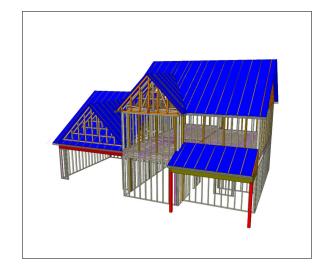


Carter Sanford Component Plant 298 Harvey Faulk Rd Sanford, NC 27332

Phone #:919-775-1450



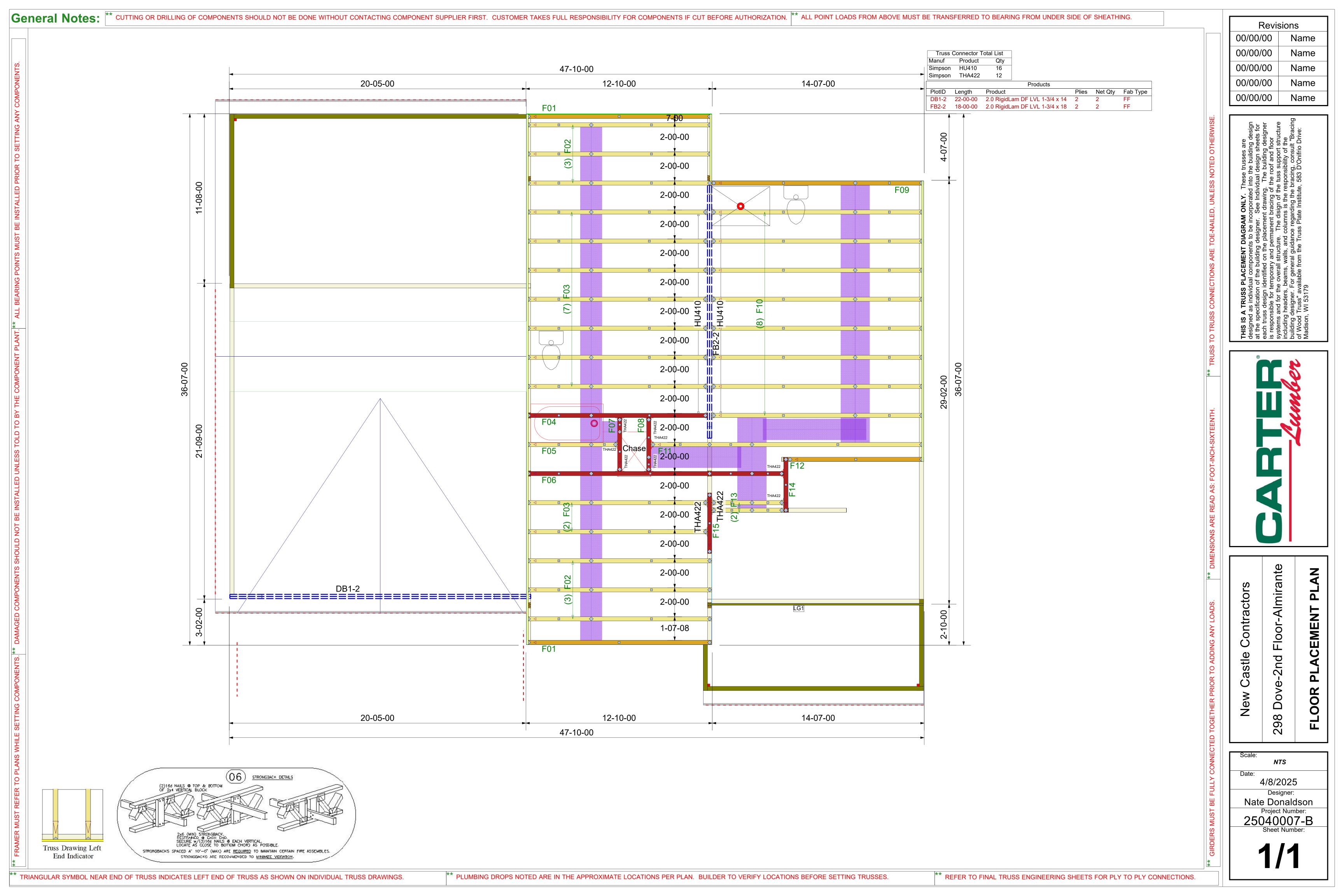
Model: 298 Dove - Almirante



### 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/TP 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:
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Trenco 818 Soundside Rd Edenton, NC 27932

Re: 25040007-B

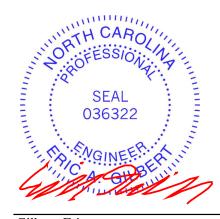
298 Dove-2nd Floor-Almirante

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I72616495 thru I72616509

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

North Carolina COA: C-0844



April 10,2025

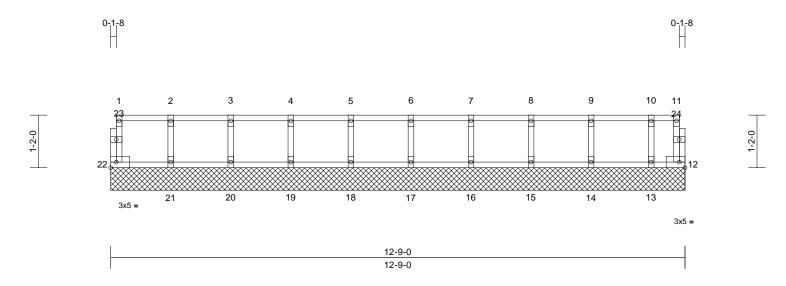
Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F01	Floor Supported Gable	2	1	Job Reference (optional)	I72616495

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:38  $ID: eJfgp8ia5qMPds\_pM7\_iORzHCPg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ff$ 

Page: 1



Scale = 1:25.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	12	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 55 lb	FT = 20%F, 11%E

### LUMBER

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

### 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)

15=12-9-0, 16=12-9-0, 17=12-9-0, 18=12-9-0, 19=12-9-0, 20=12-9-0, 21=12-9-0, 22=12-9-0

12=12-9-0, 13=12-9-0, 14=12-9-0,

Max Grav 12=22 (LC 1), 13=109 (LC 1), 14=153 (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=148 (LC 1),

22=52 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-22=-49/0, 11-12=-15/0, 1-2=-6/0, 2-3=-6/0,

3-4=-6/0, 4-5=-6/0, 5-6=-6/0, 6-7=-6/0, 7-8=-6/0, 8-9=-6/0, 9-10=-6/0, 10-11=-6/0

**BOT CHORD** 21-22=0/6, 20-21=0/6, 19-20=0/6, 18-19=0/6, 17-18=0/6, 16-17=0/6, 15-16=0/6, 14-15=0/6,

13-14=0/6, 12-13=0/6

**WEBS** 2-21=-132/0, 3-20=-134/0, 4-19=-133/0,

5-18=-133/0, 6-17=-133/0, 7-16=-134/0,

8-15=-132/0, 9-14=-139/0, 10-13=-104/0

### NOTES

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

5) 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

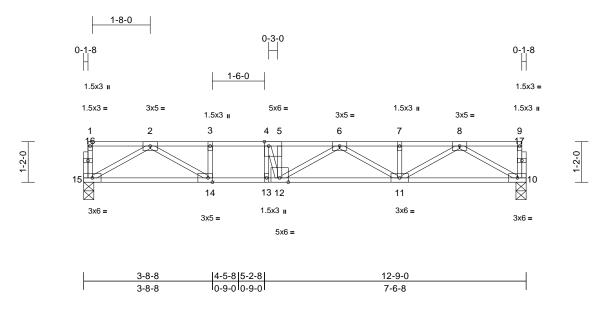




Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F02	Floor	6	1	Job Reference (optional)	172616496

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:39 ID:U\_17exo\_9UVEKCchpfUKKWzGJJi-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.2

Plate Offsets (X, Y):	[4:0-1-8,Edge], [14:0-	1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.71	Vert(LL)	-0.13	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.18	12-13	>852	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 66 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.2(flat) BOT CHORD 2x4 SP No.1(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### BRACING

TOP CHORD

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) 10=0-3-8, 15=0-3-8

Max Grav 10=681 (LC 1), 15=681 (LC 1)

**FORCES** Tension

(lb) - Maximum Compression/Maximum

1-15=-81/0, 9-10=-70/0, 1-2=-5/0, 2-3=-1809/0, 3-4=-1809/0, 4-5=-2051/0,

5-6=-2051/0, 6-7=-1692/0, 7-8=-1692/0,

8-9=-4/0

**BOT CHORD** 14-15=0/1035, 13-14=0/1809, 12-13=0/1809,

11-12=0/2021, 10-11=0/1029

WEBS 3-14=-325/0. 4-13=-472/0. 8-10=-1185/0. 8-11=0/774, 7-11=-164/0, 6-11=-384/0,

6-12=-40/180, 5-12=-433/0, 4-12=0/884,

2-15=-1191/0, 2-14=0/904

### NOTES

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



April 10,2025

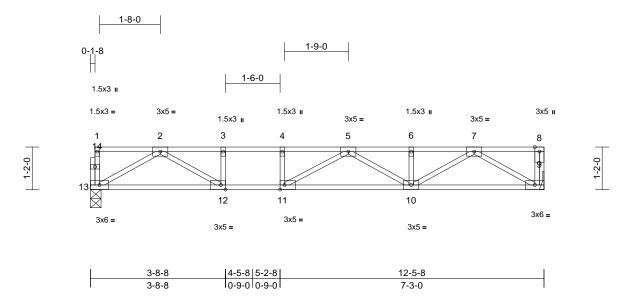


818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F03	Floor	9	1	Job Reference (optional)	172616497

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:39 ID:QSFbKtfug\_JJjzy8vMklAHzGJlc-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.6

Plate Offsets (X, Y):	[11:0-1-8,Edge],	[12:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.84	Vert(LL)	-0.19	10-11	>768	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(CT)	-0.26	10-11	>563	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 63 lb	FT = 20%F, 11%E

### LUMBER

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

### 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, Except: 2-2-0 oc bracing: 10-11.

REACTIONS (size) 9= Mechanical, 13=0-3-8

Max Grav 9=671 (LC 1), 13=665 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-13=-84/0, 8-9=-72/0, 1-2=-5/0, 2-3=-1785/0, 3-4=-1785/0, 4-5=-1785/0, 5-6=-1647/0,

6-7=-1647/0, 7-8=0/0

**BOT CHORD** 12-13=0/1004, 11-12=0/1785, 10-11=0/1944,

9-10=0/1012

3-12=-353/0, 4-11=-76/57, 7-9=-1171/0, 7-10=0/741, 6-10=-138/0, 5-10=-346/0,

5-11=-305/172, 2-13=-1155/0, 2-12=0/918

### NOTES

WEBS

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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



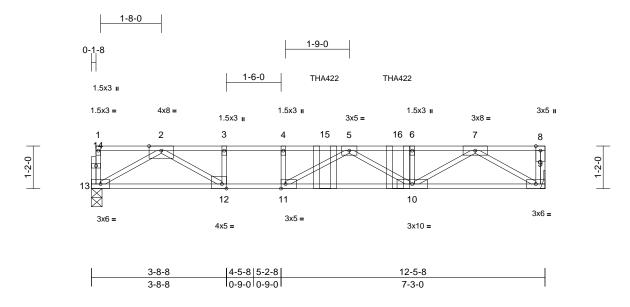
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F04	Floor Girder	1	1	Job Reference (optional)	172616498

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Apr 08 13:49:39 ID:zePmdoobmzMdjVs9MHmj?VzGJ4D-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:31.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.28	10-11	>524	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.36	10-11	>405	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 63 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat) **BOT CHORD** 2x4 SP 2400F 2.0E(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

### 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 9= Mechanical, 13=0-3-8 (size) Max Grav 9=969 (LC 4), 13=841 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-13=-98/0, 8-9=-74/0, 1-2=-6/0, 2-3=-2519/0,

3-4=-2519/0, 4-5=-2519/0, 5-6=-2673/0,

6-7=-2673/0, 7-8=0/0

**BOT CHORD** 12-13=0/1310, 11-12=0/2519, 10-11=0/3192,

9-10=0/1531

**WEBS** 3-12=-567/0, 4-11=-56/187, 2-13=-1508/0, 2-12=0/1601. 7-9=-1771/0. 7-10=0/1334.

6-10=-271/0, 5-10=-609/0, 5-11=-822/83

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-5-0 from the left end to 8-5-0 to connect truss(es) to front face of top chord.
- Fill all nail holes where hanger is in contact with lumber. In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00,

Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 9-13=-10, 1-8=-100 Concentrated Loads (lb)

Vert: 15=-253 (F), 16=-165 (F)



April 10,2025

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

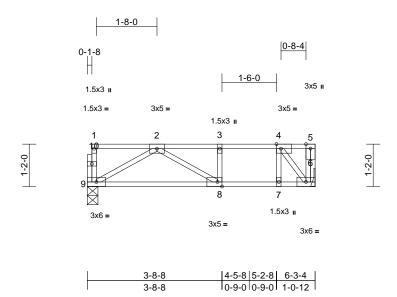
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



١	Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
	25040007-B	F05	Floor	1	1	Job Reference (optional)	172616499

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:39 ID:12otELGJLs4RAPdiCndx3KzGJGX-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.06	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.54	Vert(CT)	-0.10	8-9	>739	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 34 lb	FT = 20%F, 11%E

### LUMBER

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

### 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= Mechanical, 9=0-3-8 Max Grav 6=331 (LC 1), 9=325 (LC 1) **FORCES** (lb) - Maximum Compression/Maximum

Tension

1-9=-60/0, 5-6=0/101, 1-2=-4/0, 2-3=-393/0,

3-4=-393/0, 4-5=0/0

BOT CHORD 8-9=0/414, 7-8=0/393, 6-7=0/393 WEBS 3-8=-41/0, 4-7=0/156, 2-9=-475/0,

2-8=-39/85, 4-6=-611/0

### NOTES

TOP CHORD

- Unbalanced floor live loads have been considered for 1) this design.
- Refer to girder(s) for truss to truss connections.
- 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

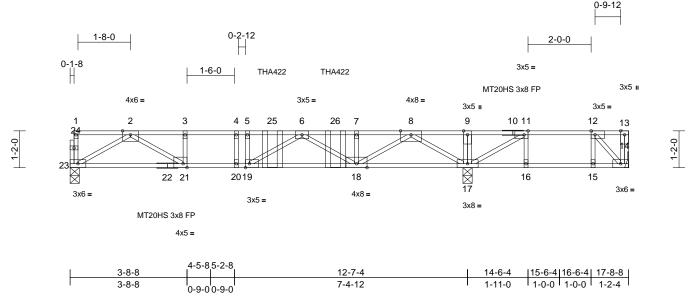




Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F06	Floor Girder	1	1	Job Reference (optional)	72616500

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Apr 08 13:49:39 ID:I9hUYT9wrtwzcTGdHkmSPdzGJ1A-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.5

Plate Offsets (X, Y):	[11:0-1-8,Edge], [1:	2:0-1-8, Edge], [19:0-1-	-8,Edge], [21:0-1-	8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	I /d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.28	18-19	>528		MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.90	Vert(CT)	-0.36	18-19	>413		MT20	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	17	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH		, ,					Weight: 90 lb	FT = 20%F, 11%E

LUMBER

**BOT CHORD** 

TOP CHORD 2x4 SP 2400F 2.0E(flat) \*Except\* 10-13:2x4

SP No.1(flat)

2x4 SP No.2(flat) \*Except\* 22-14:2x4 SP

2400F 2.0E(flat) 2x4 SP No.3(flat)

**WEBS** 2x4 SP No.3(flat) **OTHERS** 

**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= Mechanical, 17=0-3-8,

23=0-3-8

Max Uplift 14=-132 (LC 3)

14=188 (LC 4), 17=1657 (LC 9), Max Grav

23=827 (LC 10)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-23=-103/0, 13-14=-132/0, 1-2=-6/0,

2-3=-2501/0, 3-4=-2501/0, 4-5=-2501/0, 5-6=-2501/0, 6-7=-2015/0, 7-8=-2015/0, 8-9=0/1281, 9-11=0/1281, 11-12=-118/344,

12-13=0/0

**BOT CHORD** 21-23=0/1278, 20-21=0/2501, 19-20=0/2501,

18-19=0/2812, 17-18=0/618, 16-17=-344/118,

15-16=-344/118, 14-15=-344/118

WEBS 3-21=-543/0. 4-20=-28/27. 9-17=-127/0.

11-16=0/219, 12-15=-248/0, 2-23=-1471/0, 2-21=0/1427, 8-17=-2060/0, 8-18=0/1659, 7-18=-263/0. 6-18=-952/0, 6-19=-561/0, 5-19=0/93, 11-17=-1172/0, 12-14=-170/497

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 1.5x3 MT20 unless otherwise indicated. Refer to girder(s) for truss to truss connections

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint
- 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.
- Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-5-0 from the left end to 8-5-0 to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- 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

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)

Vert: 14-23=-10, 1-13=-100

Concentrated Loads (lb)

Vert: 25=-238 (B), 26=-173 (B)



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

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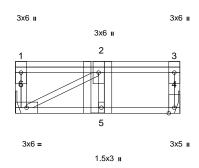
Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F07	Floor Girder	1	1	Job Reference (optional)	172616501

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID:v8IW?HsgscyWmogkSbR2TSzGJAb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



**THA422** 







2-8-12	3-8-8
2-8-12	0-11-12

Scale = 1:26

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.08	5-6	>539	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.10	5-6	>406	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	n/a	-	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 25 lb	FT = 20%F, 11%E

### LUMBER

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

### **BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical Max Grav 4=353 (LC 3), 6=338 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

1-6=-286/0, 3-4=-298/0, 1-2=0/0, 2-3=0/0

BOT CHORD 5-6=0/0, 4-5=0/0 WEBS 2-5=-73/0, 2-6=0/0

### NOTES

TOP CHORD

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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.
- Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 1-10-4 from the left end to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 4-6=-10, 1-3=-100 Concentrated Loads (lb) Vert: 2=-231 (B)



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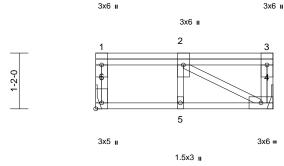
١	Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
	25040007-B	F08	Floor Girder	1	1	Job Reference (optional)	172616502

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID:pLktyzm9trkF6xAv93lsKZzGJ88-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Special



0-11-12	3-8-8
0-11-12	2-8-12

Scale = 1:24.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.55	Vert(LL)	-0.06	5	>676	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.39	Vert(CT)	-0.07	4-5	>564	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 25 lb	FT = 20%F, 11%E

### LUMBER

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

**BRACING** 

TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 4= Mechanical, 6= Mechanical

Max Grav 4=265 (LC 4), 6=273 (LC 4)

**FORCES** (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-6=-231/0, 3-4=-226/0, 1-2=0/0, 2-3=0/0

**BOT CHORD** 5-6=0/0, 4-5=0/0 WEBS 2-5=-47/21, 2-4=0/0

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 157 lb down and 236 lb up at 1-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

Vert: 2=-77 (F)

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 4-6=-10, 1-3=-100 Concentrated Loads (lb)



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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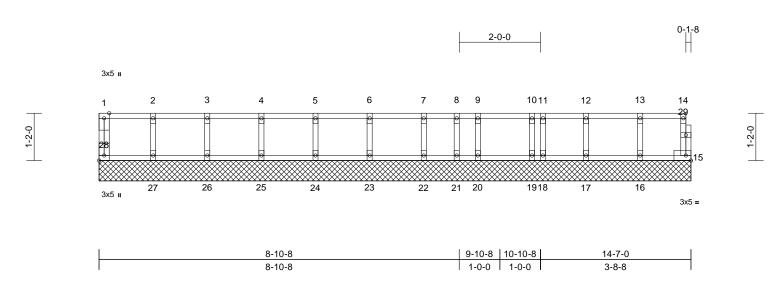
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F09	Floor Supported Gable	1	1	Job Reference (optional)	I72616503

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID: irK47f? KnU6 oulz DtuOyomz GluL-RfC? PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC? full for the property of the

Page: 1



Scale = 1:28.4

Plate Offsets (X, Y): [28:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 65 lb	FT = 20%F, 11%E

### LUMBER

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

### 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)

15=14-7-0, 16=14-7-0, 17=14-7-0, 18=14-7-0, 19=14-7-0, 20=14-7-0, 21=14-7-0, 22=14-7-0, 23=14-7-0, 24=14-7-0, 25=14-7-0, 26=14-7-0,

27=14-7-0, 28=14-7-0

Max Grav 15=51 (LC 1), 16=140 (LC 1), 17=140 (LC 1), 18=38 (LC 1), 19=116 (LC 1), 20=124 (LC 1),

21=37 (LC 1), 22=129 (LC 1), 23=151 (LC 1), 24=146 (LC 1), 25=147 (LC 1), 26=147 (LC 1), 27=144 (LC 1), 28=61 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-28=-56/0, 14-15=-46/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0,

7-8=-9/0, 8-9=-9/0, 9-10=-9/0, 10-11=-9/0, 11-12=-9/0, 12-13=-9/0, 13-14=-9/0

27-28=0/9, 26-27=0/9, 25-26=0/9, 24-25=0/9, BOT CHORD 23-24=0/9, 22-23=0/9, 21-22=0/9, 20-21=0/9,

19-20=0/9, 18-19=0/9, 17-18=0/9, 16-17=0/9,

15-16=0/9

WEBS 8-21=-34/0, 11-18=-36/0, 2-27=-131/0,

3-26=-134/0, 4-25=-133/0, 5-24=-132/0, 6-23=-137/0, 7-22=-117/0, 9-20=-113/0, 10-19=-105/0, 12-17=-127/0, 13-16=-128/0

NOTES

1) 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.
- 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



April 10,2025

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

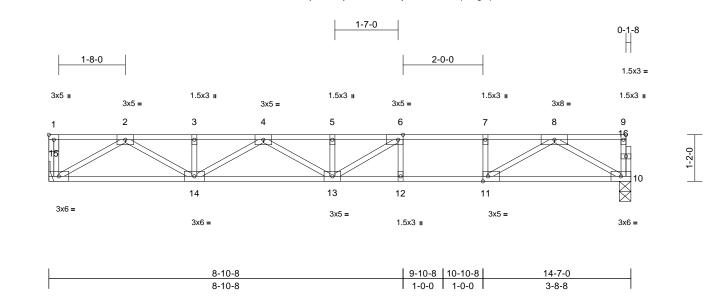
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 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	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F10	Floor	8	1	Job Reference (optional)	I72616504

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID:CtOjzx6P42?ijaBHNCcvcMzGly4-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

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Scale = 1:28.9

Plate Offsets (X, Y):	[1:Edge,0-1-8], [6	6:0-1-8,Edge],	[11:0-1-8,Edge]
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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.94	Vert(LL)	-0.28	12-13	>616	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.78	Vert(CT)	-0.38	12-13	>457	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 74 lb	FT = 20%F, 11%E

### LUMBER

TOP CHORD 2x4 SP No.1(flat) **BOT CHORD** 2x4 SP 2400F 2.0E(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

BRACING

**FORCES** 

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

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

REACTIONS (size) 10=0-3-8, 15= Mechanical Max Grav 10=782 (LC 1), 15=788 (LC 1)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-15=-73/0, 9-10=-93/0, 1-2=0/0, 2-3=-2026/0, 3-4=-2026/0, 4-5=-2784/0,

5-6=-2784/0, 6-7=-2300/0, 7-8=-2300/0,

8-9=-6/0

**BOT CHORD** 14-15=0/1200, 13-14=0/2527, 12-13=0/2300,

11-12=0/2300, 10-11=0/1221

WEBS 6-12=-275/0, 7-11=-446/0, 2-15=-1388/0, 2-14=0/965, 3-14=-171/0, 4-14=-584/0,

4-13=0/300, 5-13=-316/0, 6-13=-53/690,

8-10=-1406/0, 8-11=0/1260

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- Refer to girder(s) for truss to truss connections.
- 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



April 10,2025

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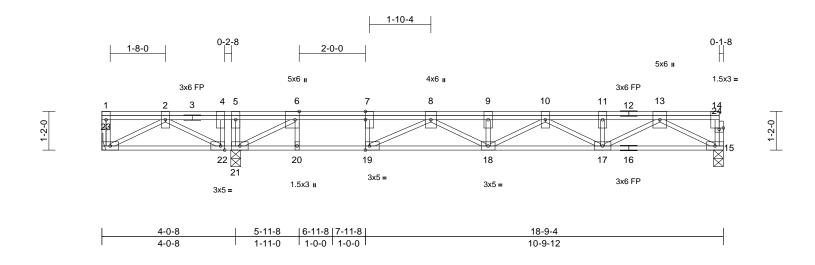
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Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F11	Floor	1	1	Job Reference (optional)	172616505

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries. Inc. Thu Apr 10 17:24:36 ID:M5\_nOtPLfENKwcfj3SIRkfzGJDm-6IXpJe88ap35wZ?tVCb4G\_t27wSM\_oZV42X?R8zSDGR

Page: 1



### Scale = 1:34.8

Plate Offsets (X, Y): [6:0-3-0,Edge], [7:0-3-0,Edge], [19:0-1-8,Edge], [22:0-1-8,Edge], [24:0-1-8,0-0-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.49	Vert(LL)	-0.20	18-19	>856	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.29	18-19	>609	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.03	15	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 121 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat) **BOT CHORD** 2x4 SP 2400F 2.0E(flat) 2x4 SP No.3(flat) WEBS 2x4 SP No.3(flat) OTHERS

**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, Except:

6-0-0 oc bracing: 22-23,21-22.

15=740/0-3-8, 21=1287/0-3-8, REACTIONS (lb/size) 23=4/ Mechanical

Max Uplift 23=-153 (LC 4)

15=740 (LC 1), 21=1287 (LC 1), Max Grav

23=160 (LC 3)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250

(lb) or less except when shown.

2-3=0/825, 3-4=0/825, 4-5=0/825, 5-6=0/825,

TOP CHORD 6-7=-1199/0, 7-8=-1199/0, 8-9=-2592/0,

9-10=-2592/0, 10-11=-2000/0, 11-12=-2000/0,

12-13=-2000/0

BOT CHORD 22-23=-314/138, 21-22=-825/0,

20-21=0/1199, 19-20=0/1199, 18-19=0/2442, 17-18=0/2439, 16-17=0/1175, 15-16=0/1175

13-15=-1333/0, 13-17=0/948, 10-17=-505/0, 8-19=-1411/0, 2-23=-157/357, 2-22=-747/0, 4-22=0/350, 6-21=-2287/0, 5-21=-314/0,

7-19=0/567

### NOTES

WEBS

- 1) Unbalanced floor live loads have been considered for this design.
- All plates are 3x6 MT20 unless otherwise indicated.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 153 lb uplift at joint

- 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.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



April 10,2025

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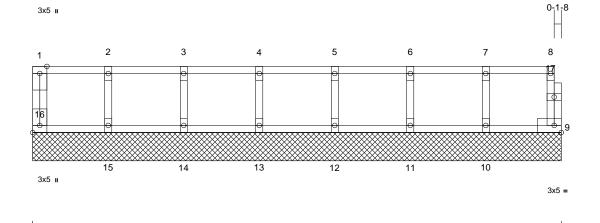


Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F12	Floor Supported Gable	1	1	Job Reference (optional)	172616506

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9-4-0 9-4-0

Scale = 1:20.3

Plate Offsets (X, Y): [16:Edge,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
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	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 41 lb	FT = 20%F, 11%E

LOAD CASE(S) Standard

 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

LUMBER

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) 9=9-4-0, 10=9-4-0, 11=9-4-0, 12=9-4-0, 13=9-4-0, 14=9-4-0,

15=9-4-0, 15=9-4-0, 14=9-4-0 15=9-4-0, 16=9-4-0

Max Grav 9=57 (LC 1), 10=142 (LC 1),

11=148 (LC 1), 12=146 (LC 1), 13=146 (LC 1), 14=148 (LC 1),

15=146 (LC 1), 14=146 (LC 1) 15=142 (LC 1), 16=63 (LC 1)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-16=-57/0, 8-9=-51/0, 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

BOT CHORD 15-16=0/10, 14-15=0/10, 13-14=0/10,

12-13=0/10, 11-12=0/10, 10-11=0/10,

9-10=0/10

WEBS 2-15=-130/0, 3-14=-134/0, 4-13=-133/0,

5-12=-133/0, 6-11=-134/0, 7-10=-130/0

### NOTES

- 1) 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).
- 4) Gable studs spaced at 1-4-0 oc.
- 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.
- 6) CAUTION, Do not erect truss backwards.



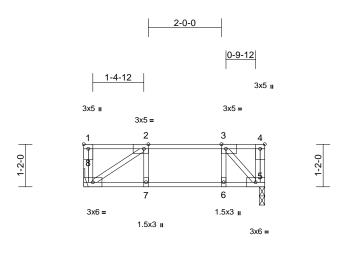
CINEEDING BY



Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F13	Floor	2	1	Job Reference (optional)	172616507

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID:4CuOi\_Ix9GDrLgle9PRy4xzGJ\_P-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



1-9-4 2-9-4 | 3-9-4 | 4-11-8 1-0-0 1-0-0 1-2-4 1-9-4

Scale = 1:31.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.29	Vert(LL)	-0.02	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.25	Vert(CT)	-0.02	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 27 lb	FT = 20%F, 11%E

### LUMBER

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

**BRACING** 

**FORCES** 

TOP CHORD Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc

bracing.

REACTIONS (size) 5=0-1-12, 8= Mechanical Max Grav 5=259 (LC 1), 8=259 (LC 1)

(lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-8=-71/0, 4-5=-13/41, 1-2=0/0, 2-3=-264/0,

3-4=0/0

**BOT CHORD** 7-8=0/264, 6-7=0/264, 5-6=0/264

**WEBS** 2-7=-17/15, 3-6=0/66, 2-8=-315/0, 3-5=-381/0

### NOTES

- Unbalanced floor live loads have been considered for 1) this design.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 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

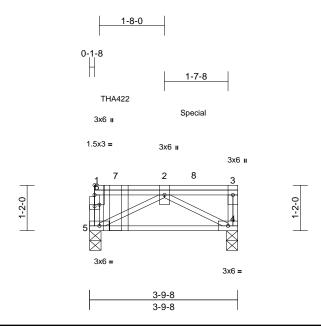




Job	Truss	Truss Type	Qty	Ply	298 Dove-2nd Floor-Almirante	
25040007-B	F14	Floor Girder	1	1	Job Reference (optional)	172616508

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries. Inc. Tue Apr 08 13:49:40 ID:YI4vIOLuvh3efutABT\_7Z4zGIz3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:29.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	n/a		n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.21	Vert(CT)	-0.03	4-5	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 27 lb	FT = 20%F, 11%E

### LUMBER

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

BRACING TOP CHORD Structural wood sheathing directly applied or

3-9-8 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc

bracing.

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

Max Grav 4=290 (LC 1), 5=372 (LC 1)

**FORCES** 

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-5=-187/0, 3-4=-94/11, 1-2=-12/0, 2-3=0/0

**BOT CHORD** 4-5=0/318

2-5=-349/0, 2-4=-365/0 WFBS

### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 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.
- Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 0-8-0 from the left end to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 227 lb up at 2-8-0 on top chord. The design/ selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft) Vert: 4-5=-10, 1-3=-100 Concentrated Loads (lb)

Vert: 7=-185 (B), 8=-93 (B)

11111111 April 10,2025

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

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

building design. Bracing indicated is to prevent bucking 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 Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Ply Truss Type Job Truss Qty 298 Dove-2nd Floor-Almirante 172616509 25040007-B F15 Floor Girder Job Reference (optional)

THA422

Carter Components (Sanford, NC), Sanford, NC - 27332,

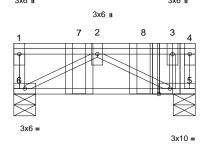
Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Tue Apr 08 13:49:40 ID:p?\_s0279IM10FESNfm63uazGlvT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1

THA422

THA422

THA422 1-8-0 3x6 II 3x6 ı 3x6 II



4-2-0 4-2-0

Scale = 1:26.5

Plate Offsets (X, Y): [5:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.42	Vert(CT)	-0.04	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.01	5	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MP							Weight: 30 lb	FT = 20%F, 11%E

LUMBER

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

2x4 SP No.3(flat)

**BRACING** 

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

bracing.

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

Max Grav 5=1230 (LC 1), 6=708 (LC 1) (lb) - Maximum Compression/Maximum

**FORCES** Tension

TOP CHORD 1-6=-168/0, 4-5=0/15, 1-2=0/0, 2-3=-391/0,

3-4=0/0

**BOT CHORD** 5-6=0/952 **WEBS** 2-6=-1085/0, 2-5=-618/0, 3-5=-1042/0

### NOTES

- Recommend 2x6 strongbacks, on edge, spaced at 1) 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.
- Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 0-6-4 oc max. starting at 2-11-12 from the left end to 3-6-0 to connect truss(es) to front face of top chord.
- Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-6-0 from the left end to 3-6-0 to connect truss(es) to back face of top chord.
- Fill all nail holes where hanger is in contact with lumber.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00 Uniform Loads (lb/ft) Vert: 5-6=-10, 1-4=-100

Concentrated Loads (lb)

Vert: 3=-776 (F=-182, B=-594), 7=-571 (B), 8=-159



April 10,2025

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

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



## Symbols

## PLATE LOCATION AND ORIENTATION



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



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

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

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

### PLATE SIZE

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

## LATERAL BRACING LOCATION



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

### **BEARING**



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

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Trusses Installing, Restraining & Bracing of Metal Guide to Good Practice for Handling, Building Component Safety Information, Design Standard for Bracing. Plate Connected Wood Truss Construction.

DSB-22: ANSI/TPI1:

## Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:

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

# Design General Notes

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

established by others section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1

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## MiTek



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

# General Safety Notes

## Damage or Personal Injury Failure to Follow Could Cause Property

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

Ņ

- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

'n

- joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- œ Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

9

- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- 19. Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.



Customer: Street 1: City:

Customer Ph.

Job Name: B

Level: 1st FLOOR Label: DB1-2 - i79 Type: Beam

2 Ply Member 2.0 RigidLam DF LVL 1-3/4 x 14

Status: Design **Passed** 

Illustration Not to Scale. Pitch: 0/12 Designed by Single Member Design Engine in MiTek® Structure Version Report Version: 2023.09.18 04/08/2025 14:20 8.7.3.303.Update13.26 20-08-08 Ply to Ply Zones 1 1 1 1 1 1 1 1 1 Î 2

16-00-00

20-08-08

DEGICA	INFORM	IATION a
DESIGN	HINEURIV	IATION A

IRC 2021 **Building Code:** Design Methodology: ASD

II (General Construction) Risk Category:

Residential

2-02-08

Service Condition: Dry System Spacing:

LL Deflection Limit: L/360, 0.75" (absolute) L/240, 1.00" (absolute) TL Deflection Limit:

### 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: 20'- 8 1/2"

### **Bearing Stress of Support Material:**

- 725 psi Wall @ 0'- 1 1/2"
- 725 psi Wall @ 2'- 1"
- 725 psi Wall @ 18'- 4"
- 725 psi Wall @ 20'- 7"

ANALYSIS RESULTS						
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	10'- 3/4"	D + Lr	1.15	11091 lb ft	33318 lb ft	Passed - 33%
Max Neg. Moment:	2'- 1"	D + Lr	1.15	16201 lb ft	21327 lb ft	Passed - 76%
Max Shear:	3'- 4 1/2"	D + Lr	1.15	5585 lb	10894 lb	Passed - 51%
Live Load (LL) Pos. Defl.:	10'- 2 7/8"	Lr		0.120"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	10'- 2 7/8"	D + Lr		0.211"	L/240	Passed - L/911

2-06-00

SUF	SUPPORT AND REACTION INFORMATION													
ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result						
1	9-04	0.6D + 0.6W	1.60	1775 lb		33783 lb	23472 lb	Passed - 8%						
1	9-04	D + Lr	1.15		-8188 lb	-	-							
1	1-05-04	D + Lr	1.15	14965 lb		45281 lb	43772 lb	Passed - 34%						
1	1-05-04	0.6D + 0.6W	1.60		-3294 lb	-	-							
2	1-08-04	D + Lr	1.15	13843 lb		53156 lb	51384 lb	Passed - 27%						
2	1-08-04	0.6D + 0.6W	1.60		-3026 lb	-	-							
2	9-12	0.6D + 0.6W	1.60	1567 lb		35609 lb	24741 lb	Passed - 6%						
2	9-12	D + Lr	1.15		-6748 lb	-	-							

NG								
Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
0'	20'- 8 1/2"	Self Weight	Тор	13 lb/ft	-	-	-	-
3'- 3/4"	9'- 3/4"	Smoothed Load	Top	310 lb/ft	-	252 lb/ft	379 To 432 lb/ft	116 To 130 lb/ft
0'- 3/4"	0'- 3/4"	A01(c01)	Top	62 lb	-	61 lb	92 lb	35/-187 lb
2'- 3/4"	2'- 3/4"	A02(c09)	Top	510 lb	-	388 lb	589/-29 lb	178/-820 lb
4'- 3/4"	4'- 3/4"	A02(c01)	Top	-	-	-	-20 lb	-986 lb
6'- 3/4"	6'- 3/4"	A02(c05)	Top	-	-	-	-17 lb	-1055 lb
8'- 3/4"	8'- 3/4"	A02(c04)	Top	-	-	-	-19 lb	-1032 lb
10'- 3/4"	10'- 3/4"	A02(c03)	Top	827 lb	-	725 lb	1226/-14 lb	375/-1505 lb
12'- 3/4"	12'- 3/4"	A02(c07)	Top	657 lb	-	544 lb	880/-14 lb	268/-1080 lb
14'- 3/4"	14'- 3/4"	A02(c02)	Top	644 lb	-	531 lb	871/-15 lb	260/-1070 lb
16'- 3/4"	16'- 3/4"	A02(c10)	Top	598 lb	-	481 lb	762/-14 lb	232/-983 lb
18'- 3/4"	18'- 3/4"	A02(c06)	Top	540 lb	-	419 lb	659/-47 lb	197/-902 lb
20'- 3/4"	20'- 3/4"	A02(c08)	Тор	403 lb	-	246 lb	365/-9 lb	123/-499 lb
	Start Loc  0'  3'- 3/4"  0'- 3/4"  2'- 3/4"  4'- 3/4"  6'- 3/4"  10'- 3/4"  12'- 3/4"  14'- 3/4"  16'- 3/4"	Start Loc End Loc  0' 20'- 8 1/2"  3'- 3/4" 9'- 3/4"  0'- 3/4" 0'- 3/4"  2'- 3/4" 2'- 3/4"  4'- 3/4" 4'- 3/4"  6'- 3/4" 6'- 3/4"  10'- 3/4" 10'- 3/4"  12'- 3/4" 12'- 3/4"  14'- 3/4" 14'- 3/4"  16'- 3/4" 16'- 3/4"  18'- 3/4" 18'- 3/4"	Start Loc         End Loc         Source           0'         20'- 8 1/2"         Self Weight           3'- 3/4"         9'- 3/4"         Smoothed Load           0'- 3/4"         0'- 3/4"         A01(c01)           2'- 3/4"         2'- 3/4"         A02(c09)           4'- 3/4"         4'- 3/4"         A02(c01)           6'- 3/4"         6'- 3/4"         A02(c05)           8'- 3/4"         8'- 3/4"         A02(c04)           10'- 3/4"         10'- 3/4"         A02(c03)           12'- 3/4"         12'- 3/4"         A02(c07)           14'- 3/4"         14'- 3/4"         A02(c02)           16'- 3/4"         16'- 3/4"         A02(c10)           18'- 3/4"         18'- 3/4"         A02(c06)	Start Loc         End Loc         Source         Face           0'         20'- 8 1/2"         Self Weight         Top           3'- 3/4"         9'- 3/4"         Smoothed Load         Top           0'- 3/4"         0'- 3/4"         A01(c01)         Top           2'- 3/4"         2'- 3/4"         A02(c09)         Top           4'- 3/4"         4'- 3/4"         A02(c01)         Top           6'- 3/4"         6'- 3/4"         A02(c05)         Top           8'- 3/4"         8'- 3/4"         A02(c04)         Top           10'- 3/4"         10'- 3/4"         A02(c03)         Top           12'- 3/4"         12'- 3/4"         A02(c07)         Top           14'- 3/4"         14'- 3/4"         A02(c02)         Top           16'- 3/4"         16'- 3/4"         A02(c01)         Top           18'- 3/4"         A02(c06)         Top	Start Loc         End Loc         Source         Face         Dead (D)           0'         20'- 8 1/2"         Self Weight         Top         13 lb/ft           3'- 3/4"         9'- 3/4"         Smoothed Load         Top         310 lb/ft           0'- 3/4"         0'- 3/4"         A01(c01)         Top         62 lb           2'- 3/4"         2'- 3/4"         A02(c09)         Top         510 lb           4'- 3/4"         4'- 3/4"         A02(c01)         Top         -           6'- 3/4"         6'- 3/4"         A02(c05)         Top         -           8'- 3/4"         8'- 3/4"         A02(c04)         Top         -           10'- 3/4"         10'- 3/4"         A02(c03)         Top         827 lb           12'- 3/4"         12'- 3/4"         A02(c07)         Top         657 lb           14'- 3/4"         14'- 3/4"         A02(c02)         Top         644 lb           16'- 3/4"         A02(c10)         Top         598 lb           18'- 3/4"         18'- 3/4"         A02(c06)         Top         540 lb	Start Loc         End Loc         Source         Face         Dead (D)         Live (L)           0'         20'- 8 1/2"         Self Weight         Top         13 lb/ft         -           3'- 3/4"         9'- 3/4"         Smoothed Load         Top         310 lb/ft         -           0'- 3/4"         0'- 3/4"         A01(c01)         Top         62 lb         -           2'- 3/4"         2'- 3/4"         A02(c09)         Top         510 lb         -           4'- 3/4"         4'- 3/4"         A02(c01)         Top         -         -           6'- 3/4"         6'- 3/4"         A02(c05)         Top         -         -           8'- 3/4"         8'- 3/4"         A02(c03)         Top         827 lb         -           10'- 3/4"         10'- 3/4"         A02(c03)         Top         827 lb         -           12'- 3/4"         12'- 3/4"         A02(c07)         Top         657 lb         -           12'- 3/4"         14'- 3/4"         A02(c02)         Top         644 lb         -           14'- 3/4"         16'- 3/4"         A02(c01)         Top         598 lb         -           16'- 3/4"         16'- 3/4"         A02(c06)	Start Loc         End Loc         Source         Face         Dead (D)         Live (L)         Snow (S)           0'         20'- 8 1/2"         Self Weight         Top         13 lb/ft         -         -           3'- 3/4"         9'- 3/4"         Smoothed Load         Top         310 lb/ft         -         252 lb/ft           0'- 3/4"         0'- 3/4"         A01(c01)         Top         62 lb         -         61 lb           2'- 3/4"         2'- 3/4"         A02(c09)         Top         510 lb         -         388 lb           4'- 3/4"         4'- 3/4"         A02(c01)         Top         -         -         -           6'- 3/4"         6'- 3/4"         A02(c05)         Top         -         -         -           8'- 3/4"         8'- 3/4"         A02(c04)         Top         -         -         -           10'- 3/4"         10'- 3/4"         A02(c03)         Top         827 lb         -         725 lb           12'- 3/4"         12'- 3/4"         A02(c07)         Top         657 lb         -         544 lb           14'- 3/4"         14'- 3/4"         A02(c02)         Top         644 lb         -         531 lb	Start Loc         End Loc         Source         Face         Dead (D)         Live (L)         Snow (S)         Roof Live (Lr)           0'         20'- 8 1/2"         Self Weight         Top         13 lb/ft         -         -         -         -           3'- 3/4"         9'- 3/4"         Smoothed Load         Top         310 lb/ft         -         252 lb/ft         379 To 432 lb/ft           0'- 3/4"         0'- 3/4"         A01(c01)         Top         62 lb         -         61 lb         92 lb           2'- 3/4"         2'- 3/4"         A02(c09)         Top         510 lb         -         388 lb         589/-29 lb           4'- 3/4"         4'- 3/4"         A02(c01)         Top         -         -         -         -20 lb           6'- 3/4"         6'- 3/4"         A02(c05)         Top         -         -         -         -17 lb           8'- 3/4"         8'- 3/4"         A02(c04)         Top         -         -         -         -19 lb           10'- 3/4"         10'- 3/4"         A02(c03)         Top         827 lb         -         725 lb         1226/-14 lb           12'- 3/4"         12'- 3/4"         A02(c07)         Top         657 lb

Point	20'- 3/4"	20'- 3/4"	A02(c08)	Top	403 lb	-	246 lb	365/-9 lb	123/-499 lb
UNFAC	CTORED RI	EACTIONS							
ID	Start Loc	End Loc	Source		Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	2'- 2 1/2"	E22(i63)		8466/-4878 lb	-	6770/-3939 lb	11389/-6989 lb	313 lb/ -5752 lb
==>	0'- 1 1/2"	0'- 1 1/2"	E22(i63)		-4878 lb	-	-3939 lb	170/-6700 lb	-
==>	2'- 1"	2'- 1"	E22(i63)		8466 lb	-	6770 lb	11219/-289 lb	-
2	18'- 2 1/2"	20'- 8 1/2"	E11(i7)		2785 lb	-	2079 lb	3592/-244 lb	313 lb/ -5752 lb
==>	18'- 4"	18'- 4"	E11(i7)		2785 lb	-	2079 lb	3318/-166 lb	-
==>	20'- 7"	20'- 7"	E11(i7)		-	-	-	274/-78 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: Street 1: City:

Customer Ph..

tomer:

Job Name: B

Level: 1st FLOOR
Label: DB1-2 - i79
Type: Beam

2 Ply Member 2.0 RigidLam DF LVL 1-3/4 x 14 Status:

Design
Passed

### **DESIGN NOTES**

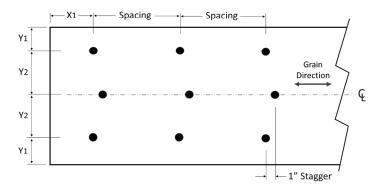
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes 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) = 0.47

### **PLY TO PLY CONNECTION**

Zone A: Factored load = 0 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 63. Row = 3, Spacing = 12" 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 117 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 - 3 ROWS (FROM ONE FACE)





Customer: Street 1: City:

Customer Ph.

Job Name: **B** 

Level: 1st FLOOR
Label: FB2-2 - i78
Type: Beam

2 Ply Member 2.0 RigidLam DF LVL 1-3/4

x 18

Report Version: 2023.09.18

Status:

Design
Passed

04/08/2025 14:20

Illustration Not to Scale. Pitch: 0/12 Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update13.26

O 17-05-00

A Ply to Ply Zones

1 2 2

16-00-00 17-05-00

### **DESIGN INFORMATION a**

Building Code: IRC 2021 Design Methodology: ASD

Risk Category: II (General Construction)

Residential

9-08

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: 0' Bottom: 1'- 8 1/2"

### **Bearing Stress of Support Material:**

- 1323 psi Wall @ 0'- 8 1/2"
- 725 psi Wall @ 16'- 10 1/2"

ANALYSIS RESULTS											
Design Criteria	Location	Load Combination	LDF	Design	Limit	Result					
Max Pos. Moment:	9'- 6 3/4"	D + L	1.00	25538 lb ft	46413 lb ft	Passed - 55%					
Max Shear:	15'- 3 1/2"	D + L	1.00	6029 lb	12180 lb	Passed - 50%					
Live Load (LL) Pos. Defl.:	8'- 9 7/16"	L		0.252"	L/360	Passed - L/761					
Total Load (TL) Pos. Defl.:	8'- 9 7/16"	D + L		0.354"	L/240	Passed - L/543					

Т	SUP	SUPPORT AND REACTION INFORMATION													
	ID	Input Bearing Length	Controlling Combina		-	nward action F	Uplift Reaction	Resistance of Member	Resistance of Support	i	Result				
ı	1	9-08	D + L	1.0	0 66	07 lb		24937 lb	43990 lb	Pass	sed - 26%				
,	2	7-08	D + L	1.0	0 609	94 lb		19687 lb	19031 lb	Pass	sed - 32%				
ı	LOA	DING													
l	Туре	Start Loc	End Loc	Source	Face	Dead (D)	Live (	L) Snow	(S) Roof Li	ve (Lr)	Wind (W)				
1	Self	. 0'	17'- 5"	Self Weight	Top	17 lb/ft	_	_	_		_				

Туре	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	17'- 5"	Self Weight	Тор	17 lb/ft	-	-	-	-
Uniform	4'- 6 3/4"	16'- 6 3/4"	Smoothed Load	Front	111 lb/ft	299 lb/ft	-	-	-
Uniform	4'- 6 3/4"	16'- 6 3/4"	Smoothed Load	Back	95 lb/ft	255 lb/ft	0 lb/ft	0 lb/ft	0 lb/ft
Point	1'- 6 3/4"	1'- 6 3/4"	-	Front	485 lb	1267/-2 lb	1 lb	1 lb	0/-2 lb
Point	3'- 6 3/4"	3'- 6 3/4"	-	Front	410 lb	1105 lb	0 lb	1 lb	0/-2 lb
Point	5'- 6 3/4"	5'- 6 3/4"	-	Front	-	-	-	-	-2 lb
Point	7'- 6 3/4"	7'- 6 3/4"	-	Front	-	-	-	-	-2 lb
Point	9'- 6 3/4"	9'- 6 3/4"	-	Front	-	-	-	-	-2 lb
Point	11'- 6 3/4"	11'- 6 3/4"	-	Front	-	-	-	-	-2 lb
Point	13'- 6 3/4"	13'- 6 3/4"	-	Front	-	-	-	-	-2 lb
Point	15'- 6 3/4"	15'- 6 3/4"	=	Front	-	-	-	=	-2 lb

UNFAC	UNFACTORED REACTIONS											
ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)				
1	0'	0'- 9 1/2"	E24(i72)	1907 lb	4700/-2 lb	2 lb	3 lb	2 lb/ -8 lb				
2	16'- 9 1/2"	17'- 5"	E25(i73)	1754 lb	4340 lb	2 lb	3 lb	2 lb/ -8 lb				

### DESIGN NOTES

- 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.
- 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) = 1.00

### PLY TO PLY CONNECTION

Zone A: Factored load = 468 plf. Use 12d (0.148"x3.25") nails. LDF = 1.00. Qty = 54. Row = 3, Spacing = 12"
 12d (0.148"x3.25") nails properties: D = 0.148", L = 3.25". Fastener capacity = 117 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.



Customer: Street 1: City: Customer Ph.. Job Name: **B** 

Level: 1st FLOOR
Label: FB2-2 - i78
Type: Beam

2 Ply Member 2.0 RigidLam DF LVL 1-3/4

x 18

Status: Design Passed

PLY TO PLY CONNECTION

### FASTENER INSTALLATION – 3 ROWS (FROM ONE FACE)

