL6	Truss Type Floor	Qty 7	Ply 1	93 Dewey-Tim Johnson Const.-Crawl-Fitzgerald VKDRFR I77311162 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 09:46:09
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Page: 1



Scale = 1:33.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [11:0-1-8,Edge], [12:0-1-8,Edge], [20:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.62	Vert(LL)	-0.08	18-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(CT)	-0.11	18-20	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-SH							Weight: 94 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)

BOT CHORD 2x4 SP No.2(flat)

WEBS 2x4 SP No.3(flat)

OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 17=0-3-8, 23=0-3-8
Max Uplift 14=-187 (LC 3)
Max Grav 14=161 (LC 4), 17=1305 (LC 1),
23=631 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-74/0, 13-14=-106/0, 1-2=0/0,
2-3=-1505/0, 3-4=-1505/0, 4-5=-1743/0,
5-6=-1743/0, 6-7=-1036/0, 7-9=-1036/0,
9-10=0/1119, 10-11=0/1119, 11-12=-111/461,
12-13=-6/0

BOT CHORD 22-23=0/933, 21-22=0/1743, 20-21=0/1743,
18-20=0/1544, 17-18=-30/192,
16-17=-461/111, 15-16=-461/111,
14-15=-461/111

WEBS 10-17=-167/0, 9-17=-1397/0, 2-23=-1079/0,
9-18=0/1009, 2-22=-0/668, 7-18=-168/0,
3-22=-193/0, 6-18=-612/0, 4-22=-390/16,
6-20=0/379, 4-21=-74/66, 5-20=-105/0,
11-17=-911/0, 12-14=-121/532, 11-16=0/195,
12-15=-169/0

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x5 MT20 unless otherwise indicated.
- All bearings are assumed to be SP No.2.



October 27, 2025



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

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

ENGINEERING BY
TRENCO
AMERICAN

818 Soundside Road
Edenton, NC 27932



Customer:
Job Name:
City:
Customer Ph...

Job Name: A
Level: 2nd floor
Label: BM1 - i139
Type: Beam

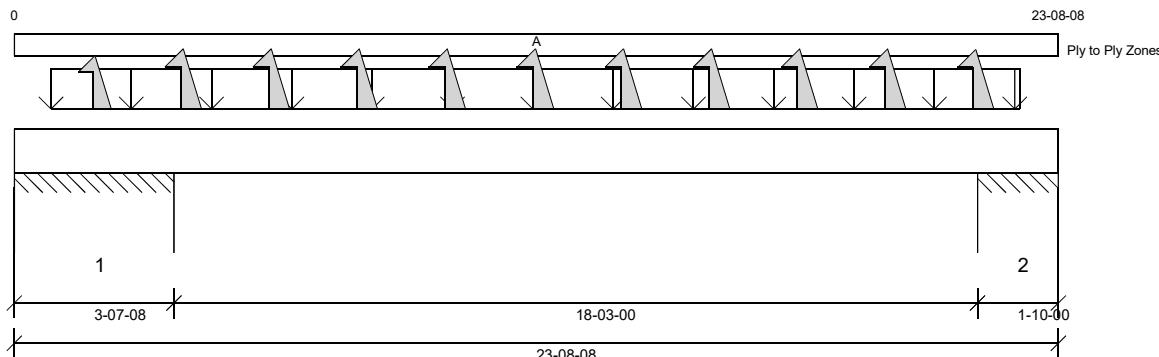
2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 11-7/8

Status:
Design
Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version
8.7.3.303.Update13.26

Report Version: 2023.09.18 10/24/2025 10:53



DESIGN INFORMATION a

Building Code: IRC 2021
Design Methodology: ASD
Risk Category: II (General Construction)
Residential
Service Condition: Dry
System Spacing: -
LL Deflection Limit: L/360, 0.75" (absolute)
TL Deflection Limit: L/240, 1.00" (absolute)

Lateral Restraint Requirements:

Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:

Top: 1'- 10 1/2" Bottom: 23'- 6 1/2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	11'- 10"	D + Lr	1.15	8950 lb ft	24315 lb ft	Passed - 37%
Max Neg. Moment:	22'	D + Lr	1.15	15119 lb ft	15840 lb ft	Passed - 95%
Max Shear:	20'- 10 5/8"	D + Lr	1.15	4517 lb	9241 lb	Passed - 49%
Live Load (LL) Pos. Defl.:	12'- 6 3/4"	0.75(L + Lr + 0.6W)	0.206"	L/360	L/999	Passed - L/999
Total Load (TL) Pos. Defl.:	12'- 6 13/16"	D + 0.75(L + Lr + 0.6W)	0.388"	L/240	L/564	Passed - L/564

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	11-12	0.6D + 0.6W	1.60	733 lb	-	42913 lb	35984 lb	Passed - 2%
1	11-12	D + Lr	1.15	-	-3614 lb	-	-	
1	1-06-00	D + 0.75(L + Lr + 0.6W)	1.60	9702 lb	-	47250 lb	55125 lb	Passed - 21%
1	1-06-00	0.6D + 0.6W	1.60	-	-1970 lb	-	-	
2	1-01-08	D + 0.75(L + Lr + 0.6W)	1.60	15111 lb	-	35438 lb	41344 lb	Passed - 43%
2	1-01-08	0.6D + 0.6W	1.60	-	-3115 lb	-	-	
2	8-08	0.6D + 0.6W	1.60	1979 lb	-	22313 lb	26031 lb	Passed - 9%
2	8-08	D + 0.75(L + Lr + 0.6W)	1.60	-	-9552 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	23'- 8 1/2"	Self Weight	Top	11 lb/ft	-	-	-	-
Uniform	0'- 10"	22'- 10"	Smoothed Load	Top	258 lb/ft	-	134 lb/ft	268 lb/ft	83 lb/ft
Point	1'- 10"	1'- 10"	B2(Cond11)	Top	-	-	-	-	-635 lb
Point	3'- 10"	3'- 10"	B2(Cond10)	Top	-	-	-	-	-746 lb
Point	5'- 10"	5'- 10"	B2(Cond09)	Top	-	-	-	-	-746 lb
Point	7'- 10"	7'- 10"	B2(Cond08)	Top	-	-	-	-	-746 lb
Point	9'- 10"	9'- 10"	B2(Cond07)	Top	-	-	-	-	-746 lb
Point	11'- 10"	11'- 10"	B2(Cond06)	Top	-	-	-	-	-746 lb
Point	13'- 10"	13'- 10"	B2(Cond05)	Top	-	-	-	-	-746 lb
Point	15'- 10"	15'- 10"	B2(Cond04)	Top	-	-	-	-	-746 lb
Point	17'- 10"	17'- 10"	B2(Cond03)	Top	-	-	-	-	-746 lb
Point	19'- 10"	19'- 10"	B2(Cond02)	Top	-	-	-	-	-746 lb
Point	21'- 10"	21'- 10"	B2(Cond01)	Top	-	-	-	-	-735 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	3'- 7 1/2"	W26(i45)	3262 lb	-	1622 lb	3478 lb	1773 lb/-5227 lb
==>	0'- 1 1/2"	0'- 1 1/2"	W26(i45)	-	-	-	240 lb	-
==>	3'- 6"	3'- 6"	W26(i45)	3262 lb	-	1622 lb	3238 lb	-
2	21'- 10 1/2"	23'- 8 1/2"	-	2685 lb	-	1337 lb	2735/-24 lb	-
++>	22'	22'	W45(i79)	2685 lb	-	1337 lb	2716/-24 lb	-
++>	23'- 7"	23'- 7"	W27(i60)	-	-	-	19 lb	-

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.



Customer:
Job Name:
City:
Customer Ph...

Job Name: **A**
Level: **2nd floor**
Label: **BM1 - i139**
Type: **Beam**

2 Ply Member
2.1 RigidLam SP LVL 1-3/4
x 11-7/8

Status:
Design Passed

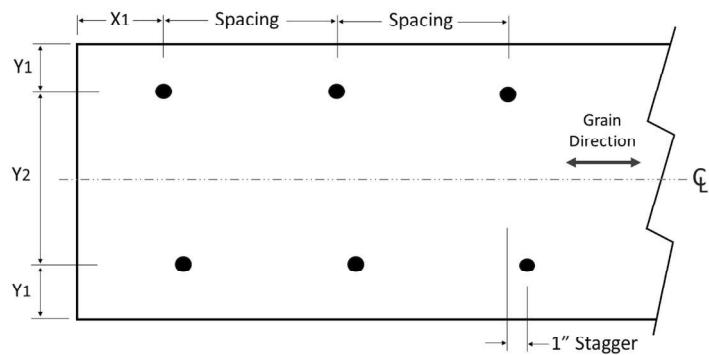
DESIGN NOTES

- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.
- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.99
- Beam Stability Factor used in the calculation for Allowable Max Neg Moment (CL) = 0.48

PLY TO PLY CONNECTION

- Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 48. Row = 2, Spacing = 12" 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 128 lbs. X1 = 2.25", Y1 = 0.75", Y2 = 1.5" Install fasteners from one face.
X1 = Minimum end distance, X2 = Minimum edge distance, Y2 = Minimum row spacing.

FASTENER INSTALLATION – 2 ROWS (FROM ONE FACE)

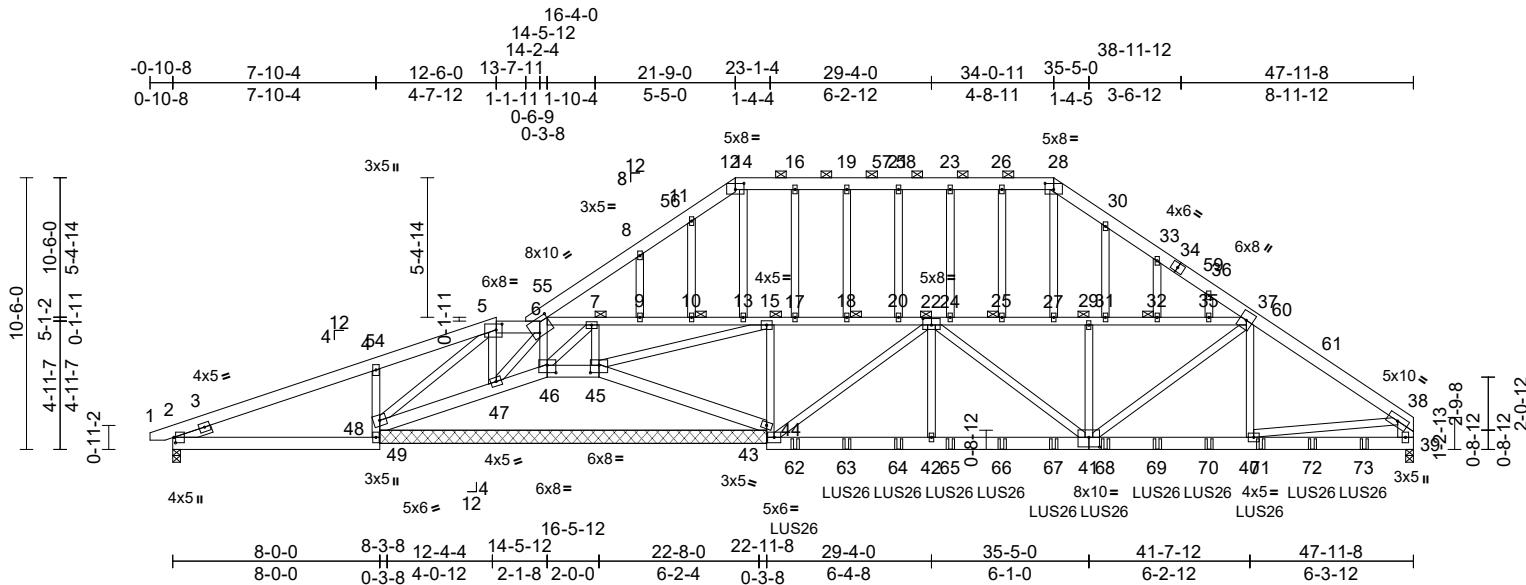


Job 24120007-A	Truss A1	Truss Type Piggyback Base Girder	Qty 1	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311757
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:89.1

Plate Offsets (X, Y): [2:0-2-8,0-0-12], [5:0-2-12,0-2-12], [6:0-6-12,0-6-4], [12:0-4-0,0-2-13], [22:0-4-0,0-3-0], [28:0-4-0,0-2-13], [41:0-5-0,0-4-8], [45:0-4-0,0-3-8], [46:0-4-0,0-3-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.07	40-41	>999	240	MT20
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.12	40-41	>999	180	
TCDL	10.0	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.02	39	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 925 lb FT = 20%
BCDL	10.0										

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 6-22,22-37:2x4 SP No.2

BOT CHORD 2x6 SP No.2 *Except* 49-4:2x4 SP No.3, 15-43:2x4 SP No.2

WEBS 2x4 SP No.3 *Except* 39-38:2x8 SP 2400F 2.0E

OTHERS 2x4 SP No.3

SLIDER Left 2x4 SP No.3 -- 1-6-0

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.): 12-28, 6-37, 5-6.

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

6-0-0 oc bracing: 44-45.

JOINTS 1 Brace at Jt(s): 15,

29, 22, 7, 25, 18,

10, 32

REACTIONS (size) 2=0-3-8, 39=0-3-8, 44=14-11-8, 45=14-11-8, 46=14-11-8,

47=14-11-8, 48=14-11-8, 49=14-11-8

Max Horiz 2=202 (LC 10)

Max Uplift 2=49 (LC 66), 39=201 (LC 12),

44=134 (LC 7), 45=205 (LC 56),

46=68 (LC 11), 48=152 (LC 7)

Max Grav 2=470 (LC 41), 39=3105 (LC 41),

44=3270 (LC 40), 45=146 (LC 7),

46=595 (LC 41), 47=440 (LC 41),

48=1254 (LC 41), 49=102 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD

1-2=0/18, 2-4=-349/87, 4-5=-562/130,

6-8=-1127/90, 8-11=-1005/119,

11-12=-905/131, 12-14=-803/126,

14-16=-803/126, 16-19=-803/126,

19-21=-803/126, 21-23=-803/126,

23-26=-803/126, 26-28=-804/126,

28-30=-914/128, 30-33=-990/115,

33-36=-1064/99, 36-37=-1178/88,

37-38=-4035/288, 38-39=-2665/196,

6-7=-29/562, 7-9=-25/613, 9-10=-25/613,

10-13=-25/613, 13-15=-25/613,

15-17=-31/1117, 17-18=-31/1117,

18-20=-31/1117, 20-24=-2857/1117,

24-25=-2857/291, 25-27=-2857/291,

27-29=-2857/291, 29-31=-2857/291,

31-32=-2857/291, 32-35=-2857/291,

35-37=-2857/291, 5-6=-229/128

BOT CHORD 2-49=-59/270, 48-49=0/0, 4-48=-1331/161,

47-48=-61/222, 46-47=-56/383,

45-46=-52/217, 44-45=-47/93,

43-44=-163/2796, 15-44=-242/142,

42-43=-139/2679, 40-42=-190/3338,

39-40=-58/675

WEBS 5-47=-190/37, 37-40=-28/836,

38-40=-134/2709, 29-41=-65/266,

37-41=-64/587, 22-42=-38/1256,

22-41=-113/1402, 5-48=-43/63,

6-46=-516/64, 6-47=-294/155, 7-45=-244/105,

7-46=-33/118, 15-45=-9/577, 27-28=-27/191,

25-26=-40/7, 23-24=-307/85, 20-21=-198/51,

18-19=-17/12, 16-17=-170/77,

13-14=-30/211, 10-11=-39/18, 8-9=-182/122,

30-31=-47/134, 32-33=-47/9, 35-36=-5/21,

22-43=-3800/254

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, 2x8 - 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, 2x4 - 1 row 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=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp. B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33



October 27, 2025

Continued on page 2

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

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

ENGINEERED BY
TRENCO
AMERICAN

818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A1	Truss Type Piggyback Base Girder	Qty 1	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311757 Job Reference (optional)
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Page: 2

- 5) 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/TP1 1.
- 6) TCLL: ASCE 7-16; $Pr=20.0 \text{ psf}$ (roof LL: Lum DOL=1.15 Plate DOL=1.15); $Pg=20.0 \text{ psf}$; $Pf=18.9 \text{ psf}$ (Lum DOL=1.15 Plate DOL=1.15); $ls=1.0$; Rough Cat B; Fully Exp.; $Ce=0.9$; $Cs=1.00$; $Ct=1.10$, $Lu=50-0-0$
- 7) Unbalanced snow loads have been considered for this design.
- 8) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 9) Provide adequate drainage to prevent water ponding.
- 10) All plates are 2x4 MT20 unless otherwise indicated.
- 11) Gable studs spaced at 2-0-0 oc.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) All bearings are assumed to be SP No.2 .
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 46.
- 15) N/A

- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 24-0-12 from the left end to 46-0-12 to connect truss(es) to back face of bottom chord.
- 18) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-48, 6-12=-48, 12-28=-58, 28-37=-48, 37-38=-48, 49-50=-20, 46-48=-20, 45-46=-20, 44-45=-20, 39-43=-20, 5-6=-58
Concentrated Loads (lb)
Vert: 54=-850, 62=-332 (B), 63=-332 (B), 64=-332 (B), 65=-332 (B), 66=-332 (B), 67=-332 (B), 68=-332 (B), 69=-332 (B), 70=-332 (B), 71=-332 (B), 72=-332 (B), 73=-332 (B)

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

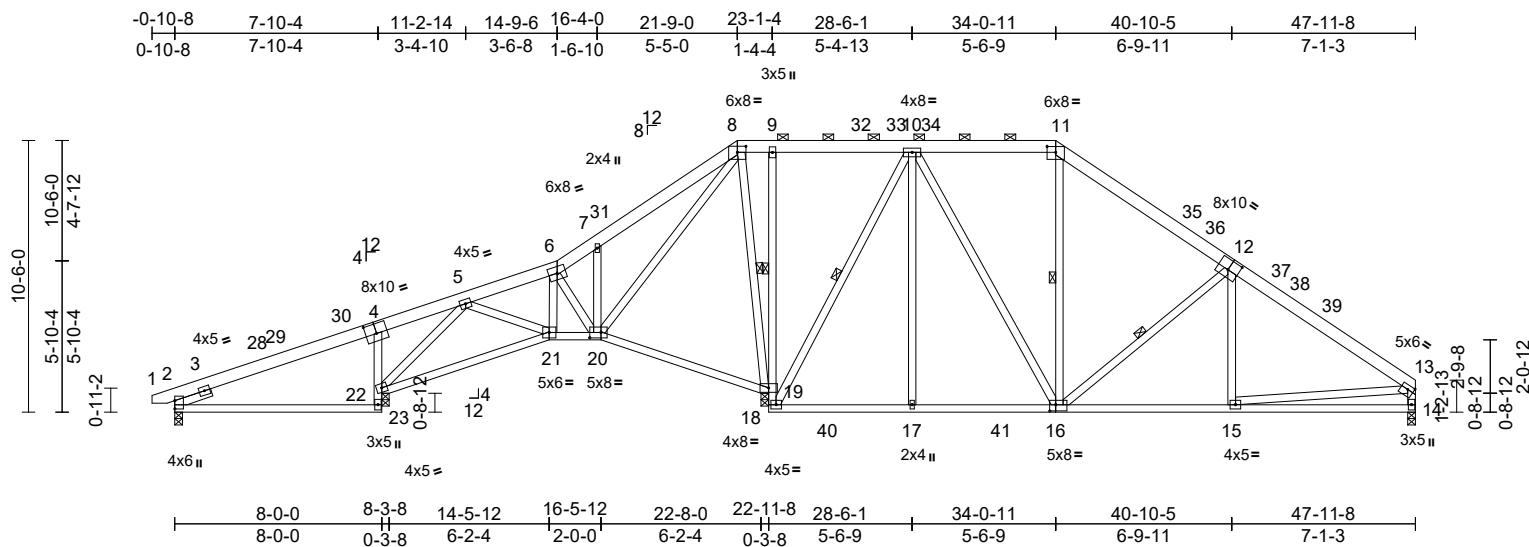
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

Job 24120007-A	Truss A2	Truss Type Piggyback Base	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311758
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Scale = 1:89.1

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [4:0-5-0,0-4-8], [8:0-4-0,0-2-13], [11:0-4-0,0-2-12], [12:0-5-0,0-4-8], [13:0-2-12,0-2-0], [16:0-2-12,0-3-0], [20:0-5-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.07	23-26	>999	240	
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.16	23-26	>597	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.03	19	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 364 lb FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 23-4:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 18-10,16-10:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20.

1 Row at midpt 9-19

WEBS 1 Row at midpt 10-18, 11-16, 12-16, 8-19

REACTIONS (size) 2=0-3-8, 14=0-3-8, 19=0-3-8, 22=0-3-8
Max Horiz 2=204 (LC 14)
Max Uplift 2=48 (LC 11), 14=29 (LC 16), 22=64 (LC 15)
Max Grav 2=363 (LC 34), 14=1087 (LC 62), 19=2085 (LC 3), 22=843 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-5=-418/137, 5-6=-595/250, 6-7=-394/264, 7-8=-556/393, 8-9=0/344, 9-10=0/338, 10-11=-664/345, 11-13=-1427/333, 13-14=-1033/221
BOT CHORD 2-23=-216/136, 22-23=0/142, 4-22=-521/179, 21-22=-79/418, 20-21=-69/468, 19-20=-316/131, 18-19=-89/1242, 9-19=-397/101, 17-18=0/352, 15-17=-133/1102, 14-15=-58/228

WEBS

6-21=0/224, 6-20=-407/70, 7-20=-437/225, 10-18=-1313/141, 10-17=0/342, 10-16=-42/690, 11-16=-46/137, 12-16=-693/197, 12-15=0/231, 13-15=-100/883, 5-22=-382/127, 5-21=-4/223, 8-19=-683/105, 8-20=-215/890

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-1 to 4-2-8, Interior (1) 4-2-8 to 21-9-0, Exterior(2R) 21-9-0 to 26-6-9, Interior (1) 26-6-9 to 34-0-11, Exterior(2R) 34-0-11 to 38-10-4, Interior (1) 38-10-4 to 47-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2.
- 9) Bearing at joint(s) 22, 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

10) One H.25A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 22, and 14. This connection is for uplift only and does not consider lateral forces.

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 27, 2025

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

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

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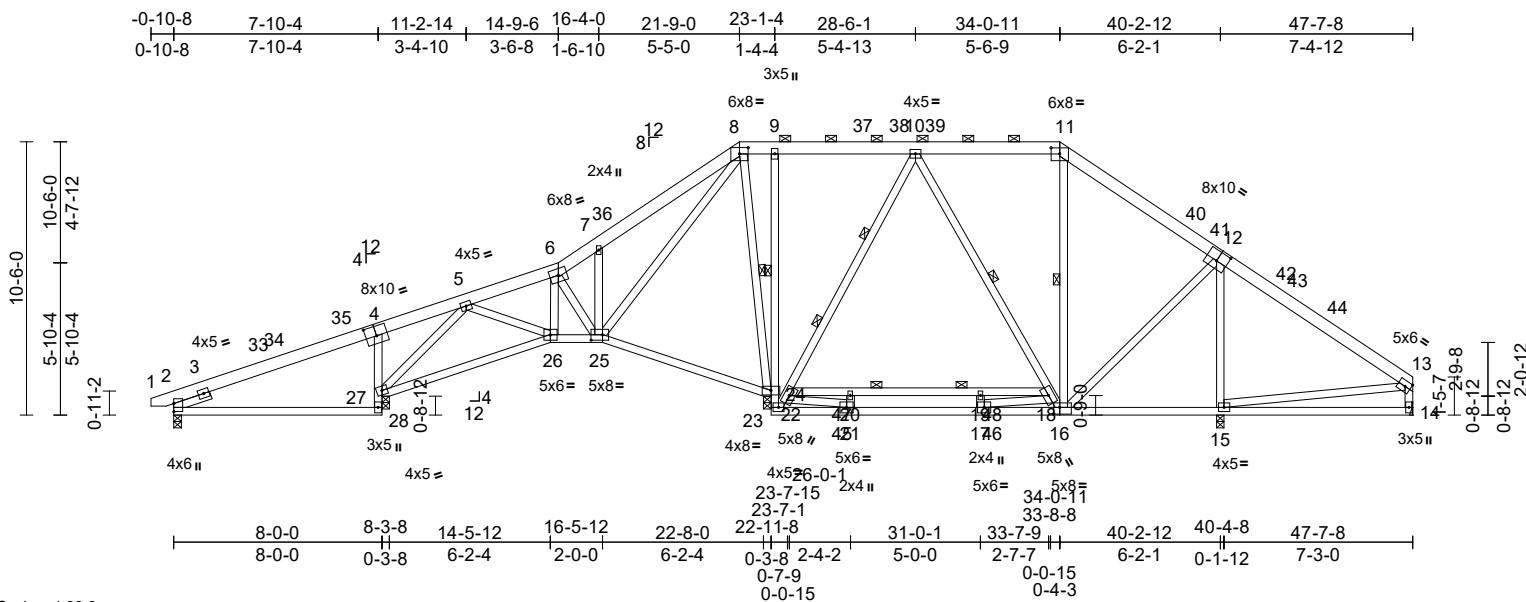
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A4	Truss Type Piggyback Base	Qty 5	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311760
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Page: 1



Scale = 1:88.6

Plate Offsets (X, Y): [2:0-3-13,0-0-1], [4:0-5-0,0-4-8], [8:0-4-0,0-2-13], [11:0-4-0,0-2-12], [12:0-5-0,0-4-8], [16:0-2-12,0-3-0], [25:0-5-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.13	17-21	>999	240	MT20
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.23	17-21	>906	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.04	24	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 373 lb FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except* 28-4:2x4 SP No.3

WEBS 2x4 SP No.3 *Except* 10-23,10-16:2x4 SP No.2

SLIDER Left 2x4 SP No.3 -- 1-6-0

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.): 8-11.

BOT CHORD Rigid ceiling directly applied or 3-6-5 oc bracing. Except:

1 Row at midpt 9-24

WEBS 1 Row at midpt 11-16, 8-24, 10-16

WEBS 2 Rows at 1/3 pts 10-23

REACTIONS (size) 2=0-3-8, 14= Mechanical, 15=0-3-8, 24=0-3-8, 27=0-3-8

Max Horiz 2=206 (LC 14)

Max Uplift 2=48 (LC 11), 14=38 (LC 16), 27=57 (LC 15)

Max Grav 2=359 (LC 34), 14=295 (LC 62), 15=1331 (LC 62), 24=2144 (LC 3), 27=861 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-5=-418/136, 5-6=-669/255, 6-7=-480/269, 7-8=-642/398, 8-9=-3/298, 9-10=-6/292, 10-11=-457/234, 11-13=-609/210, 13-14=-216/123

BOT CHORD 2-28=-221/128, 27-28=0/142, 4-27=-521/180, 26-27=-85/451, 25-26=-78/542, 24-25=-269/129, 23-24=0/1321, 9-24=-400/86, 21-23=0/775, 17-21=0/2137, 15-17=-61/464, 14-15=-48/168, 20-22=-2074/0, 19-20=-2074/0, 18-19=-2074/0

WEBS

6-26=0/219, 6-25=-418/70, 7-25=-437/225, 11-16=-151/70, 12-16=0/557, 12-15=-1130/126, 13-15=-178/41, 5-27=-441/130, 5-26=-7/263, 8-24=-667/118, 8-25=-219/925, 22-23=-1600/0, 10-22=-894/72, 10-18=0/534, 16-18=-220/110, 20-21=-205/0, 21-22=0/1615, 17-19=-240/0, 17-18=0/1875

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-1 to 4-2-2, Interior (1) 4-2-2 to 21-9-0, Exterior(2R) 21-9-0 to 26-6-2, Interior (1) 26-6-2 to 34-0-11, Exterior(2R) 34-0-11 to 38-9-13, Interior (1) 38-9-13 to 47-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.0 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) 200.0lb AC unit load placed on the bottom chord, 28-6-1 from left end, supported at two points, 5-0-0 apart.
- 7) Provide adequate drainage to prevent water ponding.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

9) Bearings are assumed to be: Joint 2 SP No.2 , Joint 27 SP No.2 , Joint 24 SP No.2 , Joint 15 SP No.2 .

10) Refer to girder(s) for truss to truss connections.

11) Bearing at joint(s) 27, 24 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 38 lb uplift at joint 14.

13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 27. This connection is for uplift only and does not consider lateral forces.

14) 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 27, 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 DDS-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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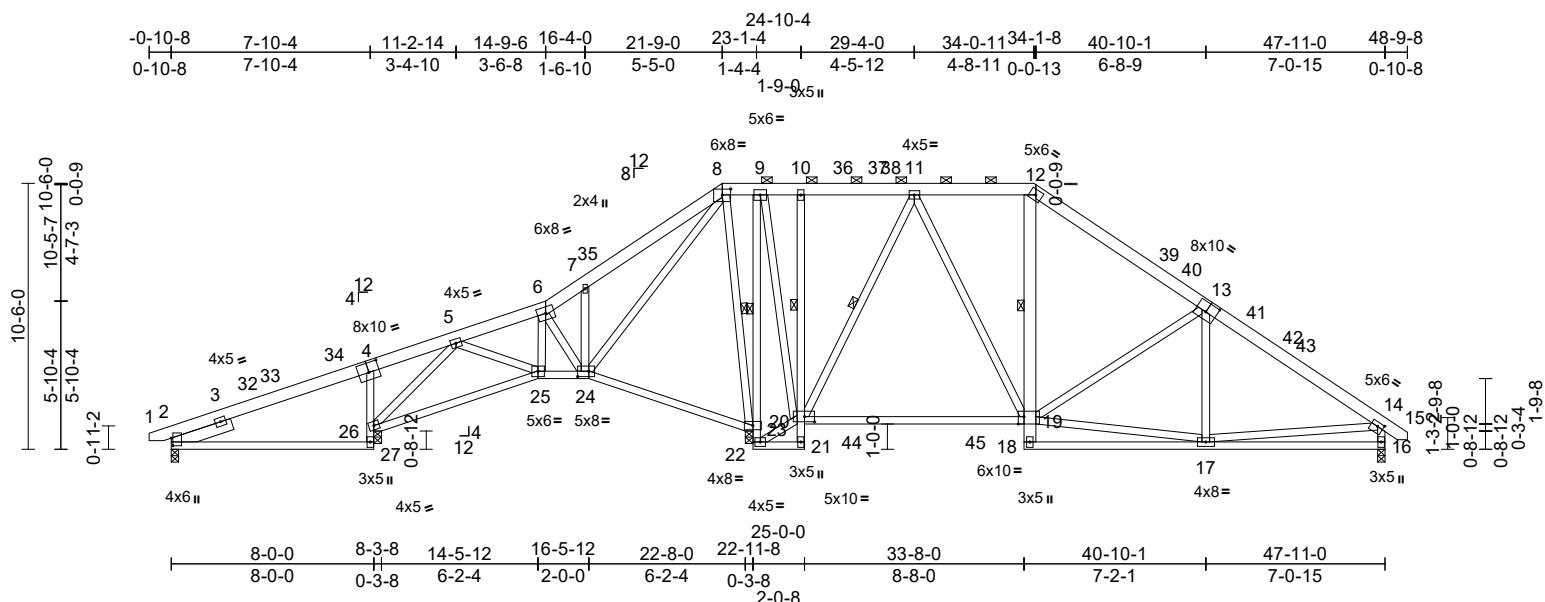
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A7	Truss Type Piggyback Base	Qty 4	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311763 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:12 2025
ID:65UWqsO2FeeYwAaj_t4BVyBv7i-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:91

Plate Offsets (X, Y): [2.0-3-9,0-0-11], [4.0-5-0,0-4-8], [8.0-4-0,0-2-13], [13.0-5-0,0-4-8], [14.0-2-12,0-2-0], [19.0-2-12,Edge], [20.0-4-12,0-2-8], [24.0-5-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.27	19-20	>999	240	MT20
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.43	19-20	>685	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.04	16	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0										Weight: 400 lb FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x4 SP No.2 *Except* 27-4,9-22,21-10:2x4
 SP No.3, 20-19:2x4 SP 2400F 2.0E,
 12-18:2x6 SP No.2
 WEBS 2x4 SP No.3
 SUDPER Left 2x6 SP No.3 2,6,0

WEBS

6-25=0/223, 6-24=-373/70, 7-24=-422/225,
 11-19=6/800, 13-17=-77/152,
 14-17=-75/814, 8-23=-786/105,
 17-19=-76/1088, 13-19=-588/184,
 20-22=-337/216, 9-20=-59/1208,
 8-24=-207/801, 5-26=-320/120, 5-25=-3/164,
 11-20=-1025/140

10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 26, and 16. This connection is for uplift

only and does not consider lateral forces.

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

bottom chord.

SLIDER BRACING

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.): 8-12.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

NOTES

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-1 to 4-2-7, Interior (1) 4-2-7 to 21-9-0, Exterior(2R) 21-9-0 to 26-6-8, Interior (1) 26-6-8 to 34-1-8, Exterior(2R) 34-1-8 to 38-11-0, Interior (1) 38-11-0 to 48-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL; Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Bearing at joint(s) 26, 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

A circular seal for a professional engineer. The outer ring contains the text "NORTH CAROLINA" at the top and "PROFESSIONAL" at the bottom, with "ENGINEER" written vertically down the center. The inner circle contains the word "SEAL" at the top and the registration number "036322" in the center. The bottom half of the seal features the name "ERIC A. GILBERT" in a large, stylized font. The entire seal is rendered in blue and red on a white background.

October 27,2025



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

 WARNING - VENI™ design parameters and **READ NOTES ON THIS AND INCLUDED MISTER REFERENCE PAGE MIL-473 rev. 1/2023 BEFORE USE.**

Design valid for use only with MitTek® 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/TP11 Quality Criteria and DSB-22** available from Truss Plate.

and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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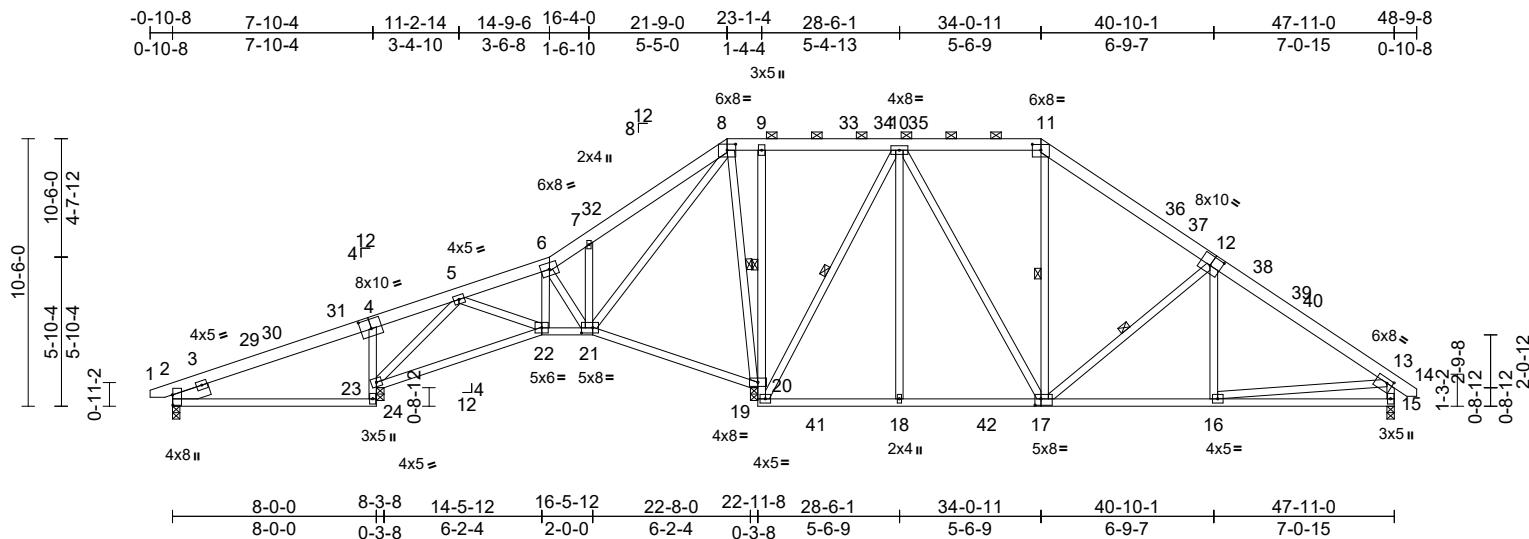
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A8	Truss Type Piggyback Base	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311764
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:13
ID:65UWqsO2FeeYwAaj_t4BVyBv7i-RfC?PsB70Hq3NSgPqnL8w3ulTxGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:90.4

Plate Offsets (X, Y): [2:0-4-13,0-0-3], [4:0-5-0,0-4-8], [8:0-4-0,0-2-13], [11:0-4-0,0-2-12], [12:0-5-0,0-4-8], [13:0-2-12,0-2-0], [17:0-2-12,0-3-0], [21:0-5-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.07	22-23	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.08	24-27	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.03	20	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 368 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 24-4:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 19-10,17-10:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-0

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.): 8-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21.

1 Row at midpt 9-20

WEBS 1 Row at midpt 10-19, 11-17, 12-17, 8-20

REACTIONS (size) 2=0-3-8, 15=0-3-8, 20=0-3-8, 23=0-3-8
Max Horiz 2=207 (LC 14)
Max Uplift 2=50 (LC 11), 15=39 (LC 16), 23=65 (LC 15)
Max Grav 2=362 (LC 34), 15=1126 (LC 62), 20=2080 (LC 3), 23=849 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-5=348/144, 5-6=594/264, 6-7=395/278, 7-8=557/407, 8-9=0/348, 9-10=0/342, 10-11=661/352, 11-13=-1418/342, 13-14=0/35, 13-15=-1060/266
BOT CHORD 2-24=154/137, 23-24=0/137, 4-23=-527/170, 22-23=-70/416, 21-22=-63/469, 20-21=-312/135, 19-20=-78/1239, 9-20=-397/100, 18-19=0/354, 16-18=-109/1089, 15-16=-65/260

WEBS

6-22=0/223, 6-21=-406/71, 7-21=-437/226, 10-19=-1308/128, 10-18=0/342, 10-17=-31/685, 11-17=-48/136, 12-17=-683/195, 12-16=0/230, 13-16=-75/838, 8-20=-683/91, 8-21=-215/890, 5-23=-382/136, 5-22=-5/227

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-1 to 4-2-7, Interior (1) 4-2-7 to 21-9-0, Exterior(2R) 21-9-0 to 26-6-8, Interior (1) 26-6-8 to 34-0-11, Exterior(2R) 34-0-11 to 38-10-3, Interior (1) 38-10-3 to 48-7-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Bearing at joint(s) 23, 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

10) One H.25A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 23, and 15. This connection is for uplift only and does not consider lateral forces.

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 27, 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 is indicated to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see [ANSI/TPI1 Quality Criteria](#) and [DSB-22](#) available from the Truss Plate Institute ([www.tpinst.org](#)) and [BCSI Building Component Safety Information](#) available from the Structural Building Component Association ([www.sbcaccomponents.com](#))

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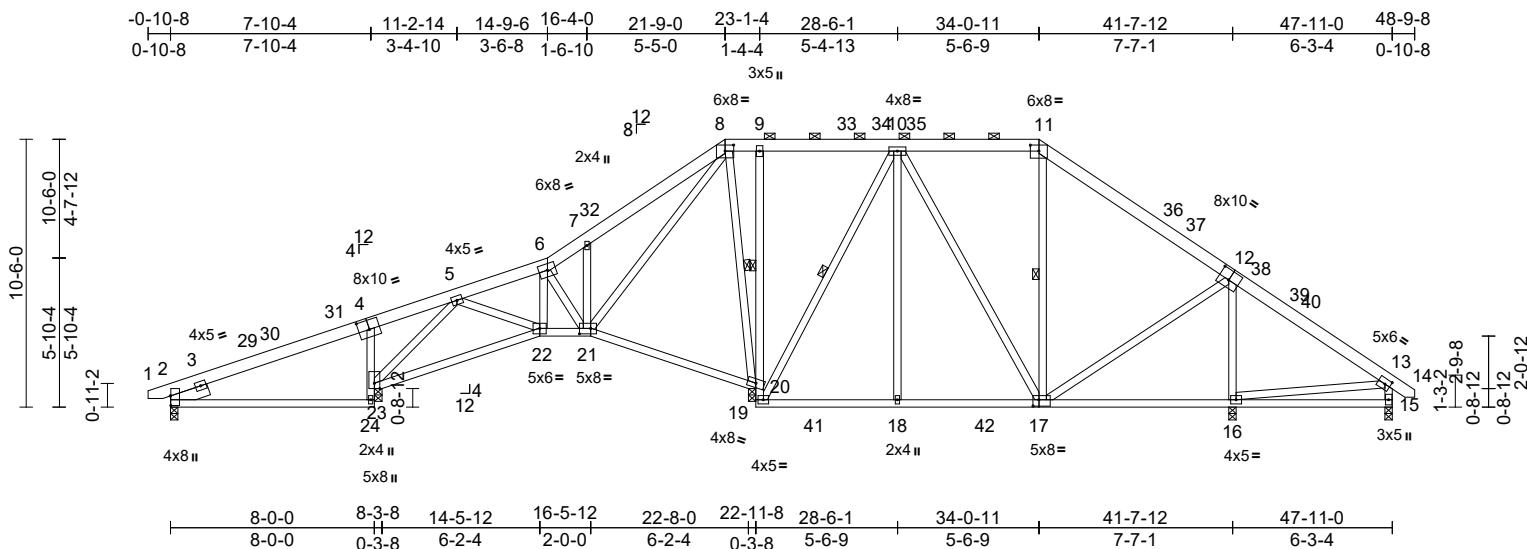
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A10	Truss Type Piggyback Base	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311766
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:14
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Page: 1



Scale = 1:90.4

Plate Offsets (X, Y): [2:0-4-9,0-0-3], [4:0-5-0,0-4-8], [8:0-4-0,0-2-13], [11:0-4-0,0-2-12], [12:0-5-0,0-4-8], [13:0-2-9,0-2-8], [17:0-2-12,0-3-0], [21:0-5-4,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.10	22-23	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.12	24-27	>818	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.04	20	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 366 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 9-19:2x4 SP No.3
WEBS 2x4 SP No.3 *Except* 19-10,17-10:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 1-6-10

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.): 8-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 20-21.

1 Row at midpt 9-20

WEBS 1 Row at midpt 10-19, 11-17, 8-20

REACTIONS (size) 2=0-3-8, 15=0-3-8, 16=0-3-8, 20=0-3-8, 23=0-3-8
Max Horiz 2=207 (LC 14)
Max Uplift 2=49 (LC 11), 15=26 (LC 16), 16=18 (LC 16), 23=67 (LC 15)
Max Grav 2=364 (LC 34), 15=325 (LC 34), 16=1122 (LC 62), 20=1776 (LC 3), 23=880 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-5=-416/159, 5-6=-709/282, 6-7=-519/299, 7-8=-680/428, 8-9=-9/293, 9-10=-11/297, 10-11=-434/312, 11-13=-604/281, 13-14=0/35, 13-15=-260/139

BOT CHORD 2-24=-199/99, 22-23=-75/450, 21-22=-77/579, 20-21=-243/122, 19-20=-31/977, 9-20=-383/98, 18-19=-6/282, 16-18=-6/282, 15-16=-33/119

WEBS

6-22=0/223, 6-21=-438/72, 7-21=-436/225, 10-19=-1007/76, 10-18=0/331, 10-17=0/333, 11-17=-248/32, 12-17=0/351, 12-16=-927/265, 13-16=-53/55, 23-24=0/116, 4-23=-564/175, 5-23=-453/135, 5-22=-11/303, 8-20=-676/88, 8-21=-222/947

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-7-1 to 4-2-7, Interior (1) 4-2-7 to 21-9-0, Exterior(2R) 21-9-0 to 26-6-8, Interior (1) 26-6-8 to 34-0-11, Exterior(2R) 34-0-11 to 38-10-3, Interior (1) 38-10-3 to 48-7-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Bearing at joint(s) 23, 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

10) One H.25A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 23, 16, and 15. This connection is for uplift only and does not consider lateral forces.

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 27, 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 DS8-22](#) available from the Truss Plate Institute ([www.tpinst.org](#)) and [BCSI Building Component Safety Information](#) available from the Structural Building Component Association ([www.sbcacomponents.com](#))

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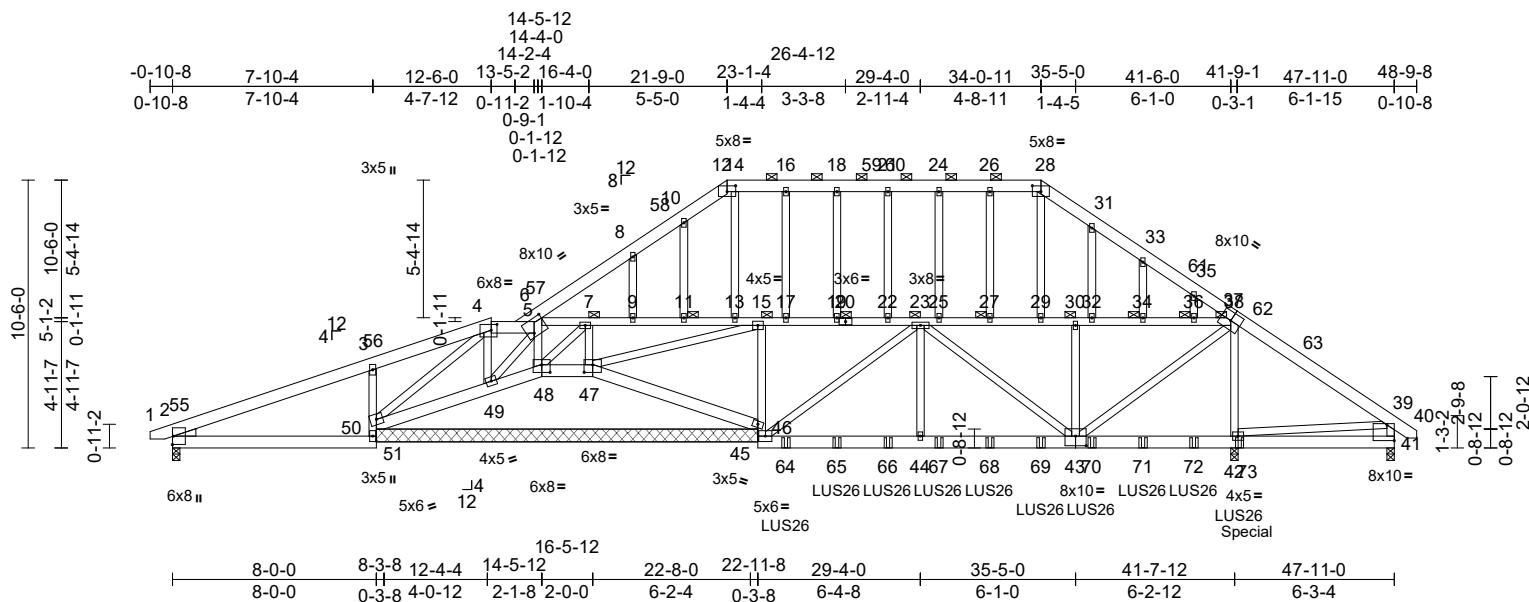
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A11	Truss Type Piggyback Base Girder	Qty 1	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311767 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:14 ID:6aPlxPYxCByNPPsJJ8m9ybyBu9X-RfC?PsB70Hq3NSgPqnL8w3u1TxB GKWrCDoi7J4zJC?P

Page: 1



Scale = 1:90.4

Plate Offsets (X, Y): [4:0-2-12,0-2-12], [5:0-6-12,0-6-4], [12:0-4-0,0-2-13], [28:0-4-0,0-2-13], [41:Edge,0-7-8], [43:0-5-0,0-4-8], [47:0-4-0,0-3-8], [48:0-4-0,0-3-8]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.04	44-45	>999	240	MT20
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.08	44-45	>999	180	
TCDL	10.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.01	41	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0										Weight: 926 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 5-20,20-37:2x4 SP
No.2
BOT CHORD 2x6 SP No.2 *Except* 51-3,15-45:2x4 SP

TOP CHORD 1-2=0/14, 2-3=-373/83, 3-4=-352/119,
 5-6=-913/61, 6-8=-876/81, 8-10=-799/107,
 10-12=-695/118, 12-14=-627/114,
 14-16=-627/114, 16-18=-627/114,

- 1) 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, 2x4 - 1 row at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-6-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33



October 27, 2025

Continued on page 2

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

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

The logo for TRENCO, featuring a stylized 'T' composed of horizontal bars of varying lengths, followed by the word 'TRENCO' in a bold, sans-serif font, and 'A MITECO COMPANY' in a smaller font below it.

818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss A11	Truss Type Piggyback Base Girder	Qty 1	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311767 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:14
ID:6aPlxPYxCByNPPsJJ8m9ybyBu9X-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 2

- 5) 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/TP1 1.
- 6) TCLL: ASCE 7-16; $Pr=20.0$ psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); $Pg=20.0$ psf; $Pf=18.9$ psf (Lum DOL=1.15 Plate DOL=1.15); $Is=1.0$; Rough Cat B; Fully Exp.; $Ce=0.9$; $Cs=1.00$; $Ct=1.10$, $Lu=50-0-0$
- 7) Unbalanced snow loads have been considered for this design.
- 8) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 9) Provide adequate drainage to prevent water ponding.
- 10) All plates are 2x4 MT20 unless otherwise indicated.
- 11) Gable studs spaced at 2-0-0 oc.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) All bearings are assumed to be SP No.2.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 48.
- 15) N/A

- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 24-0-12 from the left end to 41-10-4 to connect truss(es) to front face of bottom chord.
- 18) Fill all nail holes where hanger is in contact with lumber.
- 19) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 480 lb down and 99 lb up at 42-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-46, 5-12=-46, 12-28=-56, 28-39=-46,
39-40=-46, 51-52=-19, 48-50=-19, 47-48=-19,
46-47=-19, 41-45=-19, 4-5=-56
Concentrated Loads (lb)
Vert: 42=-332 (F), 64=-332 (F), 65=-332 (F), 66=-332 (F), 67=-332 (F), 68=-332 (F), 69=-332 (F), 70=-332 (F), 71=-332 (F), 72=-332 (F), 73=-480 (F)

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

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

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818 Soundside Road
Edenton, NC 27932

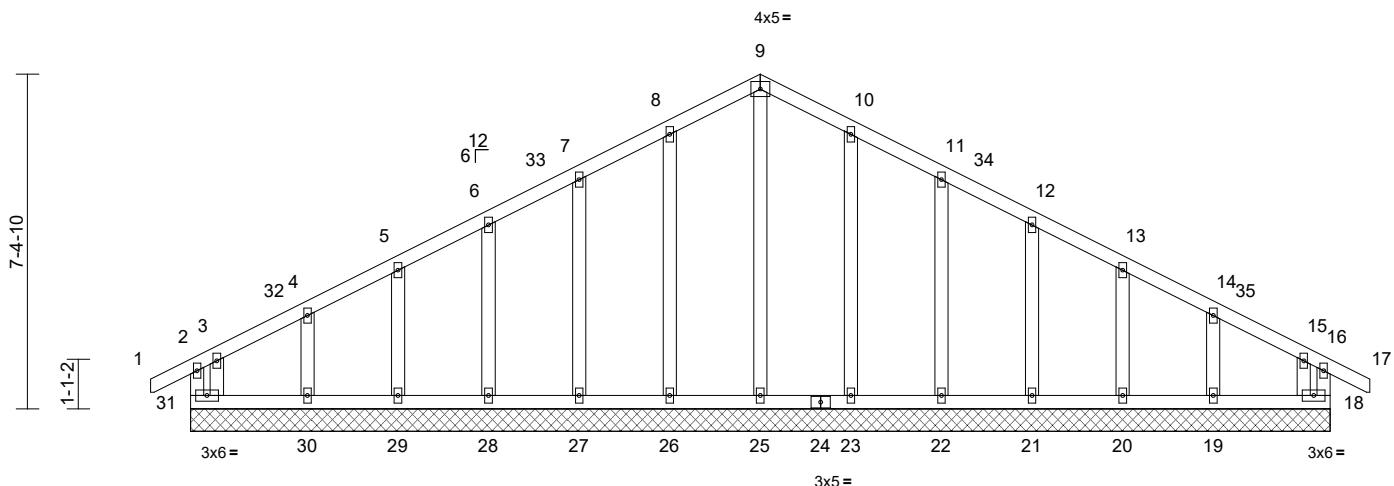
Job 24120007-A	Truss B1	Truss Type Common Supported Gable	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311768
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:15
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Page: 1

-0-10-8 12-7-0 25-2-0 26-0-8
0-10-8 12-7-0 12-7-0 0-10-8



Scale = 1:50.9

25-2-0

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	18	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 154 lb FT = 20%											

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
BRACING	Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6'-0" oc bracing.
REACTIONS (size)	18=25-2-0, 19=25-2-0, 20=25-2-0, 21=25-2-0, 22=25-2-0, 23=25-2-0, 25=25-2-0, 26=25-2-0, 27=25-2-0, 28=25-2-0, 29=25-2-0, 30=25-2-0, 31=25-2-0

Max Horiz 31=92 (LC 13)

Max Uplift 18=13 (LC 12), 19=41 (LC 16), 20=8 (LC 16), 21=17 (LC 16), 22=17 (LC 16), 23=14 (LC 16), 26=14 (LC 15), 27=17 (LC 15), 28=18 (LC 15), 29=7 (LC 15), 30=45 (LC 15), 31=25 (LC 11)

Max Grav 18=170 (LC 2), 19=180 (LC 40), 20=155 (LC 2), 21=162 (LC 40), 22=179 (LC 23), 23=206 (LC 23), 25=143 (LC 36), 26=206 (LC 22), 27=179 (LC 22), 28=162 (LC 39), 29=155 (LC 2), 30=181 (LC 33), 31=170 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-31=106/129, 1-2=0/33, 2-3=-23/44, 3-4=-75/52, 4-5=-63/89, 5-6=-72/130, 6-7=-84/176, 7-8=-95/223, 8-9=-109/265, 9-10=-109/265, 10-11=-95/223, 11-12=-84/176, 12-13=-71/130, 13-14=-62/88, 14-15=-61/37, 15-16=-22/44, 16-17=0/33, 16-18=-106/132

BOT CHORD	30-31=-30/55, 29-30=-30/55, 28-29=-30/55, 27-28=-30/55, 26-27=-30/55, 25-26=-30/55, 23-25=-30/55, 22-23=-30/55, 21-22=-30/55, 20-21=-30/55, 19-20=-30/55, 18-19=-30/55
WEBS	9-25=-170/37, 8-26=-166/71, 7-27=-139/80, 6-28=-128/79, 5-29=-125/70, 4-30=-146/116, 3-31=-113/57, 10-23=-166/71, 11-22=-139/81, 12-21=-127/79, 13-20=-124/70, 14-19=-143/118, 15-18=-94/32

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-10-1 to 2-1-15, Exterior(2N) 2-1-15 to 12-7-0, Corner(3R) 12-7-0 to 15-7-0, Exterior(2N) 15-7-0 to 26-0-1 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=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

10) Gable studs spaced at 2-0-0 oc.

11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

12) All bearings are assumed to be SP No.2 .

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 31, 13 lb uplift at joint 18, 14 lb uplift at joint 26, 17 lb uplift at joint 27, 18 lb uplift at joint 28, 7 lb uplift at joint 29, 45 lb uplift at joint 30, 14 lb uplift at joint 23, 17 lb uplift at joint 22, 17 lb uplift at joint 21, 8 lb uplift at joint 20 and 41 lb uplift at joint 19.

LOAD CASE(S)

Standard



October 27, 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 DDS-22** available from Truss Plate Institute (www.tpiinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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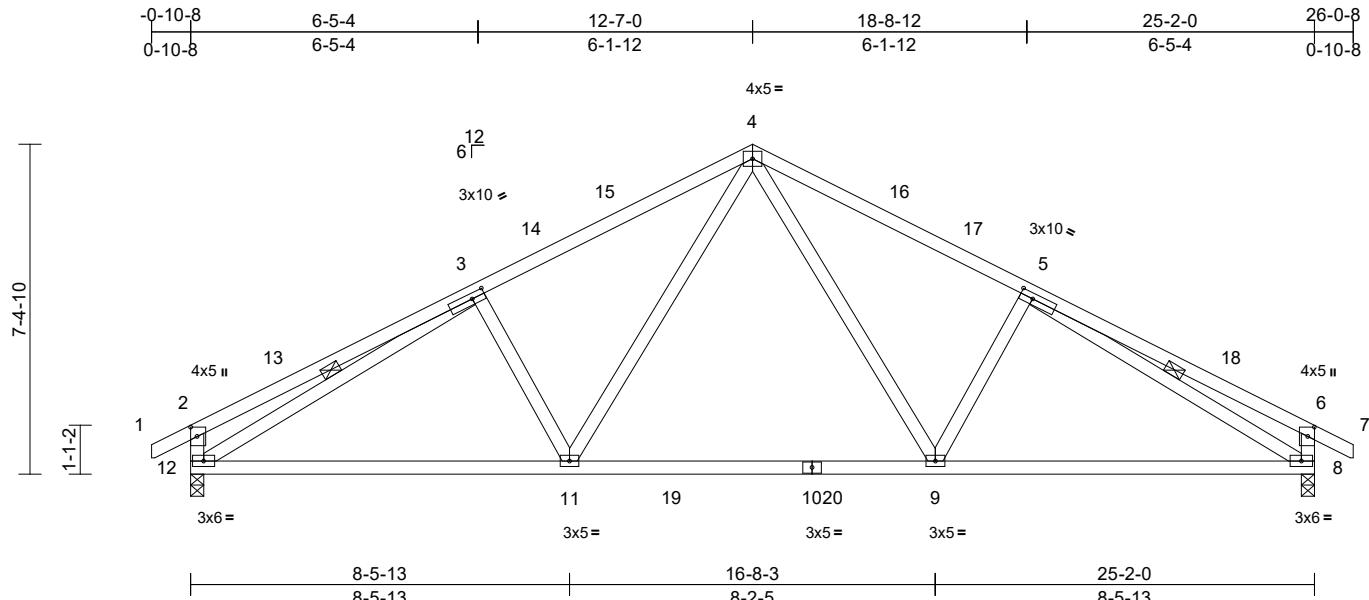
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss B2	Truss Type Common	Qty 11	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311769
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:15
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Page: 1



Scale = 1:51.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.16	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.24	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 141 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 3-12, 5-8

REACTIONS (size) 8=0-3-8, 12=0-3-8
Max Horiz 12=92 (LC 14)
Max Grav 8=1134 (LC 3), 12=1134 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-473/124, 3-4=-1654/242, 4-5=-1654/242, 5-6=-473/124, 6-7=0/33, 2-12=-414/150, 6-8=-414/150

BOT CHORD 11-12=-125/1484, 9-11=-23/1067, 8-9=-112/1481

WEBS 4-9=-49/617, 5-9=-267/166, 4-11=-49/617, 3-11=-267/166, 3-12=-1353/103, 5-8=-1353/103

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 12-7-0, Exterior(2R) 12-7-0 to 15-7-0, Interior (1) 15-7-0 to 26-0-1 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=1.33

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2 .

LOAD CASE(S)

Standard



October 27, 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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Edenton, NC 27932

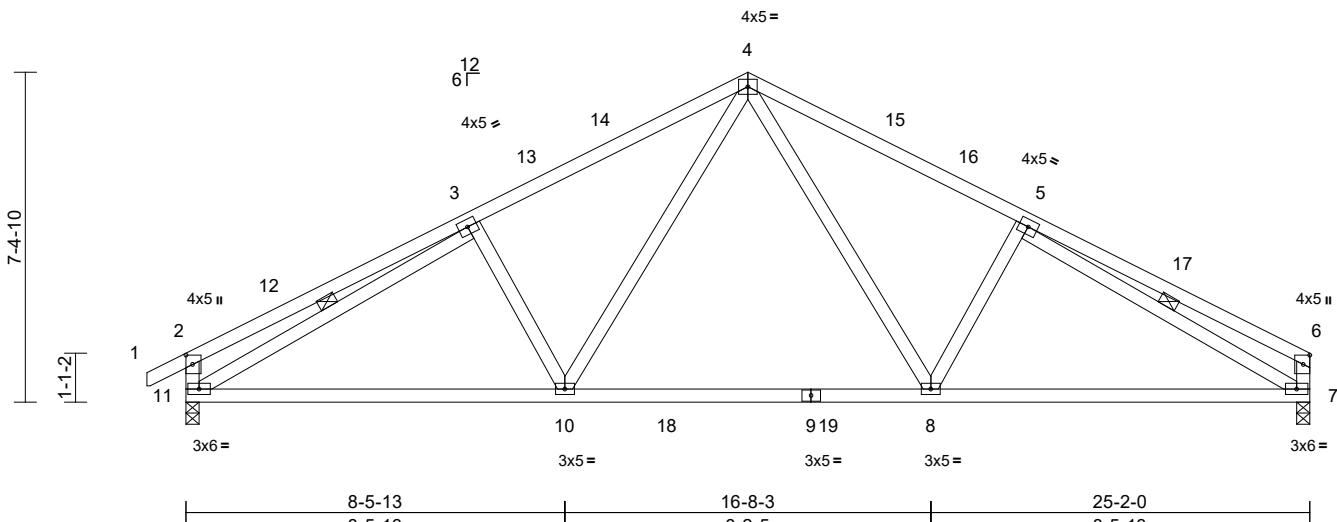
Job 24120007-A	Truss B3	Truss Type Common	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311770
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1

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0-10-8 6-5-4 6-1-12 6-1-12 6-5-4



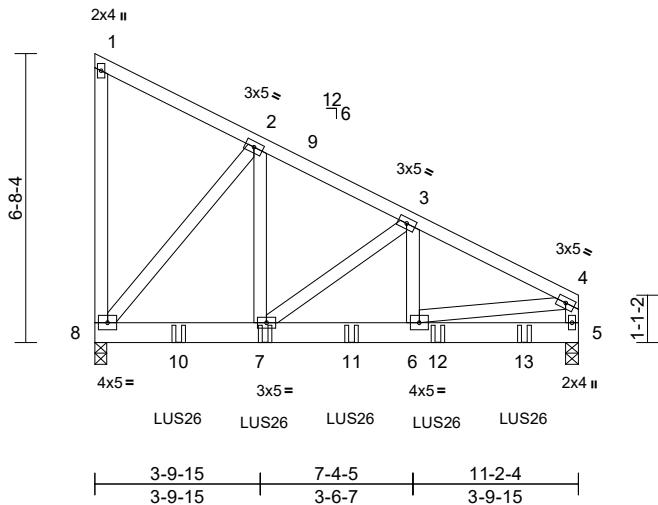
Job 24120007-A	Truss C1	Truss Type Roof Special Girder	Qty 1	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311771
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1

3-9-15 | 7-4-5 | 11-2-4
3-9-15 | 3-6-7 | 3-9-15



3-9-15 | 7-4-5 | 11-2-4
3-9-15 | 3-6-7 | 3-9-15

Scale = 1:53.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.02	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 165 lb FT = 20%											

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 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) 5=0-3-8, 8=0-3-4
Max Horiz 8=-182 (LC 9)
Max Uplift 5=-121 (LC 12), 8=-146 (LC 12)
Max Grav 5=1131 (LC 24), 8=1076 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-119/29, 1-2=-109/52, 2-3=-850/108, 3-4=-1322/147, 4-5=-871/99
BOT CHORD 7-8=-51/746, 6-7=-105/1153, 5-6=-32/202
WEBS 2-8=-1075/178, 2-7=-123/956, 3-7=-553/102, 3-6=-51/382, 4-6=-75/976

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.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 8. This connection is for uplift only and does not consider lateral forces.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 9-11-4 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S)

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-48, 5-8=-20
Concentrated Loads (lb)
Vert: 7=-256 (F), 10=-256 (F), 11=-256 (F), 12=-256 (F), 13=-256 (F)



October 27, 2025

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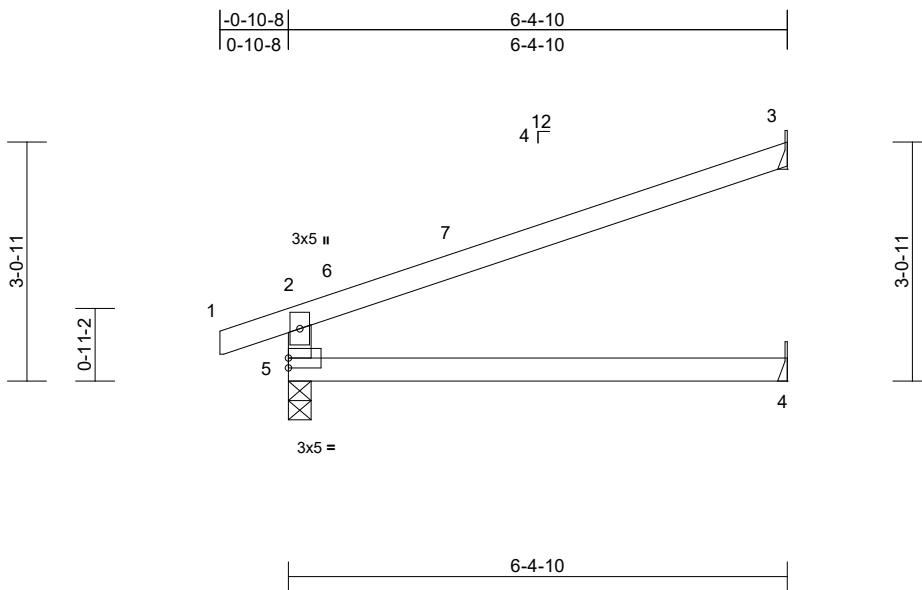
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ1	Truss Type Jack-Open	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311772
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:29.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.08	4-5	>963	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.14	4-5	>523	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.07	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 22 lb	FT = 20%
BCDL	10.0										

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.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) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=58 (LC 11)
Max Uplift 3=-44 (LC 15), 5=-17 (LC 11)
Max Grav 3=200 (LC 22), 4=78 (LC 22), 5=322 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=287/187, 1-2=0/24, 2-3=-82/54
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-10-3 to 2-1-13, Interior (1) 2-1-13 to 6-3-14 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 3.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



October 27, 2025

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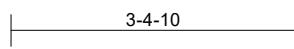
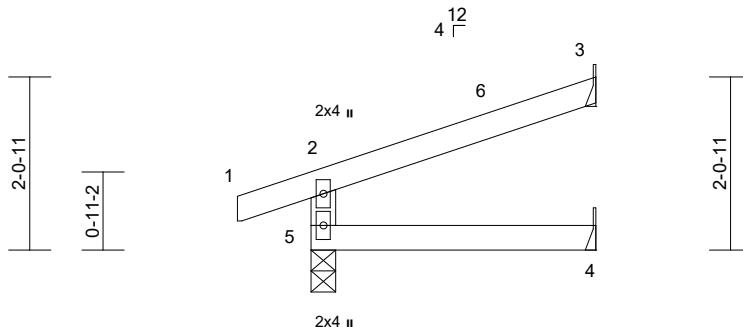
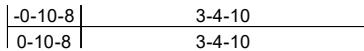
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ2	Truss Type Jack-Open	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311773
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:27.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.01	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 12 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-4-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=36 (LC 12)
Max Uplift 3=24 (LC 15), 5=-21 (LC 11)
Max Grav 3=96 (LC 22), 4=35 (LC 22), 5=222 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=193/153, 1-2=0/24, 2-3=-46/28
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-10-3 to 2-1-13, Interior (1) 2-1-13 to 3-3-14 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearings are assumed to be: , Joint 5 SP No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 3.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S)

Standard



October 27, 2025

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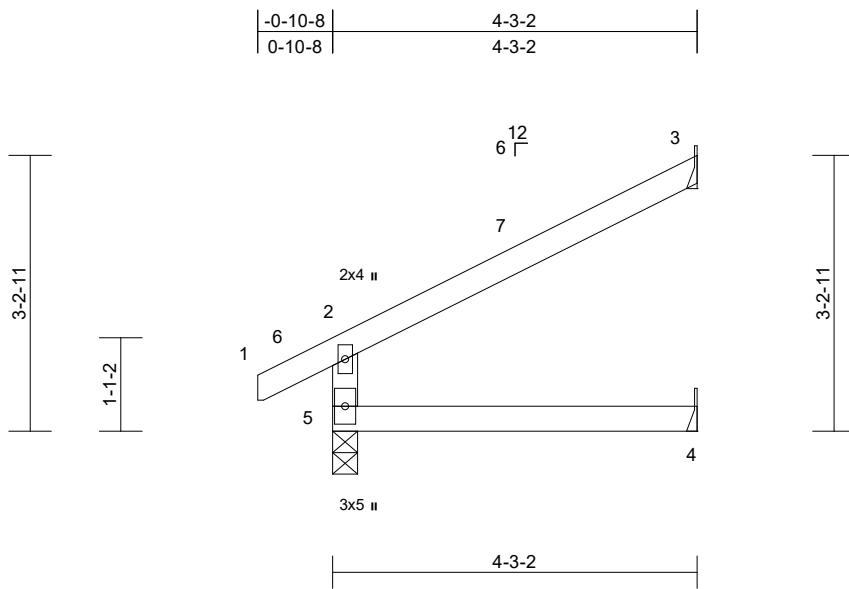
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ3	Truss Type Jack-Open	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311774
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:26.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.02	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.03	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.03	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 16 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=58 (LC 12)
Max Uplift 3=39 (LC 15)
Max Grav 3=139 (LC 22), 4=50 (LC 22), 5=267 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=235/137, 1-2=0/33, 2-3=-80/54
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 4-2-6 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 3.

LOAD CASE(S)

Standard



October 27, 2025

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818 Soundside Road
Edenton, NC 27932

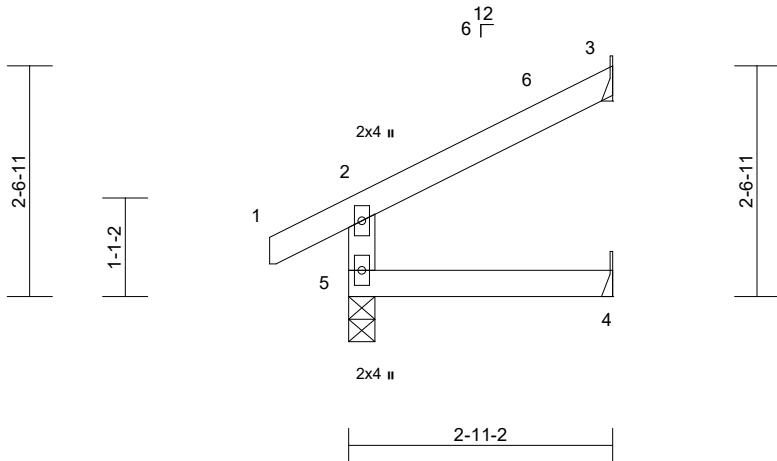
Job 24120007-A	Truss CJ4	Truss Type Jack-Open	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311775 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1

-0-10-8 | 2-11-2
0-10-8 | 2-11-2



Scale = 1:25.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.01	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 12 lb	FT = 20%
BCDL	10.0										

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 2-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=45 (LC 12)
Max Uplift 3=28 (LC 15)
Max Grav 3=84 (LC 22), 4=30 (LC 33), 5=210 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=185/112, 1-2=0/33, 2-3=-56/36
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 2-10-6 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3.

LOAD CASE(S) Standard



October 27, 2025

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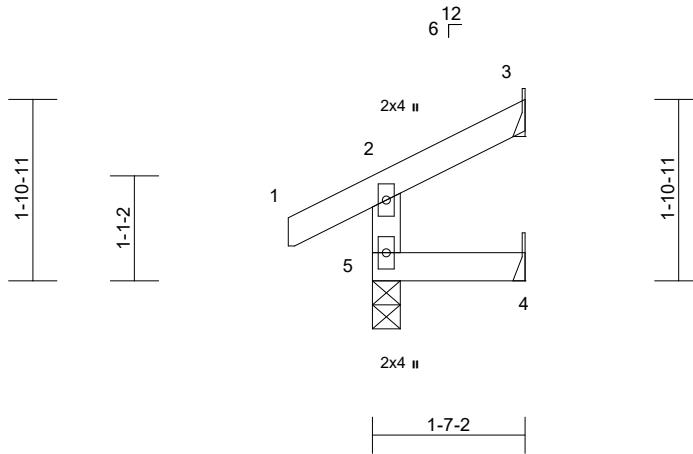
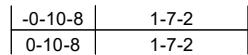
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ5	Truss Type Jack-Open	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311776
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:24

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 8 lb	FT = 20%
BCDL	10.0										

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 1-7-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

Max Horiz 5=34 (LC 12)
Max Uplift 3=-17 (LC 15), 4=-1 (LC 12)
Max Grav 3=30 (LC 22), 4=16 (LC 13), 5=153 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=134/88, 1-2=0/33, 2-3=-32/18
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearings are assumed to be: , Joint 5 SP No.2 .
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 4 and 17 lb uplift at joint 3.

LOAD CASE(S)

Standard



October 27, 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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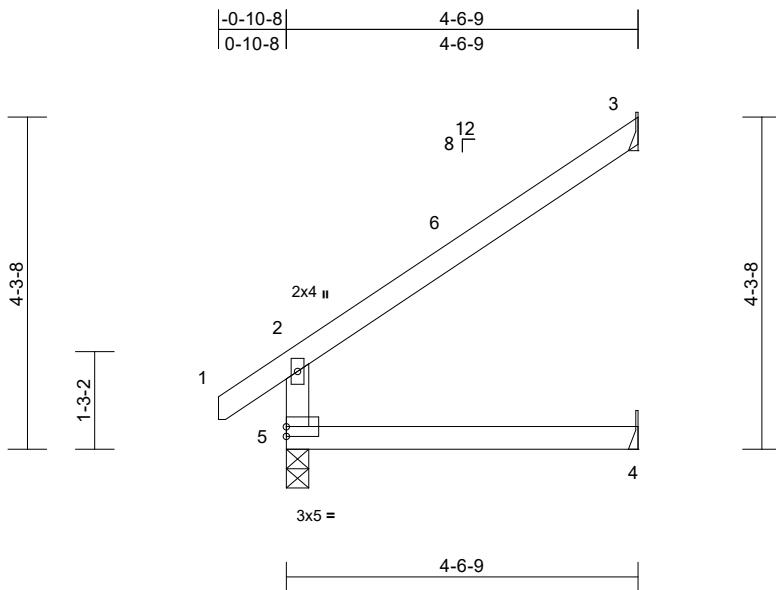
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ6	Truss Type Jack-Open	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311777 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
ID:X4yy_smZnnqtUuKuKPnEawyBvYL-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCd0i7J4zJC?f

Page: 1



Scale = 1:29.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.03	4-5	>999	240		
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.04	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.05	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 18 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=80 (LC 13)
Max Uplift 3=-55 (LC 13)
Max Grav 3=126 (LC 29), 4=56 (LC 29), 5=239 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=-206/96, 1-2=0/41, 2-3=-104/76
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior(2E) -0-10-0 to 2-2-0, Interior (1) 2-2-0 to 4-5-13
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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum
DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully
Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with 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.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 55 lb uplift at joint
3.

LOAD CASE(S) Standard



October 27, 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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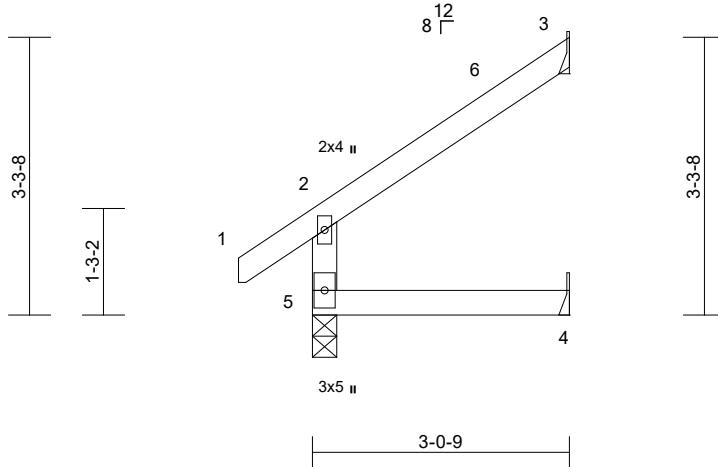
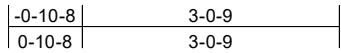
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ7	Truss Type Jack-Open	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311778
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:27.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.01	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.02	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 13 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

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

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=59 (LC 10)
Max Uplift 3=39 (LC 13)
Max Grav 3=81 (LC 29), 4=37 (LC 11), 5=182 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=160/86, 1-2=0/41, 2-3=-76/52
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior(2E) -0-10-0 to 2-2-0, Interior (1) 2-2-0 to 2-11-13
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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum
DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully
Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live
load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on
overhangs non-concurrent with 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.
- Bearings are assumed to be: , Joint 5 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 39 lb uplift at joint
3.

LOAD CASE(S) Standard



October 27, 2025

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Edenton, NC 27932

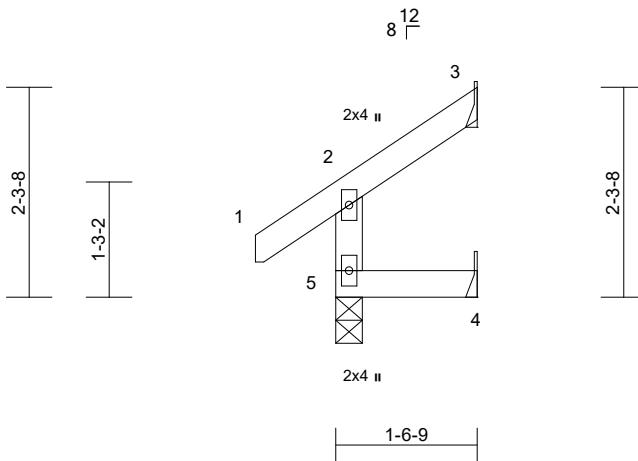
Job 24120007-A	Truss CJ8	Truss Type Jack-Open	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311779
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1

-0-10-8 | 1-6-9
0-10-8 | 1-6-9



Scale = 1:25.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	4-5	>999	240		
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 8 lb	FT = 20%
BCDL	10.0										

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 1-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=42 (LC 10)
Max Uplift 3=-23 (LC 13), 4=-6 (LC 10)
Max Grav 3=33 (LC 29), 4=23 (LC 11), 5=135 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=124/77, 1-2=0/41, 2-3=-45/29
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.

5) Bearings are assumed to be: , Joint 5 SP No.2 .

6) Refer to girder(s) for truss to truss connections.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 4 and 23 lb uplift at joint 3.

LOAD CASE(S)

Standard



October 27, 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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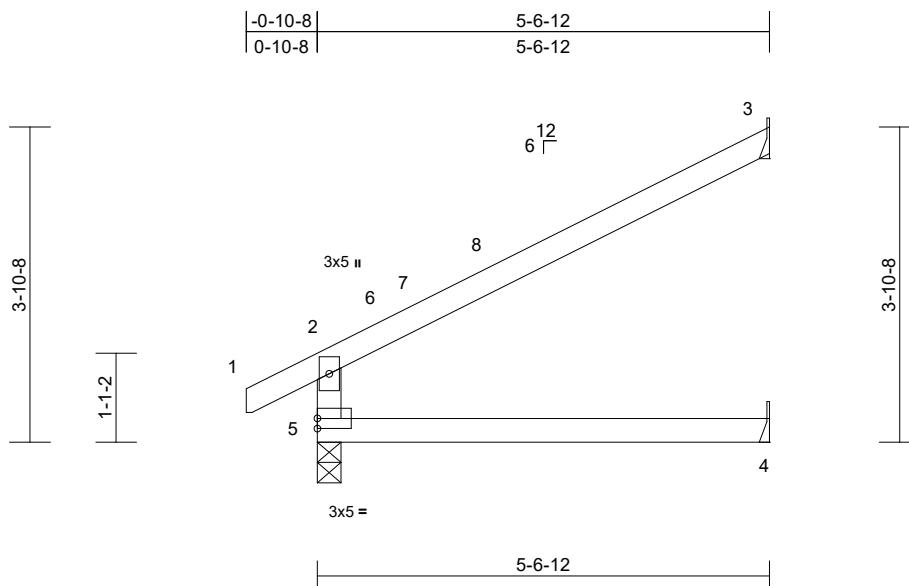
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ9	Truss Type Jack-Open	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311780
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:28.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.06	4-5	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.08	4-5	>791	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.06	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 20 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=73 (LC 15)
Max Uplift 3=50 (LC 15)
Max Grav 3=185 (LC 22), 4=68 (LC 22), 5=291 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=252/156, 1-2=0/33, 2-3=-104/70
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 5-6-0 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearings are assumed to be: , Joint 5 SP No.2 .

7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 3.

LOAD CASE(S)

Standard



October 27, 2025



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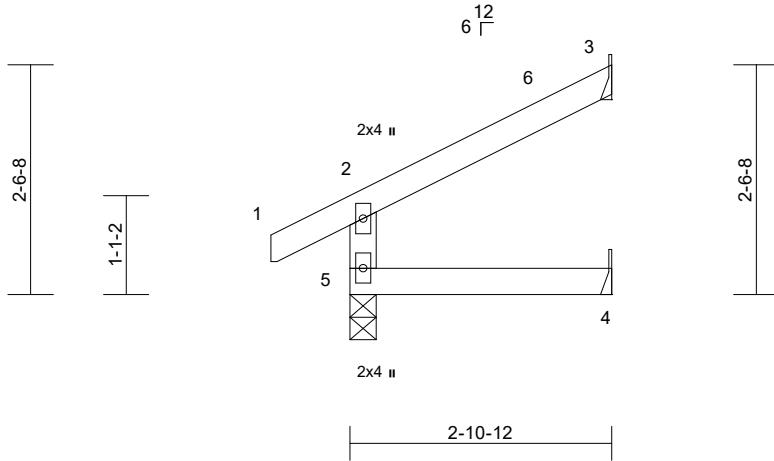
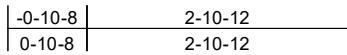
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss CJ10	Truss Type Jack-Open	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311781 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:25.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.01	4-5	>999	240		
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	-0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR						Weight: 12 lb	FT = 20%
BCDL	10.0										

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 2-10-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8
Max Horiz 5=45 (LC 12)
Max Uplift 3=28 (LC 15)
Max Grav 3=82 (LC 22), 4=29 (LC 33), 5=209 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-5=184/112, 1-2=0/33, 2-3=-55/36
BOT CHORD 4-5=0/0

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 2-10-0 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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) Bearings are assumed to be: , Joint 5 SP No.2 .

7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3.

LOAD CASE(S) Standard



October 27, 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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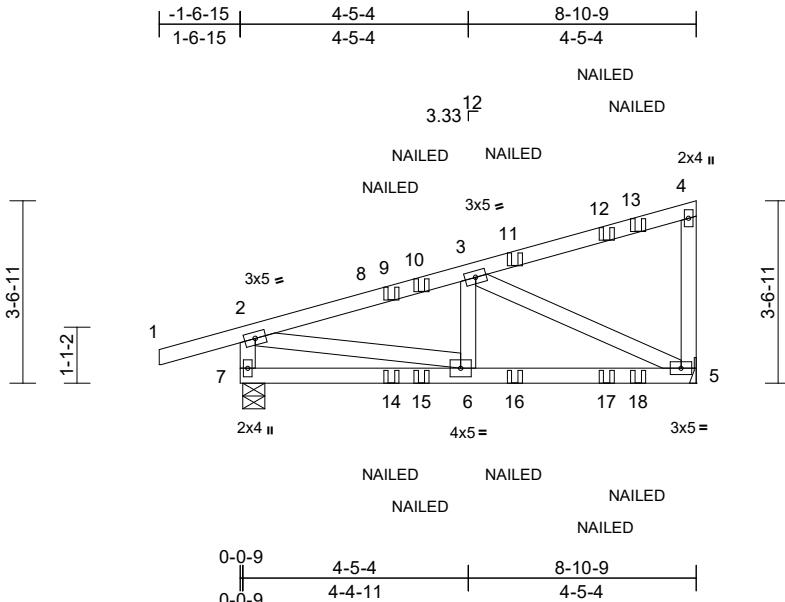
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss HJ1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311782
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:16
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Page: 1



Scale = 1:44.9

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.01	5-6	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.04	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 50 lb	FT = 20%
BCDL	10.0										

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) 5= Mechanical, 7=0-5-3
Max Horiz 7=99 (LC 10)
Max Uplift 5=44 (LC 8), 7=-61 (LC 7)
Max Grav 5=557 (LC 18), 7=486 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-456/77, 1-2=0/34, 2-3=-606/31,
3-4=-80/54, 4-5=-214/61

BOT CHORD 6-7=-97/12, 5-6=-61/561

WEBS 2-6=-3/571, 3-6=0/85, 3-5=-620/54

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.

- 6) Bearings are assumed to be: Joint 7 SP No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 7 and 44 lb uplift at joint 5.
- 9) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-4=-48, 5-7=-20
Concentrated Loads (lb)
Vert: 10=-16 (B), 11=-26 (F), 12=-119 (B), 13=-87 (F), 14=0 (F), 15=-5 (B), 16=-5 (F), 17=-44 (B), 18=-28 (F)



October 27, 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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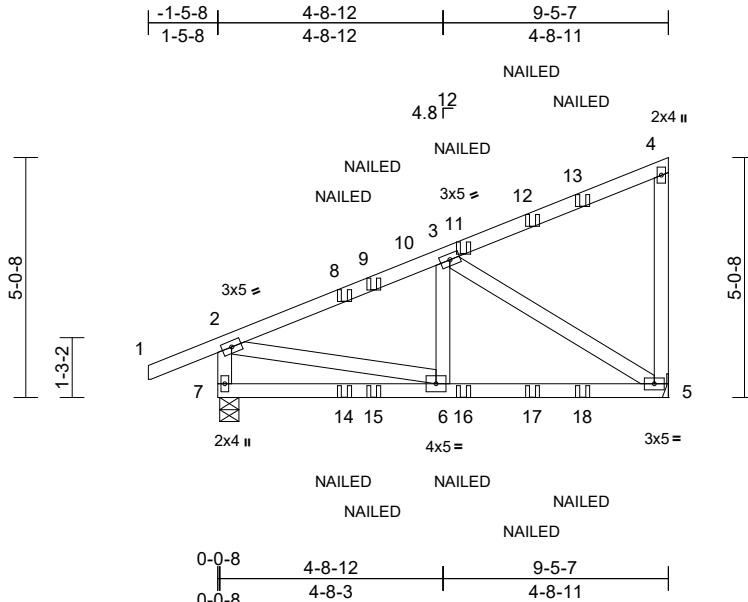
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss HJ2	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311783
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:17
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Page: 1



Scale = 1:48.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	-0.01	5-6	>999	240		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.03	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 57 lb	FT = 20%
BCDL	10.0										

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.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 6-0-0 oc bracing.

REACTIONS (size) 5= Mechanical, 7=0-4-13
Max Horiz 7=147 (LC 10)
Max Uplift 5=-85 (LC 8), 7=-57 (LC 7)
Max Grav 5=505 (LC 18), 7=506 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-7=-469/73, 1-2=0/44, 2-3=-521/54,
3-4=-144/48, 4-5=-175/68

BOT CHORD 6-7=-133/33, 5-6=-107/438

WEBS 2-6=-32/433, 3-6=0/97, 3-5=-495/92

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.

- 6) Bearings are assumed to be: Joint 7 SP No.2 .
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 5.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at Jt(s) 7. This connection is for uplift only and does not consider lateral forces.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-48, 2-4=-48, 5-7=-20
Concentrated Loads (lb)
Vert: 9=-12 (B), 11=-1 (F), 12=-106 (B), 13=-34 (F), 14=1 (F), 15=-3 (B), 16=-4 (F), 17=-35 (B), 18=-23 (F)



October 27, 2025

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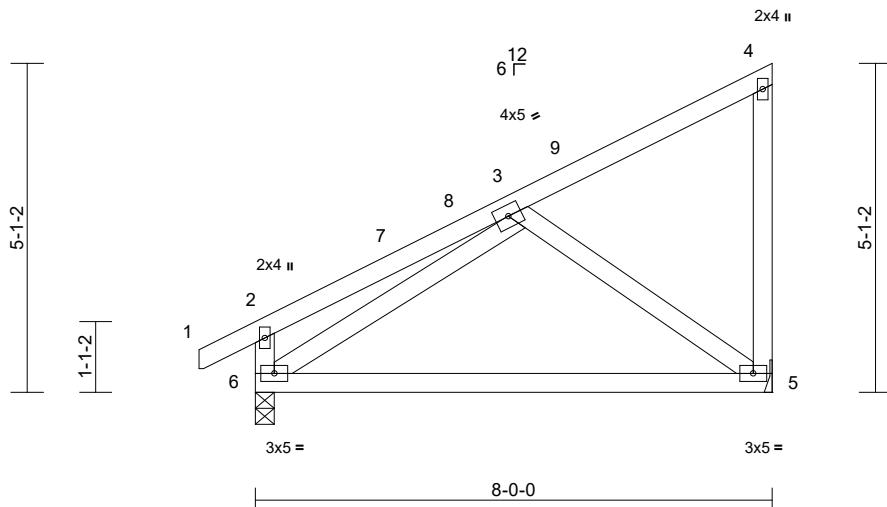
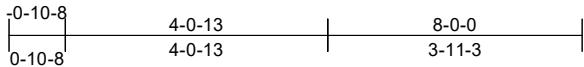
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M1	Truss Type Monopitch	Qty 22	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311784
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:35.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.21	5-6	>437	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 48 lb	FT = 20%
BCDL	10.0										

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) 5= Mechanical, 6=0-3-8
Max Horiz 6=144 (LC 12)
Max Uplift 5=-22 (LC 15)
Max Grav 5=352 (LC 22), 6=371 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/33, 2-3=-47/96, 3-4=-124/99,
4-5=-130/118, 2-6=-172/164
BOT CHORD 5-6=-271/297
WEBS 3-6=-280/59, 3-5=-306/263

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 7-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 3-06-0 tall by 2-00-00 wide will fit between the bottom chord and any other members.

6) Bearings are assumed to be: Joint 6 SP No.2 .

7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 5.

LOAD CASE(S)

Standard



October 27, 2025

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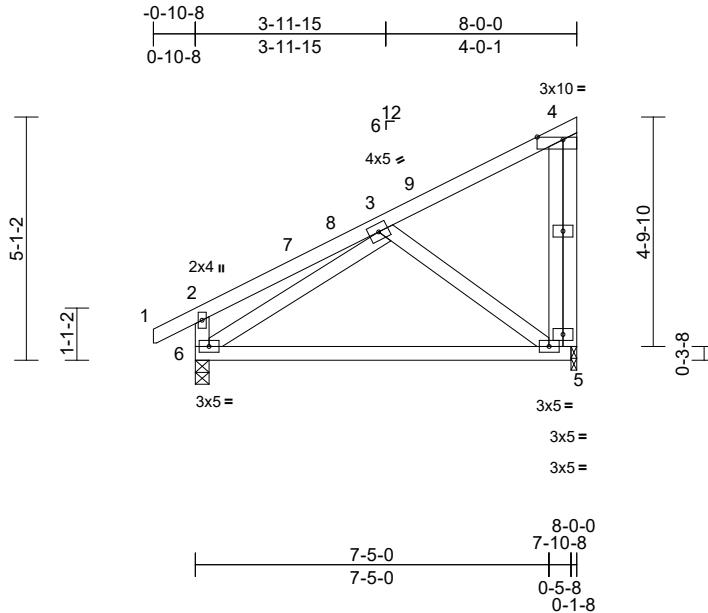
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M2	Truss Type Monopitch	Qty 8	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311785
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:17
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Page: 1



Scale = 1:48.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.20	5-6	>463	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 54 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 5=0-1-8, 6=0-3-8
Max Horiz 6=142 (LC 12)
Max Uplift 5=21 (LC 12)
Max Grav 5=346 (LC 22), 6=366 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-46/95, 3-4=-122/97,
4-5=-127/116, 2-6=-171/163

BOT CHORD 5-6=-266/290

WEBS 3-6=-274/57, 3-5=-299/259

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E)-0-10-1 to 2-1-15, Interior (1) 2-1-15 to 7-8-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- Bearings are assumed to be: Joint 6 SP No.2 , Joint 5 SP No.3 .
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plates at joint(s) 5.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



October 27, 2025

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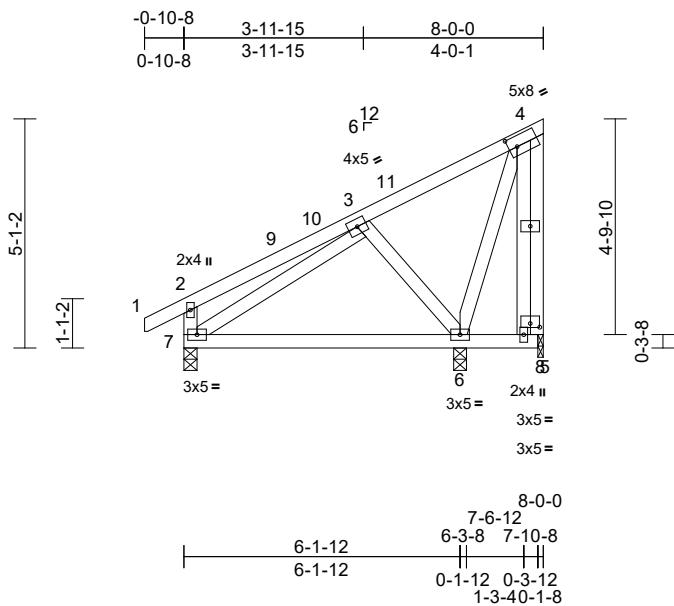
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M3	Truss Type Monopitch	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311786
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:17
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Page: 1



Scale = 1:51.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.04	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 59 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 6=0-3-8, 7=0-3-8, 8=0-1-8
Max Horiz 7=101 (LC 15)
Max Uplift 6=-4 (LC 15), 8=-36 (LC 15)
Max Grav 6=422 (LC 22), 7=287 (LC 2), 8=11 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-46/95, 3-4=-69/74, 4-5=-31/0, 2-7=-170/162

BOT CHORD 6-7=-144/155, 5-6=-4/1

WEBS 3-7=-164/0, 3-6=-281/238, 4-6=-97/36, 4-8=-11/76

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 7-8-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL; Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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.
- Bearings are assumed to be: Joint 7 SP No.2 , Joint 6 SP No.2 , Joint 8 SP No.3 .
- Bearing at joint(s) 8 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 plates at joint(s) 8.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



October 27, 2025

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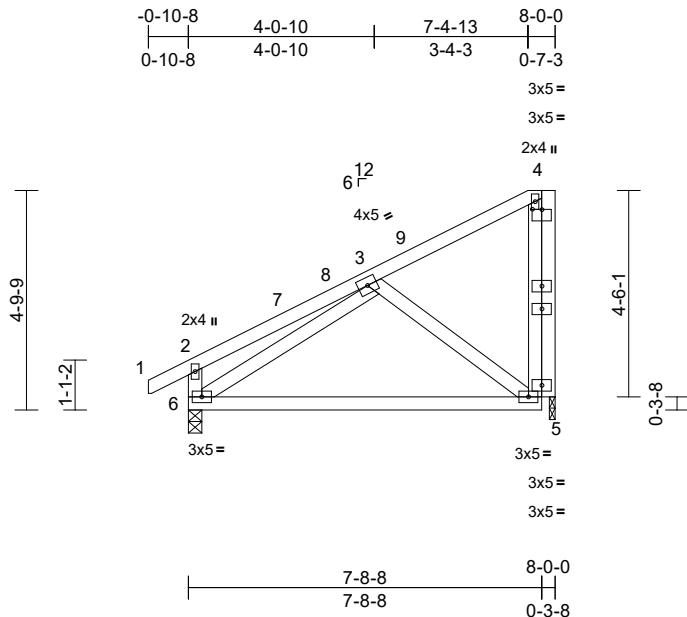
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M4	Truss Type Half Hip	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311787
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:17
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Page: 1



Scale = 1:50.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.20	5-6	>463	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 53 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 5=0-1-8, 6=0-3-8
Max Horiz 6=142 (LC 12)
Max Uplift 5=24 (LC 12)
Max Grav 5=356 (LC 22), 6=365 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/33, 2-3=-47/90, 3-4=-126/101, 4-5=-132/121, 2-6=-172/163

BOT CHORD 5-6=-239/289

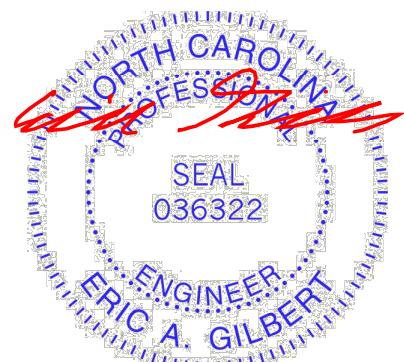
WEBS 3-6=-273/45, 3-5=-305/231

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E)-0-10-1 to 2-1-15, Interior (1) 2-1-15 to 7-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- * 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.
- Bearings are assumed to be: Joint 6 SP No.2 , Joint 5 SP No.3 .
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard



October 27, 2025



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

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

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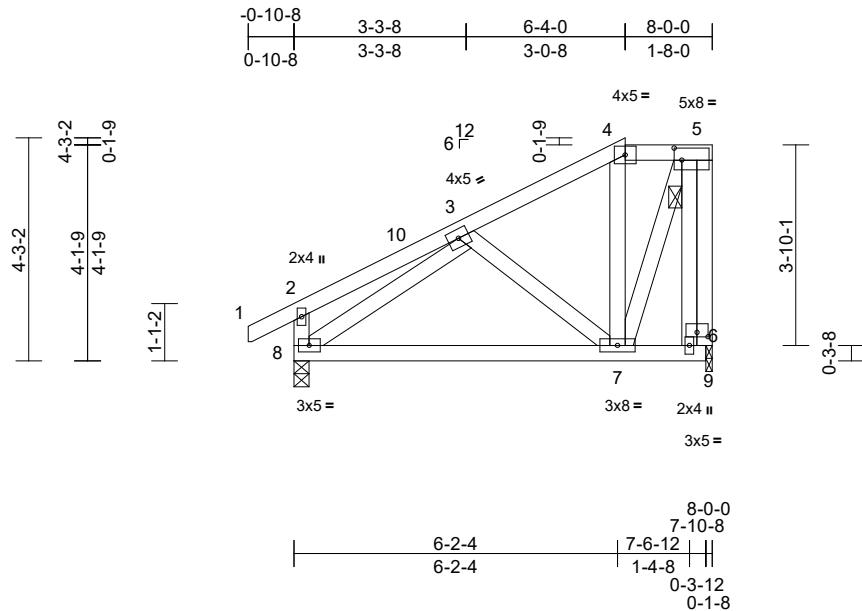
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M5	Truss Type Half Hip	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311788 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:17
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Page: 1



Scale = 1:44.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	0.00	7-8	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.05	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 59 lb	FT = 20%

LUMBER

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

BRACING

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

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

Max Horiz 8=81 (LC 15)

Max Uplift 9=17 (LC 15)

Max Grav 8=486 (LC 41), 9=310 (LC 41)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/37, 2-3=-56/81, 3-4=-226/27, 4-5=-156/56, 5-6=-32/0, 2-8=-198/153

BOT CHORD 7-8=-201/341, 6-7=-10/21

WEBS 3-8=-388/19, 4-7=-62/76, 5-7=-120/366, 3-7=-240/191, 5-9=-346/165

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-1 to 2-1-15, Interior (1) 2-1-15 to 6-4-0, Exterior(2E) 6-4-0 to 7-8-8 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=1.33

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10, Lu=50-0-0
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Provide adequate drainage to prevent water ponding.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Bearings are assumed to be: Joint 8 SP No.2 , Joint 9 SP No.3 .
- 9) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



October 27, 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](http://www.tpinst.org) and [DSB-22](http://www.dsbs-22.org) available from Truss Plate Institute (www.tpinst.org) and [BCSI Building Component Safety Information](http://www.sbcaccomponents.com) available from the Structural Building Component Association (www.sbcaccomponents.com)

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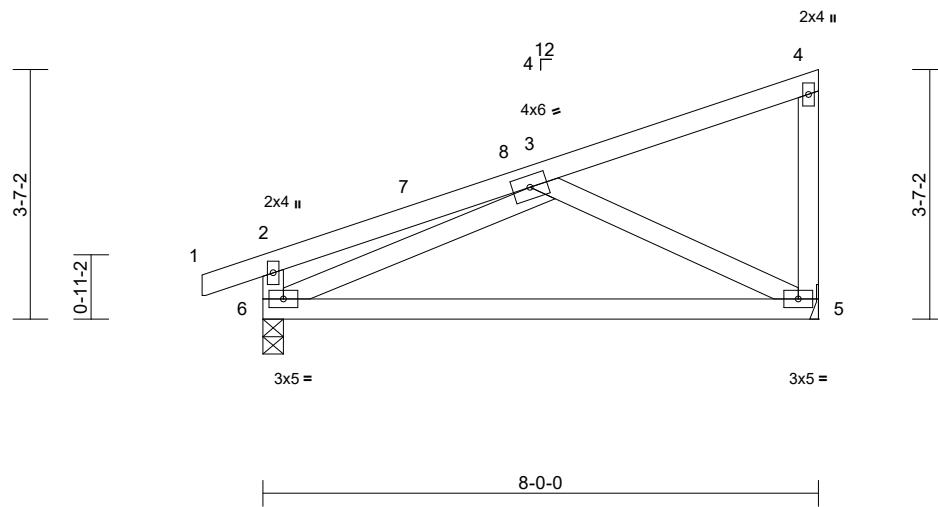
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss M7	Truss Type Monopitch	Qty 2	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311790
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:33.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(CT)	-0.21	5-6	>437	180		
TCDL	10.0	Rep Stress Incr	YES	WB	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 43 lb	FT = 20%
BCDL	10.0										

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 9-9-0 oc bracing.

REACTIONS (size) 5= Mechanical, 6=0-3-8
Max Horiz 6=101 (LC 12)
Max Uplift 5=-13 (LC 15), 6=-27 (LC 11)
Max Grav 5=343 (LC 22), 6=372 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-6=-171/146, 1-2=0/24, 2-3=-38/60,
3-4=-88/65, 4-5=-114/113

BOT CHORD 5-6=-318/361

WEBS 3-5=-367/313, 3-6=-349/128

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-3 to 2-1-13, Interior (1) 2-1-13 to 7-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with 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 3-06-0 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 6 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 5.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S)

Standard



October 27, 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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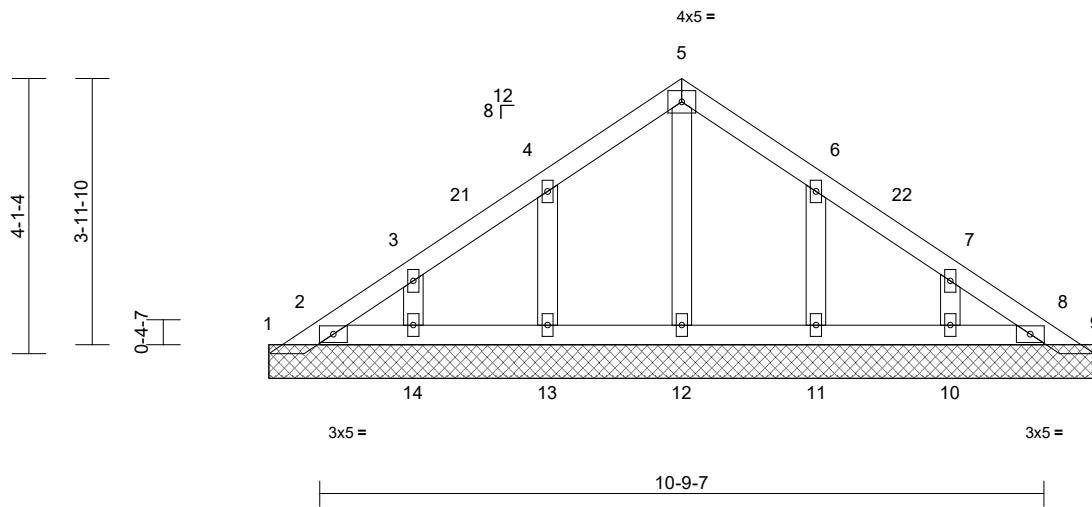
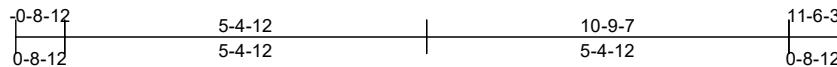
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss PB1	Truss Type Piggyback	Qty 2	Ply 2	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311791
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:18
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Page: 1



Scale = 1:34.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 103 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

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

REACTIONS (size) 1=12-3-11, 2=12-3-11, 8=12-3-11, 9=12-3-11, 10=12-3-11, 11=12-3-11, 12=12-3-11, 13=12-3-11, 14=12-3-11
Max Horiz 1=74 (LC 9)
Max Uplift 1=43 (LC 9), 10=25 (LC 14), 11=28 (LC 14), 13=29 (LC 13), 14=23 (LC 13)
Max Grav 1=48 (LC 12), 2=105 (LC 29), 8=87 (LC 2), 9=9 (LC 2), 10=148 (LC 30), 11=176 (LC 30), 12=126 (LC 2), 13=177 (LC 29), 14=149 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=87/95, 2-3=61/53, 3-4=70/44, 4-5=88/93, 5-6=88/92, 6-7=51/24, 7-8=42/27, 8-9=4/17
BOT CHORD 2-14=-31/64, 13-14=-31/64, 12-13=-31/64, 11-12=-31/64, 10-11=-31/64, 8-10=-31/64
WEBS 5-12=-86/0, 4-13=-165/102, 3-14=-133/82, 6-11=-165/102, 7-10=-133/82

NOTES

- 2-ply truss to be connected together as follows:
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected with 10d (0.131"x3") nails 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=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior(2E) 0-3-5 to 3-3-5, Interior (1) 3-3-5 to 6-1-13,
Exterior(2R) 6-1-13 to 9-1-13, Interior (1) 9-1-13 to 12-0-6 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 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 live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1.
- N/A

14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S)

Standard



October 27, 2025

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

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

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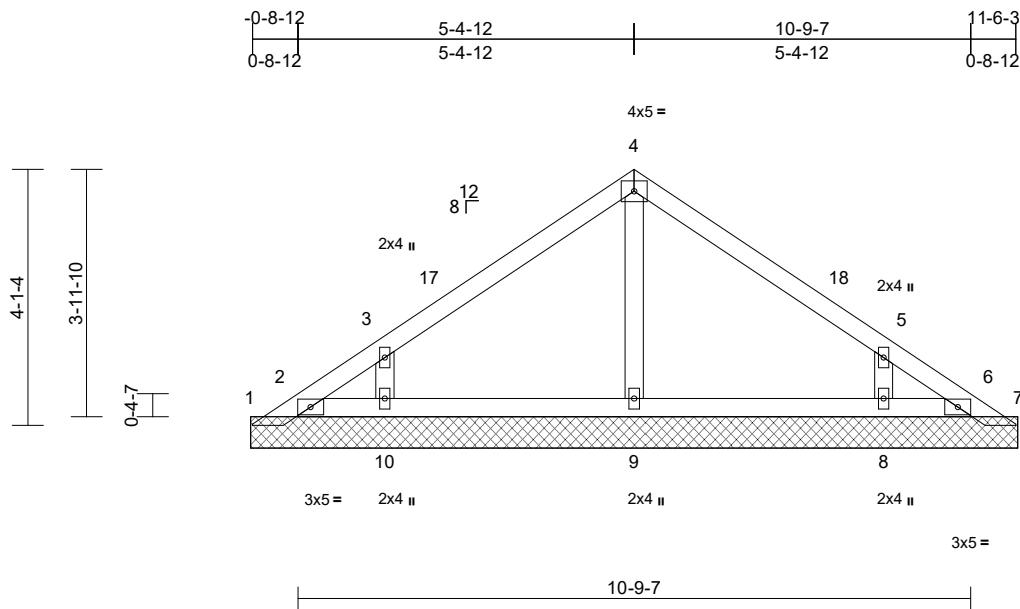
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss PB2	Truss Type Piggyback	Qty 17	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311792
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:18
ID:RQFkZYquFDP0Yez7Y2GBF6yBvPD-Rfc?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 45 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS (size) 1=12-3-11, 2=12-3-11, 6=12-3-11, 7=12-3-11, 8=12-3-11, 9=12-3-11, 10=12-3-11
Max Horiz 1=-74 (LC 9)
Max Uplift 1=-27 (LC 9), 2=-19 (LC 35), 6=-40 (LC 12), 7=-9 (LC 14), 8=-60 (LC 14), 10=-59 (LC 13)
Max Grav 1=71 (LC 30), 2=32 (LC 14), 6=41 (LC 14), 7=55 (LC 36), 8=315 (LC 30), 9=265 (LC 2), 10=316 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/83, 2-3=-75/71, 3-4=-129/85, 4-5=-129/84, 5-6=-61/49, 6-7=-33/20
BOT CHORD 2-10=-17/51, 9-10=-17/51, 8-9=-17/51, 6-8=-17/51
WEBS 4-9=-178/30, 3-10=-317/201, 5-8=-316/201

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C
Exterior(2E) 0-3-5 to 3-3-5, Interior (1) 3-3-5 to 6-1-13,
Exterior(2R) 6-1-13 to 9-1-13, Interior (1) 9-1-13 to 12-0-6 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=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1 and 9 lb uplift at joint 7.
- N/A

- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S)

Standard



October 27, 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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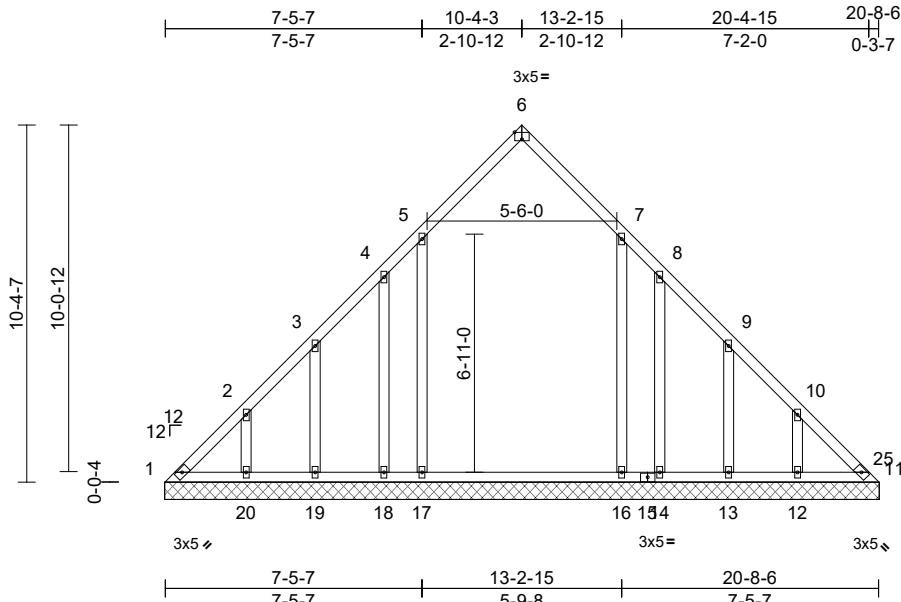
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL1	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311793
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:18
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Page: 1



Scale = 1:66.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.01	11	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 128 lb FT = 20%											

LUMBER

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

BRACING

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

REACTIONS (size) 1=20-8-14, 11=20-8-14, 12=20-8-14, 13=20-8-14, 14=20-8-14, 16=20-8-14, 17=20-8-14, 18=20-8-14, 19=20-8-14, 20=20-8-14
Max Horiz 1=191 (LC 10)
Max Uplift 1=25 (LC 11), 11=18 (LC 12), 12=16 (LC 14), 13=63 (LC 14), 14=88 (LC 19), 16=12 (LC 14), 17=15 (LC 13), 18=87 (LC 19), 19=60 (LC 13), 20=27 (LC 13)
Max Grav 1=189 (LC 30), 11=170 (LC 31), 12=244 (LC 29), 13=218 (LC 29), 14=44 (LC 2), 16=458 (LC 29), 17=462 (LC 28), 18=44 (LC 2), 19=213 (LC 28), 20=261 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=308/218, 2-3=230/139, 3-4=178/54, 4-5=140/32, 5-6=195/61, 6-7=195/61, 7-8=136/27, 8-9=177/54, 9-10=230/139, 10-11=308/217
BOT CHORD 1-20=171/254, 19-20=171/254, 18-19=171/254, 17-18=171/254, 16-17=171/254, 14-16=171/254, 13-14=171/254, 12-13=171/254, 11-12=171/254

WEBS

4-18=-110/75, 3-19=-190/124, 2-20=-197/90, 8-14=-110/75, 9-13=-190/124, 10-12=-196/90, 5-17=-217/117, 7-16=-217/117

11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11.

LOAD CASE(S) Standard

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 10-4-7, Corner (3R) 10-4-7 to 13-3-3, Exterior(2N) 13-3-3 to 20-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) All bearings are assumed to be SP No.2.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 18 lb uplift at joint 11, 87 lb uplift at joint 18, 60 lb uplift at joint 19, 27 lb uplift at joint 20, 88 lb uplift at joint 14, 63 lb uplift at joint 13, 16 lb uplift at joint 12, 15 lb uplift at joint 17 and 12 lb uplift at joint 16.



October 27, 2025

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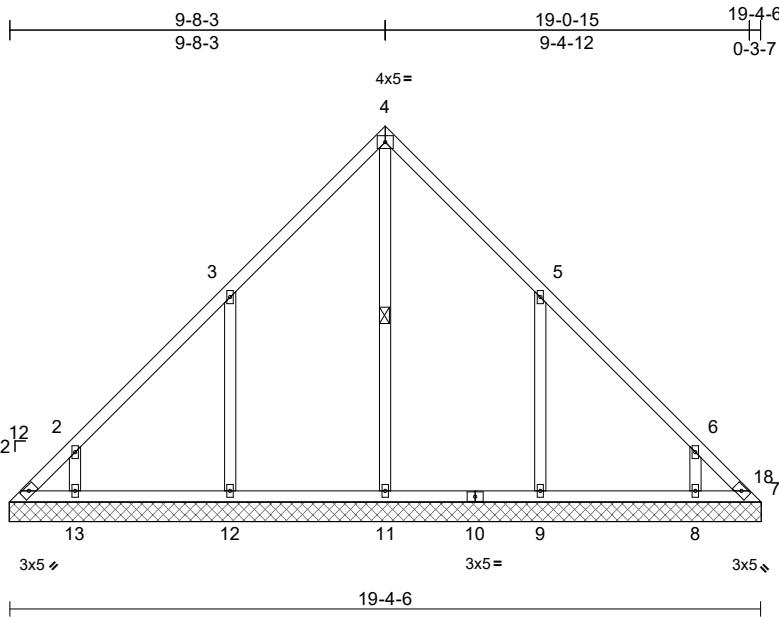
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL2	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311794
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:59.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 100 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

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

WEBS 1 Row at midpt 4-11

REACTIONS (size) 1=19-4-14, 7=19-4-14, 8=19-4-14,
9=19-4-14, 11=19-4-14,
12=19-4-14, 13=19-4-14

Max Horiz 1=178 (LC 10)

Max Uplift 1=-77 (LC 11), 7=-46 (LC 12),
8=-53 (LC 14), 9=-125 (LC 14),
12=-125 (LC 13), 13=-59 (LC 13)

Max Grav 1=130 (LC 10), 7=102 (LC 14),
8=318 (LC 29), 9=472 (LC 29),
11=352 (LC 31), 12=472 (LC 28),
13=328 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-210/169, 2-3=-192/117, 3-4=-236/177,
4-5=-236/177, 5-6=-159/74, 6-7=-209/168

BOT CHORD 1-13=-99/146, 12-13=-99/146,
11-12=-99/146, 9-11=-99/146, 8-9=-99/146,
7-8=-99/146

WEBS 4-11=-146/57, 3-12=-407/252,
2-13=-313/189, 5-9=-407/252, 6-8=-311/188

NOTES

1) 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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-8-7, Corner (3R) 9-8-7 to 12-8-7, Exterior(2N) 12-8-7 to 19-0-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- * 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 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 1, 46 lb uplift at joint 7, 125 lb uplift at joint 12, 59 lb uplift at joint 13, 125 lb uplift at joint 9 and 53 lb uplift at joint 8.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.

LOAD CASE(S) Standard



October 27, 2025

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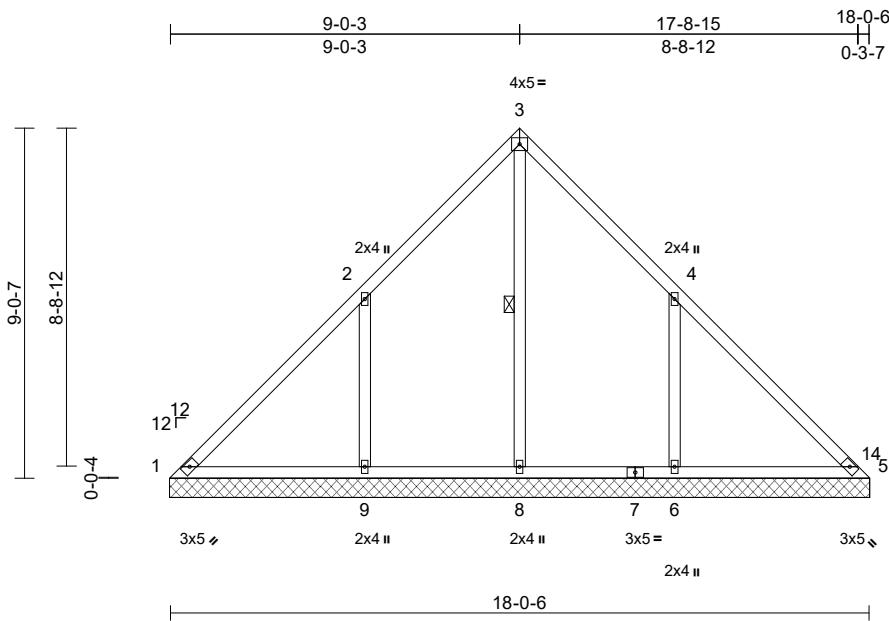
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL3	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311795
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:59.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 89 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 3-8

REACTIONS (size) 1=18-0-14, 5=18-0-14, 6=18-0-14, 8=18-0-14, 9=18-0-14
Max Horiz 1=166 (LC 10)
Max Uplift 1=-28 (LC 11), 6=-137 (LC 14), 9=-140 (LC 13)
Max Grav 1=121 (LC 29), 5=88 (LC 31), 6=573 (LC 29), 8=538 (LC 28), 9=578 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-166/342, 2-3=-15/215, 3-4=-13/196,

4-5=-168/341

BOT CHORD 1-9=-222/184, 8-9=-222/184, 6-8=-222/184,

5-6=-222/184

WEBS 3-8=-373/0, 2-9=-464/274, 4-6=-463/273

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 9-0-7, Corner (3R) 9-0-7 to 12-0-7, Exterior(2N) 12-0-7 to 17-8-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 140 lb uplift at joint 9 and 137 lb uplift at joint 6.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S)

Standard



October 27, 2025

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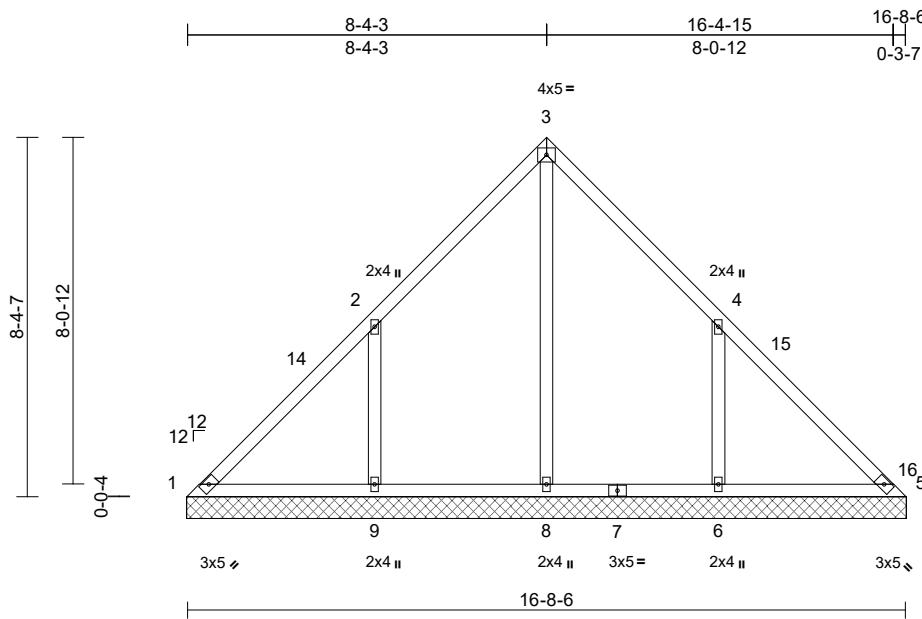
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL4	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311796
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



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Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 81 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=16-8-14, 5=16-8-14, 6=16-8-14, 8=16-8-14, 9=16-8-14

Max Horiz 1=153 (LC 10)

Max Uplift 1=-23 (LC 9), 6=-124 (LC 14), 9=-127 (LC 13)

Max Grav 1=133 (LC 29), 5=96 (LC 31), 6=523 (LC 29), 8=480 (LC 28), 9=528 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-178/240, 2-3=-49/162, 3-4=-50/146, 4-5=-174/218

BOT CHORD 1-9=-123/206, 8-9=-123/206, 6-8=-123/206, 5-6=-123/206

WEBS 3-8=-293/0, 2-9=-368/323, 4-6=-367/326

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0; Exterior(2N) 3-0-0 to 8-4-7; Corner (3R) 8-4-7 to 11-4-7; Exterior(2N) 11-4-7 to 16-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 127 lb uplift at joint 9 and 124 lb uplift at joint 6.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S)

Standard



October 27, 2025

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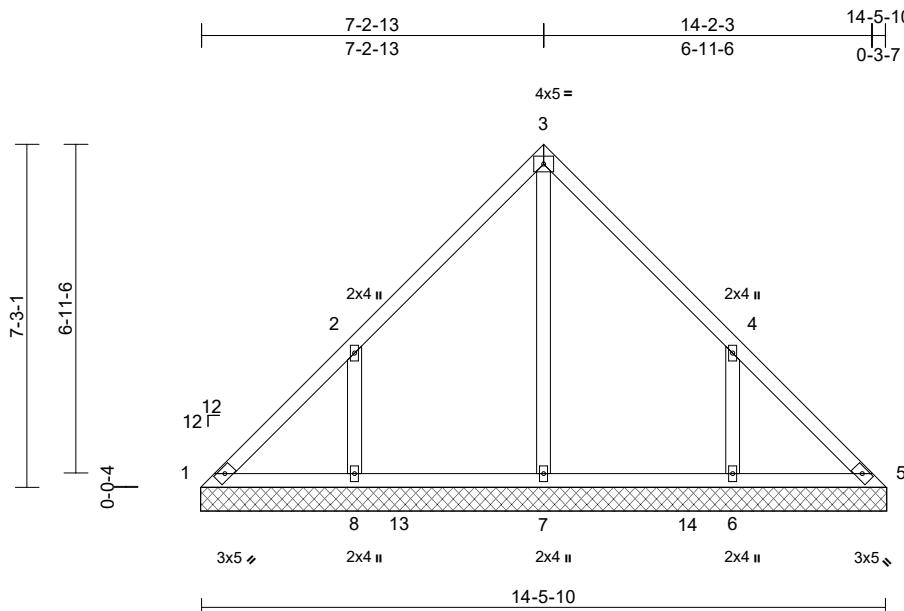
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL5	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311797
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:48.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (PfPg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 68 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=14-6-2, 5=14-6-2, 6=14-6-2, 7=14-6-2, 8=14-6-2
Max Horiz 1=-132 (LC 9)
Max Uplift 1=-25 (LC 9), 6=-106 (LC 14), 8=-109 (LC 13)
Max Grav 1=134 (LC 29), 5=111 (LC 28), 6=440 (LC 29), 7=398 (LC 28), 8=444 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-153/142, 2-3=-127/148, 3-4=-127/149, 4-5=-134/113

BOT CHORD 1-8=-72/165, 7-8=-72/165, 6-7=-72/165, 5-6=-72/165

WEBS 3-7=-205/0, 2-8=-333/321, 4-6=-333/321

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0 to 3-3-1; Exterior(2N) 3-3-1 to 7-3-1; Corner (3R) 7-3-1 to 10-3-1; Exterior(2N) 10-3-1 to 14-6-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 4-0-0 oc.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 109 lb uplift at joint 8 and 106 lb uplift at joint 6.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S)

Standard



October 27, 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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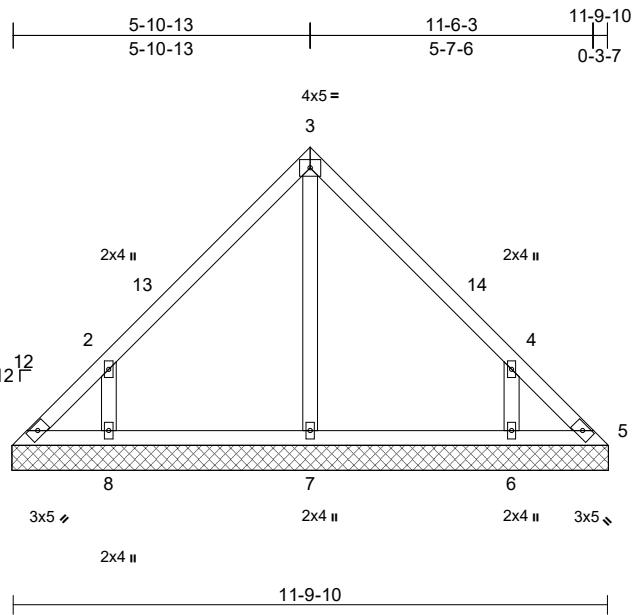
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL6	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311798
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:45.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 53 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS (size) 1=11-10-2, 5=11-10-2, 6=11-10-2, 7=11-10-2, 8=11-10-2
Max Horiz 1=107 (LC 9)
Max Uplift 1=-34 (LC 9), 5=-9 (LC 10), 6=-92 (LC 14), 8=-95 (LC 13)
Max Grav 1=97 (LC 29), 5=78 (LC 28), 6=322 (LC 29), 7=222 (LC 2), 8=326 (LC 28)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-152/102, 2-3=-181/158, 3-4=-181/157, 4-5=-144/72

BOT CHORD 1-8=-32/114, 7-8=-32/114, 6-7=-32/114, 5-6=-32/114

WEBS 3-7=-136/0, 2-8=-335/364, 4-6=-335/363

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 5-11-1, Corner (3R) 5-11-1 to 8-11-1, Exterior(2N) 8-11-1 to 11-10-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1, 9 lb uplift at joint 5, 95 lb uplift at joint 8 and 92 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S) Standard



October 27, 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 is indicated 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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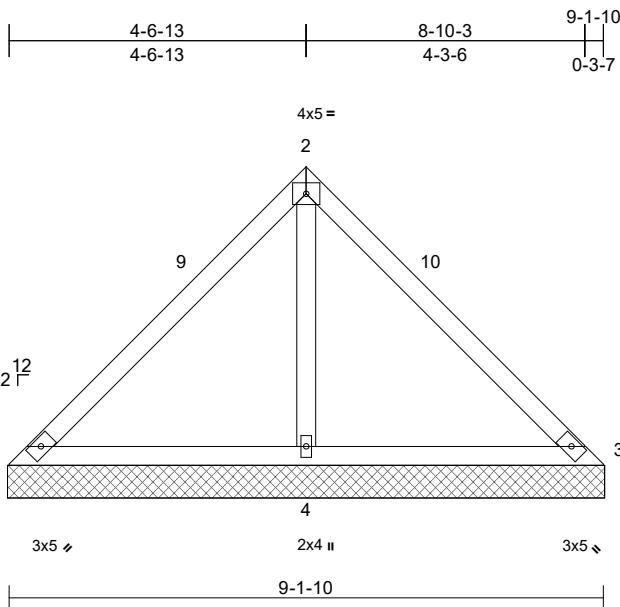
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL7	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311799
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:35.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999		
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MSH						Weight: 37 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 9-1-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=9-2-2, 3=9-2-2, 4=9-2-2
Max Horiz 1=-82 (LC 9)
Max Uplift 1=-20 (LC 35), 3=-20 (LC 34), 4=-38 (LC 13)
Max Grav 1=72 (LC 34), 3=72 (LC 35), 4=661 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-184/300, 2-3=-174/300
BOT CHORD 1-4=-208/267, 3-4=-208/267
WEBS 2-4=-607/400

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 4-7-1, Corner (3R) 4-7-1 to 7-7-1, Exterior(2N) 7-7-1 to 9-2-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1, 20 lb uplift at joint 3 and 38 lb uplift at joint 4.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard



October 27, 2025

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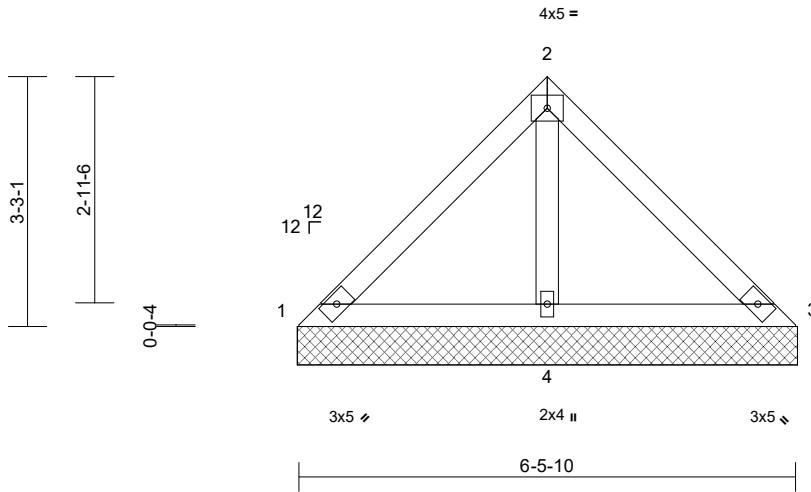
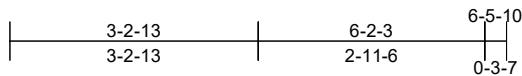
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL8	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311800 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 26 lb	FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

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

REACTIONS (size) 1=6-6-2, 3=6-6-2, 4=6-6-2
Max Horiz 1=57 (LC 10)
Max Uplift 4=21 (LC 13)
Max Grav 1=66 (LC 34), 3=66 (LC 35), 4=429 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-122/171, 2-3=-122/171
BOT CHORD 1-4=141/222, 3-4=-141/222
WEBS 2-4=-364/294

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 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=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Gable requires continuous bottom chord bearing.

- 6) Gable studs spaced at 4-0-0 oc.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 4.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard



October 27, 2025

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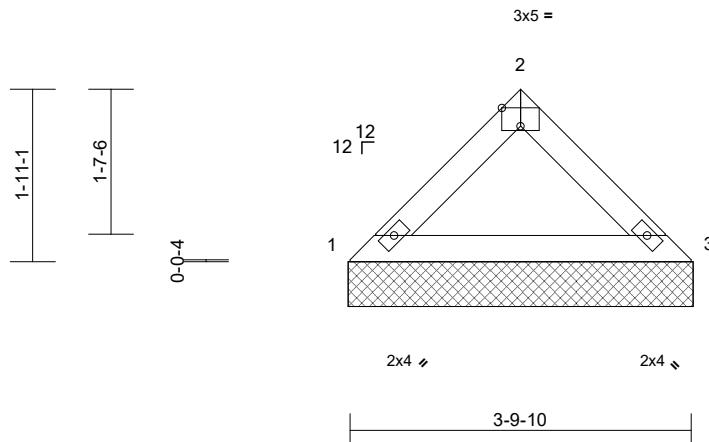
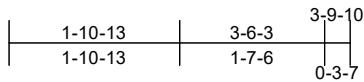
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL9	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311801 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:25.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP						Weight: 12 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 3-9-10 oc purlins.

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

REACTIONS (size) 1=3-10-2, 3=3-10-2

Max Horiz 1=-32 (LC 11)

Max Grav 1=154 (LC 2), 3=154 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-221/128, 2-3=-221/128

BOT CHORD 1-3=-73/149

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard



October 27, 2025



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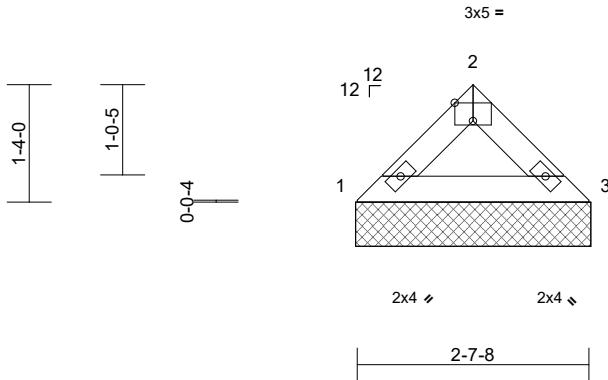
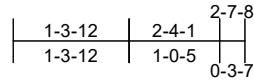
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL10	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311802 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:26.1

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							Weight: 8 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 2-7-8 oc purlins.

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

REACTIONS (size) 1=2-8-0, 3=2-8-0

Max Horiz 1=-21 (LC 9)

Max Grav 1=107 (LC 2), 3=107 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-146/92, 2-3=-146/92

BOT CHORD 1-3=-47/96

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard



October 27, 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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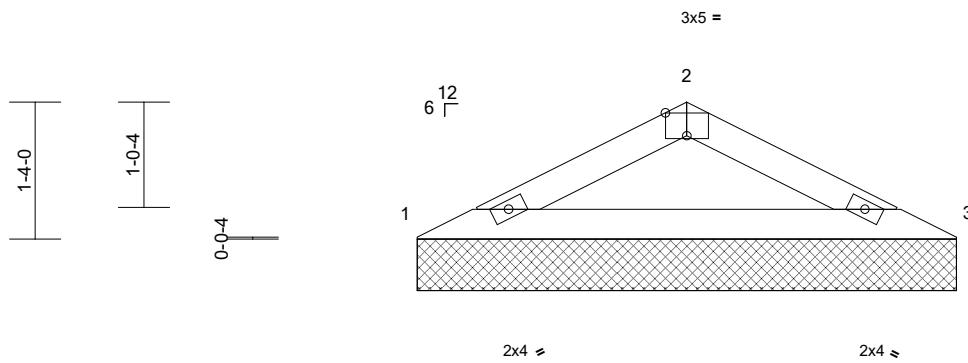
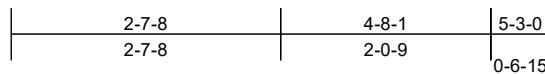
818 Soundside Road
Edenton, NC 27932

Job 24120007-A	Truss VL11	Truss Type Valley	Qty 1	Ply 1	93 Dewey-Tim Johnson Const.-Roof-Fitzgerald VKDRFR I77311803 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Fri Oct 24 10:03:19
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Page: 1



Scale = 1:22.4

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a	
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP							Weight: 15 lb FT = 20%
BCDL	10.0										

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins.

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

REACTIONS (size) 1=5-3-0, 3=5-3-0

Max Horiz 1=12 (LC 12)

Max Grav 1=210 (LC 2), 3=210 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-426/230, 2-3=-426/212

BOT CHORD 1-3=-205/370

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=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; P=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 psf (Lum DOL=1.15 Plate DOL=1.15); ls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.

8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

9) All bearings are assumed to be SP No.2 .

LOAD CASE(S) Standard



October 27, 2025



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Symbols

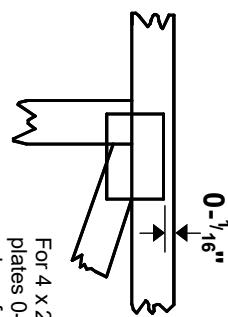
PLATE LOCATION AND ORIENTATION

Center plate on joint unless X, Y offsets are indicated.

Dimensions are in ft-in-sixteenths.

Apply plates to both sides of truss

and fully embed teeth.



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



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

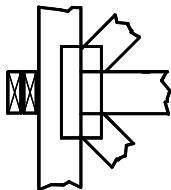
* Plate location details available in MiTek software or upon request.

PLATE SIZE

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

LATERAL BRACING LOCATION

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

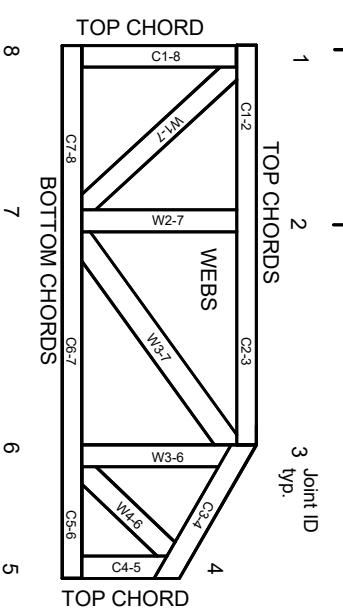


BEARING

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

Numbering System

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



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

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

PLATE AND WEB IDENTIFICATION

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.

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

8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.

11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.

12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.

13. Top chords must be sheathed or purlins provided at spacing indicated on design.

14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.

15. Connections not shown are the responsibility of others.

16. Do not cut or alter truss member or plate without prior approval of an engineer.

17. Install and load vertically unless indicated otherwise.

18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.

19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.

20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.

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

MiTek®

Engineering by

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